AUSTRALIAN ABORIGINAL
HIGHER ORDER SOCIAL ORGANIZATION
AND THE LATE HOLOCENE

Anthony Jefferies

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Anthony Jeffries
ACKNOWLEDGEMENTS

It seems like a very long time ago I first walked into Patrick McConvell’s class at the Northern Territory University, Darwin and he started to explain how linguistics goes about differentiating the word *dog* from the word *log*. Since then its often felt like we were the two proverbial mountaineers roped together as we sought, and still seek, to challenge the conventional views of the Aboriginal pre-European past. Its always amazed me that just when you think you’ve found a new idea, a new perspective, there, tucked away in some obscure journal, yes, he’s beaten you to the punch yet again. Firstly, Patrick thanks for your friendship and secondly, your peerless intellect, your guidance and the many conversations we’ve had on our favourite topics.

I was reading a copy of Mojo magazine the other day and came across an article where Rod Stewart was explaining how Long John Baldry had ’discovered’ him playing harmonica on a Richmond railway station. Stewart’s comment was: ‘Every career needs a little luck, and that was mine.’ Well, my luck was coming under the attention of Nic Peterson. It would have been easy to dismiss my unorthodox views as unlikely, or worse, provocative, with little prospect of a result. Nic saw beyond that, saw the potential, recognized the validity, and most importantly showed unfailing faith from the outset. He’s never stopped supporting my efforts, has shown unlimited patience, and helped in every way. Without Nic there would be no thesis.

If you want someone to keep you honest when it comes to linguistics you couldn’t ask for anyone better than Harold Koch. Harold was never too busy, no request was inconvenient. This really is the A-team, and that reminds me of another anecdote from my unreconstructed 60’s past, when Dylan was explaining his feelings about the people who fronted the cash for him to make his first album: ‘You didn’t want to let these people down.’ I hope I haven’t.

Thanks to Bert Peeters for the final edit and formatting.
ABSTRACT

The first generation of Australianist anthropologists described an over-arching level of social organization they variously described as nations, confederacies or messmates. The existence of this level of social organization received some support in the later work of Meggitt (1962) and Hiatt (1965) in respect of the Warlpiri of Central Australia and the Gidjingali of Arnhem Land respectively, and also in the theoretical work of Sutton (1990). However, an insuperable barrier to accepting its existence has been the lack of evidence for this institution from the field. I argue in this thesis that a level of higher order social organization (as named by Sutton 2003) did exist and its absence in modern communities can be explained by them having been subsumed under the Australian nation state.

To explain their purpose and structure I reconstruct the demographic conditions of the Late Holocene. This, I argue, was a period of great vitality, of rapid population growth and a host of economic and technological advances. Historical linguistics provides evidence that goes beyond what can be learnt about the Late Holocene from archaeology to demonstrate that it was a time of broad and pervasive language expansion. This expansion was accomplished by demic migration, that is by populations distinguished by common language and culture, into new territory both unoccupied and occupied. These migrations resulted in conflict with smaller populations in the path of expanding groups, and, at a later stage, with other expanding populations. These demographic pressures led to the innovation or modification of many of the social institutions and activities now recognised as features of classical Aboriginal culture and society. Areas affected include kinship, warfare, trade and initiation ceremony. The peak sociological transformation was the emergence of institutions of higher order social organization, more specifically of regional alliances designed either to further, or mitigate, demic expansion. I dichotomise these alliances into those that were aggressive, and those that were defensive. The former were usually populations of the same language and culture engaged in the act of demic expansion; the latter, composed of peoples not necessarily closely related linguistically or culturally, were more a contingent response to the aggressive expansion of others.
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DISCLAIMER

Under no circumstances should the maps in this thesis be interpreted as in any way authoritative in respect of matters of land ownership, boundaries or affiliation. They are intended as a general guide to the languages concerned only.

Ambiguities in the anthropological terminology, on the other hand, regarded as unavoidable, stemming as they do from the inherent ambiguity of the concepts discussed themselves. Foremost, there is the unstructured use of the words history and prehistory. I think the classic distinction has just about reached its use-by date and a more instinctive use of these words serves the thesis better. The distinction between prehistory and history as used is often culturally loaded. The elimination of this difference, therefore, dispenses with preconceptions as to what is involved in the distinction, frequently lingering prejudices that have become attached to the distinction over the long period of time since its inception in the Victorian era. In the same category is the term I coin ethno-linguicity, which, apart from the obvious meaning embodied in the name, I will not here elucidate on, except to say that it, too, is ambiguous. It can apply to a very broad language subgroup, implying a cultural resonance but no political one; it can apply equally well to a small dialect speaking group, whose language is clearly that of a recognized subgroup, but who nonetheless, usually in conjunction with others, sees itself as part of a distinct sociopolitical entity, this substantially on the basis of a shared language and culture.
Chapter 1
Higher Order Social Organization and the Late Holocene

The earliest generation of Australian anthropologists, Baldwin Spencer and F. J. Gillen, A. W. Howitt, R. H. Mathews, W. E. Roth and others, recognized a level of Aboriginal social organization they variously referred to as nations, confederacies or messmates. These overarching groups could often be described in quite specific terms, including their component subgroupings, but never with any detail as to their purpose. Anthropologists since have generally dismissed the notion of higher order social organization, the notable exception being Peter Sutton (1990), who argued for their reappraisal. The reasons for rejection are not hard to understand. R. H. Mathews' efforts to explain them theoretically in terms of section systems or those of A.W. Howitt in terms of language proved to have little plausibility. Further, there was no sign of their existence in the modern-era communities in which anthropologists conducted their fieldwork, although the work of L. R. Hlatti (1965) and Mervyn Meggitt (1962), whose informants told them of wider social associations that came to be called 'communities' (following Murdock 1949), did briefly open up the question of their existence again. However, the idea of the community as higher order social organization encountered the same problems that led to the original rejection: there was no direct evidence of their existence among contemporary Aboriginals still living close to their traditional way of life.

This thesis is an in-depth investigation into the issue of the existence of higher order social groupings for which, it argues, there is clear evidence, even though they have long disappeared from Aboriginal social life. The thesis draws on the methodology of historical linguistics and evidence from archaeology to reconstruct the demographic conditions of the Late Holocene, and argues that population expansion during the last two and a half thousand years led to widespread internal migrations that resulted in the formation of this level of social organization. Migration, it is argued, led to contact and, often, conflict, requiring regional alliances to both promote, and defend against, expansionary demographic pressures.

For the past forty years or so archaeology has recognized the Late Holocene as an era of unprecedented population growth associated with a host of economic and technological developments it codifies under the title 'Intensification' (Williams 2013; Williams et al. 2015:11; Johnson and Brook 2011). Population growth has always been a component of archaeology's understanding of the continent's prehistory; as climatic conditions oscillated, populations grew and
declined (Veth 1989; Smith 2013). What makes the Late Holocene unique in this scenario is that population grew largely independent of climatic variables; its impetus was a confluence of social and material factors that evolved throughout the Holocene, peaking in extent and intensity immediately prior to the arrival of Europeans. It is argued that it was these demographic and social conditions that led to the development of higher order social organization.

While archaeology provides the evidence for population expansion and technological innovation, it is historical linguistics that permits a view of the wider social and demographic implications. A map of Australian language distribution reveals the existence of subgroups or ‘families’ of related languages. In the interior of the continent in particularly, but not only in the interior, these subgroups are relatively few in number. Usually these subgroups have a significantly broad distribution. Linguists are readily able to describe the phylogenetic interrelationships of these subgroups, not infrequently categorizing them as language continua or language chains. This indicates that the languages have spread both recently and rapidly. Further, the correlation of linguistic and non-linguistic factors suggests the high probability that language spread occurred ‘in the mouths of its speakers’, that is by migration. Consistent with intensification, new economic strategies, new technology, and wider, more inclusive social systems meant that linguo-ethnic populations (i.e. speakers of the same language) were expansionary in the Late Holocene, with people moving into already occupied territory. This created conflict and the need for alliances.

Worldwide, migration is the default position for the explanation of prehistoric language spread, and there is no reason to suppose Australia was an exception to this generalization. The full ramifications of widespread and pervasive migration have to be assimilated to understand the tenor of the Late Holocene. Not all Australian language distributions can be described as language spreads. There are, in addition, isolates, discontinuous distributions and, in some areas, concentrations of linguistic diversity. If language spread is the result of people having carried the language with them as they moved across the landscape, rather than diffusion, an inescapable correlate has to be that contact with other linguo-ethnicities was intrinsic to the historical process. Late Holocene demography, therefore, can be described as dynamic. It was a period not only of population flux, significant increases in demographic scale, and conflict over land and resources, but also of unprecedented pressure to transform both materially and socially.

I argue that higher order institutions developed firstly to permit demic migration, the cooperative expansion of speakers of the same language into new territory, and then, at a later stage, with greater population density, as alliances contracted irrespective of linguo-ethnicity to counter the expansionary ambitions of others. This was politics as it was enacted at the pinnacle of Aboriginal social life. Evidence of this prehistory is to be seen in many aspects of social institutions and activities documented ethnographically, it being axiomatic that the institutions developed in the Late Holocene
will have been those encountered and described by Europeans over the two hundred years that followed. Besides the nations, confederacies and messmates of Australian anthropology’s founders, I argue warfare, kinship systems, broadscale trade and initiation ceremony are all phenomena originating in, or else significantly changed by, these Late Holocene demographic conditions. These will be referred to in passing but left to a later project for lack of space.

There is however a popular and influential alternative view of Australian linguistic prehistory. R. M. W. Dixon’s (1997, 2001, 2002) diffusional argument is that, rather than the linear phylogenetic language evolution usually schematized in the ‘language tree’, the obscurity of Australian language interrelationship implies that communication internal to a region, occurring over a significant period of time, led to a convergence, a flattening out of linguistic differences, and hence the appearance of familial relationship masking an actual historical divergence. The implication of Dixon’s theory is that Australian language evolution has been neither rapid nor broad, but confined to bounded regions wherein it gestated in situ over millennia. This view represents the first polar divergence of opinion in the Australian anthropological community requiring resolution before the argument overall can proceed. It is, therefore, the first question to be addressed.

The thesis proceeds from the position that the standard view of diachronic language reconstruction applies and that subgroup distribution is very likely the result of rapid Late Holocene language spread. No sooner, however, is this resolution arrived at than another nexus is reached, namely the means by which these languages expanded. The usual port of call for Australian anthropology (i.e. historical linguistics and archaeology), when rarely the matter is addressed at all, is prestige, in this case a technical term that indicates a cultural, usually economic, imbalance that usually favours the transmission of language from a notionally stronger group of language speakers to a weaker group of language speakers (Evans and Jones 1997; Gibbs and Veth 2002; Veth 2008). Overlooked entirely, or summarily dismissed, is the possibility of migration, i.e. the possibility that these languages came to be distributed as they are by the movement of their speakers. Migration, then, represents a second hurdle, for this too is a proposition that has rarely found favour in anthropological analysis of the recent Australian past. One of Australian anthropology’s long-held and incontestable positions is that widespread migration internal to the continent beyond its original occupation has not occurred. While a few have had an ambiguous position on migration (e.g. Heath 1978:10-12), more often it is dismissed a priori. These objections are of a piece with the problems Dixon has with the phylogenetic language model – the deeply held belief (and it is only a belief) that Aboriginal Australia could not possibly have had the sort of robust and fast developing recent prehistory, including, among its attributes, migration, that we know humanity to have had the world over.

And yet the evidence for Late Holocene language distribution by migration is strong, and this is examined in Chapters Two and Three. Firstly, there is the evidence of language itself, the model of
phylogenetic language evolution, the expansion and split of populations that are originally speakers of a common language, a protolanguage, into related languages and dialects, with subsequent and ongoing splits and expansions. These events can be interpreted diachronically and spatially with interrelationships often revealing a path of dialectal divergence, and populations becoming progressively more distanced from one another as they moved across the landscape (Nettle 1999:26). This pattern of linguistic relationship is incompatible with the transmission of language by diffusion. Then, there is the relationship of language distribution to geography and environment. Many language subgroup distributions are confined to river drainages as opposed to areas of high country, to rainforest as opposed to savannah, to coastal country as opposed to the hinterland, to deserts and arid environments. While never strictly determinative, this suggests that there is an historical relationship between a language’s distribution and the way in which the language’s speakers spread. In other words, that adaptation to a particular environment is commensurate with language spread. Thus, there is likely connection between language spread and physical factors: speakers of a language were able to occupy new country because of new found efficiency and specialized exploitation of environmental conditions. This applies whether the environment is desert, rainforest, riverine or coastal. It further suggests a link between subgroup expansion and Intensification, the innovation of skills, strategies and technology in reference to a particular environment or set of geographical conditions that also equate to a language distribution. Language distribution is not therefore an abstract linkage to territory but is allied to the cultural history of the speakers of a language, a linkage Radcliffe-Brown (1913:144) surmised in his original definition of the ‘dialectal tribe’. Lastly, biogenetics, examined also in Chapter Three, when in its infancy as regards Australia, suggested a correlation between language and genes (e.g. Balakrishnan et al. 1975; Birdsall 1993). Emerging now from a hiatus, genomics has great potential to assist in the unravelling of prehistoric population movement.

In Chapters Four through to Seven, the fundamental underpinning of the hypothesis, demic migration, is addressed. Migration will have been of a particular type, not the migration of undifferentiated populations but of a specific people, who among other commonalities were speakers of the same language, or of closely related dialects of the same language, producing a correlation between language distribution and a history of demic migration. These expansionary populations I describe as linguo-ethnicities. Linguo-ethnicity does not define a specific social grouping. It embodies a general concept, the manifestations of which are both numerous and varied; it defines any group of people for whom a language, whether defined linguistically or recognized as such only by its speakers, is an essential part of its self-identity. In historical terms, linguo-ethnicity recognizes a basic fact of Late Holocene demography: that migratory populations can be defined by the language they spoke, and that a language subgroup distribution will be coterminous with, and a record of, the migratory history of a certain population.
Not all migrations are the same, though, or have the same implications. Demic migration, as defined by Cavalli-Sforza et al. (1994:105), is the expansion of a linguo-ethnic population. Rather than individual or family migration, migration of wives to husbands, or founder populations (i.e. the splitting off of populations who then move independently to new locales), demic migration is an expansion from within linguo-ethnic boundaries. This implies the retention of social contact within a circle of language speakers. While smaller groups venture out into new territory, they never lose contact with the linguo-ethnic main, and so the process is accompanied by an expansion of the population generally, and this is correlative with the distribution of its language. The degree to which a demic expansion maintains any sense of unity is dependent on the physical scale of the expansion. In the case of widespread language distributions, any prospect of overarching interrelationship is impossible, speakers eventually become too physically distant for contact to be maintained. There is nonetheless a strong correlation between demic migration and phylogenetic language spread, the progressive and multidirectional expansion of a language from a nucleus, the proto-homeland of the language subgroup. As language speakers separate physically, dialects diverge and there is a commensurate loosening of social ties. If prolonged, this process results in a cessation altogether of social connection and close linguistic relationship, these being determined solely by the physical ability to maintain contact (Nichols 1992:24). Wide expansions break up into a number of internal regional spheres of influence small enough to allow regular social intercommunication and interaction. This model changes the way Late Holocene hunter-gatherer societies should be viewed. Rather than the static hunter-gatherers forever rooted to their ancestral territory, Aboriginal people of this era, as well as being defined by their ties to the land already possessed, were often also contemplating, assisting or joining in migration into new territory. It is not suggested, however, that language subgroups expanded in any sense as a whole or represented a cohesive, centrally-directed society. However, while successful migratory expansion was predicated on innovative efficiency in the exploitation of environmental conditions, equal in importance were advantages arising from tighter and more comprehensive social organization. Demic migration necessitated the closer communication and coordination of peoples over a broader area than had been possible in previous epochs, when groups were smaller and more isolated. This, in the first instance, was facilitated by their common linguo-ethnicity. The mechanics of demic migration and its various manifestations in the context of the Australian Late Holocene are discussed and exemplified in Chapters Four and Five.

Demic expansion inevitably meant contact – firstly with populations in the path of migratory expansion, thereafter with linguo-ethnic populations similarly in the process of demic expansion (Nichols 1992:235-6). Some of the continent’s regions, such as parts of Central Australia, appear to have been unoccupied, or very sparsely occupied, at the onset of the Late Holocene. However, demic

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1 Cavalli-Sforza refers to this migration as demic diffusion. However, Cavalli-Sforza is a bio-geneticist, not an historical linguist: he is referring to the ‘diffusion’ or spread of genes in conjunction with language, not to language alone.
migration equally affected the more temperate and better-watered regions of the continent, areas that can safely be assumed to have been already populated. Almost certainly, given the most obvious examples, the Maric, Central New South Wales and Yuin subgroups could only have expanded into country occupied by others. Given that there is no evidence for deteriorating climatic conditions having driven pre-Late Holocene resident populations away from the well-resourced riverine environments, contact between expanding linguo-ethnicities and in situ populations should be regarded as very probable. This likelihood is also evident in the distribution over well-resourced river systems of speakers of some languages cheek by jowl with speakers of other languages on less well-resourced country. This suggests a history of winners and losers, one that implies that the success of some came at the expense of others (Le Blanc 2014). Aggressive outward expansion, therefore, has a corollary, the discomfort of those formerly in possession of those. The subsumption of languages caught in the path of demic expansion is probable and there has almost certainly been considerable language extinction (Nichols 1992:235). In a worst case scenario, the speakers of these subsumed languages have suffered the fate of social extinction. They have either disappeared entirely or, more likely, survivors have become incorporated into the newly dominant linguo-ethnicity. If so, these people will have switched from their native language to that of the expansionary linguo-ethnicity, a process known as language shift. Whether we regard contact as incorporation, dispossession or extermination of one population by another, or a combination, populations swallowed up by demic expansion will have disappeared.

The map of Australian language distribution, as well as illustrating those subgroups whose prehistory is one of demic expansion, also encodes the prehistories of those worsted by the demic expansion of others. Alongside broad language distribution suggestive of successful demic expansion are to be found smaller distributions, often confined to mountainous areas or less resourced environments. This second historical phase of demic migration and contact is also suggested in discontinuous language subgroup distributions, these appearing to have been split apart by the later demic advance of other subgroup linguo-ethnicities (McConvell 2009 in respect to Ngumpin-Yapa; Harvey 2008 in respect to Mirndi). Later expansions can also isolate the linguo-ethnicities present in a region as the result of earlier expansionary episodes. This applies both to subgroup-level distributions, in examples such as Kalkatungu of Central Northern Queensland and Nhanda of coastal Western Australia (see McConvell 1996), or internally within a subgroup distribution, as is the case with the Maric language Wadja (Chapters Six and Seven). It may also explain the presence of small, fragmented language distributions dotted along the Australian coast. Where expansionary linguo-ethnicities of approximately equal demographic strength have encountered one another, ongoing, chronic conflict, is likely to have ensued, probably continuing intergenerationally. This, it is argued, was the demographic state of affairs Europeans encountered, if unknowingly, on their arrival on the Australian continent.
Following on from the demographic implications of Late Holocene language spread, the thesis then turns to the examination of higher order social organization, which is discussed and exemplified in Chapters Eight through to Ten. The Late Holocene directly preceded the historical era. It can only be that the institutions of social organization developed in this period will be those that have carried on into post-colonial times and, therefore, those recorded ethnographically. While higher order social organization appears to be conspicuously lacking in modern Aboriginal societies and the ethnographic accounts of them, such was not the case in the colonial journals, diaries, memoirs, reports and correspondence, and, in fact, particularly with them, and in the later 19th century ethnographic literature generally. In these accounts, higher order social organization frequently manifests itself in the form of large groups gathered in confrontation with one another, or for purposes of ceremony and trade; not infrequently, they appear in official records as groups gathered together to challenge the incursion of the White man onto their lands. In the modern era, however, the very existence of institutions of higher order social organization, including the later communities posited by L. R. Hiatt (1965) and Mervyn Meggitt (1962) in Australia has usually been met with scepticism, if not vitriolic rejection (Tindale 1974:156-7); the view often held is that the almost invariable mention of 'nations' and the like in the work of late 19th/early 20th century authors such as A. W. Howitt, R. H. Mathews, W. E. Roth, E. M. Curr, Baldwin Spencer and F. J. Gillen is evidence of nothing more than an ingrained conceit of the times; that people sought, and found, 'tribes', 'chiefs' and so on, because they believed them to exist. The matter may have rested there, had not Peter Sutton's (1990) heuristic, even speculative, paper 'The Pulsating Heart' appeared. Such is its significance to this discussion that its most relevant paragraph (Sutton 1990:73) deserves quotation in full:

These [i.e. institutions of higher order social organization] appear to have been sets of hundreds or even a few thousands of people who intermarried often, who spoke many if not all of each others' languages, and whose countries tended to cover linked sub-parts of a drainage system, where drainage was clearly differentiated. These are the groupings where one usually finds commonality of prescriptive marriage rules, a clear basis for collaboration in ceremonies, the maximum range from which allies might normally come in times of conflict, and many surface similarities among languages for example. By surface similarities here I mean those easily diffused features such as phonetics, kinship-pronominal categories, floral and faunal taxonomies, rules for speech etiquette, and the semantic structure of idiomatic expressions, as opposed to those historically deep differences of grammar and vocabulary, which yield the genetic groupings postulated by comparative linguists. Genetic groupings of languages frequently fail to match the 'messmate' groupings in the ethnographic present.

This brings us to the question of the extent to which ethnography will reflect, or can be interpreted to reflect, this posited social evolution, and, indeed, whether it will reflect the developments of this
period at all. The current anthropological model is that of the more or less atomized social
institutions suggested by W. E. H. Stanner and J. B. Birdsall post Radcliffe-Brown's dialectal tribe,
institutions of social organization of no greater extent or complexity than the patri-clan or band. I
argue that the higher order social entities recorded by the earlier generations of ethnologists were the
first to disappear under the onslaught of colonialism, such that anthropology since has struggled to
reconcile the existence of the smaller, observable social entities with wider manifestations of
why it might be that complex or higher order social organization has been largely invisible to
Australian anthropology:

An anthropologist can arrive, decades after the effective incorporation of the local community
in a wider political system, and find these molecular social patterns, so to speak, relatively
undisturbed. It is the larger units, the political achievements on a grander scale, which tend to
disappear most rapidly, be it because they are rivals to the new institutions or because their
functional prerequisites are more precarious. But, by and large, it is the large-scale groupings
and institutions of the traditional world which disappear most easily.

In view of the scarce attention anthropology has afforded the question since Sutton's (1990) paper
might be described as a cry in the wilderness. Sutton (2003:93-7) himself later providing the fullest
and most impartial critique of the efforts of earlier generations to explain these higher order
groupings. At least superficially, there is good reason for criticism; not least because the first
generation of ethnologists were rarely able to agree among themselves. Not only were the
descriptions proffered at variance with one another, but, as becomes apparent through comparison,
the nations, confederacies, messmates and alliances referred to covered a range of relationship
possibilities. The one attempt at a synthesis, Wheeler's (1910) The Tribe, and Intertribal Relations in
Australia, while a useful survey of the early literature, failed to identify the cause or basis of this level
of social organization. There was, as Sutton (2003:93) puts it, a 'tendency to fail to distinguish
patterns of interaction from patterns of shared and unshared geopolitical identities'. Overlooked in
the shared theoretical deficiencies of the turn-of-the-century ethnologists, however, is the often
succinct and matter-of-fact description of such institutions provided in accounts by W. E. Roth (1897),
A. W. Howitt (1904) and E. M. Curr (1887). These are often based on the observations of intelligent
men and women who had spent lifetimes on the colonial frontier. We would do well to remember
that whatever the educational deficiencies of these observers, their informants were people whose
lives had been spent wholly or partially in a pre-European world, whose societies, if in violent
transition, were genuinely self-empowered.

These accounts were soon to disappear from anthropological discourse, however. A. R. Radcliffe-
Brown (1913:144), in the spirit of scientific reform, relegated talk of nations, confederacies and
messmates to antiquarian curiosity with his introduction of the ‘dialectal tribe’, which provided a
definitive restriction on the attributes this higher level of social organization was to be associated
with, namely, ‘The tribe is distinguished from its neighbours by possession of a name, a language
and a defined territory.’ Radcliffe-Brown’s was a simple equation of social organization and
language; those who possessed a language in common possessed also a binding social organization
and a territory that could be demarcated. It was a concept that persisted into the post-World War
Two period, its best-known expression Tindale’s (1974) ‘Map of Australian Tribes’ with its rigid
boundaries aligned to social entities defined by language. However, the dialectal tribe, too, was soon
to go the way of the nation, the confedency and messmates. Fieldwork failed to support Radcliffe-
Brown’s idea. Beginning with R. M. Berndt (1959), anthropologists returning from extended periods
in remote Australia were reporting the absence of any evidence of the institution Radcliffe-Brown
had argued was pervasive.

The demise of the dialectal tribe effectively meant an end to anthropological interest in higher order
social organization. Anthropologists increasingly turned their attention to the smaller assemblages,
the patri-clan and the band, both readily observable in the field, this state of play codified in W. E. H.
Stanner’s (1965) ‘Aboriginal Territorial Organisation; Estate, Range, Domain and Regime’. One strain
in this post-World War Two development was the influence of ideas that were current abroad, for
example, the Neo-evolutionism of Americans such as Elman Service and Marvin Harris. The latter
tended to favour the ‘atomization’ of Aboriginal social organization, along with which went the
notion, whether expressed openly or merely alluded to, that Aboriginal culture represented a low tier
of human cultural development, and complexity therefore was not to be expected; ‘simple nomadic
foragers’, living a life of opportunistic hunting and gathering and improvised response to natural
events would not be requiring any elaboration of social relationship beyond the purely local. This
theme of atomization has persisted; to diminish, simplify and relativize the social organizational
possibilities of which Aboriginal people are thought capable, progressing in fact a further degree into
the conviction that pre-contact Aboriginal life was unstructured beyond the contingent and
individualized. Hence the prevailing view that multilingualism, with languages possessing no
association with particular peoples (Rumsey 1993, 2010) augers the centrality of the individual and of
personal ‘networks’ of social relationship, of sociopolitical ‘structural’ relationships dissolving into
amorphous relativism (Keen 1997:262; Sutton 2003:93; Harvey 2011:356) and of languages having

This broad-brush description of affairs as they relate to social organization in post-World War Two
Australian anthropology is only generally correct. There were exceptions, and, importantly, these too
came from the field. Les Hiatt lived among the Gidjingali at Maningrida in central coastal Arnhem
Land in 1959-60, publishing the results of his fieldwork as Kinship and Conflict in 1965. In this work,
Hiatt (1965:24) defined a term that was new to Australian anthropological discourse: ‘I use the term ‘community’ for the group of people who customarily moved about together. The Gidjingali were divided into four loosely-knit communities called the Anbara, Marawuraba, Madal, and Maringa.’ Contemporary with Hiatt, Mervyn Meggitt (1962) in Desert People, a study of the Warlpiri, also had recourse to the term community to describe the overarching unit of Warlpiri social organization. Meggitt (1962:47), on the advice of his Warlpiri informants, described their country pre-colonially as comprising ‘four major divisions or “countries”, which were formerly occupied by the Yalpari (Lander), Waneiga, Walmalla and Ngalia subgroups of the tribe’. This introduction of the term community ignited intense debate in anthropological circles, the repercussions of which, I would argue, have not abated to this day.

Sutton’s (2003:99-107) summation and critique of both Hiatt and Meggitt’s communities encapsulates fairly well the difficulties confronting the anthropologist in the reconstruction of higher order social entities, including, a priori, whether or not they actually existed. The foremost lacuna was their purpose. In the case of the Burarra and Warlpiri communities, this was fairly obviously neither economic nor ritual (Sutton 2003:100). No doubt, Hiatt and Meggitt were searching, somewhat speculatively, for the social significance of the community (given, particularly, that there was no immediate day-to-day evidence for its purpose); and study carried out since, notably Fred Myers’ (1986) recognition of the ‘one countryman’ perspective of Western Desert people, has drawn attention to the fact that Aboriginal people may have recognized their commonality, without regularly acting on the basis of it (see also Niblett 1992:88-9). Equally, it can be surmised, the sociopolitical conditions within which the community once played an important role have unutterably altered, such that, as Gellner suggests in relation to West Africa, the community no longer had a pragmatic social role, and remained as it were only a shadow or ghost, a memory of something that once was. Once submerged in the nation-state, there would be no need for the continuation of these institutions, although, as the ethnographic record shows, some of the activities associated with them persist to this day. The manifold colonial and pioneer memoir accounts of large numbers of men coming together in combat is but the tell-tale indication of the purpose of these alliances. This prominent role accounts for the peremptory removal of higher order social organization from the consciousness of latter-day Australians. In colonial history, it was the policy of ‘dispersal’ – that is, before ‘dispersal’ became a euphemism for genocide – the focussing of paramilitary attention on large gatherings assumed to have a political or warlike purpose, that accounts for the removal of this level of social organization from popular and scholarly consciousness. The recurrence, time and again, over eighty years of colonial history of men gathering to resist the occupation of their land leaves little doubt that, as Gellner says, this level of institution,

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2 Not, however, new to the anthropological discipline at large, originating as it did in Murdock (1949). Murdock’s (1949:79) definition of community included many attributes that were unlikely to apply to Aboriginal society, as well as some that very likely did (see Chapter 9; also Peterson 1969:30; Sutton 2003:101).
which did indeed at times threaten the security and ambition of colonial Australia, had to go, and go it did.

Higher order alliances served, and were founded upon, political considerations, including that other arm of politics, warfare. Regional politics, I will argue, was tied to aggression and defence arising from ongoing and periodically exacerbated demographic pressure. Linguo-ethnicities either allied with fellow language speakers to further demic expansion, in other words to provide them with a demographic advantage over those whose land and resources they coveted, which otherwise they might have lacked; or, if smaller, more isolated linguo-ethnicities, rendered so by the previous histories of demic expansion and contraction, they sought alliance outside their linguo-ethnicity, in other words contracted opportunistic alliances with neighbours under similar duress. Thus, there were two fundamentally different forms of Late Holocene alliance. Higher order social organization evolved in the first instance from the process of demic migration, i.e. from within an expanding linguo-ethnicity. It provided the level of social complexity and cooperation that ensured the success of demic expansion. Expansionary linguo-ethnicities shared a preexisting integrity and sense of social cohesion, based on their common language and culture (Chamberlain 2006:1-2). Much of this intergenerational common history was a history of demic expansion, thus perhaps building the expectation of further expansion. The second class of alliance arose from the reaction to demic migration, the necessity to find allies as a defensive response to the expansionary activities of other, collectively stronger, linguo-ethnicities. These are the alliance-forming actions common to human societies everywhere, conscious sociopolitical alliance with others faced with the same contingency. If Nettle’s (1999:58) postulate arguing the inherently stronger bonds of those sharing common linguo-ethnicity is correct, then very probably only do-or-die historical circumstances would have forced linguo-ethnicities of no close genetic commonality into alliance.

Two types of higher order alliance or coalition will be identified. They are termed HAAs or Homogeneous Aggressive Alliances, and HDAs or Heterogeneous Defensive Alliances, respectively. Both are related by their common origin in migratory expansion - HAAs as a positive expression of it, and HDAs as a defensive reaction to it.³

³ This does not need to have been a conscious matter of ‘policy’ or decision-making. Nettle (1999:58) outlines one of the main sociological pressures in common linguo-ethnicity that might have led to demic migration: ‘Willingness to cooperate often extends only up to linguistically identifiable boundaries […] [M]any other studies […] show that having a disfavoured dialect greatly decreases the probability that cooperation will be successfully obtained.’

⁴ This dichotomy is a construct, designed to identify the two polar types. Analysis of individual examples invariably reveals greater complexity, with, for example, dialects of the same language subgroup, not forming however ‘a phylogenetic branch’, but arriving by demic migration in a region via different historical paths, involving likely different historical influences, and then combining in an alliance. These are also categorized as HAAs (provided the linguistic relationship is close enough). The determinative feature is in reality whether or not the alliance emanates from an ‘aggressive’ expansionary posture or a ‘defensive’ reactionary one. However, the relationship to language is more correctly described as a continuum than a dichotomy.
HAA formations were composed of speakers of dialects of the same language, characterized as a 'close' or homogeneous linguistic relationship. As noted, there is a correlation between demic migration and the phylogenetic divergence of languages and dialects from a protolanguage. A language distribution, therefore, particularly if it is widespread, is the historical record of demic migration by a linguo-ethnicity. HAAs are the direct outcome of demic migration and closely coterminous to phylogenetic evolution; in 'pure' cases, members of a HAA will simultaneously form a language subgroup, an areally located branch of the language family. As a language diverges consistent with the geographic expansion of its speakers, so linguo-ethnic commonality, allied to factors such as geographic proximity and shared history, brings together common dialect (and linguo-ethnicity generally) including sociopolitical consensus.

HDA formations, on the other hand, were linguistically and ethnically heterogeneous, not closely related phylogenetically, or, if language or dialect speakers of the same language subgroup, then ones distantly related, with considerable history having separated their origins. The HDA alliance is, therefore, linguistically multifarious; it is the coming together of constituent groups with independent ethnolinguisitc roots. Their linguistic relationship could not be interpreted as the outcome of language expansion, unlike, in the most obvious cases, the contiguous dialects of a dialect continuum. Thus, the individual linguo-ethnic members of the HDA alliance are typically the product of earlier prehistory, including earlier episodes of phylogenetic migration. They differ from HAA formations in as much as the purpose of their consolidation was not to further territorial expansion (and, therefore, inadvertently, linguistic distribution) but to 'defend' that which was already in their possession. The latter formations are more likely to exhibit evidence of the linguistic attributes identified by Sutton (1990:73), i.e. 'diffused features such as phonetics, kinship-pronominial categories, floral and faunal taxonomies, rules for speech etiquette, and the semantic structure of idiomatic expressions, as opposed to those historically deep differences of grammar and vocabulary, which yield the genetic groupings postulated by comparative linguists'. Thus, higher order social organization does have a relationship to language. However, unlike the 'dialectal tribe', it is a variable one; the outgrowth of a sociopolitical relationship on the basis of linguo-ethnic commonality, or, alternatively, in spite of the lack of such commonality, or, perhaps more accurately, in spite of such commonality being artificially created.

It is in the HDA category that genuine multilingualism (i.e. multilingualism involving different languages, rather than different dialects of the same language) is likely to be found. In neither HAAs nor HDAs was there a one-to-one relationship between language and social organization. While it is true that one of the factors that defined HAA entities was a common history in phylogenetic expansion, visible in their sharing of closely related dialects, there was no necessary equation with the entirety of a language or of a language subgroup. In very broad distributions such as Maric or Arandic, for instance, there is no possibility of a one-to-one correlation of subgroup and higher order
social organization, and this is invariably true of all but the smallest distributions. Very broad subgroup distributions will embrace a number of regional HAA entities; these HAAs share the characteristic of speaking Maric or Arandic dialects as the case may be, but that is all. No matter how recent the beginnings of these subgroup distributions, they will have a history of multiple and multidirectional expansions, often separated by hiatuses (and therefore consistent with Dixon’s notion of ‘punctuated equilibrium’; see Aikhenvald and Dixon 2001:9-10). These HAA distributions will therefore have emanated from different loci, at different times, but from within the subgroup distribution. Noteworthy among the qualities Andrew Chamberlain (2006:1-2) sees as integral to the definition of linguo-ethnicity (which he calls a social-cultural population) is ‘mutual social recognition of ancestry and kinship’; while this must apply to any linguo-ethnicity, it must apply also to the HAA. As envisaged, the HAA is really an extension of the linguo-ethnicity in the process of diverging into regional linguo-ethnic entities. The HDA alliance, on the other hand, is a more complex proposition. It is shallower historically, the contingent coming together of disparate linguo-ethnicities in the historically recent past (i.e. with demic expansion already well advanced) who would otherwise have found themselves isolated in the Late Holocene world of regional politics. This, then, accounts for the logical surmise that these alliances sought to bond at a later stage than their HAA equivalents. Inspection of the data shows that the activities and institutions that bound HDAs appear to be of a much more contrived and perhaps deliberately symbolic nature than those of HAAs, for whom social unity was much more integral and perhaps as a consequence somewhat taken for granted (see Winterbotham’s 1956 description of the Yinivara of south-east Queensland on the basis of data elicited from his Yinivara informant Gajarbau). The second commonality apparent in the delineation of HDAs is their relationship to the environment, although this too can be ambiguous. In the case of Yinivara, the alliance of river-dwelling linguo-ethnicities (Dungibara and Nyalbu) and high country-dwelling linguo-ethnicities (Duungidjawu and Dala) certainly had economic usefulness but may also have provided mutual protection. Other HDAs, such as W. E. Roth’s (1897:42) ‘messmates’ of the Kalkadoon (north-west Queensland) as Workoboongo, Injilinyji and Oborindi, embrace speakers of the languages of three subgroups, Kalkatungu (Kalkadoon and Workoboongo – with the assumption that these are closely related), Warlungwar (Injilinyji) and Tangkic (Oborindi) (and yet overlooking Yalarntga, the language notionally most closely related to Kalkadoon). If interpretation in the rubric proposed in this thesis is warranted, then this alliance, too, must be a response to now obscure regional demographic pressures. It was perhaps a trade-off between the interests of all component groups, these of varying environments and perceived enemies (Injilinyji and Oborindi of plains country adjacent to highland Waanyi and Garawa speakers; and the high country Kalkadoon and Workoboongo adjacent to the plains-dwelling speakers of Mayi languages). If so, these HDAs address complex, multi-directional issues of regional security.

To conclude, this thesis advances wide claims, some of which will undoubtedly be controversial. The thesis proposes for the Australian Late Holocene a political existence on a broad, regional scale. As
difficult as anthropology might find this to reconcile, the argument that the demographic origins of higher order social organization were in demic migration will be even more challenging. I can only plead the science. This is what language distribution tells us must be the case - the onus is on those who would disagree to provide a better explanation of the facts. The demographic conditions of the Late Holocene served to create the Aboriginal culture as now understood by anthropology. The ideas of Birdsell, Tindale and others that Australia was a continent of rigid, ancestral, never-to-be-transgressed tribal boundaries is unsustainable (with Tindale himself being notoriously variable on this issue). Throughout the Late Holocene linguo-ethnic boundaries were contestable and shifted to and fro. If this was the peak level of Aboriginal politics, warfare and alliance on the regional level, conducted both to advance and protect against demic migration, the Australian Late Holocene will have been a time with far more in common with the late prehistory and early history of today's civilizations than it has has to cherished notions of the 'world's oldest continual living culture'. In my view, the ethnographic evidence can only be reconciled against the known probabilities of the Late Holocene: the distribution of language subgroups deduced to have occurred in this time, the material evidence for cultural intensification, rapid population increase, a cycle of improving and deteriorating climatic conditions, the reported and herein described existence of higher order social organization and the activities associated with them, and the ethnographic record itself. These factors combine to lead to one very probable interpretation, namely the one provided in this thesis.
Chapter 2
Australian Languages: Theory and Background

Language distributions encode a history of the speakers of those languages, the historical events that culminated in the distribution now visible to us. Australian language subgroups, ‘families’ of closely-related languages, are no different to languages elsewhere in the world in this respect. Most obviously in the interior of the continent, language subgroups such as the Western Desert language, Maric, Arandic and others have spread to occupy the areas they now do. There are two principal means by which this might have happened: through the migration of its speakers or by diffusion, i.e. that the speakers of a language influenced speakers of another language to shift to their language. There is also the possibility that language spread will combine elements of both. There is, however, an opposing view: namely, that Australia represents an exception to language-forming processes as they are generally interpreted to have occurred in the rest of the world. This is the ‘exceptionality’ doctrine, associated with R. M. W. Dixon (Koch 2014:25). Dixon takes the entirely different view that Australian languages, by and large, do not possess the telltale signs of phylogenetic interrelationship and, hence, whatever events are posited in other parts of the world to explain language interrelationship and distribution, these will not apply to Australian linguistic prehistory. Dixon’s model is not so much that of the alternatives of languages having spread by migration or diffusion, or a balance of these factors; rather, it is a theory that discounts language spread having occurred at all. It argues an in situ development; that languages have evolved with their speakers rooted in place, diffusion occurring in a confined region over long periods of time. Dixon’s ideas are examined below. This thesis, on the other hand, argues that recent Australian linguistic prehistory is in fact perfectly well able to be interpreted using the traditional means. This applies both to the language interrelationships themselves and the non-linguistic events that are thought to have culminated in their distribution. The world over, migration has been seen as the primary means to explain languages spread; as Diebold (1987:27) memorably put it: ‘Entire spoken languages do not and cannot diffuse through space save in the mouths and minds of (some of) their speakers. It was and is impossible to view a semiotic system as complex as a spoken natural language being transmitted by

5 Heggarty (2015:600) articulates the relationship between language and history as well as anyone, saying that linguistic patterns are neither coincidental nor an artefact of forces inherent in the nature of language, but contingent on ‘processes in the real-world context – demographic growth or collapse, migrations, conquest, or more subtle socio-political and cultural changes – are the cause; they alone determine entirely the linguistic effects of divergence, diversity and convergence. The patterns observed across languages – of diversity, relatedness, divergence and convergence – are outcomes at the receiving end of a cause-and-effect relationship, moulded directly by “forces of history” that are independent of language itself.”
diffusion alone.' A priori, the broadly distributed subgroups of the interior of the continent suggest that language has spread through the migration of their speakers.

R. M. W. Dixon and the Diffusionist Model

R. M. W. Dixon's diffusionist model and the phylogenetic inheritance model are antithetical in the implications each has for Australian prehistory. The former presupposes a millennially slow, incremental prehistory for the continent, characterized by its opponents as the immoblist position. Little can be said on this basis either for the historical process whereby languages evolved or for change in culture and society generally, other than that it has occurred over a great deal of time with language speakers in relative stasis geographically. The phylogenetic method is the standard means by which language history is modelled worldwide, often visualized in 'language trees' showing the descent and diversification of related languages over time. Application of the phylogenetic method raises a set of possibilities for Australian prehistory entirely different to the limited vision flowing from the Dixon model. There is a calculable timeframe, admittedly one that is not precise but nevertheless precise enough to suggest a much shallower history for the distribution of Australian language subgroups over the last two and a half thousand years, i.e. during the Late Holocene.\footnote{This is not to suggest that Australian languages do not have a deeper history – obviously they do. What it means is that the languages we now see on maps and refer to as living languages where they are still spoken are the product of the Late Holocene, not evidence for development over some far greater period of time.}

Equally as significant is the fact that Dixon's model is predicated on people having exchanged linguistic material in situ. Having arrived at a particular place at some unspecified time not long after the continent's colonization, these people have stayed in close and myopic relationship with their neighbours. Language circulating over time in this physically constricted arena has resulted in convergence, mimicking familial relationship. By contrast, phylogenetic analysis, suggesting as it does events in recent prehistory, opens the door to consideration of a wider and more vigorous recent prehistory, the influence for example of technologies, social and cultural practices and ideas, and their accompanying terminology, having been brought from afar and become widely influential. Even more significantly, Dixon's model begs the question of how language subgroups came to be differentiated and distributed as they are; and, if nothing else, internal migration has to be included among these language-forming possibilities, if only on the basis of its aetiological commonality in the prehistorical distribution of languages in other parts of the world.

Few, if any, historical linguists see genetic inheritance, diffusion and convergence as mutually exclusive factors in language prehistory (cf. Campbell 2003:48-9; Bowern and Koch 2004:2-5; Koch 2004a:5-6). Indeed, the question is not whether diffusion plays a role in language prehistory but what the degree and place of that role is. In this thesis, in respect to the Wave Model and other
relationships to be discussed, that role can be seen as significant. Dixon’s (1997, 2001, 2002) theory of Australian language prehistory, however, can be regarded, in Harold Koch’s (2004:129) words, as one of ‘extreme diffusionism’. It accords diffusion a preeminent role in the formation of Australian languages, and challenges the default view of world language evolution, phylogenetic relationship, the diversification of related languages descending through time by inheritance from an original and common protolanguage. Dixon’s is the only overarching theory of Australian language prehistory to have emerged in the last thirty or so years, and has precipitated a great deal of discussion among historical linguistics. Most have rejected Dixon’s theory on linguistic and anthropological grounds (McConvell 2002; Campbell 2003; O’Grady and Hale 2004; Koch 2004; Evans 2005; Alpher 2004, 2005; Sutton and Koch 2008). Recent work, notably that of Claire Bowern and Quentin Atkinson (2013; also Bowern et al. 2011), has reasserted the susceptibility of Australian languages to cladistic modelling through the inheritance of distinctive innovations, in other words, the realignment of Australian languages with the history of languages as it is generally understood to have occurred worldwide. By virtue of the claims it makes for the ‘exceptionality’ of Australian language history, however, Dixon’s theory cannot be ignored; it must be contested, embodying as it does preconceptions, linguistic and otherwise, inimical to the reconstruction upon which this thesis is based. 

According to Dixon, Australian language prehistory is an anomaly in world terms; in Dixon’s (2002:xx) words, it was ‘unique’: ‘The language situation in Australia is simply unlike that of Austronesian; or of Indo-European or Uralic or Uto-Aztecan. It is unique.’ As a consequence, ‘[Australia] is a completely different language situation from those reported from elsewhere in the world’ (Dixon 2001:88). Dixon argues Australian language distribution cannot be explained by the phylogenetic model; that, with some few exceptions, genetic relationships cannot be reconstructed, and for these reasons the comparative method does not apply. Dixon’s is a two-tiered theory of language evolution, the predominant one, set in profound though unspecified time depth, in which regional languages converge on one another to the point where phylogenetic relationship disappears, and later evolutions, which in some cases have left phylogenetic relationship still in evidence, such languages not having had time to merge with their neighbours. In this theory, Australia was occupied initially in ‘little more than two thousand years’, a period when ‘new languages developed at a steady rate’ (Dixon 2002:34). Once the continent was occupied, ‘leaving little room for further split and expansion’, subsequent ‘blurring’, diffusion and convergence has resulted in ‘a large diffusion area’, one that produced two types of ‘low-level subgroups’, areal and genetic. Areal subgroups are those in which languages are confined to small regions that ‘show significant similarities to each other and considerable differences from languages outside the region’ (Dixon 2002:34?). not similarities, however, ‘such as would permit the reconstruction of a common proto-

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7 Dixon’s ‘areal groupings’ confuse the issue of genetic relationship from two directions. The first, and perhaps most obvious, is that there are subgroups whose complexity prevents easy analysis of phylogenetic relationship. The other direction is that areal commonality overrides the distinction of several genetic groupings. As an instance of the latter, Evans (2005:249) describes Dixon’s (2000) ‘Daly River Areal Group’,

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language’ (Aikhenvald and Dixon 2001:64). In Dixon’s model, prolonged diffusion effectively obscures any evidence of familial relationship that may have resulted from previous episodes of language expansion. Thus, subgroups that may have been the product of an original diversification were submerged under this continual cross-fertilization to produce linguistic areas, which are areal, not genetic, in nature (Aikhenvald and Dixon 2001:64). It follows, according to Dixon, that attempts to unwind historical language relationships in Australia by cladistic subgrouping would be unavailing. However, because some language subgroups are so clearly phylogenetically related, the model does not always fit the data, and so Dixon does acquiesce, at least partially, to the phylogenetic model, with the ad hoc admission of genetic subgroups into his entropic diffusional model. These he describes as the result of ‘punctuated equilibrium’. ‘Punctuated equilibrium’, as the phrase suggests, refers to episodes of rapid language expansion that interrupt an otherwise pervasive and continual quiescence; the conditions that allow areal diffusion and convergence, unaccountable disruptions therefore in the otherwise smooth roll-out of diffusional contact (cf. Campbell 2003:48). Thus, unequivocal evidence for genetic relationship has ‘plainly arisen as a result of minor punctuations in the fairly recent past’ (Dixon 2001:86).8

The weakness of Dixon’s punctuation argument is apparent in itself, requiring as it does a significant and unmotivated exception to the overall thesis. Nor is there anything in Australian languages generally that leads necessarily to the analysis Dixon proposes for them. Australian languages, despite the presence of features that do distinguish them in the worldwide context, such as minimal phonological variation, wide lexical variation, often hand in hand with grammatical correspondence, share with languages generally logically deducible forms of syntax, grammar, phonology and semantics, as well as, usually, deducible inter- and intra-language relationships (Bowern and Atkinson 2013:839; Koch 2004a, 2014:28-38). Dixon’s argument for a unique, predominantly diffusional, history of Australian language can, I believe, be rightfully rejected as incompatible with the evidence (see McConvell 2010:773-4 for a summary).9

which, results from the work of Ian Green and others challenging the genetic unity of Tryon’s (1974) “Daly Family,” and breaking it into several distinct families united by a number of areal features. In this case Dixon’s [Daly River Areal Group] is thus an areal grouping of five genetic groupings, each of whose members lie entirely within the areal group.’

8 Dixon offers no specific extralinguistic explanation for why ‘punctuated equilibrium’ might occur, citing merely the possibilities of natural causes, material innovations, the development of aggressive tendencies, and territorial expansion, or, in other words, more or less everything and anything conceivable.

9 Again, this is not to say that diffusion, and even prolonged diffusion, does not have a place in the interpretation of Australian language prehistory. Very probably, while diffusion within regional confinement does explain something of the present-day distribution of features in Australian languages (cf. Garrett 2006 in respect of Anatolian Indo-European languages), it is highly unlikely to correlate with subgroup distribution, which is Dixon’s thesis.
The Anthropological Background to Dixon’s Theory

Dixon’s theory, in my view, emanates not from language in the first instance (see McConvell 2010:773), but from a perception of Australian prehistory that has long antecedents in anthropology as a broad discipline, namely, the belief that in Australia was found incarnate the survival of man at his socially and culturally most limited and unevolved.10 It is a view that, in some circles, prevails to this day. Beginning at the origins of anthropology, with L. H. Morgan (1964[1871]:22) and E. B. Tyler (1871:27), it resurfaced in the American Neo-Evolutionist movement of the 1950s and 1960s, most notably in Australia through the influential work of J. B. Birdsell. Birdsell (1953:171; 1968:239), too, thought of Australia as a ‘unique’ case, primarily because its Indigenes represented an unbroken survival of human life as it was lived in the Pleistocene, some 8,000 years before the present.

Similarly, Dixon’s theory is founded in this ‘intuitive’ appreciation of what should and should not be expected of the Australian Indigenous past, and hence of the development of its languages, namely that they represent what might be expected of truly primordial humankind.11 It is consistent with an Aboriginal culture that was thought to generally exhibit little or no evolution, little or no ambition (e.g. Stanner 1953). Australian languages, it was thought, grew out of these conditions; they reflect no spatial or chronological development, only an interminable turning back in on themselves by a people ‘living the eternal round’. It is a vision defined by limitation. In Koch’s (2014:38) description of Dixon’s position, ‘This convergence of linguistic (and cultural) features takes place in a geographical area and in a social situation in which different political groups of roughly similar size live in harmony, sharing a somewhat similar culture, with none exerting dominance over the others’.

This belief has a parallel in Australian anthropology, notably Tindale’s (1976:28) vision of tribal boundaries, and hence language boundaries – the two being coterminous – as ancient and immutable. The contrast in implication between the phylogenetic model and Dixon’s diffusional model could hardly be starker. The latter suggests a world of unchanging subservience to basic needs, limited imagination and a crippling absence of volition; the former aligns Australia with the rest of the world, suggesting development that differs only in the means available to advance progress.

10 This epistemic motivation is acknowledged only tangentially by Dixon (2002:xix): ‘It is likely that for tens of millennia the non-mountainous/non-forested parts of the Australia/New Guinea land mass constituted a linguistic equilibrium area.’ His decreed motivation stems from the purely linguistic concern that he could not solve the historical interrelationship problems of Australian languages by the traditional methods (I had assumed that the methodology which applies so well for the languages of Europe and North America and Oceania would also be appropriate for the language situation in Australia. It is not, but it took me a long time to realise this’ (2002:xvii).

11 In my view, this is an understanding that permeates anthropological appreciation of Aboriginal Australia, although, it must be said, it is rarely acknowledged as such. Fabian (1983:17-8) expresses this usually unconscious prejudice most succinctly: ‘A discourse employing terms such as primitive, savage (but also tribal, traditional, Third World or whatever euphemism is current) does not think, or observe, or critically study, the ‘primitive’; it thinks, observes, studies in terms of the primitive. Primitive being essentially a temporal concept, is a category, not an object of Western thought.’
The Phylogenetic or Tree Model

The importance of the 'Dixon vs. The Rest' debate is that the views of prehistory each presupposes are mutually exclusive. The evidence suggests that Australian language prehistory is not qualitatively different to language prehistory elsewhere in the world. On this basis, the expectation ought to be that their evolution has been of a nature similar to language histories in the rest of the world. They ought, therefore, to be examined with the same assumptions, the same tools, as have been applied with success elsewhere. Evans (2010:106) outlines the sources from which the historical linguist can uncover something of a language's prehistory:

Proto-languages at various stages can be placed in space and time, relative to other known languages and proto-languages, by three sources of information: internal branching of family trees, evidence from loanwords, and structural convergence with neighbouring (and possibly unrelated) languages [...]

The comparative method is the standard, well-tested methodology of historical linguistics (see Evans 2010:85-91). Patterns of language relationship, such as regular sound correspondences between languages believed to be related, are compared, then common ancestors and successive stages of divergence from a shared origin are deduced from them. These common innovations are variably retained through the subsequent diversification of the original language into subsets (also called subgroups) and hence remain as pointers to the common origin of the language subgroup. The premise upon which the discipline was founded and still largely continues to operate is a relatively simple one: languages begin in a locality with a small population of speakers and as they evolve temporally and spatially from this protolanguage, they diversify, producing, ultimately, the hierarchical branching traditionally schematized by language ‘trees’. In the Australian context, the comparative method has produced and continues to produce credible results (Koch 2004; McConwell and Laughren 2004; Bowern 2001, 2006; Hercus and Austin 2004; Hercus 1994; Brammal 1991; McGregor and Rumsey 2009, among many others). The implication is that, in the Australian context, such analysis works; moreover, it demonstrates that the chronology of these languages’ evolution is recent enough to permit application of the comparative method. This has been particularly so at the level of subgrouping (Evans 2003a:16 in Koch 2014:54; McConvell 2010:772-4; Evans 2005:247). As Bowern and Atkinson (2013:839) conclude of their analysis of the Pama-Nyungan family:

Our work puts to rest once and for all the claim that Australian languages are so exceptional that methods used elsewhere in the world do not work on this continent. Pama-Nyungan languages, like all languages, show a mixture of histories that reflect both contact and inheritance. Producing accurate phylogenies is an important part of examining the interplay of these processes in all languages, and Australian languages are no exception here.
Diachronic Language Interrelationship Theory

A great advantage of phylogenetic analysis is that there is a calculable relationship between phylogenetic origin and development, on one hand, and the depth of time it takes for this to occur, on the other. While not an exact science, it can place genetic relationships within diachronic limits. Internal diversity in a subgroup indexes time: 'The greater the degree of linguistic differentiation within a stock the greater is the period of time that must be assumed for the development of such differentiation' (Sapir 1916[1949]:452; cf. Greenhill 2015:561-2; but see McMahon and McMahon 2005 for an alternative view). Estimations for the time depths in Australian language prehistory are always going to be contested by language scholars, as are in fact the histories of language families much better known, such as Indo-European and Uto-Aztecan (Madsen and Rhode 1994). Nowadays, historical linguists are less sanguine about the overall efficacy of dating language evolution (e.g. Heggarty 2006) and, it is fair to say, dating language evolution remains a contentious undertaking. Overwhelmingly, however, the consensus on Australian language prehistory is for a shallower rather than a deeper age for the subgroups and languages that comprise distributions as now known. In general terms, the deeper in time events are thought to have occurred, the more vague must be any supposition as to familial relationship (Clarkson 2000:449; Nettle 2000:666; Campbell and Poser 2008:81-2). Given enough time and distance, languages will differentiate to the point where they are no longer recognizable as being related (Evans 2010:107). However complex a language family or subgroup’s history may be, and whatever effect subsequent diffusion will have had on the ability to discern and model a genetic history, the general rubric still applies: internal complexity equals depth of time (Greenhill 2015:561-3; see also Heggarty 2015:612 for discussion of general issues). Many Australian subgroups have been typified as dialect continua or dialect ‘chains’: Aranda (Hale 1962), Bandjalong (Crowley 1978:169, 1997:287), Yolngu (Morphy 1977; Heath 1981:335); Dyirbal (Dixon 1972, 1976), the Western Desert language (McConville 1996:135), to name some.12 While this description does not apply equally well to coastal distributions (although it does to many), it can, by and large, be said to typify Australian subgroup distributions, particularly those of the interior. The distribution of these subgroups has evolved over the same general period as similar developments elsewhere in the world, not over unfathomable aeons.13

12 A progressive relationship of dialects contiguous to one another is in fact a simplification of the situation found in Australian languages. Diffusional linguistic factors and history usually intervene to make perception of a simple continuum or chain unlikely; nonetheless, if those factors can be accounted for, the principle still generally holds.

13 In general, historical linguists opt for smaller, not larger, estimates of time depth in Australia. An ongoing problem is the interpretation of linguistic events in terms of their implication for language spread and, ultimately, for population movement. Hale (Green in Simpson et al 2001:40), for example, says of the well-known initial-dropping features of Arrernte ‘The initial dropping of Arrernte is something that happened probably between four and six hundred years ago’. Given its uniform distribution across Arrernte languages, this might appear to have something to do with the spread of the language and its speakers. This, however, can only be surmised until further evidence is forthcoming.
This thesis takes its point of departure from the most recent manifestation of that language prehistory: the subgroups and languages now visible to us in maps of their distribution. The probability is that the fragmentation of these subgroups, their contact with other migratory subgroups, and, ultimately, the picture we now have of the distribution of Australian languages, is largely the result of events that have occurred in the Late Holocene, transpiring only over the last two to three thousand years (which is not to say that Australian languages do not have a deep past, as deep as – or deeper in fact than – language histories elsewhere in the world). There is no reason to expect that language expansion was not still occurring at the time of the arrival of Europeans. For such expansion to occur, a dynamic social and cultural prehistory is required, not the stasis implicit in Dixon’s model. The different implications for prehistory inherent in the two models have been mentioned; in other words, our conception of language history reflects the kind of world we expect to have created that history (Heggarty 2015:600). Further back in time, events, most notably the postulated disjuncture of Pama-Nyungan languages from the non-Pama-Nyungan distribution of tropical Australia, very probably did occur. Most Australianist linguists concur that this original diversification began before 3000 BP, possibly in the order of 5 to 6,000 years BP (McConvell 1996:127, 142). This deeper prehistory, for the most part, does not concern the thesis.

Spatial Language Interrelationship Theory

Parallel to the facility of phylogenetic modelling to demonstrate at least the rough bounds of diachronic language evolution is its efficacy in establishing events in physical space. As speakers of a language spread over the landscape and become more isolated from one another, dialects of a language diverge from one another, and, should separation continue, these will eventually evolve into daughter languages of the original protolanguage. Historical linguistic analysis can link these daughter languages back to the protolanguage, revealing a family history, not only of language, but, ideally, of history allied to geography, factors such as original point of departure, and the direction from whence language speakers came, an observation first made by Edward Sapir (1916 [1949]:455). This was suggested to Sapir by the distribution of Amerindian languages that could be shown to be phylogenetically related, but that were significant distances apart, often separated by intervening, unrelated languages, implying a history of movement allied to analysable linguistic diversification. Sapir (1916 [1949]:455; 1936 [1949]:223) formalized this principle for geographical origins and subsequent language family or subgroup distribution as a ‘centre of gravity’ (also Age-Area or ‘linguistic migration theory’; see Campbell and Poser 2008:347):

The major divisions of a linguistic stock represent the oldest differentiation within it and the geographical distributions of each of these divisions as units must be considered as of equal weight in an attempt to reconstruct the earliest ascertainable location and movements of the
stock as a whole. In other words, the geographical centre of gravity, historically considered, of a linguistic stock is not determined directly on the basis of all the dialects of the stock but rather on the basis of its major divisions, regardless of whether they are greatly ramified into subdivisions or not. The procedure of estimating the relative chronological significance of further linguistic ramifications is analogous to the above.

On this basis, it becomes possible in theory to plot the geographic path by which languages evolved away from their protolanguage homeland, as well as something of the relative and real time over which these movements occurred (McConvell 1996:126; Campbell 2000a:352, 2000b:3). Lyle Campbell and W. J. Poser (2008:347) describe this method in practice as deconstructing the existing subgroup, 'assigning linguistic homelands, based on minimum moves and maximum diversification'. Linguists built on Sapir's theory. Dyen (1956:611) added to 'centre-of-gravity' theory the likelihood that the means by which languages spread was migration: 'One of the fundamental linguistic sources of inference about prehistoric migrations is the geographical distribution of languages.' The assumption was that geographic spread allied to language diversification equalled a history of movement of speakers away from a proto-homeland, and progressively away from one another.

More recently, linguists have taken a more sceptical and nuanced view of the 'centre-of-gravity' theory, although not doubting its applicability in many cases. Paul Heggarty (2015:613) draws attention to the complexity of history, pointing out that 'in cases of repeated dispersals out of a core culture area, where a language family's diversity will most likely survive is on the contrary on the periphery, furthest from the focus and the threat of being repeatedly overwritten'. Not all language histories are unilinear; there can be doubling back, and reincorporation. Contiguity of diverse but related languages may not therefore always be a guide to the location of a proto-homeland. Again, the moral is that history will produce much variation, and that each case has to be analysed, to the extent it can be, on a case-by-case basis. However, the significance of this body of theory cannot be overestimated. It becomes possible to trace possible points of origin, of endpoint, and the paths that have led from one to the other. In short, the path of language expansion allows the possibility of a reconstructible prehistory. Likely estimates for the direction of language spread in Late Holocene Australia can be made, particularly in the shallower timeframes (McConvell 1996). Maric is held to have expanded from north to south (Barrett 2005); Ngumpin-Yapa, at least over some of its history, has expanded in the opposite direction, north into the Victoria River territory occupied by non-Pama-Nyungan languages (McConvell 2009); the Bandjalang proto-homeland is likely to have been the estuarine reaches of the Clarence River, from which it expanded northward along the coast and

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14 While the author is aware the Sapir hypothesis as boldly described here can be subject to a good many criticisms based on alternative explanations for language distribution, both in theory and exemplified in reality - the possibility of the proto-homeland itself having moved historically to cite one - it is nevertheless, and I would say, unquestionably, a sound basis from which to begin investigation.
north-west along the Clarence River (Jefferies 2012); Crowley (1997:284-5) argued that the Yugambal languages of the New England Tableland had their origins with the coastal Djangadi and Kathang languages, from which they advanced westward, inland along the Macleay, Hastings and Manning Rivers, to occupy the New England Tableland.

Johanna Nichols

In the 1990s, the historical linguist Johanna Nichols (1992, 1997) formulated a theory on language spread that has greatly added to our ability to understand the historical interrelationships encoded in geographic distribution. Importantly, her theory applies universally, language distribution governed ‘entirely by geography, population density, and economy’, that is, irrespective of factors such as time settled, successive colonizations, and other historical factors (1997:369). As such, it applies equally well to Australia as it does to the other continents. Nichols’ (1992:24) theory is genealogical in character:

Since a spread zone is analogous to and often coincides with a genetic family, and since the methodology of historical linguistics tacitly assumes the genetic family as the normal object of description and the standard in historical modelling, it is not surprising that the basic notion of historical linguistics, the family tree, applies well to spread zones […]

Nichols’ work distinguishes two distributional variants, spread zones and accretion zones. A spread zone is ‘an area of low density where a single language or family occupies a large area, and where diversity does not build up with immigration, but is reduced by language shift and language spreading’ (Nichols 1997:369). It is seen as the product of relatively recent and rapid language spread, a well-known example of which is the Indo-European family, covering as it does a good part of two continents, and yet whose phylogenetic interrelationships are for the most part deducible. Nichols’ other distributional category, the accretion zone, is defined as follows (1997:369):

[…] an area where genetic structural diversity of languages is high and increases over time through immigration. Languages appear to move into these areas more often than they move out of them [and] accretion zones generally contain representatives of major stocks in the vicinity as well as some languages with no outside kin […]

Accretion zones do not display the transparent language or dialect interrelationship that characterize spread zones. In their most ideal form, they comprise languages that are not mutually intelligible. They imply a more complex history of periodic arrival of speakers of these diverse languages. Spread and accretion zones are each associated with particular geographical features. Whereas spread zones
usually occur over broad plain and river valley terrain, topographies that are easily accessible and, sometimes at least, abundantly resourced, accretion zones are often associated with less tractable mountainous or coastal regions.\(^\text{15}\)

Language superseding language is the usual historical process of language spread: ‘A language that spreads in an area displaces or absorbs its predecessors’ (Nichols 1997:232). This can occur as events within a subgroup, or as a process of the languages of one subgroup displacing those of another. Implied within this may be the absorption or displacement of the previous inhabitants of an area who were speakers of a different language: ‘Language spreads of all kinds cause extinction of languages previously in the area, usually through language shift’ (Nichols 1997:366). Language spreads may also be contemporary, or sequential, or overlapping (i.e. one spread coming to an end as another begins), may occur in different and complementary environments, and continue or decline at varying rates; they are subject to whatever purely local geographical and historical conditions apply. Having identified a language family or subgroup’s locus of expansion (proto-homeland), it is often possible to deduce a direction of expansion correlative to phylogenetic evolution:

\[
\text{[W]hen a language family has dispersed gradually and in a more or less constant direction, its family tree assumes a distinctive, consistently left- or right-branching shape [...] It is possible to exploit right and left and draw a tree that neatly projects onto a map of the daughter languages in real space. (Nichols 1997:371)}
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This can be particularly revealing when linked to geography. River valleys form likely conduits of movement, unlike mountain ranges, which act as barriers. Accretion zones are a more complex and variable phenomenon. They are likely to be small, with languages significantly different from those of their neighbours, hence indicative of a variety of origins and histories. Accretion zones suggest a more complex array of motivation, that is both push and pull factors; peoples may have been drawn to these environments attracted by the special resources they might possess, or, alternatively, accretion zones might have provided refuge for peoples escaping the attention of their expansionary spread zone neighbours. Nichols’ original name for these areas – residual zones – is suggestive of this.\(^\text{16}\) However, diversity can be deceiving. Sapir’s centre-of-gravity theory also describes language diversity, and while this is diversity confined to a family, phylogenetic relationships are not always easily discernible. Accretion zone diversity can indicate the proximity of one or more languages to a proto-homeland. Varying combinations of factors are possible, even probable, and analysis needs to be conducted on a case-by-case basis.

\(^{15}\) The Caucasus Mountains region is probably the best example of an accretion zone. It contains three language families, plus members of at least two Indo-European subgroups, Armenian and Iranian, and some Turkic languages (Azerbaijan) (Koch pers. comm. 10-10-2017).

\(^{16}\) Nichols (1992:14) further describes at least some examples, the Caucasus for one, as ‘a refugium of sorts, attracting intrusive languages from the adjacent lowlands’.

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Somewhat akin to the ideas of Johanna Nichols are those of Victor Golla (2000) in respect of the language families of North America. Golla (2000:60), too, identifies spread languages, defining them as ‘language communities all or most of whose constituent dialect communities are sufficiently distant from one another, either geographically or socially, to make social contact sporadic and relatively unstructured’. Like Nichols, Golla sees spread languages as intrinsically linked to migration: ‘Such language communities are usually the result of the dispersal of speakers of related dialect communities across a wide territory, often by migration, and are found in many parts of North America’ (Golla 2000:60). Unlike Nichols, however, Golla contrasts the spread language not with the accretion zone, which implies a certain, if unspecified, history of relationship, but with a synchronous concept, the compact language, i.e. ‘language communities whose constituent dialect communities are closely adjacent and share a common interaction sphere (connected by trade, intermarriage, ritual, and intergroup alliances and hostilities)’. Whereas spread languages are typified by ‘chains of intelligibility’ (in other words dialect chains or dialect continuum) that are ‘the result of recent migration’, compact languages have boundaries marked by correspondingly abrupt linguistic discontinuity, examples of which can be ‘phonological and grammatical differences among dialects that focus on a salient and easily dichotomised feature, such as high vs. low tone or the presence or absence of a specific grammatical marker, and numerous (relatively superficial) lexical differences’ (Golla 2000:60-1). While Golla’s dichotomy certainly could not describe every variety of language distribution in Australia, it is nonetheless a useful distinction. This is particularly so in respect of the compact language, the spread language seemingly an uncontested feature of language distribution worldwide. The features Golla (2000:61) describes for compact language distribution in California echo characteristics found in many Australian distributions, including the fact, for example, that, ‘[w]hile the phonological and morphological differences among these dialects were quite shallow and a single grammatical model easily accommodates them all, the degree of lexical difference from locality to locality was remarkably deep’.

The Wave Model

The Wave Model has somewhat different implications for prehistory than does the phylogenetic model, although the two need not be mutually exclusive in their application. The Wave Model takes its starting point from the assumption of rapidly expanding dialect continua; that is, the initial expansion of a protolanguage will be in the form of contiguous and closely related dialects (François 2015; Heggarty 2015; Heggarty et al. 2010; Babel et al. 2009; Garrett 2006). Rather than the Tree Model’s fragmentation of a protolanguage into a hierarchy of discrete linguistic entities, with progressive differentiation and their implied isolation from one another, and a correlative ‘abrupt
division of a language community into separate social groups’, the Wave Model ‘treats linguistic contact – in the form of multiple, criss-crossing events of diffusion across mutually intelligible dialects – as the very key to understanding patterns of language diversification’ (François 2015:170). There is, therefore, something of the Dixon theory in the model, inasmuch as component languages of a grouping continue to interact and fertilize one another by the diffusional transfer of innovations. Rather, then, than a hierarchical pattern of inheritance, innovation, while still enacted successively over time, operates freely across part or whole in a range of relationships; as a consequence, ‘successive innovations target different segments of the network’. Unlike the neatly subdivided subgroupings of the genetic tree, the result is a variable continuum of relationships: ‘[I]n a linguistic continuum characterised by mutual intelligibility across adjacent dialects, the normal situation is for these isoglosses to intersect constantly, rather than be nested’ (François 2015:169). Dialects acquire a selection of the innovations to which the subgroup as a whole has been variably exposed over time. Each component language or dialect, therefore, unlike its relatives, embodies a unique set of innovations; each language shares some of these innovations with its neighbouring dialects, but not all. Because these innovations overlap, the history of the language cannot be displayed with the neat and discrete separation provided by the tree diagram (François 2015:170-71; Babel et al. 2009:2-3; Heggarty 2015:604).

The difference between the Tree and Wave Models in prehistoric reconstruction is one of emphasis. Where the former accentuates separation and divergence, with, in non-linguistic terms, the implication of the development of independent communities speaking the same language, the latter emphasizes continuity of relationship, with the implication that communities remain in contact, if variably, and continue therefore to influence one another. One could say that the efficacy of the Wave Model is contingent on the related languages having retained some degree of contact. There is a difference in the global perception of the language entities concerned. In the Tree Model, a firm distinction is made between phylogenetic innovations, changes inherited within the subgroup’s diversification and shared only between the related languages, and changes adopted once the subgroup has diversified, the latter referred to as borrowings. The Wave Model broadens the field of influence: an innovation may, for example, be introduced from an external source, altering some of the familial languages or dialects of a subgroup, but not all. There is a certain rigidity, a freezing in time, implied in the phylogenetic model; it is a matter of separating out and identifying distinct entities, with less of an emphasis on interrelationship, although relationship between members of closely related branches is inferred. Branches are seen as having grown apart, becoming irrevocably separated from their cousins. Wave theory, on the other hand, emphasizes continuity of relationship, with communities developing their distinctive languages or dialects as the result of periodic and variable contact with their fellow language speakers, plus the additional factor of introduced external contact – where this can be shown to have entered the subgroup via a particular component language.
Few historical linguists, I suspect, would reject one theory wholly to embrace the other. Clearly, geography and time have much to do with which model will most accurately reflect a particular language subgroup's interrelationships. Each has considerable relevance to the type of non-linguistic history that has likely forged the pattern of linguistic relationships. Spatially, as well as temporally, the Tree Model suggests vaster distances, that is, branches of a subgroup disassociating themselves from one another over space and time, and not having the renewed and reconfigured association that might be productive of results predicted on the Wave Model. If, as is the case in much of Australia, languages have spread over considerable distances, it could be surmised separation and independent development of language would be the more accurate model; however, the Australian interior, and many subgroup distributions in particular, are characterized by an absence of geographical barriers to communication, and hence continued interrelationship, even over long distances, might also be expected (cf. Breen 2009:233-4 in respect of Maric). Australian dialect continuum or chains are often seen to indicate the direction by which a language has dispersed, a path of closely related dialects divergent at the geographic extremes pointing to a direction of spread (Hale 1962:182-3; Crowley 1978:169; Breen 2009). The Wave Model, however, has the potential to interfere with this conclusion, introducing as it does the possibility that at least some of that cognition is the result of localized cross-fertilization. Where language distributions are more geographically and topographically confined, there is the probability that the Wave Model would provide the better explanation for historical language relationships, because the speakers of the related languages can be surmised to have stayed in contact and continued to communicate, passing on innovations independently developed, or introduced from outside, to one another.

Diffusion

Phylogenetic relationship indicates diachronic evolution, often the relative succession of relationships; it is, therefore, an essential model for the reconstruction of language distribution across time and space. However, diffusion, too, can index time and so diffusion in Australian languages too can be as equally significant for the understanding of prehistory. Unlike phylogenetic modelling, which defines a unidirectional lineage of relationship, diffusional characteristics can point to contact relationships, as well as to diachronic intervals in those relationships (McConvell 1996:143). If, for example, innovations were variably adopted into a subgroup from an unrelated language, the implication is that some of these related languages or dialects have come into contact with the unrelated language and not with others. Thus, the borrowing of lexicon or morphology between dialects can also be an avenue for plotting historical relationships (see McConvell 2009 in respect to to Ngumpin-Yapa; Koch 2004b in respect to Arandic). This is termed stratigraphic analysis, determination of the sequential stages of borrowing of features from one language to another. Linguistic stratigraphy implies in turn a history of successive contact and separation of the languages
involved in borrowing. Ideally, this history of relationships can be mapped, based on where the languages are now and the relationships deduced to have occurred periodically over time. In addition to relationships within a subgroup, diffusion has the potential to uncover contact relationships with unrelated languages, all of which reflects on, and increases, knowledge of its history. François (2015:167) divides diffusion into two categories: cross-linguistic diffusion, or ‘contact between already separated languages’, and language-internal diffusion, or ‘the diffusion of innovations across mutually intelligible idiolects in a single language community’. There are two historical possibilities for cross-linguistic diffusion. The first is borrowing between contiguous or once contiguous languages unrelated at the subgroup or familial level, suggestive of past and/or ongoing contact; the other is language shift, the subsumption of substrate language into a dominant language, that is, contact resulting in the disappearance of a language and the possibility of its previous existence being indicated as a component in the makeup of the newly introduced language.

Cross-linguistic Diffusion

Borrowing between contiguous languages not closely related, once believed to have been a typifying feature of Australian languages, has been shown to be a generally insubstantial part of the Australian language makeup. Bowern and Atkinson (2013:822) provide figures that ‘place Australian loan levels on a par with those found in the rest of world’, that is, ‘mean loans in basic vocabulary were found to be 8.7% [and] 75% of the languages surveyed had loan levels under 12% in basic vocabulary’ (cf. Evans 2005:261; Bowern 2006:254-7; Alpher and Nash 1999:26-7). Harvey (2011:345) also observed:

Current analyses present lexical borrowing as a pervasive phenomenon in pre-colonial Australia. They propose that this follows from the high levels of multilingualism and language group exogamy which characterised pre-colonial sociality. This article shows that lexical borrowing was not pervasive in Australia, arguing that there is no necessary or even default relation between high levels of multilingualism and language group exogamy, and high levels of borrowing. These social phenomena may equally be accompanied by extremes of lexical differentiation between languages.

However, the exceptions that do exist are telling for Australia’s linguistic prehistory, for the reason that high levels of borrowing between languages indicates, at the least, contact between the speakers of the languages concerned, and more probably intense and ongoing contact. Notable in this respect is the high degree of lexical borrowing that can accompany contiguous Pama-Nyungan and non-Pama-Nyungan language distributions. Jeffrey Heath (1978, 1981) documented this atypically high degree of borrowing between the contiguous Ngandi (non-Pama-Nyungan, or nPN) and Ritharrngu
(Pama-Nyungan, or PN) languages of eastern Arnhem Land (see also Harvey 2011). Other studies of lexical and morphological borrowing across the PN and nPN divide have found a similar pattern: Black (2007b) in respect of Jingulu (nPN) and Mudburra (PN), and McConvell’s (2009) study of borrowing into Gurindji (PN) from Jarragan, Mirndi and Wardaman, three nPN families to Gurindji’s north and east; and, similarly, between the Jarragan (nPN) and Ngarinyin (PN) languages in the Kimberleys (McConvell 2014; see also Harvey 2011:368; McConvell 2010:771-2). The percentage of borrowing in these cases is significant; for example, loanwords account for about 45% of the Gurindji vocabulary (McConvell 2009:794-5). They include numbers of coverbs that combine with light verbs ‘to yield together what might be in other languages, including most Australian languages, a single verb’, a structural feature adopted into PN languages from nPN languages. In addition, there is the copying of aspects of nPN phonology and phonotactics into ON languages (McConvell 2009:798, 801; also McConvell and Laughren 2004:172; Koch 2014:50-1; Green and Nordlinger 2004:309-10). While the extent of borrowing across the PN - nPN language boundary is exceptional, it is not the only such instance. Umpithamu is a language of very small territorial extent found in Princess Charlotte Bay, Cape York, a locality it shares with the Lamalamic languages. Verstraete (2012:327) says of the language: ‘Umpithamu restructured its pronominal morphosyntax under the influence of intensive contact with Lamalamic languages to which it is not closely related’. According to Verstraete (2012:327), this ‘morphological hybrid’, ‘combining the external structure of enclitic forms with the internal structure of free forms […] testifies to the abrupt nature of the process that was involved’. Despite this structural convergence, Umpithamu has retained its distinctive vocabulary (Rigsby 1976, 1979, 1992). Guwar, the language of Moreton Island, South East Queensland, is a member of the Bandjalang subgroup; nevertheless, a large portion of its lexicon, approaching 50%, and grammatical features, including its pronominal inventory, derive from Yagara, a greatly more dominant language with which it is contiguous but not closely related (Jeffries 2012). This discrepant relationship is true also of the Nhulla language isolate of Bribie Island, containing as it does a high proportion of the far more extensive Kabi lexicon found on the mainland opposite. A group’s vulnerability to borrowing seems to be predicated on the relationship Heath (1981:335) pointed out in respect of Ngandi and Ritharrngu, the small size of the host group, and, not infrequently, its isolation, in comparison to the more numerous and interconnected neighbours from whom it has borrowed.

Language Shift

In its most extreme manifestation, borrowing will result in language shift, i.e. ‘the shift, by a person or a group, from the native language to a second language’ (Thomason 2001:6-7). This, clearly, defines a very general category, with no intrinsic explanation as to how or why speakers would want to change from their ancestral language to an entirely different language. It can be assumed, as with heavy borrowing, that language shift is the outcome of an imbalance, demographic,
economic or cultural. This is well objectified in the widespread loss of Australian languages as their speakers embraced English and the necessities and opportunities that came with it. Invariably, if speakers of a language shift to another language, elements of their original language will make their way into the language shifted to, forming a distinctive non-genetic element in the dominant language, or *substratum*, the language into which they are incorporated being the *superstratum*. The retention of substrate in the dominant language implies that speakers of the extinct language will have co-existed with the incoming population over a period of time long enough for the transferal of aspects of their language into the superstratum to have been effected.

It is probable that language shift has occurred on a wide scale in Australian prehistory. Given that large areas of the continent have always been well-watered and well-resourced, it is highly likely that such areas will have been continually populated over most of prehistory. If so, the broad distribution of subgroups in the interior and on the coast in the Late Holocene must have been at the expense of smaller, resident languages (see Nichols 2010:369-70, 1997:366 for general theory). However, this probability is not easy to demonstrate. In some cases, where relatives of an extinct language remain on the periphery of a superstrate language distribution, a link can be made between substrate in the dominant language and the related languages of its neighbours (Evans 2010:283-4). As with heavy borrowing, indications of substrate acquired under these circumstances can be found in geographical relationships no longer as proximate as they once were – that is, languages whose level of borrowing is belied by their current distributions many kilometres apart, and perhaps separated by intervening languages or dialects (cf. McConvell 2009). In most cases, the evidence for language extinction and shift will have disappeared, the occurrence too long ago, too complete, to have left anything but the possibility that some aspects or elements of the superstrate language may be substrate. Relationship of these subsumed languages to languages still extant will be so remote as to be undetectable. Conversely, the inability to establish the identity of these languages will make it impossible to determine which, if any, of the features of the present-day language are substrate (see Pakendorf 2007:51-2). At best, seeming anomalies in the makeup of a language or language subgroup, particularly if these are localized, might suggest the influence of substrate. As with borrowing generally, it might be expected that names for fauna and flora could be retained, particularly if these were new to the incoming language speakers (Evans 2010:108, Table 8; Nettle and Romaine 2000:109-10). Because phonology is relatively uniform across Australia, the detection of substrate inheritance from this direction is unlikely. However, as with the presence of Khoisan clicks in the Zambian Bantu language Iwe (see Pakendorf 2015:635; also Fought 2010:287), it is possible that similar phonetic parallels in Australia have a substrate origin, for example the localized fricativization of stops in the Wawpa dialects of Bandjalang (Jefferies 2012:55-8, 2015).
Language-internal Diffusion

Language-internal diffusion prefigures a history of intermittent relationships that have permeated a subgroup over time. Rather than suggesting a diachronic hierarchy of relationships, it suggests an on-going, and more variable diffusion reflecting social association and separation through history. The appearance of such borrowing in language therefore is more consistent with Wave Theory: ‘The very common situation in which language diversification results from the fragmentation of a language into a network of dialects which remain in contact with each other for an extended period of time’ (François 2015:162; see also Heggarty 2015:606). Most Australian subgroups exhibit some evidence of internal borrowing. Koch (2014:35) noted of the Karnic subgroup:

Bowern (2009) mentions conflicting shared innovations within the Karnic sub-group, where Pitta Pitta and Wangka-Yutjuru share certain innovations with Arabana-Wangkangurru but are grouped by other innovations with the remaining Karnic languages to the exclusion of Arabana-Wangkangurru.

Bowern (2009:347) had concluded of Karnic that:

[D]isagreement about the internal structure of ‘core’ Karnic implies that something other than a family tree may be more useful to model the history of these languages [...][W]e need a more explicit model of areal linguistics for subgroups like Karnic, beyond claims of ‘intense diffusion’.

François (2015:170-1) interprets Karnic as exemplifying ‘linkage’, a situation which arises when a dialect continuum ‘evolves in such a way that its members lose mutual intelligibility [and] thus consists of separate modern languages which are all related and linked together by intersecting layers of innovations’. It is probable that the relationships these linguists have drawn attention to in Karnic occur in many of the longer established Australian subgroups.

Generally, lexicon is more readily diffusable than other aspects of language. This, however, is not the case in Australia, an imbalance between lexical variation and structural similarity not uncommon in Australian languages (Voegelin et al. 1963:24; O’Grady, Voegelin and Voegelin 1966; Wurm 1972:31; Koch 2014:26; Rigsby 1997:177-8). While basic vocabulary is often widely shared, ‘non-basic vocabulary varies enormously, even between very closely related languages’ (Sutton 1991:59-60 in respect of Wik; see also Bowern 2006:254). Given the correlation between the localized nature of non-basic vocabulary and its susceptibility to borrowing, it is at least possible that some proportion of dialect or language-specific lexicon has its origin in substrate. In other words, emblematic vocabulary – vocabulary thought to define for its speakers their distinct identity (to be discussed below) –
happens to coincide with non-basic vocabulary, which fulfils the prime facie conditions for substrate: it is localized and refers to objects that are less critical to the larger identity of a language’s speakers (that is, its basic vocabulary). Derived from languages that were smaller, more localized and more variant, and with its origins forgotten, substrate may have provided a ready source for the desired singularity essential for lexicon-based differentiation. In general, the borrowing of grammatical words and bound morphology is considerably less common in Australian languages even than the borrowing of nouns, verbs and adverbs (Koch 2014:47-8; Rigsby 1997:177-8). There is, however, evidence for two forms of structural borrowing, metatypy, also known as pattern borrowing or schematic copying (Pakendorf 2007:24), and divergence.

Metatypy

Metatypy has been best described for Melanesian languages (Ross 2001, 2003), but evidence for its existence is also found in Australian languages. Metatypy is a particular kind of divergence where one language adopts features of syntactic structure from another language with which it has been in close contact, ‘almost all cases show a one-sided process: one language (the primary lect) adapts morphasymantically to the constructions of another (the secondary lect), with no change occurring in the latter’ (Ross 2003:183). More than simply the adoption of structure, however, it is the ‘restructuring [of] the semantic organisation’ of one language on the model of another, so that:

[…] equivalent lexical items have the same range of meaning, closed sets of morphemes have similar membership and semantic structures, and complex lexical items, whether compound words, phrases, or larger formulae have been reformulated so that their compound morphemes are the same as their equivalents. (Ross 2001:144)

Metatypy thus usually involves the introduction of new meanings expressed syntactically with the adopting language retaining its original lexemes or morphology. Dixon (1976:223) documents what appears to be metatypy in the diffusion of demonstratives between Dyirbal and the Coastal and Tablelands dialects of Yidinji in the Cairns rainforest region. Koch (2014:51) mentions a number of similar cases: the adoption by the Djinang and Djinba dialects of Yolŋu of ‘an unusual system of verbal tense characteristic of the adjacent Maningrida subgroup’ (see Dixon 2002:211, 665); in south-central Australia, the ‘non-singular pronouns that signal kinship relations between the referents’ (Hercus and White 1973); and the diffusion of a distinctive form of noun-compounding, ‘even though the elements are not cognate and the languages belong to different genetic groups: Diyari and Arabana-Wangkangurru are in different subgroups of the Karnic family, and Kuyani and Adnyamathanha belong to the Thura-Yura family’. In respect of the latter, the authors concluded ‘there has been linguistic borrowing at some time in the past, not of lexical items but of a semantic
The extent to which they share common structural and semantic features in idiomatic expressions, customary greetings, forms of requests, place names, botanic classifications, swearing terms, semantic extensions in domains such as kinship and anatomy, etc. is strikingly great. Most utterances in one Wik language are readily translatable, morpheme-by-morpheme, into another Wik language.

Metatypy is usually indicative of an imbalance of relationship, either of population or, less likely, of culture, reflected in the direction in which metatypy has occurred (see McConvell 2010:775-7). Ross (2003:183) describes metatypy in Melanesia originating in bilingualism, ‘change in monosyllabic type which a primary lect undergoes as a result of its speakers’ bilingualism in a secondary lect’. This combination gives rise to communities that Ross (2003:183) describes as ‘both open and tightknit’, that is, societies with ‘a strong social network [that] values its primary lect highly for its emblematic significance’. While retaining distinctive, self-identifying lexemes, morphemes or phonology, such a group nonetheless has a close relationship with speakers of another language or languages, towards whose language the functional grammar can converge. The social implications of metatypy, at least at a superficial level, are clear. On one hand, the ability to communicate freely in a circle wider than that of the speakers of one’s own language is highly desirable, if not a practical necessity; on the other, self-identification, with all its implied connotations, including attachment to land, also need to be signalled: ‘Where the language is emblematic of a group’s identity, the lexicon (as the most salient part of the language for native speakers) might be under stronger socio-cultural constraints than structural features’ (Pakendorf 2007:34; also Greenhill 2015:570). As such, emblematic can be used for political ends. Sutton (1978: 63; 73-4) records the strong equation of country to language in Wik country in a number of contexts: ‘Cape Keerweer people make statements linking dialects to sites or areas of land’; and in expressions such as ‘language he go by country’; and that there is also ‘pressure of a kind to speak the language appropriate to a country when one visits it’. The individual will use therefore a variety of dialectal lexemes to pursue interests in the clan countries of his affines Sutton (1978: xiii, 58-60). This can extend further, with language signalling wider affiliation: ‘Most of the dialects south of Kendall River to Holroyd River and beyond are named after their verbs for ‘go’ (Sutton 1978:145-6). None of those north of the Kendall River are so named, except for Wik-Me’anha

17 Ross (2003:180) says of the ‘open and tightknit’ society: ‘Speakers in an open community, especially a small one, are likely to be polylectal, and we can recognize among their lects a primary lect and one or more secondary lects. The primary lect is emblematic of its speakers’ identity, but is not necessarily the lect which is spoken most often.’

18 Emblematic significance is described as follows: ‘Although these processes [i.e. metatypy] may arise as background change, speakers in a closed community may, so to speak, grab hold of them [lexicon or morphemes distinctive to their language] as emblems of their community and of its perceived separateness from other communities speaking related lects. In this way their lect becomes an ‘in-group’ code from which outsiders are consciously excluded’ (Ross 2003:181-2; also Thurston 1987, 1994).
and (of late) Wik-Innychany. Sutton calls this ‘an oblique reference to a broad socio-territorial division, using typifying dialects as emblems of that division.’

The Semantic Dimension

The semantic dimension is an important historical indicator in lexical borrowing. People will adopt the terminology of items or ideas in the language of those from whom they have acquired the actual culture, be it material objects, cultural practices, ideas or forms of expression (McConvell 1996:128). Language borrowing is accentuated if the borrowing in question refers to objects and activities of which the speakers of the recipient language were previously unaware, that is, things were introduced by the speakers of the language being borrowed. Semantic fields most likely to demonstrate borrowing are material artefacts and aspects of culture generally. Borrowing is also commonly found in species of flora and fauna and topographical features, with the implication that the borrowers have not encountered these species before, or are tying the words for hills, creeks, etc. to places new to them. There is, therefore, the strong possibility that such borrowed words are linked to a history of one group of language speakers having entered new country, the country previously held by the speakers of the language providing the new lexicon (Heath 1981:340; McConvell 2009:796, 799; Koch 2014:46; Breen 2011:261; Jefferies 2012:103). Adoption of new terminology can also be abstract; semantic borrowing and metatypy can overlap, often having the implication of acquiring a new and superior way of seeing things, or expanding the means by which relationships are envisaged, for example, borrowed kinship terminology (see McConvell 2013a).

Conclusion

To summarize, the understandings and tools necessary to comprehend Australian linguistic prehistory, and by extension its implications for prehistory generally, exist. There is no need to resort to models based on the presupposition that Australia is a special and unique case. Most of the historical linguistic methodology for reconstruction is as applicable to Australian prehistory as it is anywhere in the world. If, by extension, the same deductions for time depth are equally valid, then Australian language distribution is a product of the Late Holocene. Sapir’s Age-Area principle, the location of a subgroup’s proto-homeland, and the direction of language expansion away from it, are all held to apply to Australian language distributions. The language distribution theories of Nichols (1992, 1997) and Golla (2000) are also worthy of consideration in the Australian context. Many

19 In the Wik context, however, such emblematic identity appears to be a rarity. Sutton (1978:65-6) is adamant that ‘amongst the coastal people of this region, it is rare for dialect identifications to be used as marks of social or regional identity’ (cf. Ross 2003:180).
Australian subgroup distributions, particularly, but not exclusively, those of the continental interior, conform to Nichols' model of spread zones. Accretion zones, in Australia usually coastal, with their concentration of diverse language families or subgroups, are also demonstrably present. Subgroup distributions are likely in many cases to overlay now extinct languages. If so, language shift will have been widespread. Substrate, therefore, is held to comprise a certain element of most, if not all, languages. It is unlikely, however, that this substrate will ever be discernible beyond surmise. Borrowing will account for a certain part of any language's makeup, the product of diffusional contact at a range of points over time, and this, too, is illuminative of history (see McConvell 1996, 2009). Stratigraphic history of language contact is encoded in language interrelationships. Metatypy and semantic borrowing are held to indicate significant, and perhaps prolonged, prehistorical contact. Given that many Australian subgroups can be described as dialect continua, Wave Theory, particularly language-internal diffusion, is perhaps more often relevant than not. There is, however, also the prospect of rapid language expansion covering vast distances, therefore minimizing the maintenance of contact, although the Western Desert language and its coherence (Heggarty 2015:606) provides a well-documented counter-example. Lastly, and most importantly, until conclusively disproved, internal migration should be viewed as the default explanation for language spread.
Chapter 3
Archaeology, Topography, Environment and Biogenetics

The previous chapter was at pains to skirt the issue of extralinguistic motivation for the various phenomena of prehistory suggested by historical linguistics. To that extent, it could have given the appearance that language was self-contained, that its various hypothesized processes and interactions proceeded from within the nature of language itself. This is not the case. Any such impression was a product of the desire not to confuse the insights language provides with extralinguistic variables, to delineate the claims it is possible to make on the basis of historical linguistics for the Late Holocene, as distinct from the insights obtainable from other disciplines that are consistent with and support those claims. If language itself cannot be a causal explanation for the size and shape of language distribution interrelationships, then clearly there must be factors that derive from beyond language, or, as Heggarty (2015:600) puts it: ‘patterns observed across languages [are the product of] forces of history’. The aim of this chapter is to present evidence for the ‘forces of history’ correlative with the view of Late Holocene prehistory formulated from historical linguistics. The data comes from three sources: archaeology, the relationship of language distribution to topography and environment, and biogenetics.

J. B. Birdsell

The prospect of a mobile and dynamic prehistory is something new to Australian anthropology: throughout most of its history, theory has regarded the relationship of the Aboriginal population to land as one of stasis and passive reaction to external stimuli. J. B. Birdsell described it in terms of a purely biological relationship; demography, economy and culture were interpretable not in terms of the volitional actions people themselves might take but as purely reflex responses to ‘environmental factors’. Birdsell coined the phrase carrying capacity to describe ‘the size or density of the population which can successfully adjust to variations in energy resources in a given environment in a long-term equilibrium situation’ (1958:191-92, 1971:335). Thus, the relationship of population to land in any given environment was dictated by the sustenance that could be obtained at the lowest ebb of its productive capacity.20 Birdsell’s model excluded any possibility that human intervention might

20 Merlan (1981:135-36) described these ideas as ‘models which are more or less ecologically deterministic’; within which, ‘distributions of people over space can be adequately modelled in terms of such notions as
increase, or extend, an environment's *carrying capacity*; traditional life was merely a situation in which people were at the mercy of climatic and environmental conditions as they arose. Evolution, if it occurred, did so over millennia, as populations bent and moulded to the changes imposed by climate, much as the environment itself responded. There was no planning for, or anticipation of, the future, simply the spontaneous reaction to a new set of conditions. Environment, at this level of development, was deterministic, not only productive of a nomadic way of life, but of a hand-to-mouth existence constrained within rigidly determined boundaries. Birdsell's vision implied a small world, geographic fixity, limited invention, and narrowness of communication, very much the American model on which 'during this long period [i.e. the apocryphal 50,000 years] almost all exercises in "international relations" were between one foraging group and another' (Shapiro 1979:2-3). The encompassing tribe, a linguistic phenomenon, was a social abstraction, a theoretical construct possessing no collective existence, but merely 'a group of regionally contiguous local groups in which greater or lesser dialectical homogeneity had developed' (Birdsell 1971:353-54).

Primitive conditions, primitive responses made for social atomization. Collectively, the tribe, like the local groups of which its 'cellular structure' was composed, was itself largely defined by environmental factors:

It usually rested upon a sufficiently generalized environmental food support base to provide a high degree of self-sufficiency in all but the most extreme conditions. If one strikes a modal position between the extremes on a weighted average basis it might be estimated that for ninety-eight per cent of the time the tribal domain sufficed to support the local groups it contained. (Birdsell 1971:345)

Tindale (1976:28), who based much of his delineation of Australian social organization on the 'dialectal tribe' model of his close colleague Birdsell, described their boundaries as:

Much more than ephemeral limits, or merely those prevailing at the time of first contacts between these peoples and the invaders from Western Europe. It suggests that tribal structure is old and, in particular, that the boundaries tend to show evidence of stability, especially in areas where drastic recent climate changes have not occurred. Such boundaries are apt to be influenced by changes in the local ecology.

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'availability of resources'; a model for which Merlan concludes, 'such notions [...] can never in fact be directly translated into models of human social organization'.

38
Intensification and the Late Holocene

Tindale’s immoblist view, if only subconsciously, is that subscribed to by Australian anthropology up until the present. The significant exception has been the emergence of Intensification theory in archaeology in the early 1980s. The ideas of Harry Lourandos (1983, 1987, 1997) on Aboriginal prehistory are the most compelling to emerge in any branch of Australian anthropology over the last three decades. Lourandos hypothesized an ‘intensification’ in the Australian Late Holocene, a period he envisaged as one of rapid development and growth demographically, economically, culturally and socially. His ideas are inimical to the cultural atrophy and passive environmental dependence theorized by Birdsell. Fittingly, they have dominated Australian archaeology – either in its support or refutation – over that period (see Hiscock 2008; Brian 2008; Ulm 2013; Holdaway et al. 2008). Recent archaeological fieldwork has provided a voluminous and ever-increasing body of evidence for the population and material culture outcomes predicted on the theory. Intensification is a theory increasingly vindicated by the hard evidence. Ignoring, for the moment, the theoretical aspects of Lourandos’ theory as they apply to sociology – central claims of which will be contested – the material manifestations of Intensification uncovered in the three plus decades of archaeological research since its introduction are now regarded by Lourandos’ peers as incontestable. No anthropologist has done more to establish an empirical basis for the claims made in this thesis.

First and foremost, Intensification theory posits that Late Holocene Australia underwent a steep rise in population. This, in turn, prompted cultural advances, visible in the archaeological evidence as a broadening and diversification of economic strategies leading to a more complete and efficient exploitation of the environment. There were concomitant developments in technology and social organization. Importantly, migration throughout prehistory into new territory has often been predicated on economic and technological advance:

The growth of a population and its expansion to a neighbouring land must often have occurred under the stimulus of new, adaptive cultural developments permitting an increase in the carrying capacity of already inhabited lands, or the occupation of new regions and niches. (Cavalli-Sforza et al. 1994:105)

Economic intensification is not limited to one, or some, of the environments in which Aboriginal people lived but is ‘continental in scope’. It is applicable to Aboriginal cultures, whether in the

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21 Noticeable here has been the relatively little influence Intensification theory has exerted on Australian anthropology as a whole. When social anthropology has deigned to address diachronic questions at all, it is in the complete absence of reference to the implications of Lourandos’ theory. Historical linguists are very reluctant to consider non-linguistic implications, either as an influence on language or as a correlation. Australian archaeology, too, has suffered, inasmuch as archaeologists are forced to draw their own conclusions as to the place of Intensification in matters such as social organization and language prehistory, and, naturally, I would say, are at a disadvantage when having to deal with these matters.
deserts of central Australia (Smith 2013), the rainforests of the Cairns region (cf. Hiscock 2008:196-7) or the rivers, estuarine waterways and continental islands of the east coast (Hughes and Lamperl 1982; Beaton 1983; Ross 1985; Walters 1989, 1992; Barker 2004; Lourandos 1997:302-3; Hiscock 2008:180). Three factors associated with Intensification are central to the claims made in this thesis: the sheer rise of the Aboriginal population, beginning about 12 ka, and accelerating rapidly after 4 ka. up until European settlement (Williams 2013:2); the correspondence between population increase and developments in Aboriginal economies and technologies; and the implications of Intensification for social organization theorized by Lourandos.

**Late Holocene Population Rise**

The raw fact of population increase is the central feature of Late Holocene demography (Johnson and Brook 2011; Williams 2013). Aboriginal population increased rapidly in the Late Holocene, reaching a zenith of an estimated 1.2 million ‘at approximately 0.5 ka.’, that is, just prior to contact (Williams 2013:1). Employing ‘the most comprehensive radiocarbon database currently available on the continent’, combined with ‘new techniques to manipulate radiocarbon data (including correction for taphonomic bias), [which] gives greater reliability to the reconstructed population curve’, Williams’ study demonstrates a population increase that was gradual but ‘constant […] from 12 to 0.4 ka.’, with ‘a series of pulses (at approx. 8.3 – 6.6, 4.4 – 3.7 and 1.6 – 0.4 ka.)’, including ‘several declines or plateaus […] through the Holocene (at approx. 5.6 – 4.8, 2.6 – 2.2 and 0.4 – 0 ka.)’ (Williams 2013:5). As Fig. 3A illustrates, Australian prehistory over its 50,000 year entirety can be categorized into two broad demographic schemata, the small, gently fluctuating population of the first 50,000 years, and the much larger and exponentially increasing population of the Late Holocene. This vast spike in population growth makes it virtually impossible to assign a ‘business as usual’ model to Late Holocene prehistory. That population increase over the period is accompanied by archaeological evidence for greater and more intensive land and resource use and can only be explained aetiology.

**Advances in Economic Strategy and Technology**

Very apparent from the archaeological record is the change in Aboriginal material culture and resource harvesting techniques in the Late Holocene. It follows that, were population to be rapidly rising, wider, more efficient use of resources would act both as a stimulus to population increase, as well as becoming necessary to support the high levels of population already arrived at (Lourandos 1997:318; Ulm 2013:184). In arid regions, the need for increased productivity became particularly
Acute as Late Holocene climatic conditions began to deteriorate (Smith 2013:163-4, 196). Among these economic advances were: the utilization of otherwise toxic plant life, species such as *Macrozamia*, *Endiandra palmerstonii* (Black Walnut) and *Castanopsis australis* (Black Bean or Moreton Bay Chestnut), preparation of which was lengthy and complex (Cosgrove et al. 2007; Bradley 2006; Asmussen 2008; Dixon 1987:150-51; Beaton 1977, 1982; Tindale 1976:14; Nettle and Romaine 2000:70-71); the intensive utilization of seeds in arid Australia, the widespread dependence on which is indicative of a fundamental change in Aboriginal peoples' relationship with the arid environment, including the large-scale manufacture and trade of specialized grinding technology (Smith 2013:98, 197-8, 329-30; Smith and Ross 2008:386); the use of permanent fish traps, and nets, capable of
harvesting greater quantities of fish and game than spearing, techniques that required new and more complex exploitation of resources in their manufacture (McNiven et al. 2012; Allen 1974:312); more efficient and productive communal economic strategies replacing individual or small group resource harvesting (Roth 1897; Petrie 1904); the habitation of environments that hitherto were regarded as marginal, perhaps visited but not inhabited, such as islands, rainforest, arid and desert environments (Cosgrove et al. 2007; Smith 2013); often, a more sedentary way of life, where economic exploitation proceeded from base camps, rather than an unremitting nomadism (see Lourandos 1997:302-3; Peterson 1986:31; Williams 2013:2; Ulm 2013:182; Holdaway et al. 2008:404-5); and, finally, the evidence for nascent attempts to prepare and store foodstuffs for later use (Horne and Aniston 1924; Roth 1897; McBryde 1987; Pascoe 2014).

Language Distribution, Environment and Topography

There is another correlate, more directly related to language, namely the relationship of language distribution to topography and environment. This is more than simply a physical correlate, an ahistorical relationship between an environment and the people who lived there, a carrying capacity as Birdsell would have it. More also than merely the probability that a river system would have encouraged the spread of a population upstream or downstream, or that a mountain range would have formed a barrier to the same. A correspondence between language distribution, topography and environment reflects a discrete prehistory. The identification of proto-homelands, allied with the topography and environment of a language distribution, can point to probable paths along which the language’s speakers migrated (Nichols 1997). Frequently, these are environments and topographies that suggest economic advantage, river valleys and benign sea coasts being prime examples.

The relationship of language distribution to topography and environment has long been recognized in Australian anthropology. Early observers, no strangers to speculation on migration, were quick to notice the correspondence between topography and language:

The occurrence of this word [oorn ~ oro 'two'; T. J.] is proof enough that this tribe came from the North, as would naturally be expected from an examination of the map and a consideration of the watercourses in the locality, for language shows that throughout Australia migration was governed by the rivers and natural water supply. (Curr 1887:3:72 in respect of the Diamantina River of western Queensland)

In the modern era a succession of anthropologists have observed and commented on the correlation of population to topography and environment (Tindale 1974, 1976; Peterson 1976; Wood 2003; Macdonald 2011).

There also exists in Australian anthropology a small but nonetheless decided body of theoretical work that deals with the issue, notably that of Tindale (1976, 1978) and Peterson (1976). Tindale’s somewhat cavalier approach to matters of theory is well-documented; he was more than capable of ‘ironing out’ the data when it suited his purposes (Sutton 2010:52). This is certainly true of Tindale’s equation of environment and ‘tribal’ distribution – keeping in mind that for Tindale, ‘tribe’ and language were synonymous, although not in the sense posited here of a connection between genetic language history and topographic and environmental distribution, but simply in terms of a ‘tribe’ whose ‘language’ was distinct from that of its neighbours (see Dixon 1976; Walsh 1997). Tindale can be said to have raised this generalization to an axiom. For Tindale, in the absence of ethnography to the contrary, marked changes in environment or topography could provide a priori evidence for ethnolinguistic boundaries, and parts of the mapping for his Aboriginal Tribes of Australia are constructed on this basis. Tindale’s Fieldnotes (14-07-1972:967-9) typify this ‘inductive’ approach:

The J[Y]uipera territory is in rainforest and wet sclerophyll, as far south as Sarina at least. Mt. Christian seems to mark the southern boundary with the Koinjmal but we did not approach it. Instead we climbed Connor’s Range on the Bruce Highway and realised that Wiri territory was on top of the Range and its southern boundary was determined by the extent of rain forest, so that the Barada took over as soon as the country became open savannah woodland and then brigalow scrub.

This association may well be right, but it cannot be assumed simply on the basis of changes in the landscape. However, Tindale’s research is not all of the same standard, and it is instructive to go deeper into his career to find the source of his belief in this ecological determinism. Tindale’s (1974:15) earlier and more thorough ethnography provides examples on which the correlation could be more truly made, and these no doubt provided the source from which he later felt the confidence to work back from generality to specifics:

The saltmarsh exploiting Bailgu of the middle reaches of the Fortescue River were seldom interfered with by the Indjibandi, whose territory, equally harsh to the uninformed eye of the stranger, was good country, a combination of open grassland and the northern fringes of the mulga covered flood plains, with feeding places along the Fortescue River. In the Hammersley Ranges the ecological and physiographic boundaries, which determine the types of plant cover, for example, are rather clear cut […] [T]he Ngaluma, the coast dwellers, the grasslanders and the non-circumcising peoples did not climb the scarp of the inland ranges to the mulga dominated plateau and wide stream bed of the Fortescue River and had little to do with the Indjibandi, who practiced circumcision and spoke a language that was difficult to comprehend.
In the same way the scarp-faced uplands of the Hammersley Range clearly delineated the home of the Pandjima, ardent followers of the twin rites of circumcision and subincision and therefore holding both their near and remote neighbours in thorough disdain.

In this case, Tindale having had a far greater degree of face-to-face contact with the people of the region, we can be more confident that these changes in environment reflect anthropological reality and are not merely speculative supposition.

**Nicolas Peterson (1976)**

The only modern study to systematically address the relationship of language to topography - in particular, drainage systems - is Nicolas Peterson’s (1976) ‘The natural and cultural areas of Aboriginal Australia’. While Peterson (1976:51) does not make the linkage between language, topography and environment per se, preferring to refer instead to ‘congeries of bands united in part by linguistic ties’ and to the more comprehensive ‘regional or culture-area population’, these descriptions in themselves, in many instances, refer back to language distribution (cf. 1976:55, 65–6).

Topographically, the drainage division, a combination of basins including those of tributaries, is seen as the most significant correlative feature, on the basis of the central role of water to the inhabitants of a predominantly arid continent (1976:61). On this basis, Peterson (1976:62) constructs a diachronic model of the relationship between land and culture:

> From a hunter-gatherer point of view, where all travel across country is by foot, watersheds are likely to be low in water supplies and food and game less abundant. It could therefore be expected, on the theoretical grounds discussed above, that the major drainage divisions would underlie the development of culture-areas and provide an approach to defining them.

To exemplify this proposition, three examples are used to map ‘congeries of bands’ onto drainage: Tasmania, north-east Arnhem Land and the Western Desert. Given the very poor knowledge preserved of Tasmanian languages, the Arnhem Land study will be looked at most closely here (and the Western Desert example reserved for later consideration). Peterson (1976:65) first articulates the natural features of the north-east Arnhem Land:

Besides marking the drainage basins on Figure 7 I have shown the Arafura Swamp, as it is a major barrier to east-west movement during much of the year and land over 150 metres (500 feet) since this contour marks in an arbitrary but fairly accurate way the extent of the stony country around Oenpelli and the Mitchell and Parsons Ranges south of Elcho Island. Particularly around Oenpelli the stony country is marked by a steep escarpment giving some reality to the line on the map.
Onto these natural features is then mapped the distribution of 'regional or culture-area populations'. It is clear that this definition could just as easily, and perhaps with more accuracy, apply to the distribution of languages. Importantly, too, the drainage basins demarcate the Pama-Nyungan (Murngin, now Yolngu) language from non-Pama-Nyungan languages such as Nunggubuyu and Rembarrnga (Peterson 1976:65):
It can be seen that the Murningin proper are in basin 25 to the east of [Arafura] swamp and north of the hills, through all of basin 26 and in part of basin 1. From my knowledge of the area, the whole of basin 1 should really be Murningin in Warner’s sense. The boundary of the drainage division in this area runs along the northwestern side of basin 3, the southern boundary of basins 24 and 25 and then along the western boundary of basins 2 and 1. The western boundary of basin 1 is not of major significance as it runs across flat open forest country that is easily traversed, although it probably has significance at the band level. A more fundamental boundary relates to the watershed between the Blyth River and the Glyde which is marked by a major linguistic and art style difference. The Rembarnga and other groups who occupy basin 24 and the Nunggubuyu who occupy basin 2, fall into the prefixing language group, while the occupants of 25, 26 and 1 are speakers of suffixing languages. Natural barriers and easy lines of movement have apparently played an important part in the culture history of the area.

Peterson (1976:65) also makes the following observation on coastal distributions:

Of interest too is the western boundary of basin 24 which lies in flat and undifferentiated coastal country yet coincides with the boundary between the Nakara and Gunavidji dialects. The boundary between circumcising and non-circumcising people also lies where the stony country comes closest to the present day coastline.

Despite Heath’s (1981:360) assertion that ‘efforts by anthropologists (Peterson 1976a, and especially Tindale 1976) to connect linguistic and cultural boundaries with external environmental barriers have had limited success, and are virtually useless in this part of Arnhem Land [i.e. the one under discussion; A.J.], this is clearly not the case. The Yolngu enclave represents perhaps the outstanding anomaly in Australian language distribution. That it exists enclosed within the distribution of non-Pama-Nyungan languages is extraordinary enough; that it should also conform, if imperfectly, to natural boundaries that separate it from its neighbouring unrelated languages points to a conclusion that applies to all the examples cited above: these distributions are not the result of some inherent manifestation of language, or of primordial in situ evolution, but are the product of historical actions on the part of the speakers of those languages. It will be argued that language distribution and its correlation to topography and environment are the related outcome of events in prehistory, namely the demic migration already mentioned.

**Riverine Distributions**

In Australia in particular, there is a very clear relationship between river systems and language distribution. The correspondence is most apparent in the vast river systems of the interior: the Karnic
languages in relation to the Lake Eyre drainage; the Maric languages in respect of the Burdekin and Fitzroy River systems, and the Warrego and Maranoa Rivers that flow ultimately via the Murray River into the Southern Ocean; similarly, the inland drainages of the Central New South Wales languages of New South Wales (Gamilaraay and Wiradjuri and their related dialects). The correlation is not, however, limited to these extensive inland drainages. More modest subgroup distributions on the Australian coast east of the Great Dividing Range often betray the same association: the Bandjalang language with the Clarence and Richmond Rivers, and smaller rivers to the north, the Tweed, Logan and Albert; the Yagara language and the Brisbane River; Dharambal and the lower reaches of the Fitzroy River; the Dhangatti of the Macleay River; the Gugu Yalanji languages with the Bloomfield and Annan Rivers; the Kabi language with the Mary River and the lower reaches of the Burnett River. It is a list could be substantially added to. Further, this is an association Aboriginals often make themselves: ‘When I met Wiradjuri people for the first time in 1981, they would describe Wiradjuri as the “country of three rivers”, the Macquarie, the Lachlan and the Murrumbidgee’ (Macdonald 2011:66). Allen (1974:309) describes the Bagundji, ‘who lived on both sides of the Darling River, [and who] practiced a predominantly riverine economy based on the exploitation of aquatic foods and the collection of cereals’ as, in inverted commas, ‘river people’, implying that this was their self-identity. Gurang speakers, the majority of whom dwelt around the upper reaches of the Burnett, Kolan and Boyne Rivers of south-east Queensland symbolize their unity under the ethnonym Gadadjal. Gadadjal is a small upland area from within which compass all three rivers rise (Jeffries 2006a). The ethnonym, therefore, is symbolic of their unity but also their identity, the rivers being central to their way of life.

Similar correspondences apply in the subdivisions of larger language subgroup distributions, such as Maric. The Gangulu dialects of the Fitzroy, Mackenzie and Upper Dawson Rivers are a discrete set of related dialects within Maric (Breen 1973, 1981a, 2009; Holmer 1983; Terrill 1993; Jeffries 2006b). They are confined to a very specific setting, the scrubs, swamps, billabongs and flats of a subtropical riparian environment. It is probable the Gangulu were Maric-speakers who arrived in this region independently and then developed a collective linguistic identity. Their identity therefore is as much a product of their history in relationship to a specific environment as it is of any material qualities of language (McIntosh et al. in Curr 1887; Tennant-Kelly 1932, 1934d). Their occupation of the well-resourced river flats and scrubs of these major rivers contrasts to that of their neighbours, speakers of other Maric languages, who occupy the less well-resourced upland country around them. Other riverine language subgroups of smaller distribution usually consist of closely related dialects, implying a relatively shallow history. Shared language often goes hand in hand with economy and technology held in common by its speakers. The Yagara language distribution is limited to the greater part of the Brisbane River system, a separate minor river system, and the foreshores and islands of Moreton Bay, into which both river systems empty. The economy and culture of Yagara speakers was largely defined by this distribution; these were riverine people who also adapted to a
littoral environment (see Jefferies 2012). The heavily forested upland country that surrounds the Brisbane River, often approaching quite close to it, was occupied by speakers of languages to which Yagara was not closely related, Bandjalang to the south and Wakka-Kabic to the north and west.

While in many cases readily observable, the correlation between the riverine environment and language cannot however be taken as determinative. Macdonald’s (2011:68) comments on Wiradjuri could apply equally well to most distributions:

The historical ethnographic record, including myths, genealogies, historical movements, and marriage patterns, overwhelmingly supports the use of a drainage model as an important starting point, but a geo-cultural model is required for mapping not just a geographic one.

In truth, there are numbers of exceptions. The East Alligator River is not a drainage shared by speakers of a common language but a boundary separating speakers of different languages (Keen pers. comm. 21-02-2014). This is also said to be the case with the Clarence River, which divides Bandjalang from Gumbayngirr (Calley 1958:16). In both cases, these are large rivers that provide a formidable obstacle to cross-river traffic. Occupation of both banks would have been neither practical nor economical. Riverine barriers need not be as physically imposing as the East Alligator or Clarence, the much smaller Logan River, for example, separating Yagara and Bandjalang speakers. These distributions manifest something of the ‘accident of history’, that historical events drew to a conclusion at a convenient point of demarcation. There is no reason to think that rivers in Aboriginal history, too, might not have provided convenient points of demarcation between one people and another. There are many cases where there is no one-to-one correlation of river drainage and subgroup. In fact, often the opposite is the case: a complex distribution of small, diverse languages crowded along river frontages, examples of which are found along the Murray River and the lower Burdekin River of North Queensland (Jefferies 2013a). While I will argue that these distributions are also the product of demic migration, clearly they partake more of Nichols’ accretion zone than spread zone; in other words, they are the geographic evidence of attraction to and contest for riverine resources having resolved itself in a different way. Language distributions can impinge on different parts of a drainage system. As noted, the Brisbane River is occupied predominantly by Yagara speakers; nonetheless, Wakka speakers occupied its northernmost arm. Whatever the circumstances, the history of a language and the riverine geography of its distribution are inextricably linked. The common denominator is the desirability of riverine systems for practitioners of a hunter-gatherer economy, that in these environments there are abundant and varied foodstuffs and other resources, and, furthermore, that these are amenable to techniques of efficient, large-scale harvesting.
Coastal Distributions

In many cases, the remarks made above in respect to riverine distributions could apply equally well to coastal distributions, and indeed the two are not infrequently linked. Many of the discrete east coast language distributions combine occupation of a riparian and littoral environment, e.g. Yagara, Dharambal and the Kabi (including Batjala) distributions. This should be expected if, true to our hypothesis, the attraction of an environment, and superior adaptation to it, are part and parcel of demic expansion. For example, netting and the construction of fish traps, both permanent and temporary, are technologies that could readily provide the economic transition from riparian to littoral environments. Usually in these cases, a cultural and political distinction is later made between the freshwater and saltwater speakers of the same language. Alternatively, it may be the case that inland language speakers, despite adaptation to a riverine environment, are unable to make headway against already well-established coast-dwellers. Lastly, it is perhaps unsurprising that reconstructed migratory pathways are often upstream or downstream along river systems.

The distribution of languages along the Australian coastline is greatly varied, which is to be expected given the range of coastal topographies and environments. The Great Australian Bight, for example, with its inaccessibility, combined with an inhospitable hinterland, cannot be expected to provide the economic attractions of much of the east coast, and hence a completely different pattern of population distribution and economic exploitation prevails. Coastal environments can be extreme in their own right. For example, adaptation to a littoral environment that is close to complete, i.e. with little reinforcement from terrestrial resources, rather than attracting the interest of territorially acquisitive neighbours, may instead become the accretion or refuge zone of a language isolate or discontinuity. This appears to have been the case with the Ngugi, speakers of Guwar, a remnant Bandjalang language located on Moreton Island, the most remote and least resourced of the Moreton Bay islands (Jefferies 2012).

Generally speaking, however, the opposite relationship to resource availability is the case: there is an abundance of resources. This seems to be behind the number of instances of concentration of quite diverse languages and dialects at the mouth of rivers and in well-resourced bays and estuaries, the lower Daly and Burdekin Rivers being examples. It will be argued that particularly well-resourced coastal locales can provide refuge or attraction, or both, not only for language isolates singly, but for numbers of isolates, the environmental richness of the environment allowing them to coexist side by side in relatively small distributions. As with broad river drainages, rich and open coastal environments with adjacent well-endowed hinterlands have also prompted extensive subgroup expansions, the Yuin, Bandjalang and Kabi being prime examples.
Language, Topographic and Environmental Correlation

The probability that expanding Late Holocene lingua-ethnic populations will have been drawn to the same resources, complicating the identification of language distribution with topography and environment, has already been mentioned. If an environment proves large and well-resourced enough, it may have accommodated the expansion of several lingua-ethnicities. To cite one example among many, the Dyirbal subgroup (Dixon 1972, 1976), while clearly a recent language spread – that is, composed of mutually intelligible dialects – shares many of its environmental attributes with other Cairns rainforest region subgroups, such as Yidinj, with which it is contiguous. Language speakers might also adapt sequentially to different environments, Yagara speakers’ expansion from the riparian environment of the Brisbane River into the Moreton Bay littoral being one example.

Broad subgroup distributions are likely to include a variety of environmental niches. Opportunity, therefore, is a factor in the topographic and environmental variability it is possible to find within a subgroup distribution. Population increase and density would appear to play a role in these instances, the growing necessity to exploit more thoroughly resources previously deemed inessential or marginal. The Dyirbal subgroup distribution, for example, includes a multiplicity of micro-environments, some associated with particular groups, others shared more widely (Dixon 1976:208). As Reynolds (1987:173) describes, the rainforest itself was not overly endowed with resources, particularly staples, it was at ‘the dense fringes of the forest, around open clearings and along the seashore and river banks that most edible plants flourish’. Part of the success, then, of an expanding population in environments such as these is to diversify their economy so as to develop different strategies whereby the environment as a whole can be most efficiently and profitably exploited.

Language subgroup distributions in Australia almost invariably have a relationship to environment and/or topography. Interpreted diachronically, such a relationship suggests a prehistory in which particular peoples, speakers of an evolving language, have migrated into, and expanded across, new domains. Further, it suggests a prehistory of adaptation. The spread of language, and the occupation of new land, was conditional on the development of a particular economic skill set, maximizing the efficient exploitation of the physical conditions encountered, this in turn providing advantages enabling successful demic expansion. Thus, the innovations described by Intensification theory – wider and more efficient use of resources, the occupation of previously unutilized or under-utilized environments, economic specialization, technological innovation – are an intrinsic part of the historical process whereby new country is occupied and languages expand (see Chamberlain 2006:4-5). It is hypothesized that the economic and technological advances made leading into the Late Holocene enabled peoples to move into, occupy and retain country amenable to the use of their newly acquired knowledge. It follows that preceding the expansion of the speakers of a certain language was their residence in a particular environment, long enough for that expertise to have
grown. It may therefore be the case that, whatever the nucleus (proto-homeland) from which demic expansion emanated, it possessed characteristics for the later expanding populations to first evolve their economies and technologies. Entry into new country will have provided a challenge that promoted and diversified further development. While speakers of many different languages shared technologies, economic strategies and techniques, the crucial formula, as I see it, is the development of a set of economic strategies and technologies coinciding with the opportunity for speakers of a language to migrate into new territory. As with language itself, this does not rule out the capacity to borrow innovations from without the linguo-ethnic community.

Adaptation of peoples to topographies and environments includes the probability that innovation and greater economic efficiency provided a competitive advantage over pre-resident populations. Thus, greater population, greater economic efficiency, better social communication and cooperation all inaugurated a cycle that disadvantaged less adaptable populations. It was not merely a question of adapting to an environment for the harvesting of its animal and vegetable products, but of being able to do so successfully, that is in a manner that out-competed rival interests, real or potential. As will be discussed, the key to this ability was population size and density, from which, in turn, flowed more complex social organization and the increased ability to influence events. The greater the mastery of an environment, the greater the security of its population. The equation of language distribution, topography and environment, however, cannot be seen as determinative. Another factor frequently intervenes: history. The resources deemed desirable for acquisition by one people are also likely to exercise the same attraction for others, and therefore, where there were neighbouring language populations undergoing the same social and cultural development, there will be competition for, and very probably conflict over, resources. The juxtaposition of language distribution on topography and environment can only ever provide a partial explanation for prehistory. Language distributions will also reflect the spatial adjustment and compromise entailed by contact between neighbouring peoples.

**Biogenetic Anthropology**

The last of the physical sciences able to shed light on the Late Holocene prehistory is genomics, as yet under-utilized in its application to Australian prehistory, but possessing perhaps the greatest potential of all the physical sciences to confirm or deny the hypothesis proposed. Peterson (1976:67) observed in his closing remarks on the correlation of culture-areas – which includes language – and drainage systems:

The reality of these culture-areas circumscribing populations is open to some independent checking and validation. If the natural boundaries have an historical consequence in tending to
restrict communication between the culture-areas, the culture-areas will tend to be endogamous. This should be reflected in their congruence with biological data on the distribution of genetic markers. The next step in the delineation of the culture-area should therefore be the consideration of the biological data.

It is fair to say that fulfilment of Peterson's forecast has been a long time coming, and that even in the present era, when, after a long hiatus, genomic study of Australian prehistory is again on the rise, much yet needs to be done before the question he posed can be definitively answered. This is all the more necessary (one might say frustrating) given that the pioneer work of the 1970s and early 1980s in this field has already yielded evidence for the ethnolinguistic character of language distribution. Kirk, Balakrishnan, Sanghvi and others by and large focused on the scenario Peterson proposed; the correlation of biogenetic markers and language distribution being a specific focus of the earlier generation's work; in the current era, as yet, that is not the case, biogeneticists, seemingly, content to work within the Birdsell millennial vision (Tobler et al. 2017). As primitive as the means available to this initial generation of geneticists is in comparison with that available now, it should not be assumed that these studies offer no insight into prehistory. Clearly, they do. Should information emerge from the current generation of genomic researchers, these sources, too, as sketchy as they undoubtedly will be by comparison, are those of science, and as such they are useful. The original round of biogenetic research indicated the strong possibility that language distribution was associated with peoples possessing a unique historical identity, as revealed in genomic markers. At least theoretically, they suggest that a trail of genomic markers can plot the diachronic progress of a language's speakers across a landscape. It might also be able to link populations now separated, thus by inference suggesting common proto-homelands. Whether biogenetics would support the case of languages somehow having spread independently of a discrete population of speakers (cf. Evans and Jones 1997) is as yet unknown, but these are the sorts of questions this science has the potential to answer.

The present revival of biogenetic interest in Australian prehistory is in its early stages. There is no reason to assume the astounding discoveries made elsewhere in the world by genomic analysis will not be replicated in Australia.

Biogenetic Theory and Language Distribution

Biogenetic anthropology can provide, as Peterson says, an 'independent checking and validation' of extralinguistic claims made for the prehistory of language distribution. This is so, because "both genes" (DNA molecules) and languages are passed on by human beings through social interactions, and both genes and languages can retain traces of prehistory, leading to the expectation that genes
and languages coevolve’ (Pakendorf 2015:627). The crucial perspective that biogenetic anthropology brings to the understanding of prehistory is its ability to differentiate gender histories through materially inherited mtDNA and the patrilineally inherited Y-chromosome, thus uncovering separate male and female histories, and the history of interrelationship between male and female, with the implications for prehistory that this entails (Pakendorf 2015:629-30). Unlike the intelligent estimates available to historical linguists, biogenetic data in respect of diachronic relationship is much more rigorous and, hence, invaluable. The problem the endeavour has, however, is that the relationship of biogenetic data to events in language history still relies on historical linguistics modelling, and this can be seen as a weakness. There is the ‘branching model’, synonymous with the Tree Model, in which ‘languages and genes evolve through successive splits followed by isolation’, and the ‘isolation-by-distance’ model, which assumes that ‘languages and genes diverge gradually over physical space, with contact between geographically close entities leading to the exchange of linguistic features and/or genetic material, while such contact diminishes as spatial distance increases’, that is, a diffusion model (Pakendorf 2015:628).

It can readily be seen, then, that biogenetics does not altogether solve the questions for history raised by language distribution. As with historical linguistics, the same data can lead to different conclusions, depending on theoretical interpretation. In the branching model, as noted by Pakendorf (2015:628):

[A] lack of correlation between linguistic and genetic distances is interpreted as being due to replacement of either languages or genes, while the isolation-by-distance model boundaries of abrupt genetic change that coincide with linguistic boundaries are taken as an indication that the latter represent barriers to gene flow – i.e. that peoples speaking unrelated languages tend not to intermarry as frequently as peoples speaking related languages.

The implications for language prehistory can therefore be ambiguous. This ambiguity is compounded by both sides of the correlate being open to question. Do the linguistic relationships mean what the biogenetic analyst assumes they mean, or do they mean something else? Do the genetic relationships mean what the historical linguist assumes they mean, or do they mean something else?

Biogenetic Models from Elsewhere in the World

Despite the above reservations, there can be no doubt that biogenetic anthropology brings an invaluable addition to the analytical tools available to the understanding of prehistory. In respect of Australian prehistory, its worth resides in two capacities: firstly, the genomic data that reflects
directly on suppositions that can be made for prehistory based on language distribution; and secondly, the models from studies undertaken in other parts of the world, usually where prehistory, including language prehistory, is better understood. Overseas case studies can provide models through which to interpret Australian scenarios. While some doubt must persist as to whether correlations made in other parts of the world are entirely applicable to Australia, the fact remains that relationships that can be demonstrated elsewhere improve the probability that similar relationships occur here.

Pakendorf (2015:633-4) provides two case studies from Africa that suggest possible parallels in Australia. In Burkina Faso, two ethnicities, the Mande and Gur, ‘are strictly patrilocal, meaning that after marriage a woman is expected to move to her husband's homestead and to speak her husband's language’. However, bilingualism is the norm, the wife continues to spend much time with her maternal relatives and children grow up speaking both languages. This is a pattern found traditionally in much of Australia (cf. Hiatt 1965). In the African case, genomics is able to shed light on the long term social implications of this pattern of language use:

This system has led to a complete homogenisation of the maternal gene pool of the populations concerned, while the paternal gene pool is surprisingly structured along linguistic lines, with populations speaking languages belonging to the Mande and Gur families being genetically distinct from each other. This biased gene flow between populations irrespective of the language they speak has clearly been continuing for a long time, and it might help explain the complex patterns of contact-induced changes detected in the area. For instance, morphosyntactic changes in negation and copula clause constructions have affected several languages without a single source language being discernible.

It is not difficult to see a correlation with Aboriginal languages, particularly in those that, despite considerable morphosyntactic commonality, still retain singular ‘emblematic’ vocabularies (Rigsby and Sutton 1980; Sutton 1978, 1991; Verstraete 2012). Pakendorf's Mande and Gur example also indicates that bilingualism and multilingualism are not necessarily a reflection of language or social identity, that ethnolinguistic identity can still be retained despite considerable affinal admixture of population and language borrowing, including metatypy.

Pakendorf's (2015:634) second example, the Bantu speaking Fwe of Zambia, also provides insights into language shift that might be applicable to Australian prehistory. The Fwe language possesses click consonants, not native to Bantu languages but derived from Khoisan languages - not, however, extant Khoisan languages but, probably, 'a now extinct Khoisan language'. Genetic data 'provides evidence that genetically distinct Khoisan populations were settled in Zambia in prehistoric times; the only remaining traces of these groups are divergent Khoisan mtDNA lineages retained in some
Bantu-speaking peoples’. Further, the click words in Fwe are often terms for fauna and flora which, as we have seen, are commonly borrowed in Australian languages (Harvey 2011; Breen 2011:261; Koch 2014:46). Pakendorf (2015:634-5) surmises that ‘[t]he linguistic data are compatible with the scenario of language shift of Khoisan speakers to the language of the Fwe ancestors’. Genomic data rounds out the probable relationship of Fwe and Khoisan speakers in prehistory (Pakendorf 2015:635):

This indicates that no paternal lineages of Khoisan origin entered the Fwe community. In contrast, analyses of mtDNA sequences show that nearly one quarter of the Fwe maternal lineages (24.3 per cent) are of Khoisan origin. Furthermore, the Khoisan haplogroups in the Fwe are represented by four very divergent types, indicating that the interaction between the Khoisan women and the Fwe ancestors must have been relatively intense. The molecular anthropological results thus indicate that rather than the click words in Fwe being the language shift of an entire Khoisan community, they resulted from the relatively frequent marriage of Khoisan women into the ancestral Fwe community. The adoption of clicks as a salient marker of the Fwe language and their spread beyond borrowed words of Khoisan origin to words of Bantu origin may have been a way to flag the separate ethnic identity of a community with a sizeable proportion of non-Bantu ancestry.

The absorption of substrate populations into an initial Pama-Nyungan expansion and, later, into the expansion and diversification of subgroups has an inherent probability: while some of the Central Australian desert regions could have conceivably been uninhabited in the Mid-Late Holocene, this certainly would not have been the case over most of the continent. With no outright evidence of pre-existing languages in these regions, substrate language and population had to have been either eliminated entirely, or absorbed into newly dominant populations. Almost certainly, it is the latter scenario that is the case. If so, most likely, the absorption would have been predominantly, although perhaps not entirely, of the female portion of the substrate population. Therefore, were the kind of analysis undertaken with the Fwe to be replicated in Australia, the expectation would be that a similar proportion of substrate mtDNA as found in the Fwe would exist if it were possible to isolate linguo-ethnic populations. As already noted, like the click words of the Fwe, it is probable that retention of substrate might be indicated in unusual phonetic phenomena, particularly if these are regionally confined (as discussed in Jefferies 2012:55-8 in respect of Bandjalang).

**Australian Biogenetic Evidence**

The study of Australian biogenetic evidence for prehistorical movement, including its correlation to language distribution, stalled in the mid-1980s. In my opinion, these early studies suffered from
misconceptions of Australian language prehistory as much as they did from insufficiencies in the biogenetic data itself. Nevertheless, some of the correlations that emerged were truly surprising and form a valuable addition to the comparative data.

The best known and one of the clearest cut correspondences between genetics and language is Birdsell’s (1993:453) identification of an ‘Aranda Scarp’:

The western boundary of the Aranda tribe is characterised by a major break in the clinal topography. [...] [It is] characterised by unusual steepness involving blood gens A, and blood type N. In terms of population dynamics, this feature can only be interpreted as indicating the coming together of population with very different demic genetic contents. Since the slope is steep, it implies that that the event took place in fairly recent times past.

Birdsell (1993:454) concluded that contact between Aranda and Western Desert speakers had to have taken place within a time depth of ‘500 to 1205 years depending upon the [genetic] trait used [...]’ but the important point is that all-time estimates were short in span. The cultural evidence suggests that the longer time estimates are the more probable.’ Given Birdsell’s belief that events in Australian prehistory occurred in great antiquity, the recent timeframe is a significant admission (see McConvell 1996:136). Birdsell (1993:453) saw the correlation of Aranda and Western Desert languages and genetics as a ‘paradox’, his eventual conclusion being that the migration of Aranda speakers from the north-east (on the basis of Wurm’s [1978] erroneous correlation of initial-dropping in both Aranda and some Cape York languages) made contact with already resident Western Desert people. Later scholars, notably McConvell (1996:136), consider the opposite sequence, an earlier Arandic and later Western Desert expansion, to have greater likelihood (see also McConvell and Evans 1997:7-8; Balakrishnan et al. 1975:97).

The Aranda Scarp is one of a handful of specific instances of biogenetic correlation with language distribution in the early literature. These suggest that plotting the prehistory of Australian languages is possible. Balakrishnan et al.’s (1975:86) analysis of the interrelationship of biogenetic factors and Central Australian languages, for example, serves to confirm a correspondence between the two:

The genetic distances between these five tribes agrees well with the differences in language based on cognate frequencies. Luridja, Bidjandjadjara and Pintubi form one cluster, with the first two closest together, whilst Aranda and Walpiri are more removed. Aranda is in fact the most distant from the others both linguistically and genetically.

Luridja, Bidjandjadjara and Pintubi are languages of the Western Desert subgroup, Warlpiri and Aranda members of separate subgroups (see also Kirk 1983:118-9, 125-6). Other comparisons in the
early biogenetic data suggest different possibilities, the results, however, being too obscure to be of much use in prehistorical language reconstruction. Balakrishnan et al. (1975:79) discerned in the data from western Arnhem Land that 'the Malag [Yolngu] and Nunggubuyu are shifted towards these [Central Australian biogenetic markers] and away from the Gunwinggu and Ranjbarngu [Rembarrnga], which themselves are shifted away from Tiwi'. The authors note furthermore that 'in the distance analysis the Ranjbarngic and Gunwinggu form a cluster reflecting their close linguistic affinity' (1975:87). The Malag, by contrast, 'appear to be as close to the tribes in the centre as they do to some of their immediate neighbours, thus suggesting that they retain some genetic influence from the postulated common ancestral population' (1975:87-8, 102). This biogenetic proximity of Ranjbarngic and Gunwinggu is contrasted with their biogenetic and linguistic distance from Malag and Nunggubuyu:

[T]he major discrepancy between the linguistic and genetic relationships arises in respect of the remaining cluster. The Nunggubuyan is a language family separate from the Pama-Nyungan family to which the Malag [a Yolngu dialect] belong [...]. It may be noted that these two tribes are geographically close leading probably to some exchange of genes or to parallel evolution under the influence of similar environmental factors. In this connection it is interesting to find that the Malag who geographically belong to the north and linguistically to the south have a mean genetic distance of 3.87 from the other three northern tribes and 3.72 from the four southern tribes (Balakrishnan et al. 1975:87).

Balakrishnan et al. were not to know that, a couple of decades later, Nunggubuyu would be reclassified in the Gunwinyguwan family. Their reference to 'environmental factors' remains intriguing. Could the biogenetic contrast between Nunggubuyu and its fellow Gunwinyguwan languages bear some relation to the history of the Yolngu enclave? On the basis of the early data, this possibility must remain speculation; however, this is precisely the sort of question that the present revolution in genomic research should be able to answer.

Conclusion

The contrast between Birdsell's (1953:171, 1968:239) exemplification of Aboriginals as providing a window into humanity's condition as it may have existed in the Pleistocene, some 10,000 years ago, on one hand, and the evidence uncovered in support of Lourandos' Intensification theory to describe the Australian Late Holocene, on the other, is obvious. Lourandos' theory has revolutionized the way archaeologists view the continent's prehistory. Its influence, however, has been slow to permeate the other anthropological disciplines. Intensification theory defied the idea that Australian prehistory was qualitatively different to the rest of the world's prehistory by virtue of the absence of any
significant cultural development, particularly material development. Whereas Birdsell’s hypothesis resides purely in theory, Lourandos’ has received, and continues to receive, an ever increasing body of corroboration from archaeological fieldwork. Typically, Birdsell’s and like-minded views attributed change to forces of nature, with Aboriginals the passive respondents to change, never its independent initiators. Lourandos’ theory challenged that view, nominating the Late Holocene as an era as significant for Aboriginal people in its own terms as the Neolithic had been for European and Asian civilizations.

The facts of language distribution’s relationship to topography and environment, and, less so, to biogenetic variables, do not in themselves lend support to one or other of these visions of Australian prehistory. It is conceivable that a language’s distribution over a river system is merely Birdsell’s ‘dialectal tribe’ having inhabited that particular stretch of territory for ‘time immemorial’. However, it is the correlation of factors both linguistic and non-linguistic that makes it highly probable that all are related. This concurrence is most logically and parsimoniously interpreted as a Late Holocene movement of language ‘in the mouths of its speakers’. Recent population movement into these environments and topographies is suggested by the following correlations:

1. The progressive diversification of language subgroups from probable points of origin and indicating historical directions of movement.
2. The often transparent interrelationship of language subgroups, suggesting events in recent prehistory.
3. Correlation of language subgroup distributions to topography and environment, suggesting physical avenues of and barriers to language expansion.
4. Correlation of language distribution to topography and environment, suggesting adaptation of the speakers of that language to particular conditions.
5. Rapid population increase in the Late Holocene, with the good probability that this will have initiated population movement.
6. Economic and technological intensification linked to the exploitation of topographies and environments associated with language distribution, providing advantages to expanding language-defined populations.
7. The statistical correspondence of genomic markers and language distribution such as explored in the 1970s and 1980s, suggesting that these factors are related.
Chapter 4
Demic Migration

In this chapter, I turn my attention to the prehistory that links language to land. To do this, I need to introduce two concepts that, while not new to anthropology, are rarely encountered in the literature concerning Australia. These are demic migration and linguo-ethnicity. Demic migration is a particular form of migration. It is not migration as usually understood in modern Western life – the movement of individuals or families or small groups away from one discrete population to another discrete population, losing as they do so on-going physical contact with the homeland (Chamberlain 2006:38). In these circumstances, the maintenance of social connection to the place of origin is unlikely; the population to which migrants have come will, for the most part, reproduce from within itself. This is not the migration model argued for Late Holocene Australia. The type of migration envisaged in this case is the expansion of a discrete population from within its borders; that is, it is the limits of territorial occupation and, co-incidentally, of language distribution that expand. There is a one-to-one correlation (or nearly so) between Australian language distribution and the history of demic migration. More, then, than simple population movement, demic migration is the movement of particular peoples, defined by them having originated as speakers of one language, in other words as a linguo-ethnicity. Importantly, social contact within the expanding population is never relinquished. The population draws on its internal demographic resources to enact expansion. I argue that demic migration is the single most significant and defining feature of Australia's Late Holocene demography.

Linguo-Ethnicity

Because language is the most resilient evidence of this recent prehistory, which however also includes other distinctive cultural attributes, I refer to the demographic entities engaged in demic migration as linguo-ethnicities.22

22 Linguo-ethnicity is predicated on the fact that a unique language (that is, unique at least in the perception of its speakers) was accompanied by cultural characteristics that their possessors also regard as unique or, at least, self-defining; that, in Radcliffe-Brown’s (1931:5) definition of his dialectal tribe, there is a ‘unity of custom throughout the tribe’.
Andrew Chamberlain (2006:1-2) described the social entity engaged in demic migration as a ‘sociocultural population’, which he defined as follows:

An alternative definition [i.e. to a ‘biological’ definition; T. J.], more frequently encountered in the human sciences, views the population as a social unit in which individuals are linked together by their common linguistic, cultural or historical experience. This kindred population, sometimes labelled a ‘community’, a ‘culture’ or a ‘people’, refers to a group of individuals united by their mutual social recognition of ancestry and kinship, by other cultural affinities and by co-residence or geographical proximity (Kreager 1997) […]

In the Australian context, in recognition of the insoluble link between a population possessing the above characteristics, on one hand, and language distribution, on the other, I refer to such an entity as a linguo-ethnicity. It is perhaps easier to describe what a linguo-ethnicity is not than to say what it is. First and foremost, linguo-ethnicity does not describe an institution of social organization. Nor does it have to possess a political or volitional role, and there is no necessary correlation between the territory of a linguo-ethnicity and a single, overarching social entity, whether described as a ‘tribe’ or by any other anthropological term. It merely characterizes any population that defines its identity by the possession of a distinctive language and culture (cf. Nettle 1999:63). As such, linguo-ethnicity can apply in many, mutually exclusive contexts. Speakers of dialects that are part of a dialect continuum stretching many hundreds of kilometres may recognize themselves as linguo-ethnicities, despite the actual linguistic differences between them and their subgroup neighbours being relatively small; at the other end of the scale, small groups may be speakers of a distinct language (and hence linguo-ethnicities) while nonetheless being socially, culturally and politically part of a larger multilingual social entity. For example, speakers of Maric languages constitute a linguo-ethnicity; they share a common language and a common culture. However, given the subgroup’s vast distribution, there can be no implication that Maric speakers ever shared a social or political unity except at the very outset of their history. Linguo-ethnicity, therefore, in relation to Maric, pertains only to its origins as a discrete population that, somewhere between 1,500 and 2,500 years ago, began a migratory expansion that came to cover an area the size of France. There can be no suggestion that its distribution has occurred as a result of concerted and wilful direction or that it in any way represents a coherent social whole. The significance of linguo-ethnicity for the hypothesis is that it will have exercised considerable influence in the instigation and maintenance of demic migration; that it remains a central and unifying feature of the means by which language populations have expanded; and that it recurs time and again as a factor in the later sociopolitical identification of peoples whose distribution, I argue, has ultimately resulted from demic migration.
Demic Migration

The origins of demic migration are in a population with an already shared history, evinced most plainly in shared language; in historical linguistics terms, they begin as speakers of a protolanguage. Diachronically, therefore, there has been a close association with the length of time taken for a distinctive language to have evolved from its origins to a more widely distributed population – and this time span is considerable. I would argue that this length of time has social and cultural repercussions; that, regardless of the natural proclivity for diversification and loss of close contact, bonds of greater or lesser strength remain inherent. The more localized a demic expansion, the closer these bonds will be. Maintenance of contact within that community as its population and territory expand, at least to the point at which distance and/or physical obstacles make that contact no longer possible, justify the description of Australian Late Holocene demic migration as correlatively linguo-ethnic migration. The end result is documented in language distribution, the inference being that the distribution began with a smaller, geographically more contained population. Dixon (1972:351) provides as good a hypothetical description of demic migration as any:

These points [linguistic relationships] suggest the following hypothesis. Proto-Dyirbal was spoken on the southern part of the region at present occupied by the six tribes, contiguous with Wargamay; that is, its speakers lived in the coastal rainforest, to the south of Yidin (but perhaps not contiguous with it). Mbabaram was spoken inland from Yidin amongst the sclerophyll vegetation that ten thousand years ago grew on the Atherton Tableland. Gradually, the pattern of vegetation changed, sclerophyll scrub giving way to tropical rainforest. Meanwhile, the forest-dwelling Dyirbal tribe was expanding and splitting; needing more territory, it spread north along the coast (coming into contact with Yidin), and then north-west, into the emerging forest of the tableland. As it spread, it pushed the Mbabaram tribe before it, out of the pleasant tableland environment into a small, arid and rather undesirable territory on top of the dividing range. It was at the time of this forced change of habitat that Mbabaram words underwent three major phonological changes – stress shift, vowel raising and initial dropping. It [i.e. Dixon’s hypothesis; T. J.] does provide explanation of why Mbabaram, although occupying territory as inhospitable as that of the Warungu tribe, has a far smaller territory; and why the tribes speaking Dyirbal extend further north in the tableland region than they do on the coastal fringe.

The demic migration model in its basic outline is quite simple, with, as mentioned, a strong correlation with phylogenetic language distribution. A relatively small population, confined to a discrete territory (a proto-homeland), begins to occupy new country, a process that continues over generations. Eventually, as in the case of many of the broadest Australian distributions, distance forces the breakup of the initial linguo-ethnicity into numbers of regional linguo-ethnicities.
While there are strong ties binding the linguo-ethnic community at the beginning of its expansion, should this process continue over broad areas and long periods of time, ties will no longer be maintained strongly enough to be effective sociopolitically, and thus, just as separate and distinct languages develop under these circumstances, so too will isolated speakers of a once common language evolve into separate and distinct linguo-ethnic identities. While these entities may once have shared linguistic and cultural origins, mutual isolation, contact with different external influences, development and maintenance of close relationships with those spatially proximate, perhaps irrespective of linguo-ethnic identity, reduces a broad language subgroup distribution to a linguistic abstraction. Further expansion, or contraction due to contact, leads to ever greater complexification, and the redefining process of linguo-ethnicity, as smaller populations, having experienced distinctive histories, seek to maintain their identity through distinctive culture and language.

Demic expansion cannot be seen as simultaneous expansion of the whole, like an inflating balloon. The model anticipates incremental expansions at localized points, at different times and places. Thus, in a large distribution, it would be quite possible for a linguo-ethnicity to be expanding independently on the southern and western extents of its distribution, while simultaneously contracting at points on its northerly distribution, all unbeknown to those sharing the linguo-ethnicity who are not immediately concerned. Therefore, the linguo-ethnic population rarely, if ever, expands by a concerted effort or as a politically unified whole. Effective interaction between members of the expansionary linguo-ethnicity is localized, defined by the practical extent of contact and communication. The end result, however, is the same: an increased linguo-ethnic population, most clearly seen in the distribution of a language or a language subgroup. There are similarities to founder population theory (to be discussed). It can really only be that demic expansion was a process of small ‘founding populations’ occupying the next valley or watercourse out from the land already occupied. To this extent they were separated from the parent population. Unlike founder populations, however, these migrants maintain contact and draw strength from their linguo-ethnic brothers and sisters, with whom they intermarry, continue to cooperate and organize socially and politically. Thus, in some sense, it is always the linguo-ethnicity that is expanding, even in the absence of any overall control or direction. The process of demic migration and its linguo-ethnic character are essential to understanding the sociopolitical implications that arise from it. Because there is no loss of contact through migration with others of one’s original linguo-ethnicity, contact is maintained with the population of origin, and so strengthened by the continuing maintenance of ties and associations.23 These ties, I would argue, are those described by Chamberlain (2006:1-2) as ‘ancestry and kinship’: the first, the common inter-generational history that expresses itself in shared

23 That is, failing the intervention of later separate linguo-ethnic demic expansions that serve to isolate members of a common linguo-ethnicity, or, as mentioned, the effect of sheer distance or geographical impediments disrupting the possibility of on-going association.
language and culture; the second, the affinal kinship ties that connect people over distance (see Jefferies 2018. Thus, linguo-ethnicity is a force for cohesion, and the basis for action, defined by the attributes Chamberlain describes, i.e. those ties of common inheritance, shared culture, including language, and common social institutions that serve to self-differentiate one population from another. One of the most important of these is kinship; as Radcliffe-Brown (1913:150-1) put it: 'If I am a blackfellow and meet another blackfellow that other must be either my relative or an enemy.'

Relatives constitute shared linguo-ethnicity; strangers do not.

The Historical and Cultural Implications of Demic Migration

Some of the population of a linguo-ethnicity had to be mobile, but not all. This expansion would have been occurring over generations. Expansions were unlikely to have been broad sweeps across the landscape; rather, they were incremental gains over relatively long periods of time. This would have enabled the expansionary population to recruit its strength from within its redefined boundaries. It would not have been the case, therefore, that migratory people were ever strangers, divorced from their origins, for the linguo-ethnic population would have provided the ongoing, stable world of which the individual or group remained a part. It could be hypothesized that inter-linguo-ethnic discussion included assessment of the activities of fellow linguo-ethnic groups, perhaps information on neighbouring linguo-ethnic groups, exchange of information about geography and resources, and consideration of the better prospects of cooperation. Central to this notion is the idea that people see others of the same language and ethnicity as more trustworthy partners in projects requiring enterprise and risk than they do those of alien linguo-ethnicities, who, after all, are strangers. Linguo-ethnicity both expressed and encouraged economic and ceremonial cooperation, unity of purpose in the undertaking of ventures, peaceful conflict resolution among themselves, and solidarity when threatened, with the effect of strengthening linguo-ethnic collectives demographically. These relationships would have been reinforced and renewed in the periodic large gatherings that Lourandos argues were integral to Late Holocene intensification. A history of expansion would very likely have inculcated into the linguo-ethnicity an ethos of expansion, that migratory expansion was deemed desirable. A consciousness of shared identity, allied to shared mindset, will have meant the broadening of kinship relationship as classificatory kinship and, hence, the marshalling of greater demographic reserves for the achievement of specific objectives including the overcoming of obstacles. This potential, intrinsic to linguo-ethnicity and cultivated over generations, provided the foundation for the institutions of higher order social organization that concern of the latter half of the thesis.

The chief characteristic of linguo-ethnicities is that they recognize a self-identity by virtue of the language and the customs, material artefacts, mythology and symbology they regard as distinctive
and unique to themselves. This is as much a product of the shared history of those comprising the linguo-ethnicity as anything else; the history of closer interrelationship, encounter with obstacles overcome, adaptation to new environments, and variable encounters with external cultural influences all contribute to the formation of a distinctive linguo-ethnic identity. Like language, these cultural characteristics are the result of acquisition over time, some inherited from its origins, some the result of encounter with peoples of different origins, i.e. borrowing. Much of this shared history is grounded in demic migration. Given the role identified by archaeology in the historical spread and adaptation of peoples to specific environments in the Late Holocene, in their own way, it is likely innovation became tradition, and like language these attributes were retained not as conscious self-identification but simply as the way one people identified itself in contradistinction to another, in other words, as linguo-ethnicity. Thus, perhaps, despite peoples being in possession of similar or even identical technologies, and with the ecological adaptations of different ethnolinguistic peoples being also alike, tradition can determine a different emphasis, both as regards economic stratagem and the plants and animals exploited. O'Connell and Hawkes (1981:114) note, for example, that '[a] comparison of the plant foods used by various central Australian tribes shows that certain species common throughout this region were heavily exploited by some groups but ignored by others'. Seed-bearing species heavily exploited by the Alyawarra were ignored by the Warlpiri, despite being common to both their countries:

All three [seed-bearing; A. J.] species are found in the upper Sandover and Bundey river drainages, but none are identified there as edible. Nardo even lacks a specific Alyawarra name. It seems unlikely that the Alyawarra fail to recognize the potential utility of these plants, especially since many are well aware of their use among other groups. In spite of this, they maintain that the plants are 'not food' and refer to those who eat them as *urtipana* or 'poor buggers' [...]
Other distinguishing cultural attributes may be of no great temporal provenance or profundity of inheritance. Practices and styles in dress and personal adornment, the design of weapons, habitations and other items of material culture, repertoires of songs and ceremonies that distinguish a particular Aboriginal linguo-ethnicity encode the group's history. Whether inherited or the result of contact, they are the result of history, retentions from previous relationships, much as is the case with language; it is the combination of attributes, the legacy of a unique history, that makes them distinct from others in their own eyes.

Linguistic Evidence for Demic Migration

That languages diverge by their speakers physically distancing themselves from one another is the analytical bedrock of this analysis of the Late Holocene. Linguistic evidence can be categorized into that which directly indicates a historical change of occupation of an area, and the more abstract pattern of relationship between language, geography and time deduced from theoretical premises such as Sapir's (1916[1949]) centre-of-gravity principle. The phylogenetic relationship of a language or dialect to its neighbour can plot a path of progress away from the language's proto-homeland (see Crowley 1997; Breen 1973; 1981a:275; Dixon 1980:36-7, 2002:6). Similarly, there are techniques for uncovering the probable historical existence of a now-extinct language from anomalies in a region's surviving languages (Baker 2010:90-2 in regard to 'dark matter'). Toponymy, in particular, the retention of placenames in a language other than that of its current inhabitants, is frequently cited as evidence of former occupation (Harvey 1997; Baker 2002; McConvell 2003c, 2013; McConvell and Bowern 2011; Jefferies 2012; Evans 2010:112; cf. Heggarty 2015:611). Often the phylogenetic origin of toponyms can be demonstrated. If these are not isolated examples, but patterns of relationship, there is stronger evidence for prior occupation than in one-off cases. Borrowings in semantic categories such as those for animal and plant life and topographical features, particularly if the species or features concerned typify or are unusually common to a region or district, can suggest that this was terminology borrowed in the course of occupation: incomers adopt the names for species and features with which they were hitherto unacquainted (McConvell 2014; Jefferies 2012; Bowern and McConvell 2011). The presence of synonyms in a language, one intrinsic to the language, others

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25 Given the Late Holocene prehistory argued for, this outcome appears likely. While rarely encountered in Australian ethnography, it has been noted in Asian anthropological literature. Moerman (1965:128), for example, noted the seemingly haphazard array of material items borrowed from a variety of sources that self-differentiate groups of the Lue of northern Thailand: 'A multi-family longhouse, for example, was used by the Chiangkham Lue until quite recently. It was also used by the Black Thai, by some Lue, but not by others. A courtship platform and associated practices are striking features of Lue life in parts of the Sip Song Panna and in Chiangkham, but are absent from Chiangkham. The green sarong which sometimes distinguishes the Khyn from their Lue neighbours may elsewhere characterize the Lue. Among the traits which characterize the Lue in Chiangkham are internal recessed fireplaces which are also built by local Karen, threshing techniques shared with the Yuan of Wanglung, a pattern of diddling which is actually used quite widely, a jacket of a sort worn by the Lahu in Burma, and a sarong which, when sold to the Kha becomes "the traditional [...] skirt of the hill people".'
borrowed, can be particularly indicative of intra-lingual contact (Baker 2010; McConvell 2009), and so can semantic shift, where the meaning of one word changes to accommodate the introduction of another from an external source, with one of the terms usually taking on a more specialized meaning. Ethnonyms, the names applied to groups of people, can sometimes embody a history indicative of an origin elsewhere, frequently so if these are names employed by a third party (McConvell 2014). Patterns of phonology or phonotactics, particularly in dialects or languages of a subgroup to which they are not inherent, but which are innovations associated with a neighbouring language, point to contact and migration (McConvell 2014; Jeffries 2012). Metatypy or morphosyntactic borrowing between languages can only be explained by prolonged and intense contact (Heath 1978, 1981; Verstraete 2012; Harvey 2013; McConvell 2014).

Morphosyntactic or lexical borrowing in a language may derive, not from the dialects of the language with which it is now contiguous, but from dialects at some spatial remove, suggesting contact at an earlier period of prehistory (Jeffries 2012; Bowern and McConvell 2011:22-3). Borrowing between contiguous languages accounts for only a small amount of the borrowing apparent in Australian languages (Alpher and Nash 1999; Harvey 2011). Borrowing, therefore, where it is recoverable, is in a sense often a coded record of a language’s (and a linguo-ethnicity’s) past. Diachronic progression of language events – encounter with other languages most particularly – can be recoverable from the stratigraphic analysis of borrowings into a language. This, in turn, can point to contact of one group of language speakers with the speakers of other languages at various intervals over the language’s history and, hence, to the possible path of a language’s (and a linguo-ethnicity’s) past. Instances of borrowing between languages no longer geographically proximate point to historical relationship: at some point in the histories of these languages, their speakers came face to face long enough for language to have been borrowed, followed by circumstances that sent them on their separate ways.26 The extent and depth of this borrowing provides some indication of the duration and intensity of this involvement. If the borrowing can be positioned in a discrete period of the past, indicative therefore of other events having occurred before or since, including the separation of the borrowers, then migration is implied.

Ethnographic Evidence for Demic Migration

While migration, or at least travel, is almost a staple of Aboriginal mythology, and therefore could suggest the movement of population, mythology is usually weak evidence, being susceptible to a number of interpretations (cf. Sutton 1997:222-3). For this reason, I am reluctant to use it as prime

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26 These borrowings have to be distinguished from Wanderwörter, i.e. words, often with prestigious connotations, that have diffused far and wide without presupposing direct contact between the donor and the ultimate recipients (Koch pers. comm. 11-10-2017).
facie evidence for migration. Equally, however, when mythology indicates migratory movement, and
is consistent with reconstruction stemming from other forms of analysis, it is unwise to dismiss the
Indigenous voice: if it can be shown mythology does have a correlation with science, then it is
relevant.

Another area of ambiguity is the vexed issue of what does or does not pertain to the post-colonial era
(cf. Tindale 1974:117; Birdsell 1970:116-7). It is often suggested that aspects of ethnography that do
not fit cherished preconceptions are a product of the post-colonial era (Birdsell 1971:340-341; Fry
2007:117). A good example has been the tendency to interpret any reports of Aboriginal population
movement as the result of conditions brought on by European settlement. In other words, European
settlement created disruption, leading to atypical migrations of peoples away from or towards its
influence. My view is that Europeans first encountered Aboriginal Australia in the full flush of the
demographic, social and cultural transformation hypothesized for the Late Holocene period. While,
undoubtedly, the influx of Europeans did create enormous disruption, this is an exacerbation of pre-
existing instability, not the introduction of entirely new and unprecedented circumstances. In other
words, historical factors were the same, whether European- or Indigenous-inspired: people will want
land, and the richer and better resourced it is, the more desirable it will be. It is, therefore, going to be
difficult to separate prehistoric demic migration from post-colonial migration. Further, it is possible
that both are related. European settlement may have upset a pre-existing balance of power, or
demographic susceptibility, making a slowly evolving demic migration proceed at a faster pace.
Alternatively, it may have prematurely brought to an end Indigenous ambitions of expansion. In
other words, European-inspired migration may have been a continuation into the colonial era of
demographic currents present in prehistory. These sorts of considerations highlight the difficulty
associated with the ethnographic record, particularly the early ethnographic record: while it is
possible, and consistent, to interpret anecdotal evidence as consistent with demic migration, there is
rarely indication that this is incontrovertibly so.

Norman Tindale was well-known for his theoretical stance that accentuated the antiquity and
inexorability of Aboriginal tribal boundaries (1976:28). Paradoxically, therefore, his ethnographic
work often included, and indeed seemed to focus on, the numerous instances in Australia, whether
in mythology, before or early in European contact, of boundaries having shifted. Tindale (1974:33-4)
was among the very few Australian anthropologists to countenance the notion of Aboriginal warfare
over land, and provided several examples of this having taken place. In the southern Kimberley of
Western Australia, he cites the Punaba, for whom ‘Ilimbiri, a spring near Mount Percy was a
common refuge water shared with the Ongkomi and Njikena.’ However, ‘in precontact times the
Njikena had been hostile. Tradition in the tribe says they were driven south out of the Leopold
Ranges by the Ngarinjin before the coming of white men’ (Tindale 1974:256). In the Pilbara region,
contiguous to the Punaba, the Konejandi had been similarly dispossessed of land in pre-contact
times: ‘[The Konejandi were] formerly south of Christmas Creek, but they have lost the open plains on the north side of the river to Walmadjari just before the time of the first appearance of whites.’ Their relations with their neighbours had too been anything but pacific: ‘They were unfriendly with the Njikena, the Kitja, and the Punaba, and had fought them; they did not understand one another’s languages […]’. Further south, the Wadjari, pressing on Nanda coastal country, were themselves subject to expansionary pressure: ‘The Wadjari have been invaded from time to time by strangers moving in from the drier lands to the northeast. These they called Bidungu or ‘rock-hole-using people’ and are known as Maljara, or ‘easterners’ […]’ (Tindale 1974:145). These provide but a small sample of instances of land acquisition and relinquishment documented in Tindale’s work.27

Migration Theory

Theoretically, Australian anthropology’s engagement with migration – that is, migration within the continent rather than migration into the continent, an entirely different topic – has been sporadic but persistent. However, it is usually mentioned only in passing. Sutton (2010:62), for example, describes the Western Desert people ‘at the time of European colonization’ as being ‘still culturally in migratory expansion mode’. The Western Desert in fact represents somewhat of an anomaly in Australian anthropology, being the one example where the preponderance of evidence makes a recent migratory history acceptable, although, somewhat inexplicably, an exception (see Veth 2008; Smith 2013). Balakrishnan et al. (1975:94) list ‘internal migration’ as the only non-genetic cause of variation in Aboriginal gene structure, although hedging their bets in the actual definition (1975:96):

These [internal migrations] may have been of various kinds, ranging from mass movement of an entire population into areas occupied by others, to relatively few persons moving along trade routes or fleeing from tribal retribution by seeking refuge in another community. In the category of internal migrations must be placed also intertribal marriage […].

Harvey (2011:360), referring to Myers-Scotton’s (2002:31-33) ‘list of [five] types of bilingual situations’, nominates ‘migration for social and economic reasons’ as the only factor that ‘can be reconstructed for pre-colonial Australia’. Usually, however, historical linguists have sought any explanation other than migration to account for language distribution. Following Bellwood (1997:132-4), Clendon’s (2006) ‘Reassessing Australia’s Linguistic Prehistory’, a paper concerned with the split between Pama-Nyungan and non-Pama-Nyungan languages, rules out ‘invasion/migration

27 My attention has been drawn to another source of ethnographic data on Aboriginal land takeovers marked by conflict, Peter Sutton’s (1980) work for the Finniss River Land claim, an unpublished paper held in Box 87 of Sutton’s papers at the SA Museum [https://aiatsis.gov.au/sites/default/files/catalogue_resources/ms_727 peter sutton records at sam.pdf].
Patrick McConvell

Only one Australianist anthropologist in the contemporary era has focused on migration and, indeed, on diachronic questions generally. Patrick McConvell’s work has ranged from reconstructions of Pama-Nyungan subgrouping (1996), language spread and migration theory (2001, 2002), to specific case studies involving migratory expansion and linguistic borrowing and stratigraphy (2009, 2010). McConvell’s (2001) migration theory has developed around the interface of Pama-Nyungan and non-Pama-Nyungan languages in the Victoria River area of the Northern Territory and the Kimberleys of Western Australia, the sites of his fieldwork. McConvell (2001:160-1) posits two essential forms of migratory language expansion in this part of Australia: an *upstream* phase and a *downstream* phase (in recent publications, McConvell has changed the terminology describing these two processes to ‘skirting’ and ‘encroaching’ respectively – I prefer the old terminology). The former is the expansionary migration of peoples into an unpopulated or lightly populated area, such as a desert, drawn by the possibility of possessing an otherwise underutilized region, as well as, perhaps, encouraged by the migration of others into these people’s previous homeland – a combination of push and pull. The posited expansion of Western Desert speakers from their homeland in the vicinity of the Pilbara is held to be an example of this form of migratory expansion. Once ensconced in their desert fastness, however, a second and different phase of migratory expansion affecting these populations emerges, namely the second of McConvell’s two categories, *downstream* migratory expansion (although, there is no necessity of sequence, each being an independent type). In these subsidiary expansions, peoples who have established themselves in

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28 In other respects, Clendon’s hypothesis is inimical to the theory presented in this thesis. He claims, for example, that Australian languages evolved at a time depth unparalleled elsewhere in the world: ‘These currently contiguous groups are understood to have originated in widely separate regions of Sahul at a time depth about twice that of previous estimates’ (2008:39). In Clendon’s view, the separate origin of PN and nPN languages begins in ‘the final period of Pleistocene glaciation in the Southern Hemisphere, at ca. 13,000 BP.’. Part of Clendon’s (2008:44) argument is that evidence will be found to support his theory of separate nPN and PN origins on opposite sides of the then flooded Gulf of Carpentaria by comparing ‘Australian Arafuran languages’ (i.e. nPN) and ‘the Asmat and Marind languages which now occupy the vast floodplain of southern New Guinea west of the Fly River’. To my knowledge, no such comparative work has been done to date, but the recent genomic work of Malaspina et al. (2016:207), finding that ‘Papuan and Aboriginal Australian ancestors diversified 25-40 thousand years ago’ must make this very improbable. Similar caveats must apply to Clendon’s (2008:44-5) citing of archaeological evidence, such as Golson’s (2001) argument for a ‘cultural province’ in ‘Tropical Sahul’, northern Australian and the lowlands of southern New Guinea, a feature of which was edge-ground and waisted axes. In short, as with Dixon, the onus is on Clendon to demonstrate that Australia really was an exception to world standards regarding the time depth at which languages evolved before much consideration can be given to his dismissal of migration as the means through which it occurred.
these usually harsh, and therefore, to outsiders, not easily penetrable environments, then begin to encroach on the richer country of their neighbours lying on the desert periphery.

McConvell’s work in the Victoria River region is particularly amenable to the predictions of his theory, being a region rich in linguistic and anthropological possibilities, on the border of Pama-Nyungan and non-Pama-Nyungan distributions, as well as constituting an extensive and well-watered drainage system adjacent to a vast region of desert. McConvell (2001:161) cites as example of downstream migration the Eastern Ngumpin language speakers of the Northern Tanami Desert, who, having occupied desert regions, ‘moved further north into the territory of non-Pama-Nyungan language families, out of the desert and into the riverine belt’. This posited history of development of a complex and effective, highly integrated social system in an inhospitable region, from which it based raids into richer, more stable, neighbouring communities, with the ultimate result being the occupation of their territory, is, of course, one familiar to history worldwide. It has the advantage of allowing the desert dwellers (if that is what they are) to collect their forces unseen at any given point and launch themselves in strength on their more sedentary neighbours, grabbing what they want, and returning to their fastness, secure in the knowledge that their foes do not have the cultural wherewithal to follow them. A similar case is that of the Western Desert people, whose expansion into areas to their east occupied by Aranda and Arabana-Wangkangurru speakers is well documented (Basedow 1904:13; Hercus 1994:21-2; see also Myers 1986; McConvell 2001:162; Dousset 2003; Holcombe 2004).

**Founder Models**

It is as much the lack of merit of alternative explanations as the strength of the argument for migration that makes the latter the probable means of Late Holocene language spread. Alternative explanations for language distribution fall far short of the comprehensiveness and consistency of the demic migration model. All, however, have been advanced at one or another point in time as explanations of Australian prehistory, and an assessment of their likely veracity is warranted. One such explanation is the ‘founder’ model, in which small populations leave a parent population, traverse alien or unoccupied country and establish an independent existence separate and disconnected from the people and country from which they have sprung. Having established a foothold in new territory, these founder groups then provide the nucleus of a future population (Wurm 1972; Johnson 1990:430-1).

The founder model, in its purest form, envisages the complete isolation of the founder group, such that no contact is retained with the population from whence they originated, and so, as the name
implies, the founder group truly is the sole point of origin for an entirely new social entity. This model must surely explain some prehistorical expansions, that of Austronesian speakers into Polynesia probably being the best known. However, as the distribution of spread zone language subgroups indicates, the probability of founder populations in the Australian Late Holocene context is low. Australian language distributions are usually discrete; when they are not, it is because the expansion of speakers of another language has intervened to separate them physically from speakers of the languages to which they are immediately related. Only one attempt, to my knowledge, has been made to apply the founder model to Australian prehistory. Johnson (1990:430-1) surmised that the origins of the Yaralde language, situated at the mouth of the Murray River, were with its closest genetic relative, the Yitha Yitha, ‘five languages distant upriver’:

There are clear examples in Australia of languages whose closest relatives are geographically distant. The Yaralde, who live at the mouth of the Murray River in South Australia, have a story of an ancestral being who travelled down the river to their present home. The language most closely related to Yaralde (Yitha Yitha) is five languages distant upriver (Dixon 1980:46). It is unlikely, given the structure of their society, that a large group migrated through hundreds of kilometres of potentially hostile territory to reach their present home. The nucleus of the new group was probably only one or two men accompanied by their immediate family. Such a group would quickly have to form allegiances with their new neighbours in order to survive, and intergroup marriage patterns would lead to diffusional pressures on the language...  

Yaralde speakers managed to stay linguo-ethnically distinct from their contiguous neighbour at the mouth of the Murray River, the Tanganekald, speakers of a closely related language, which was ‘often identified with theirs under the rubric Ngarrindjeri.’ Presumably both retained enough of their shared origins with Yitha Yitha for this relationship to be still identifiable generations, if not centuries, after their putative separation (Johnson 1990:431). Unfortunately for Johnson’s theory, Taplin (1897:168) recorded another Narrinyeri account of their origins: ‘The Narrinyeri have a

29 As noted, elements of the founder model are consistent with demic migration; for example, it is probable in the latter that small groups branch away from the established country of a linguo-ethnicity to occupy some new portion of territory, say a valley or stretch of coastline. However, the permanent viability of the new initiative depends on the maintenance of physical contact with their linguo-ethnic fellows.
30 Dixon (1980:46) was the first to identify a connection between Yaralde and Yitha-Yitha. He describes ‘five languages that were spoken along the Murray River, from its mouth at Lake Alexandria in South Australia up to Mildura in Victoria. They do seem to comprise a natural group sharing a number of common features and showing many differences from their neighbours on either side. Each language was most similar to its immediate neighbours along the river with one exception – Yaralde, at the mouth of the river, shows more points of likeness to Yitha-Yitha, the language furthest upstream, than it does to any of the three intervening tongues. What makes this linguistic relationship so interesting is the well-authenticated Yaralde legend describing how the tribe used to live further up the river, but travelled down it until they reached the sea, and settled there’ (see also Horgen 2006:34). Koch’s ‘Lower Murray kinterms in comparative perspective’ (Australian Languages Workshop 04-03-2017), however, leads him to disagree with the assessments of Johnson (1990), Dixon (1980) and Horgen (2006), concluding that ‘all the intervening languages belong to the same subgroup as these two, in my opinion’ (Koch pers. comm. 11-10-2017).
tradition that they came down the Darling, and then across the desert from the junction to the head of Lake Albert. They say they brought a language of their own with them, but that they became mixed with clans already dwelling on the lakes, and their language merged in theirs, and their customs became mixed...’ On balance, it seems probable that founder theory is incorrect in as much as it applies to the prehistory of the Murray River mouth. Having said that, there is nothing intrinsic to the evidence that rules one out entirely to the advantage of the other. The founder model probably did apply to earlier periods of Australian prehistory, when populations were much fewer and country unoccupied or very sparsely occupied. In the Late Holocene, with comparatively high populations, a larger society would have more chance of survival in ‘hostile territory’ than ‘one or two men accompanied by their immediate family’; nor is this consistent with all we know of Aboriginal societies. Johnson did not consider another possibility; that over history, conditions, or ambition, may have drawn the speakers of other languages to the Murray River, driving apart the originally contiguous Yaralde and Yitha Yitha. Or, if the people referred to in Taplin’s legend migrated they probably did so collectively across country, perhaps with both push and pull factors in play. This appears to have happened with other language distributions, namely the Yagara’s descent in the Brisbane River Valley, its closest linguistic relatives appearing to be among the East Queensland Border Ranges of the New England Tableland (Wafer and Lissarague 2008:332-4).

Harry Lourandos

The ideas of Harry Lourandos, and their importance for this thesis, have been discussed above. At its heart, however, Lourandos’ theory is in fundamental disagreement with the ideas presented here. In Lourandos’ model, it is not population growth and economic intensification that lead to greater breadth and complexity of social interaction – even though this might be considered to be the logical progression of associations. Rather, for Lourandos, the actiological impetus was the reverse: the materially more apparent factors were the result of pre-existing sociological factors. In other words, Aboriginal societies developed first, and these social changes provided the incentive to economic development and, ultimately, population growth. Despite then what would appear to be the strongest evidence for Late Holocene intensification, namely the economic and population evidence, Lourandos’ theory has its basis in social theory (see David and Denham 2008:61-2; Brian 2008). Pate (2008:229) provides a succinct overview of the process Lourandos envisaged (see also David and Denham 2008:61-2; Williams 2013:2; Hiscock 2008:247; Keen 1997:263):

[Lourandos] focused on the key role of intergroup social relations in establishing the context for change within hunter-gatherer societies. He argued that competitive relations between various residential groups associated with access to food resources, raw materials, spouses, exchange partners, and information necessitated the employment of intergroup meetings and ritual
ceremonies that functioned to validate, maintain and enhance the status of local groups within the larger social system [...] Intensive harvesting and land management practices were required to produce surpluses of key food resources (e.g. eels, fish, yams, cereals) that could be used to support these large intergroup meetings and ceremonies. The social dynamics generated by intergroup competitive relations provided a catalyst for further changes or 'complexification' in hunter-gatherer societies, including the establishment of extensive exchange and alliance networks, craft specialists, ritual leaders, polygyny, more complex economic strategies and facilities, territorial boundaries, and semisedentism.

Thus, 'resource use and its manipulation is connected largely with intergroup occasions (festivities, ceremonies, exchanges, and so on)'; and these occasions were the drivers of 'increases in productivity (including surpluses), and also to increases in environmental productivity' (Lourandos 1997:318-9). It was a cyclical process, described as follows by David and Denham (2008:61-2) (see also Williams 2013:2; Hiscock 2008:247):

[C]ompetitive social relations engender surplus-production feeding rituals and formalised exchange; these lead to enhanced status or prestige, polygyny and an expansion of social networks; those feed back to intensify further competitive social relations, and so forth. 31

Thus, the impetus for intensification derived from the sociocultural process, not population increase and economic sophistication in the first instance (see Brian 2008:112 for the philosophical underpinnings of Lourandos' approach). In essence, therefore, Lourandos' theory is a prestige-based model. Much of the social basis for Lourandos' theory is entirely compatible with the theory presented in this thesis, in particular the central role of competition and alliance, summarized by Hiscock (2008:246) as follows:

[I]ndividuals and lineages enhanced their control through the development of larger networks of alliances. Alliances were constructed and maintained in many ways, such as through multiple marriages which acted to expand kinship connections, or through the acquisition of reciprocal exchange partners from other groups.

As will be seen, this modelling of alliance relationships is a proposition to which this thesis, too, adheres, the only difference being the motivations proposed for alliance formation. Anthropologists of all persuasions, however, have found flaws in Lourandos' conception of Late Holocene.

31 Hiscock (2008:246) describes this process in action: 'Ceremonial gatherings provided a context for the negotiation of alliances and also gave opportunities for individuals and lineages to display economic achievement. Lourandos argued that people hosting inter-group congregations for ceremony and/or trade needed to provide food and other resources, and that this encouraged other modifications of economic activities to produce local surplus.'
development. Not surprisingly perhaps, social anthropologists have noted inconsistencies between the requirements of the model and logistical exigencies observable in the field:

[It] needs to be emphasized that although ecological conditions make gatherings possible, their immediate ecological consequences are small. It is sometimes argued that among other things ceremonial aggregations played an important part in facilitating the redistribution of population in relation to resources. This seems most unlikely, not only because rights of access would be based primarily on ego-centric kinship networks but also because variations in resource availability were almost monthly while ceremonial gatherings might only occur every one to two years. Compared to the cultural intent and content of the ceremonies, the ecological significance must always have been negligible [...]. (Peterson 1986:50; see also Keen 1997:263)32

Ulm (2013:184) critiqued Lourandos’ model for its failure to provide evidence for the ‘continental narrative’ of intensification. He argued that, although there are archaeological sites indicative of socioeconomic change in the Late Holocene, their interpretation as intensification across the continent is not justified; such sites might merely be examples of development on a purely local, individualized scale, with no necessary implication for continent-wide change (see also Hiscock 2008:264-6). Ulm is correct inasmuch as the sorts of demographic pressures necessary to produce social and economic change on the scale envisaged in the intensification theory are missing from Lourandos’ model. The desire to impress one’s neighbours through resource surplus and ostentatious display, to grow in personal power, to have greater access to resources through trade, to have more offspring through more wives, is insufficient explanation for the breadth of change implicit in the archaeological evidence. It is the evidence from archaeology - namely that large-scale activity has occurred - that leads to the erroneous conclusion that the activities themselves have the power to drive such change. Lourandos has come to the brink, but failed to take the crucial step, namely that the desire for access to greater resources has historically been satisfied by taking those resources. To that degree, Lourandos’ model is compatible with both Birdsell’s and Dixon’s. It is a static model, inasmuch as the changes he predicts occur within societies that are evolving in situ, unless, on a localized level, they are extending their territory into unoccupied, previously economically marginal and underutilized environments.

In my view, Lourandos is right in one regard: competition was at the heart of Aboriginal demography in the Late Holocene. However, it was not the ephemeral competition that Lourandos described. It was the competition all too familiar to us in the modern world, and the same that has preoccupied mankind in countless historical incarnations, the raw competition for control of land.

32 Keen (1997:263) critiques Lourandos’ model on the basis that ‘his framework is dependent on the idea of distinct Aboriginal ‘societies’, these being “autonomous societies’ which lacked centralised political control; and while I disagree with where I think Keen is coming from, namely the absence of over-arching social organization, it does beg the question that if such societies already existed, why was intensification necessary?
and resources, not some abstract notion of providing a better show than the neighbours. Only the demic migration model is consistent with the data derived from historical linguistics; it is the only model that has the power to explain the innovations, social as well as material, of the Late Holocene. This thesis is based in the proposition that large-scale gatherings for ceremonial, economic and other social activities were ultimately driven by population increase and demographic change, not the other way around.

Prestige Models

Prestige models, of which Lourandos’ is one, have been the favoured resort for hypothesis on Australian language spread. Often this is done with the explicit or transparently implicit idea that migration need not be considered as a possibility. Instead, prestige models argue, language shift is motivated by cultural change, that is, some cultural attribute creates an inequality of relationship between the speakers of two languages such that it compels the attribute-deficient group to adopt the language of the prestige-possessors. Evans and Jones (1997:417) advanced a hypothesis on Pama-Nyungan language spread based on the ‘expanded network’:

We have therefore proposed an alternative scenario [to ‘conquest and intensification driven by new stone technologies’; A.J.] in which new technology was spread in association with a particular set of rituals, with initiates being inducted in Pama-Nyungan as they learnt new ceremonies and new tool-making techniques, and linguistic expansion being driven by ceremonial prestige and changed patterns of spouse-exchange as Pama-Nyungans demanded payment in wives for their sons, leading to the export of Pama-Nyungan to new households. Underlying the social innovation of new ceremonies and wider alliances were advances in food technology that allowed large gatherings to be fed for reasonably long periods.

Evans and Jones’ model theorizes that Pama-Nyungan spread across the continent by attaching itself to innovative, and hence desirable, technologies, the source of which was monopolized. Veth (2008:253; see also Gibbs and Veth 2002:14) similarly proposes a prestige model for the well-recognized expansion of Western Desert people, based not on material advantage but on a less tangible cultural ascendancy, the introduction of circumcision, thought to have originated in the west of the continent:

[W]here landscapes are occupied and periodic resource stress occurs, then rights of access to neighbouring groups’ lands are crucial and are only made possible by kinship ties and other social links such as histories of residence and the like. An intensification of social and ritual networks at aggregation locales (where novitiates from adjacent fertile areas are ‘recruited’ and

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their corresponding kin are incorporated into local networks) provides the ultimate risk-minimising strategy and provides a persuasive explanation for the efflorescence and expansion of the Western Desert culture.

As with the alternative diachronic models examined, prestige as driver of language spread does not stack up. Thomason and Kaufman (1988:43-4) critique the prestige model on the grounds that hunter-gatherer societies, despite whatever resources or other advantages one group may possess ahead of another, will hardly be so dominant as to warrant the adoption of the other’s language in its entirety on this basis alone (see also Bowern 2010:670). As improbable as Evans and Jones’ (1997) hypothesis is for the spread of Pama-Nyungan across the better part of an entire continent, it is even less probable as an explanation for the spread of subgroups in the Late Holocene, for which different and unique advantages would have been required to accompany and propel each and every expansion. Each subgroup would have required exclusive ownership of such a materially prestigious advantage at the point of expansionary departure; and these would have had to be different for each language subgroup, for all manner of environments, topographies and climates. Finally, any prestige advantage has to be very compelling if the argument is that language shift has been complete, not merely the adoption of words relevant to the particular cultural realm concerned. In Veth’s model, circumcision was an ideology that supported migratory language spread. While, in some cases, circumcision may have been spread by intimidation – peoples contiguous to circumcisors adopted the practice in anticipation of worse outcomes if they did not – ultimately, it was the seizure of someone else’s land, or the threat to do so, that expanded the ‘diffusional’ boundaries of the rite. Essentially, like some ‘fundamentalist’ religious dogma, all too familiar in our own times, circumcision and subincision were ideological. They accompanied demic expansion and provided a rubric for regarding oneself as superior, and perhaps more deserving of the land coveted than those who did not circumcise. This thesis argues that diffusion alone, without correlative migration, whether motivated by prestige or some other factor, is not powerful enough a demographic force to account for Australian language distribution. Nor has it proven so in the history of languages generally. As McConwell (1996:128) says: ‘What is not attested in history or prehistory is language expansion by means of cultural diffusion purely, without migration.’

Network Theory

Network theory has its origins in the work of linguists such as Labov (2001), whose work concerned the variable strategies individuals would use in class-stratified urban settlements to advance their social interests. As Labov himself put it, ‘notions of “(covert) prestige” and “identity” are used to explain speakers’ differential use of socially meaningful linguistic variants’ (Labov 1966 in Bowern and Evans 2015:19). The theory is now widely applied to Aboriginal societies, Merlan (1981:136 pt. 5) perhaps
providing the clearest, most succinct definition of the theory as it is thought to apply to social organization:

A ‘network’ is to be regarded as a set of relationships which derive from actual and potential interactions. Formation of such relationships is to be described in terms of various societal concerns (e.g. marriage, ritual, residence, subsistence) which determine, or correspond to, varying degrees of inclusiveness.33

While no one would argue that Aboriginals, like Philadelphians and humanity generally, would not seek to maximize their personal benefits with a flexible attitude to social identity, this does not, in my view, negate the necessity for social organization in terms of institutions that are mandatory, encompassing, and compel collective behaviour (Keen 1997:261-2, 267-9). With no fixed and ‘bounded’ institutions, politics, defined as the interaction of communities rather than of individuals or families, cannot be said to exist.34 Focused on the individual, network theory would appear to be a singularly inappropriate vehicle for the exploration of broader, diachronic relationships. Nevertheless, Harvey (2011) makes the attempt, in the context of the high incidence of borrowing between the contiguous PN and nPN languages of south-eastern Arnhem Land (cf. Heath 1978, 1981). His investigation of the high incidence of multilingualism in the region is as close as Australian network theory has come to attempting a wider, regional analysis of language – and, by implication, of language history. Multilingualism is often regarded as significant in Australian applications of the theory. The individual’s identification with a particular language is replaced in importance by the possession of an array of languages that are situationally interchangeable and serve to assist and maintain the network of contacts and associations that enhance the hunter-gatherer’s life (Rumsey 1993, 2010; Keen 1997:270; Merlan 1981:136; Harvey 2011:359; cf. Rigsby 1992:358, 1997:171-2; Rigsby and Sutton 1980:20; Sutton 1991:53; Johnson 1990:423). Harvey (2011:362-3) sees the prevalence of code-switching in south-eastern Arnhem Land, not as Heath argued, as the result of ‘immediate situational exigencies’, but as ‘indicating a range of interests’ for the multilingual individual as he or she pursues his or her individual aims. Among these are interests in land, hence, ‘people claimed a range of ownership interests in other estates or a range of bases. Control over a range of [language] varieties was an indicator of an individual’s varying claims to

33 While Merlan (1981:136 pt. 5) comments on Cape York, specifically on the deductions of Rigsby (1979), Sutton (1978) and von Sturmer (1973), network theory now represents the default position in the analysis of Aboriginal social organization across the continent. Merlan (1981:137) further comments: ‘Observation has suggested that analysis at the level of networks will provide the greatest insight into social processes of the kind that evidently has produced linguistic and cultural diversity of the kind found in Cape York (and presumably elsewhere in Australia [...]’.
34 Merlan (1981:138) makes a perspicacious comment: ‘Sociolinguistics has shown that it is quite problematic to take the individual as a locus of change’. Merlan goes on to say that, in fact, in Aboriginal culture, ‘the notion of the “individual” is no less problematic, no more the atomic level of “real” social description, than in our own society or anywhere else. The difference between people of Aboriginal culture and others cannot be attributed to their being more individualistic and others less so, or vice versa, since the components of “individuality” and indeed the general applicability of this notion, cannot be simply assumed [...].’
ownership’. As a consequence, ‘there is reason to predict land tenure considerations would have motivated code switching in southeast Arnhem Land’ (Harvey 2011:364-5; also Smith 2013:205; cf. Sutton 1978:157). It is a view that precludes politics – if we take that word to mean the interrelationship of groups as groups. Social groupings, where they exist, are more correctly interpreted as categories, not hierarchical but independent and largely unrelated to one another (Keen 1997:262-3, 267; Harvey 2011:357). There are no overriding, inculcated social pressures to constrain the individual to predetermined, communal allegiances, merely the individual’s ever-shifting deployment of temporary, opportunistic alliance: ‘Consequently, no consistent single hierarchy of power disparities can be reconstructed as holding any individual across their usual residential range’ (Harvey 2011:360-61).

Harvey’s (2011:370-1) network model, following Milroy and Milroy (1985), distinguishes ‘strong ties’ from ‘weak ties’. Among these ties, expressed as ‘reciprocal services’, one stands out: ‘marriage arrangements’, the well-known fact of exogamy between different language-speaking populations in south-eastern Arnhem Land and in Aboriginal Australia generally. Harvey (2011:371) argues that, ‘given the central role of marriage in sociality, a correlation may be posited between greater reciprocity in marriage arrangements and greater strength in other criteria […] [R]econstruction of marriage arrangements will indicate areas of greater and weaker ties.’ Thus, the more reciprocity exists in affinal relationship, the greater strength of social ties across the board. Harvey postulates that this reciprocity ‘depends on stability in land tenure’. Hence, historically, the distributional boundaries of contiguous communities of speakers of different languages are likely to have remained distinct and stable where there exists a high degree of exogamous exchange between them. This scenario is more likely to be reflected in language distribution when ‘[language] relationship is phylogenetic, and therefore, presumably, of greater antiquity’ (Harvey 2011:371). In contrast, where a history of ‘geographical change and mobility’ has made for ‘weak ties’, in which ‘patterns of reciprocal service were greatly diminished’, there is an absence of intermarriage (2011:372). Weak ties are expressed linguistically, through ‘change from the marking of local diversity towards the marking of supra-local convergence’ (2011:371); that is, there will be greater borrowing between contiguous languages, not closely related to one another, that have come into contact recently, and have therefore only weak social ties. Where weak ties flourish a situation of greater social flux will exist. ‘Weak ties’, with multilingualism as a key component of its enactment, are seen as the means

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35 Milroy and Milroy (1985:362) distinguish ‘strong’ from ‘weak’ ties in their study of class systems, defining the difference as follows: ‘the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterise a tie’ (Granovetter 1973:1361 in Harvey 2011:371).

36 Cf. Harvey (2011:372): ‘Whatever the field, significant alterations in land tenure diminish existing systems of reciprocal service. This affects the achievement of goals, be they the achievement of marriage, the attainment of ceremonial leadership, the construction of a long distance trading network. When land tenure changes diminish reciprocal service patterns, the ties are weaker […].’
by which land changes hands. Wives take their language with them when they move to the countries of their husbands, and thus promote communal bilingualism and multilingualism (2011:371-2). Harvey (2011:362-3) sees ‘land tenure considerations’ as having been ‘motivated [by] code switching’; that is, the multilingual individual uses a particular language to advance claims to country, whether or not that country is his father’s country, and whether or not its notional owners are speakers of his father’s language (which is the route through which land is usually considered to inherited in Aboriginal Australia). Following from this, ‘[t]he connection between competence in a particular [language] variety and ownership claims is most clearly brought out in disputes over land ownership’ (2011:357). Acquisition of land is predicated on the individual’s actions, not those of a social collective; thus, there are no necessary implications for collective land ownership, nor, one would think, for the process whereby languages become distributed: ‘[w]hen there was a shift to another estate, the power disparities changed in favour of the [language] variety attached to that estate’; there is a shift in ‘micro power disparities, but not for macro power disparities’ (2011:360-61); and, ‘weak ties would not be eventually distributed across social networks’ (2011:372). Nonetheless, Harvey is agnostic on the question of whether a multilingual person’s employment of language to acquire an estate is a mechanism by which language distributions gradually increase. On one hand, the means through which languages of disparate origin have come into contact appears to be a priori: ‘Neighbouring sets of landowners did not continue directly from the past. Rather, people who did not have a long history of reciprocal marriage ties came to be neighbouring landowners.’ On the other, ‘significant alterations in land tenure diminish existing systems of reciprocal service’, which could be interpreted as meaning that ‘alterations in land tenure’ and ‘weak ties’ are a formative cycle, with progressive land acquisition equating to the territorial advancement of a dominant language at the expense of a weaker language (2011:372).

Were Harvey’s analysis intended to demonstrate the means by which languages have become distributed in south-eastern Arnhem Land (and it is not sure that it does), it would meet some significant opposition from the conclusions drawn, albeit tentatively, by his linguistic predecessors in the region. Heath (1978:10-2) is right to comment:

Indeed, the two subgroups [Yolngu and the Non-Pama-Nyungan languages] are as remote from each other genetically as any two subgroups on the continent. It is apparent that the two have

37 Cf. Harvey (2011:358): ‘Given that most adults pursued claims of varying kinds to a number of different areas linked to distinct language varieties, multilingualism/-lectalism was extremely common. Land tenure claims were not the sole motivations for multilingualism, but land tenure claims were a central and recurrent motivation.’

38 This seems to have been the case in south-eastern Arnhem Land: ‘[T]he spread of PN would have led to NPN languages becoming neighbours to PN languages that they had not previously neighboured. This is why, in areas where PN and NPN languages border one another, the highest shared vocabulary levels are generally between PN and NPN languages, rather than between NPN languages’ (Harvey 2011).
come into contact due to migrations, after having evolved quite separately in different parts of the continent.

Moreover, Heath (1981:335) regards this contact between the Yolngu and the Non-Pama-Nyungan languages as having occurred 'at a fairly recent time (let us say a thousand years ago)', as a result of which 'lexical diffusion among them has reached a level not reported elsewhere for stable multilingual zones'. The relative simplicity of this vision is at odds with the tenuous and convoluted scenario proposed by Harvey. To be fair to Harvey, his hypothesis appears to be more an explanation for high levels of language borrowing than it is for the spread of language - which can only be inferred. As will become apparent in future chapters, there are aspects of Harvey's model that are consistent with the social theory offered here: namely, the strong ties implicit in phylogenetic language relationship, on one hand, and the quite different, although perhaps not necessarily weaker, ties thought to pertain between interacting speakers of languages not closely related, on the other.

Conclusion

The idea that Australia has an interminably long, 'immobilist' prehistory with slow, incremental and generally insignificant social development is deeply entrenched in the anthropological disciplines, with the exception of archaeology, which is, by virtue of Intensification theory, a case apart. Migration is rarely considered to be a factor in recent prehistory. However, alternative theories to explain language distribution and Intensification lack plausibility. By contrast, even though one could always wish the evidence to be stronger, demic migration offers the good probability that this is in fact what has occurred. Only demic migration effectively accounts for all the variables involved, linguistic and non-linguistic.

Further evidence for migration in recent Australian prehistory may be found in Appendix 1, which consists of a number of migratory reconstructions, most of which come from recent historical linguistics: (1) Crowley (1997) on the Nganyaywana language of the New England Tableland, New South Wales; (2) Bowern (2007), Nyulnyulan languages of the Dampier Peninsula, Western Australia; (3) McConnell (2009), the Eastern Ngumpin languages of the Victoria River Downs region of the Northern Territory; (4) Jefferies (2012), the Guwar language of Moreton Island, South East Queensland; (5) Memmott et al. (2015), the Tangic languages of the Southern Gulf of Carpentaria; (6) various authors on the Nyungar language of King George Sound region, Western Australia.
Chapter 5
Modelling demic migration

The hypothesis presented in this chapter is continental in scope. It posits that demic expansion is the primary demographic force of the Late Holocene and that it has affected, in one form or another, at one time or another, the entirety of the continent’s population. It is probable linguo-ethnic expansion varied regionally and in intensity. Not all Australian subgroups will have migrated to the same extent, or, indeed, will have migrated at all.\textsuperscript{39} Migrations as they affected individual linguo-ethnic populations will have occurred variably over time, with peaks and troughs of expansionary activity. Broad subgroup distributions predominate in the continental interior, but they are not the whole story. Equally important are reactions to demic expansion. Demic migration on the broad scale occurred in waves, with multiple episodes of expansion over time. This has impacted not only on subgroups in relation to one another, but also internally, within the larger subgroup distributions. Land acquisition, relinquishment, and reclamation are all implied in this prehistory. Contact and its effects were inherent in Cavalli-Sforza et al.’s (1994:102) original definition of demic migration:

Expansions of people under demographic pressure to areas previously uninhabited, or inhabited by other ethnic groups living at a more primitive economic level and therefore at a definitely lower population density. Previous inhabitants are suppressed, enslaved, or absorbed. The expansion of farmers is one example […].\textsuperscript{40}

Historical contact is indicated by language distribution in several ways. There is the presence of language isolates, languages unrelated to those that surround them below the familial level (at least

\textsuperscript{39} The few complete exceptions might be those populations whose isolation and lack of enviable resources guaranteed their security, an example being perhaps the Tiwi of Melville and Bathurst Island.

\textsuperscript{40} While Cavalli-Sforza is clearly referring here to the difference between horticulturalists and hunter-gatherers, the definition is, in my view, also relevant to expansionary hunter-gatherer populations. In their case too it must have been the case that one population learned to exploit an environment more efficiently than another, a process that could have led to one population subsuming another. Tindale (1976:14) provides one example that could have parallels elsewhere: ‘There are some Australian environments where occupation was possible chiefly through the development of specialised skills. Thus, the rain forest dwellers of parts of coastal Queensland, with rainfalls of up to 250 cm. and more, required particular skills in tree climbing, plus knowledge of how and when to gather products in the canopy of the forest, as well as detailed knowledge of how to eliminate the several poisonous alkaloids, saponins, and other deleterious principles inherent or seasonally present in some of the foods. Such specialized skills gave them positive advantages over any invading or potentially usurping peoples from the grasslands of the west who might try to make entry into their domain.’ These skills may also have allowed them to occupy the environment in the first place, possibly to the detriment of others. Similarly, skill sets and economic innovation must have given some populations an advantage over others in occupying and holding on to certain environments.
as far as can be discerned). This suggests that isolated linguo-ethnicities were the product of earlier prehistory, overrun and surrounded by subsequent demic expansions. There are discontinuous distributions, languages related phylogenetically yet whose branches are separated physically, suggesting later linguo-ethnic expansion has severed the contiguity of the original distribution. It seems likely that some populations, if they were not absorbed into the dominant linguo-ethnicity, either contracted the territory they controlled to smaller, perhaps more defensible, areas or retreated away from expansionary linguo-ethnicities to more secure locales. The linguo-ethnicity has sought to occupy less bountiful land or, perhaps, a smaller range of less ecological variability, allowing a later arriving linguo-ethnicity to occupy part of its previous range. In isolated pockets along the coast, there are clusters of very diverse languages each of which has a small distribution. These are posited to be linguo-ethnicities that have sought safety from expansionary pressure in rich but not easily accessible environments.41 The potential for a ‘domino effect’ of destabilization in this model of prehistory is apparent.

Clearly, then, were demic migration to have been responsible for the Late Holocene prehistory, it could not have been a straightforward history of languages expanding by the march of their speakers across country in any one-dimensional sense. There is a diachronic variable. Some subgroups are the product of events deeper in time than others. Language distribution also encapsulates the varied experience of different linguo-ethnicities. Some were actively expanding, others were contracting or remained largely stable. Rather than initiating demic expansion, the latter linguo-ethnicities were forced to react to demic migration. On this basis, population can be divided into two broad categories: those linguo-ethnicities for whom the Late Holocene meant success in terms of its increasing numbers and the extent of country over which its people migrated and occupied, and those whose relation to demic expansion was reactive, who were forced to concede ground and accommodate themselves to circumstances dictated by the successful demic migration of others.

Subgroup and language distributions vary greatly in size, from the vast Maric and Central New South Wales subgroups to considerably smaller, discrete language distributions (Breen 1973, 1981a, 2009 and Terrill 1993, 1998 in respect of Maric; Austin, Williams and Wurm 1980, and Austin 1997a, 1997b in respect of Proto Central New South Wales). Each linguo-ethnicity’s historical evolution has proceeded from separate and independent loci and is an expansionary event in itself. It has its own historical profile, encoded to some degree in its dialectal distribution. There is therefore a variable relationship of language distribution to landscape. It may mean the occupation of tens of thousands of square kilometres, a single prime, if geographically constricted river valley or strip of coastline, or

41 Nichols (1992:237; 1997:369) first identified accretion zones as residual zones: ‘residual zones are linguistic refugia where pre-spread stocks regularly survive’. The spread zones and accretion zones identified by Nichols are usually seen as related; the spread of one subgroup may mean the retraction or retreat of other languages. A more parsimonious explanation is also possible: that the speakers of a language have expanded to all but the remnants of a region, leaving those in an isolate a population that has escaped subsumption, and therefore language shift, rather than a ‘refugee’ population that has been dislocated before language spread.
a seemingly marginal upland tract. Onset and duration of demic migration occurred on a variable timescale (cf. McConwell 1996:126 for Nyungic prehistory; also Rouse 1986:40-1 for Polynesia and the Caribbean). Migration is also likely to have occurred in fits and starts, with hiatuses of perhaps considerable length between expansionary episodes. It is in these hiatuses that offshoot populations became isolated and developed the dialectal and ethnic characteristics that eventually distinguished them. Larger language distributions such as Maric usually give an indication of multiple and successive episodes of population movement; its history has been one of overlapping expansions by various branches of the Maric speaking population. For this reason, demic migration leaves its mark not only on language subgroups seen as a whole, but on the languages and dialect groups of which they are composed. Provided it is large enough, it is possible for a subgroup to contain within its distribution language isolates, discontinuous distributions, and low dialectal diversity language spreads. I refer to these subgroups as complex distributions. Based on factors such as relative uniformity of dialect as compared to diversity, it is possible to discern within a subgroup distribution likely earlier or later phases in its historical development (cf. Sapir 1916[1949]:455). Complexity, both in the prehistory of subgroups in their relation to other subgroups, and in the internal relationships of individual subgroups, points to demic migration having been a persistent feature of Late Holocene demography.

**Australian Language Distribution: A Typological Overview**

A great deal of prehistory is encoded in language distribution; it is impossible here to detail each regional variant. However, some generalities are apparent. There are areas of great breadth, and equally, relative to size, minor and transparent dialectal diversity – Nichols'\(^{42}\) classic language spreads. Equally, at the other extreme, there are languages, seemingly unrelated to other Australian languages below the Pama-Nyungan level, with very circumscribed distributions. How can all be the product of demic migratory expansion? I try to answer this question by establishing a typology of distributional variants.

1. Low dialectal diversity - broad, inland, language spreads

Some Australian language subgroups are typified by low dialectal diversity. Often, as in the case of Maric, the Central New South Wales\(^{43}\) and Western Desert subgroups, linguistic homogeneity is

\(^{42}\) Nichols (2010) identified Australia as a ‘natural spread zone’ due to its vast areas of relatively unimpeded desert, semi-desert and plains. This is consistent with the large subgroups already mentioned. However, Nichols (2010:367-8) refers only to Pama-Nyungan, saying of it that it ‘means that [language] extinction as a consequence of spreading must have played a large role in its [Pama-Nyungan’s] linguistic prehistory, and the recoverable genealogical facts point in that direction’.

\(^{43}\) This subgroup, first identified by Austin (1997a, 1997b), consists of three closely related languages that collectively occupy much of interior New South Wales, namely Gamilaraay-Yuwaalaraay, Nginyampa and Wiradjuri.
combined with distribution over a great area. Phonology, grammar and morphosyntax that is
transparently related genetically is often accompanied by a greater degree of lexical variation than is
typical elsewhere in the world (Voegelin et al. 1963:24). As Nichols' (1997:368-9) argues is the case for
the world's languages generally, this is indicative of recent and rapid language spread. These broad
expansions are typified by the fact that they are transparently the product of phylogenetic division.
However, various factors can complicate the somewhat simplistic notion implied in terms like dialect
chain or dialect continuum. One such factor, amongst others, is that broad expansions will rarely be
the result of one uninterrupted demic migration, but, as discussed, will have occurred in 'fits and
starts', with, probably, successive migrations having occurred. As a consequence, contiguous
languages need not necessarily be closely related - if one has arrived in a region much later than its
neighbour, for example. In addition, the linguistic interrelationships predicted by Wave Theory
might apply; that is, although language distribution may have been rapid and recent, combined with
this has been on-going intercommunication, and hence a high level of internal diffusion, this serving
to level out differences. All such distributions are the result of initial migration from a common
proto-homeland, subsequent diversification, and varying levels of convergence, particularly
grammatical convergence, the latter of which is dependent on the degree to which contact between
languages has been maintained.

2. Low dialectal diversity - coastal distributions

While broad language spreads are typically associated with inland Australia, coastal distributions,
too, need not be small nor dialectally differentiated. In much of Australia, a benign coast has
facilitated language spread, with the resultant homogeneity expected of rapid and recent expansion
(for example, Kabi and Yuin on Australian eastern coast). East coast language distributions in general
demonstrate very modest dialectal divergence. While there are extensive coastal distributions, often
subgroup distributions are confined to a river system with no close phylogenetic relationship
between contiguous languages (see Crowley 1997:287). These distributions are usually dialectally
homogeneous. Given that language diversity is usually the product of greater time depth, this
indicates that, in all likelihood, these languages are either offshoots of as yet unidentified subgroups,
that is, that their speakers have migrated to the coast, or, if they have evolved in situ, expanding over
a smaller range from a proto-homeland located within or adjacent the present distribution, this has
occurred only in the last one to two thousand years.

3. High dialectal diversity - broad distributions

In general, the diachronically deeper the origin of a protolanguage's expansion, the more complex
and interwoven will be the interrelationships within the subgroup. This is due not only to the
temporal length over which phylogenetic diversification has taken place but also to the equally long
period of internal and external language contact and borrowing that greater time permits. As with
McConvell's (2008) work on Gurindji and its relationship to the non-Pama-Nyungan languages to its north, these contact influences can be diachronically stratified, with further implications for the language’s speakers’ prehistory. The list of subgroups that fall into this category and that have been subject to successful historical analysis continues to grow, e.g. Arandic (Koch 2001, 2004b); Ngumpin-Yapa (McConvell and Laughren 2003); Mayi (Breen 1981b); Kararic (Bowern 1998, 2001, 2009); Mirndi (Harvey 2008); Warlukurvaric (Brammall 1991; Carew 1993); and others. In these cases, reconstruction usually takes the form of the classical hierarchical phylogeny. In cases where subgroup spreads have come into contact, it is possible to say which language subgroup has expanded diachronically relative to another. For example, the internal diversity of the Arandic subgroup indicates an earlier expansionary history than does the relative homogeneity of the Western Desert language. Contact between the two therefore is likely to have been the result of the latter’s expansion to meet Arandic rather than the other way around (Hercus 1994:21-2; see also Myers 1986; McConvell 2001:162; Birdsell 1993:442; Dousset 2003; Holcombe 2004; Vincent 2011).

A subcategory of the above consists of those subgroups that are surmised to exist, but whose interrelationship is unproven, and will perhaps be unprovable. More often than not, this is because the data that would allow a conclusion is lacking, that is, common innovation of linguistic features cannot be demonstrated.44 Wakka-Kabic is an example of this type. By virtue of the uncertainty that surrounds the status of these subgroups, this category also includes those distributions that have been described as ‘diffusion areas’, that is distributions for which the passage of time has obscured genetic relationship (cf. Dixon 2001, 2002). Time depth in these cases, however, is controversial. The Pilbara languages of the Kanyara, Mantharta, and Ngayarta subgroups studied by Dench (1997, 2001) are held to be an example in which genetic inheritance and diffusion are difficult to distinguish. This drew from Dench (2001:131) the conclusion, consistent with Dixon’s theory, that 'building low level subgroups may be impossible in some cases [in Australia]' (cf. Bowern and Atkinson 2013:818-9; Koch 2014:35). However, as Haspelmath (2004:212) points out, extensive diffusion need not be evidence of antiquity:

It seems clear that the Pilbara languages are all rather closely related genealogically, and the difficulties of subgrouping of closely related groups of languages are well known (recall the difficulties in subgrouping of the Romance languages.

Rather than profound time depth being responsible for the complexity of Pilbara interrelationships, it may therefore be the case that these distributions, in which diffusion, consequent on intense social interaction, has greatly complicated phylogenetic analysis, are also a product of Late Holocene prehistory.

44 Bowern and Atkinson (2013:821) have introduced the useful distinction, adopted from biology, between ‘hard polytomies (indicating a rapid or simultaneous dispersal of groups) and soft polytomies (where the branching pattern is unknown)’ to distinguish a lower order of probability for subgrouping.
4. High dialectal diversity – narrow distributions

At the other spatial extreme of Australian language distribution are areas where contiguous languages of small spatial compass exhibit great diversity. In the case of Pama-Nyungan, diversity implies contiguous languages that appear to have no phylogenetic relationship lower than the familial, either because they can be grouped with different subgroups, or, more often, because they are isolates. Non-Pama-Nyungan languages similarly distributed might be grouped in different families, including as isolates. This divergence might suggest languages that have developed in situ over an extended period of time. Analysis is yet to determine whether this supposition is warranted. These distributions are invariably coastal, e.g. Princess Charlotte Bay (Rigsby 1979, 1992, 1997), the Coburg Peninsula (Evans 2000) and the languages of the lower Burdekin River (Jefferies 2013). Harvey (1997:179) describes this situation as it applies to the coastal non-Pama-Nyungan languages of tropical Northern Territory:

Within the Top End, linguistic diversity is concentrated around the coast and in the valleys of the two major rivers, the Daly and the Roper. This pattern conforms with the predictions of Nichols (1990:484-5) in her analysis of the geographical distribution of linguistic diversity. The linguistic diversity within these coastal and riverine areas appears to be extremely high. Among the coastal languages there are no well-established families consisting of more than four languages.

There may be several different explanations for these small and diverse distributions. Some are likely consistent with Sapir’s Age-Area hypothesis, in that their diversity is the product of long development from a common origin confined within a limited geographical space; others are perhaps better explained by Nichols’ (1997) ‘accretion zones’, in that they are a diverse collection of linguo-ethnicities brought together by historical and/or economic factors. If discernible, a distinction might be possible between these two types, i.e. areas of high subgroup diversity and areas of higher order phylogenetic diversity, with a third possibility being areas that encompass elements of both.

5. Discontinuous distributions

For the most part, Australian language distributions are continuous: language subgroup abuts language subgroup. Distributions that are patchy, such as those found in North America, where branches of the same family, such as Athapaskan or Uto-Aztecan, can be found widely and discontinuously distributed across the continent, do not occur – or else phylogenetic relationship is so deeply buried in time as to make those relationships now invisible to analysis. It may be that the Pama-Nyungan language family spread so rapidly that not enough history has elapsed to have resulted in the sort of distribution found in the Americas; alternatively, the social and cultural prehistory behind language distribution in Australia may not have permitted the widespread
separation of related languages. Discontinuous distributions, however, are not unknown; as historical linguistic analysis proceeds, it is probable more will be discovered.

The geographical and linguistic proximity of discontinuous Australian subgroup distributions offers insight into their history and the relationship between the component languages. The Yolngu enclave within nPN distribution is the only instance in Australia of familial displacement; despite the undoubted problems for the interpretation of prehistory it still presents, it offers, at least, a refutation of the idea that Australian languages developed in situ over millennial time periods. Discontinuous subgroups are rare, and most occur in tropical northern Australia: Mirndi (Chadwick 1997; Harvey 2008; McConvell 1996, 2001, 2009; Green and Nordlinger 2004:310-11 in respect of proto-Mirndi) and Waluwaric (Blake 1988; Brammall 1991; Evans 2003:12; Breen 2004c). McConvell’s (2009:811-2) description of the interrelationship of the Ngumpin and Mirndi languages is discussed in Appendix 1 (section 3), as is the discontinuity of the Guwar language of Moreton Island in southern Queensland from its parent Bandjalang subgroup (Jeffries 2012; see Appendix 1, section 4). In the Australian context, discontinuous distributions are argued to be the result of successive language spreads, one spread overlaying another, causing the geographical split of an original subgroup distribution. Much less likely, in my view, is Johnson’s (1990:430; see 4.2) previously discussed suggestion of a ‘founder’ population having hived off from a subgroup distribution and travelled some distance to establish a related but non-contiguous language.

6. Isolates

The last category of Australian language distribution is the isolate. Isolates are languages that betray no close genetic relationship with other subgroups, either neighbouring or at a distance. Bowern and Atkinson (2013:820-1) list four examples – Gumbaynggirr (Eades 1979), Dyirbal (Dixon 1972), Paakantyi (Hercus 1986), and Warumungu (Simpson & Heath 1982) – all of which ‘are clearly Pama-Nyungan languages, judging by their pronouns, case marking, and core lexical items’. The authors claim to have incorporated these into their phylogenetic macrogroupings, and, in one case, Warumungu, into the Ngumpin-Yapa subgroup (Bowern and Atkinson 2013:830-1, 834-5). Notwithstanding, there is some doubt that sufficient attention has been paid to the factoring in of borrowing and convergence in their arrival of these results (see Miceli 2015:708). In respect of isolates, it has to be thought probable that whatever higher level phylogenetic relations exist, beyond the apex familial Pama-Nyungan are unrecoverable due to time-depth.

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45 Gumbaynggirr, however, must surely include Yaygirr, its contiguous neighbour at the mouth of the Clarence River, which is transparently related.
Case Studies: Broad Language Spreads

The typologies enumerated above are tendencies, not absolutes – although, clearly, discontinuous distributions and isolates either are or they aren’t. Most types, however, vary in extent and intensity of factors such as diversity. Broad language spreads of low dialectal diversity, for example, cover a range of internal interrelationships, with different implications for prehistory, culture and social organization. Nonetheless, that the interior of the Australian continent is characterized by very broad phylogenetic subgroup distributions supports the generalization that these were all Late Holocene language spreads.

Positing a typology is of less importance in the context of this thesis than attempting to show that quite diverse distributions are all equally explicable as outcomes of demic migration. This chapter and the next examine a number of different language distributions with the aim of demonstrating that their prehistory, despite the distributional variables, is consistent with demic migration theory.

Western Desert Language

The Western Desert language appears to be almost in a category of its own as far as its role in the analysis of Australian prehistory goes. This is because the Western Desert language has the distinction of being the only Australian language subgroup whose distribution is widely recognized as having been caused by migration (e.g. Veth 2000, 2008; Gibbs & Veth 2002; Smith 2013). McConvell (1996:137) reconstructs the Western Desert homeland in ‘the south-west Pilbara/Gascoyne in or near the Hammersley range (after splitting from Warnman the other branch of the Western Desert subgroup) not far east of there’. The split is estimated to have occurred in the period 3-2000 BP. McConvell (1996:132, 134, 2013c:334-5) estimates the Western Desert people’s occupation of the Western Desert as having been completed by 1000 BP, which is about the time as their having come into contact with Aranda speakers. This roughly coincides with Birdsell’s (1993:453) biogenetics-derived figures of 1500-1205 BP for the ‘Aranda Scarp’ contact between the two linguo-ethnicities.

Western Desert expansion, however, did not cease at the posited 1000 BP, but continued throughout the Late Holocene, beyond European colonization and up to the present. Peter Sutton (2010:62) describes the Western Desert people ‘at the time of European colonization’ as being ‘still culturally in migratory expansion mode’ (see also Tindale 1974:213; Hamilton 1982:89; Smith 2013:333-4; Strehlow 1965). Luise Hercus (1994:21-2) obtained from her informants personal stories of the ‘constant easterly push of Western Desert people’ into Aranda country:

In 1966 at Indulkana Dick Butcher (an old man belonging to the Ngunthiya-Ngunthara, the easternmost of the Western Desert groups) recalled having heard from his father of a ‘war’ that must have been waged in the middle of the 19th century in which Aranda people were ousted
from the Mount Chandler - Lambina area by the easterly push of Western Desert people, the Yangkunytatya and Antikirinya. This meant that some of the evicted Lower Aranda came to settle in Arabana country and there was considerable intermarriage between them and Arabana people. Thus Arthur McLean recalled having an Aranda grandmother who was monolingual – she never did learn to speak Arabana.

Elkin (1940:305 in Hamilton 1982:93; cf. Tindale 1972:218) regarded migratory pressure as a constant in post-settlement Western Desert demography, a factor not attributable to European presence:

As I see it, the movement of the groups has been constantly from the (Musgrave and Everard and other) central ranges to the south... Under pressure of droughts and at best constant desert conditions the groups pressed towards the south, seldom if ever to return, lengthening the mythological tracks and cutting themselves off from the spread of new forms of social and kinship organization and terminology [i.e. section systems]. Thus, there was not much intermarrying, and there was relative isolation... This constant migration too explains the difficulty of defining tribal boundaries in this desert region, for life was in a state of flux.

Western Desert demic expansion is well-documented as having extended into the post-colonial period. The timing of its origins in prehistory are also known, at least approximately. According to
Veth (2008:251), ‘a date of approximately 2000 to 1500 years BP sits well with the timing of a major cultural shift and the emergence of a new cultural system [i.e. involving circumcision, A.J.].’ These two occurrences – the introduction of ritual circumcision and the acceleration of Western Desert demic migration – are almost certainly linked. Archaeology reveals that the vast region over which Western Desert people moved was already at least partially inhabited, ‘an occupation phase beginning from 5000 years ago’ (Smith 1989:42) that culminated in a period of intense activity about 3000-2500 BP (Smith 1989; Veth 1993; Thorley and Gunn 1996 in McConvell 1996:139). These are events McConvell (1996:139) links to occupation by ‘the initial wave of Pama-Nyungan speakers’, who, in all probability, were not Western Desert speakers but related perhaps to speakers of current peripheral western ‘Nyungic’ languages (McConvell pers. comm. 04-11-2015). Also in this Mid-Holocene period commenced the ‘specific desert economic and social traits’, expressed materially in what became the standard desert toolkit of the Late Holocene, the ‘adzes, seed-grinding implements and composite tools [that] appear around 4 [BP]’ (Smith 2013:164). According to Smith (2013:196, 164), the earlier, probably Pama-Nyungan, expansion in the period 5-4,000 BP resulted from unprecedented rainfall, and hence resource proliferation, when ‘desert populations were at their highest level since the last glacial’. This was followed by a later shift to seed-grinding, caused by the onset of drier climatic conditions. Climate change prompted the necessity to expand the range of food resources, if population levels were to be sustained; Smith (2013:164) notes the ‘added pressure of a deteriorating environment around 4-3 kya, one response to [which was to] increase diet-breadth to include more processing of seeds and grain and thus defer the necessity to move’. Peter Veth (2008:245) documents ‘the appearance of significant numbers of formal millstones after 1600 BP, and the inferred ability of these grinding “stations” to support larger aggregations of people’. On this basis, it would seem likely that the Western Desert expansion, beginning about the same time (2000-1500 BP), was facilitated not so much by material advantages, but more efficient and strategic use of a pre-existing culture, coupled with changes in demographic distribution, the greater centralization of population and infrastructure around seed harvesting in particular. Accompanying these factors may also have been developments in social organization, leading to a greater range and integration of the Western Desert population, and further population increase (on which see McConvell 1996). Smith (2013:335) envisages Western Desert expansion as having occurred in the following manner:

First, increasing environmental stochasticity, associated with the shift from 4 kya to an ENSO-dominated climate, disrupted settlement is such a way as to accelerate linguistic divergence among existing groups and create a genetic bottleneck [that is, the initial PN expansion; A.J.]. When climate variability declined after 1.5-1.2 kya, Western Desert groups were able to expand rapidly and occupy new territory. During historic droughts, these groups were observed to fission and disperse into small groups, with the bulk of the population falling back on better-watered country. It is not difficult, therefore, to see this process acting as a sort of ‘cultural pump’, drawing people into the desert during good seasons and forcing them out towards the
margins during drought periods. This process requires demographic growth. It is relevant that the best evidence for population growth – on both sides of the Western Desert – is dated 1.5-1.0 kya (Smith 1988; Veth 1993; Smith and Ross 2008).46

That the Western Desert people consist of a biogenetically distinguishable and specific population of Aboriginal people is also aptly summarized by Smith (2013:334):

Genetic data emphasise the distinctiveness of Western Desert groups (Balakrishnan, Sanghvi and Kirk 1975; Birdsell 1993; White 1997). This is particularly clear in serological data (in which the highest frequencies of blood group A1 are in the Western Desert) and in the phenotype of tawny hair (which is characteristic of this population) (Birdsell 1993: figs B-1 and D-4). The genetic evidence indicates a rapid expansion of a small founding population drawn from existing desert groups.

The Western Desert people’s adaptation to the extreme conditions of its distribution, while extraordinary, cannot be seen as unique in the Australian context. Of necessity, the life of desert dwellers must always revolve around access to water. As Nic Peterson (1976:65) describes it, the exigencies of their extreme environment shapes Western Desert economic life and, as a consequence, social interaction and cultural life:

It is clear from the work of Carnegie (1898:274), Long (1971:267) and others that there is a widespread exploitative strategy that relates to water. After substantial falls of rain the population disperses widely to the most ephemeral sources far out in the plains. As the water supplies disappear the people retreat back to the more permanent water supplies frequently located in or about the ranges and around outcrops of limestone.

The ability to ‘fission and disperse into small groups’, as Smith (2013:334) puts it, and to reunite when conditions permit, has been the key to Western Desert people’s ability to survive socially in one of the most hostile environments on earth. It was also what enabled them to migrate rapidly across the vast interior of Western Australia, and to compete successfully with the established arid-zone peoples they encountered at its margins (see also Strehlow 1965:34; Peterson 1986:36; Myers 1986:77). That much of the environment was spinifex country, meant that the Western Desert people’s economy, unlike that of desert and arid peoples to the east, revolved around a seasonal cycle of burning, adding to the general pressure to move as resources became exhausted (cf. Smith 2013:8-9).

46 Vance et al. (2015:129) describe the ‘first millennial-length Australian megadrought (>5 year duration)’ from Antarctica ice core analysis as having occurred in this period: ‘Eight megadroughts were identified including one 39 year drought (A.D. 1174-1212), which occurred during an unprecedented century of aridity (A.D. 1102-1212).’
The Western Desert language is recognized as remarkably homogeneous (Wurm 1963:133; Tindale 1972:223; Hansen 1984:1; McConvell 2001:162-3); to which Hamilton (1982:92-3) adds the rider that ‘there is a general continuity of language and cultural forms, including religious and ceremonial life’. Along with the general recognition of the Western Desert language’s unity by both linguists and the Wati themselves went a proliferation of dialect and group names:

The evidence suggests that at least three distinct dialects of what has been labelled the Western Desert language were spoken in this area [Papunya], and that the inhabitants distinguished at least as many regional groups of people within the area. (Hansen 1984:5)

As Hansen (1984:7-8) has it, ‘minor speech variations’ were a means of distinguishing local groups more than a reflection of actual language divergence. Similarly, a kinship system permitting broader relationships rather than a more exclusive virilocality was no doubt to a large degree a facility that grew out of the often life-threatening conditions of the inhabited environment. Drought could result in a situation in which ‘[a] local group might even have had to seek refuge for many months in the territorial area of a different local group hundreds of miles away’ (Strehlow 1965:124; also Tonkinson 1987:199, 206). It is not an environment that permits the luxury of hard and fast boundaries on monopolized country. Mobility and fluidity of residence characterize Western Desert society:

Details of these personal histories [of four Pintupi men] show the flexibility in number and composition of the local group. A local group may have occupied its own territory for some periods of time, but it is evident that they also foraged in other areas. All the male owners of a series of water places did associate with each other from time to time, but were often separated from each other in different local groups. It is also evident that many people spent a great deal of time away from their own country and the local groups in that area. This, of course, had far-reaching implications [i.e. for its homogeneity] on the language used by transients who had shared life with many local groups in many localities (Hansen 1984:5; see also Myers 1986:78-9).

One of the upshots of the Western Desert people’s remarkable social adaptation to its environment has been the special place they occupy in the history of Australian anthropology. Berndt’s (1959:90-1, 103) view of the Western Desert people as a ‘social or cultural bloc’, with ‘no strict boundaries’, within which ‘movements were relatively frequent’ was a foundation statement in the undermining of the then accepted view of Australian ‘tribes’ with their component ‘hordes’ as discrete, bounded social entities. Berndt (1959:92) concluded of the Western Desert people that ‘[w]e might legitimately assume that there is a common awareness of belonging to a cultural and linguistic unit, over and above the smaller groups signified by these names, even though the actual span of the wider unit is not specified’. Since Berndt’s time, the theme of Western Desert people’s self-awareness as a people has pervaded much of the discussion on their society. As regards their language, Hansen (1984:8-9; see also Myers 1986:28-9) points out:
They did, however, recognise three levels of communicability: the close communication among members of their own multigroup [i.e. regional grouping variably composed of smaller local groups, A.J.], the distant communication with members of other multigroups whose speech was still mutually intelligible with theirs (known as ‘relatives’), and the greater distant communication with other groups such as Aranda, Warlpiri, Tjiwarlpy etc [...]. Their own adjacent multigroups and others further afield were not described as different languages but ‘our talk’, ‘one talk’.

Western Desert social solidarity is equally reflected in the ethnography. More than a simple ‘sense of community based on shared values, behaviour and rules for living’ (Tonkinson 1987:199), the Western Desert people shared a consciousness of themselves as a society distinct from others. Myers (1986:60) noted that Pintupi ‘perceive of country as essentially a continuous entity […] emphasizing […] that there was one country for everybody, that they were all one family’. Common origins in mythology are stressed, ‘one reason given for considering the Pintupi as one group, one ‘family,’ is that they are all from the Tingarri, one long and interconnected Dreaming story. In Pintupi social structure, ‘[e]ach part, each local “unit”, can be produced only through cooperation of the larger structure. The organization of ceremony, requiring participation of others from far away, provides one way of constituting Pintupi society as a whole’ (Myers 1986:10; 190); ‘one consequence of initiation is the participant’s renewed sense of themselves as “all relatives”’ (1986:232-3). Their kinship system emphasizes ‘distance’ in the contract of marriage, forging alliances across Western Desert people, rather than localizing identity and affiliation to land (1986:71,109; Sackett 1976:142-46; Tonkinson 2004:101). While the sheer scale and hostility of the Western Desert environment prohibits any suggestion of overarching unity of action or intent, nonetheless, by virtue of the overlapping and variable relationships of its people, there is indeed a ‘total system’ (Sackett 1976:142), a consciousness of their collective identity in opposition to outsiders, best epitomized in Myers’ (1986:10) observation that ‘the Pintupi assert [that] they are all family’.

There is a perception in Australian anthropology, originating perhaps in its role in challenging the then dominant Radcliffe-Brown view of social organization, that the Western Desert people represent a separate case among Aboriginal societies; or, at least, that they are an extremity of type in Aboriginal social organization. It is logical to conclude that, because Western Desert people were so thinly spread across an unremittingly averse environment, adaptation to that environment took the form not only of economic and technological innovation, but innovation in social organization as well, so as to maximize the breadth and elasticity of ties it was possible to have. While no doubt writ large in Western Desert social organization, it is not the case that these characteristics are found exclusively in the Western Desert (although they may form an extreme of that realization). They are, in fact, characteristics of social organization shared by desert societies generally (see Smith 2013:269-73; Meggitt 1962:1, 49). If Western Desert people have reached the geographic limits of expansion
only recently, halted in fact by the imposed conditions of the modern world, it is reasonable to expect that their form of social organization, while undoubtedly there to ensure survival in nature, also developed as a consequence of, and to facilitate, migratory expansion. The degree of coordination of Western Desert migratory expansion can only be surmised. It is reasonable to assume that movement into areas seen as both desirable for their resources, and perhaps vulnerable to trespass, would be discussed by those it most concerned. How wide a circle that discussion might have embraced is unknown. Coordination of intent, if not of strategy, might be expected (see McConwell’s [2012] downstream migration theory). It might be that part of the homogeneity recognized for the Western Desert language has not been simply that recent and rapid movement in prehistory has left a string of closely related dialects, but that the speakers of these dialects, by being in regular communication, have served to level what might otherwise have developed into greater divergence socially as well as linguistically. The absence of substrate in an upstream or skirting migratory expansion, i.e. into unpopulated or lightly populated country, might also have contributed to the lack of regional diversity of the Western Desert language (McConwell pers. comm. 03-11-2015). Despite its harshness, the desert environment has not curtailed or interrupted the ability to travel or stay in touch over long distances. It may be that the Western Desert’s role as exemplar of demic migration in Australian anthropology, the exception to an unspecified rule, is more the result of these circumstances than any inherent difference it represents with other broad language expansions.

Maric

Maric is a language subgroup distributed over a wide expanse of inland Queensland, from the Herbert River in the north to the New South Wales border in the south (Schmidt 1981; Terrill 1993:1; Breen 1981:275). Like the Western Desert language, it, too, is regarded as a dialect continuum, although a series of dialect continua might be a more accurate description (Beale 1975:2; Breen 1981:275; Holmer 1983:174; Terrill 1998:68; cf. Terrill 1998:68; Breen 2009:221). I interpret this homogeneity as an indication that Maric has spread recently and rapidly; significantly, Dixon (2002:127, 660-1) includes Maric among the ‘punctuated equilibrium’ exceptions to his generalized prehistory of language entropy.47

The physical conditions affecting Maric distribution could, however, hardly be more different from those of the Western Desert. Whereas speakers of the Western Desert language are able to

47 Dixon (2002:xxiii; 2002:682) distinguishes a ‘Maric proper subgroup’ from a ‘Greater Maric Group’, discounting languages on the periphery of Maric distribution for which conclusive evidence of genetic relationship is lacking. Dixon regards the ‘proper subgroup’ as a phylogenetic entity because ‘[t]hese languages have very similar grammatical forms – pronouns, nominal suffixes, some verbal suffixes and some interrogatives – indicating that they make up a small genetic subgroup’; in addition, ‘[t]here are no significant grammatical similarities in any direction’, that is, with languages contiguous with or neighbouring Maric (cf. Terrill 1993:129-32). On this basis, Dixon refers to Maric as a ‘low-level subgroup’, ‘the result of minor punctuation in the recent past’ (2002:34).
communicate relatively freely across a formidable terrain (environmental circumstances permitting), Maric is spread over several major river systems, sometimes separated by mountain ranges, including the Great Dividing Range, which, deviating from its usual north - south axis, runs east to west just south of and parallel to the Tropic of Capricorn, thus bisecting the Maric distribution. In addition, there are many and varied ecosystems, including a coastal distribution. If much of the Maric distribution has been the product of a Late Holocene language spread, roughly commensurate chronologically to that of the Western Desert, as its dialectal interrelationships seem to suggest, its topographic and environmental conditions have made for a social and cultural interrelationship of greater complexity. Whereas Western Desert prehistory has resulted in the retention of ties and interrelationships across the whole, contributing to a general homogeneity of language, Maric’s distribution, despite the relative transparency of its linguistic interrelationships, is one of a much greater degree of fragmentation and diversification. Successive or convergent Western Desert migrations have become submerged linguistically and culturally under a cultural tendency to wide-scale, continuing interrelationship; with more regional insularity and, hence, more linguistic variation, Maric distribution, by contrast, evinces a more fractured prehistory, including successive migrations, contact with different pre-Maric populations, and the contraction or separation of earlier internal distributions under the influence of later waves of migration.
Reconstruction of Maric’s prehistory has occupied several linguists, with, as yet, no definitive agreement on its phylogenetic interrelationship or history of diversification. The most thorough attempt at an assessment is Barrett’s (2005) thesis, which considers two hypotheses: one of ‘a three-way primary split between North Maric, East Maric and South Maric [that] does not allow definite identification of a homeland,’ and another one, the ‘Central Maric hypothesis’, which envisions Maric as having spread from closer to the centre of its distribution (Barrett 2005:172-73). The first hypothesis is Barrett’s preferred one, the author concluding, parsimoniously, that ‘fewer population movements are needed to account for the geographical distribution of languages’. Having included Guwa, a language on the periphery of Maric’s distribution, into the subgroup, Barrett concludes ‘that the proto-Greater Maric homeland was also located in the north of the current Maric area, but perhaps further inland’. Alternatively, the Central Maric hypothesis would allow an interpretation whereby the proto-Maric homeland was situated somewhere in the vicinity of the North Maric/East Maric boundary (i.e. the lower Burdekin River area), and that there was a general movement southward of Central Maric from here into the present East Maric area, followed by a break-up of Central Maric as a result of some speakers moving further south into the contemporary South Maric areas’ (Barrett 2005:173).

Barrett’s second hypothesis receives some support from Breen’s (2009:226-27) comments on Burdekin River Maric (based on lexicostatistics). Breen identifies significant dialectal variation in the Lower Burdekin: ‘Unfortunately, my examination of the data […] does not yet even provide convincing evidence that the three Ravenswood area wordlists belong to the same dialect, let alone which other wordlists they should be grouped with.’ This data is consistent with Sapir’s Age-Area hypothesis, with diversity implying proximity to a putative proto-homeland. Dixon (2002:587) has a somewhat different view, surmising that ‘[t]he Maric proper subgroup is likely to have originated on the east coast (probably somewhere in the vicinity of Mackay) and then expanded over a considerable area in central and southern Queensland’. While the area around Mackay does appear to consist of a number of divergent Maric languages, I would argue that this is evidence more of successive waves of demic expansion than any indication of a proto-homeland.

This thesis cannot engage in a full investigation of the evidence for a Maric subgroup; nor does space permit a full description of the evidence for its demic migration. Maric simply covers too vast an area of too great a complexity for that to be possible. The greater number of languages in the north of the

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48 Several linguists have questioned whether Maric is in fact a subgroup at all, or, at least, have drawn attention to the fact that a case based on shared innovation has yet to be made (Green 2003:129; Terrill 1993:140).

49 Further down, Dixon (2002:683) recapitulates: ‘As a guess, I would opt for the proto-language having been spoken on the coastal strip, with speakers [of Maric; T. J.] increasing in number and expanding in all directions – first north, then west, and lastly south.’ Dixon offers as proof, ‘consistent with this hypothesis’, a Karingbool myth, from the Mackenzie River area, referring to a god, Beethanoola, ‘said to have come from the sea many many years ago “when this country had first been born” and to have brought a great following with him’ (cf. Cameron 1904 in Dixon 2002: 681-3).
Maric distribution, the diversity they exhibit, and the degree of borrowing with non-Maric neighbours, points to a proto-homeland in, or adjacent to, this part of the subgroup's distribution. Maric's distribution over the river systems of inland Queensland supports the strong likelihood that these were the avenues by which the languages spread: first, throughout the Burdekin River basin and then southward, following river systems such as the Belyando and Fitzroy to headwaters in the Great Dividing Range; and then across that range and further south down rivers such as the Warrego and Maranoa, which flow from headwaters on the southern side of the range into the Murray-Darling system. Some of the complexity of the Maric subgroup's language distribution and the fragmental social organization of its speakers must be attributable to these river systems having provided parallel paths of expansion, being, to more or less degree, separated from each other, and therefore generating therefore different histories, including contact histories. Different language, different environment, and most compellingly, different history, provide the basis for linguo-ethnicity. This, as has been argued, is the prime facie ground for the development of regional linguo-ethnicities from the origins common to all Maric speakers. A clear distinction can be drawn between Maric that was introduced southward via the Belyando River across the Drummond Range and into the Nogoan River, and another form spreading along the southerly flowing tributaries of the Fitzroy River system, for example. The complexity of Maric language, combined with a reconstruction of its interrelationships over space, points to Maric demic migration rather than being a single, uninterrupted event, was a succession of migrations, having begun at different loci and pursued along different pathways. These occurred at different times and extended over different periods of time. Each of these demic migrations can be associated with different dialectal innovations. In some cases, these can be extensive. The Maric languages south of the Great Dividing Range, for example, have much in common with one another but are distinguishable from those north of the range. In the Nogoan and Belyando Rivers, on the other hand, variations side by side suggest small migrations that may have followed one another down the latter and into the former.

The analysis of two contiguous, but genetically distant Maric dialects, Gangulu and Wadja, to follow will serve to illustrate a prehistory that is argued would have applied in various permutations across the Maric distribution. It is hypothesised that, as Maric expansion succeeded Maric expansion, groups resident as the result of earlier migrations were pushed aside, and/or incorporated into the newer migrants, just as it is hypothesised to have happened to the original non-Maric inhabitants in the wake of Maric expansion. Successive migrations would have dislodged these earlier arrivals, pushing them, so it would seem, predominantly southward, providing the impetus for yet further expansion. In some instances, the original Maric inhabitants were forced into smaller, less well-resourced environments and topographies, drier upland plateaus and the like. Linguistically, these can manifest as islands of older Maric language. Surrounding them in the richer valleys of the major rivers are the Maric dialects spoken by later waves of expansion. The composition of dialect clusters such as Gangulu seem to suggest that migrants may have arrived in a region by different routes,
subsequently encountered one another, and then under exigencies that can only be guessed at, drawn closer together socially and politically, the result linguistically over time being a convergence that shapes originally more disparate dialects into the semblance of a uniform language. Thus, along with cultural manifestations usually only hinted at in the ethnography, distinctive lexicon, morphology and phonetics serve as linguo-ethnic self-identifiers.

By this reckoning, the Maric dialects south of the Great Dividing Range represent the earliest wave of Maric expansion. This conclusion seems warranted on the basis of the greatest distance traversed from the notional proto-homeland as well as the greater homogeneity of these dialects (disregarding diffusion from neighbouring non-Maric languages). However, this southerly expansion, which appears to still have been in train on the arrival of Europeans, is not in its total extent the product of earlier expansion; it is just that these Maric speakers represent the first, outward wave of expansion in that direction. If so, their dialects, to the degree they have not changed, represent a branch of Maric at a time when it split away from its northern relatives. Subsequent migrations have occupied the country previously held by these Maric speakers. The genetic affiliation of languages on the margins of Maric expansion, such as Guwa, Pirriya, Kungkari and others that Dixon (2002:126-7; 681) attributes to ‘Greater Maric’, is not easily analysable due to poor data. These languages may represent a case similar to those in Eastern Arnhem Land and the Victoria River, with recent and intense contact having resulted in high levels of borrowing, this obscuring phylogenetic affiliation. If so, this, too, points to Maric demic expansion being prehistorically recent, if not ongoing into historical times.

Gangulu and Wadja

Immediately north-east of the Great Dividing Range is the Fitzroy River Basin. Around the Mackenzie, Connet, Isaac, Lower Dawson and Fitzroy Rivers are found the Gangulu dialects of Maric (Breen 1973, 1981a, 2009; Holmer 1983:267-82; Terrill 1993, 1998; Jefferies 2006). The Gangulu dialects are distributed over a very specific setting, namely the scrubs, swamps, billabongs and flats of the subtropical riparian environment associated with these rivers. I hypothesize that Gangulu speakers descended into the Fitzroy Basin via its northern tributaries, the Isaac River among others, Gangulu dialects having most in common with the Wiri dialects of that system. However, not all languages in the Fitzroy Basin are Gangulu. There are in addition the Maric languages spoken by people resident in the region before the arrival of Gangulu speakers, that is Maric speakers who, I argue, belonged to an earlier wave of Maric expansion. The Wadja, speakers of a cluster of distinctive Maric dialects, occupied a tableland bounded

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50 Analysis of these languages peripheral to Dixon’s ‘Maric proper’ is more or less reliant on lexicon, making the task of establishing their phylogenetic identity very difficult.
51 The variation found between Gangulu dialects may indicate arrival in the region by different paths, and, as will be discussed in further chapters, a somewhat artificial (as compared to phylogenesis) aggregation as Gangulu-speakers, as much a sociopolitical identity as it was linguistic. Alternately, or, in addition, it may indicate the subsumption of variable substrates met with in the different sections of the Gangulu distribution.
Map 5C - Gangulu and Wadja

<table>
<thead>
<tr>
<th>gloss</th>
<th>Gangulu</th>
<th>Wiri</th>
<th>Maric south of the Great Dividing Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>bama</td>
<td>bama</td>
<td>marì–mardi</td>
</tr>
<tr>
<td>woman</td>
<td>gayu-giyu</td>
<td>giyu</td>
<td>gambì–ambi</td>
</tr>
<tr>
<td>white man</td>
<td>migulu</td>
<td>migulu</td>
<td></td>
</tr>
<tr>
<td>mother’s bro.</td>
<td>ganya</td>
<td>ganya</td>
<td>gangany</td>
</tr>
<tr>
<td>elder brother</td>
<td>gadhana</td>
<td>gadhana</td>
<td>dhagu</td>
</tr>
<tr>
<td>wife</td>
<td>biguna</td>
<td>bigu–nara</td>
<td>guyà–diyila</td>
</tr>
<tr>
<td>spear</td>
<td>ganda</td>
<td>ganda</td>
<td>baga</td>
</tr>
<tr>
<td>throwing club</td>
<td>miru</td>
<td>miru</td>
<td>muru</td>
</tr>
<tr>
<td>shield</td>
<td>gunmari</td>
<td>gulmari</td>
<td>burrgu</td>
</tr>
</tbody>
</table>

Table 5D - Maric dialects north and south of the Great Dividing Range compared
(continued overleaf)
<table>
<thead>
<tr>
<th>gloss</th>
<th>Gangulu</th>
<th>Wiri</th>
<th>Maric south of the Great Dividing Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>head</td>
<td>gadha</td>
<td>gadha</td>
<td>dhunggu</td>
</tr>
<tr>
<td>ear</td>
<td>walu</td>
<td>walu</td>
<td>manga</td>
</tr>
<tr>
<td>nose</td>
<td>wudha</td>
<td>wudha</td>
<td>guwu-gu</td>
</tr>
<tr>
<td>stomach</td>
<td>ngalgu</td>
<td>ngalgu</td>
<td>bandu-banbu</td>
</tr>
<tr>
<td>hand</td>
<td>mala-maa</td>
<td>mala</td>
<td>mara-marda</td>
</tr>
<tr>
<td>shin</td>
<td>dhumu</td>
<td>dhumu</td>
<td>bala</td>
</tr>
<tr>
<td>bone</td>
<td>bulban</td>
<td>bulban</td>
<td>yarrun-ngarrgu</td>
</tr>
<tr>
<td>skin</td>
<td>nugal</td>
<td>nugal</td>
<td>nguman</td>
</tr>
<tr>
<td>kangaroo</td>
<td>wura</td>
<td>wura</td>
<td>ngaragu</td>
</tr>
<tr>
<td>wallaroo</td>
<td>gugul</td>
<td>gugul</td>
<td>gubara</td>
</tr>
<tr>
<td>emu</td>
<td>gundulu</td>
<td>gundulu</td>
<td>gulbari-gulbi</td>
</tr>
<tr>
<td>bustard</td>
<td>warrga</td>
<td>warrga</td>
<td>bun.gany</td>
</tr>
<tr>
<td>egg</td>
<td>guma</td>
<td>gumara</td>
<td>gabuny</td>
</tr>
<tr>
<td>death adder</td>
<td>yalar</td>
<td>yaldara</td>
<td>madhamu</td>
</tr>
<tr>
<td>fish</td>
<td>wina</td>
<td>wina</td>
<td>guyu</td>
</tr>
<tr>
<td>bark (of tree)</td>
<td>guga</td>
<td>guga</td>
<td>biya</td>
</tr>
<tr>
<td>scrub</td>
<td>mungga</td>
<td>munggar</td>
<td>wadhu</td>
</tr>
<tr>
<td>earth</td>
<td>nani</td>
<td>nani</td>
<td>nhandhi-dhandhi</td>
</tr>
<tr>
<td>stone</td>
<td>bari</td>
<td>bari</td>
<td>banggu</td>
</tr>
<tr>
<td>plain</td>
<td>birrgala</td>
<td>birrgala</td>
<td>gunari-gunaa</td>
</tr>
<tr>
<td>sun</td>
<td>gari</td>
<td>gari</td>
<td>dhurdu-dhuru</td>
</tr>
<tr>
<td>star</td>
<td>budhu</td>
<td>budhu</td>
<td>danduru</td>
</tr>
<tr>
<td>one</td>
<td>waha</td>
<td>warrba</td>
<td>wanggara</td>
</tr>
<tr>
<td>yesterday</td>
<td>gari wadha</td>
<td>gari</td>
<td>gilura-u</td>
</tr>
<tr>
<td>deep</td>
<td>gumba</td>
<td>gumba</td>
<td>guribala-budju</td>
</tr>
<tr>
<td>good</td>
<td>binbi</td>
<td>binbi</td>
<td>migany</td>
</tr>
<tr>
<td>strong</td>
<td>walali</td>
<td>walali</td>
<td>ngangangari</td>
</tr>
<tr>
<td>run</td>
<td>wagara</td>
<td>wagara</td>
<td>gunduwara</td>
</tr>
<tr>
<td>jump</td>
<td>bulga</td>
<td>bulga</td>
<td>damba</td>
</tr>
<tr>
<td>scratch</td>
<td>bambu</td>
<td>bambu</td>
<td>baga</td>
</tr>
<tr>
<td>fight</td>
<td>gunda</td>
<td>gundara</td>
<td>guni-dhingga</td>
</tr>
<tr>
<td>throw</td>
<td>yaba</td>
<td>yaba</td>
<td>bidju</td>
</tr>
<tr>
<td>climb</td>
<td>yaga</td>
<td>yaga</td>
<td>waga</td>
</tr>
<tr>
<td>die</td>
<td>mayi-u</td>
<td>mayi</td>
<td>guni</td>
</tr>
<tr>
<td>sleep</td>
<td>wunga+ra</td>
<td>wunga+ra</td>
<td>wuga</td>
</tr>
<tr>
<td>call</td>
<td>gawgal</td>
<td>ganggal</td>
<td>gulila</td>
</tr>
<tr>
<td>sing</td>
<td>banda</td>
<td>banda</td>
<td>marrbu</td>
</tr>
</tbody>
</table>

Table 5D - Maric dialects north and south of the Great Dividing Range compared
(continued)
by the Dawson River to the east, the Comet River to the west, and the Great Dividing Range to the south, that is, the poorer country south and west of the contiguous Gangulu distribution (Josephson in Curr 1887; Tindale 1934, 1938; Breen 1973:4). This was a drier upland area, markedly less well-resourced than the rivers and valleys of Gangulu speakers. A reasonable supposition is that the Wadja were the occupants of the richer riverine country until being pushed into this high country by a later incoming wave of Gangulu expansion. The probability of this historical reconstruction is demonstrated by a comparison of the Maric languages involved. Lexically and morphosyntactically, there are shared innovations between Maric dialects immediately north and south of the Great Dividing Range. These attest, at least prime facie, to a Maric subgroup relationship (Terrill 1993:129-32; cf. Breen 1973:3). Examples of words shared in common and likely to be Maric innovations are yahu ‘father’, yanga ‘mother’, wabu ‘younger brother’, bayi-bari ‘elder sister’, gandu ‘child’, yamba ‘camp’, guri-wuri ‘possum skin cloak’, yindi-yuri-yii ‘meat’ (or ‘totem’), diri-yiri ‘tooth’, guwa-wuuma ‘blood’, wirola ‘bandicoot’, wandi ‘dingo’, ngura ‘tame dog’, dhigari ‘white cockatoo’, munda ‘snake (generic), bandana ‘sky’, yugan ‘cloud’.52

However, equally, there are many distinctly different words in Maric languages north and south of the Great Dividing Range. These illustrate the contention, described above, that Maric dialects located north of the range are (with the exception of Wadja) the product of later waves of demic migration than those south of the range. Tables 5E and 5F compare the lexicon of the languages and dialects south of the Great Dividing Range with Wadja and Gangulu. Their purpose is to illustrate the greater similarity between Wadja and Maric dialects south of the Great Dividing Range than between southern Maric and Gangulu. Table 5E contrasts a variety of phonemic features Wadja dialects share with Maric dialects south of the Great Dividing Range (as opposed to Gangulu); Table 5F compares lexicon between Wadja, southern Maric and Gangulu, showing the preponderance of similarity between Wadja and these Maric dialects. While these comparisons are enough to ensure the reasonable probability of the points argued, lexical and phonemic differences can also overlap, which is to be expected not only on a genetic basis but in a social environment that must be assumed to have been vigorous.

<table>
<thead>
<tr>
<th>English</th>
<th>Maric south of the Great Dividing Range</th>
<th>Wadja</th>
<th>Gangulu</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Ps</td>
<td>ngaya</td>
<td>ngaya</td>
<td>ngiya</td>
</tr>
<tr>
<td>mother’s brother</td>
<td>gangany</td>
<td>gangaru-gangany</td>
<td>ganga</td>
</tr>
<tr>
<td>son (f.s.)</td>
<td>dhuwana</td>
<td>dhuwana</td>
<td>dhuwani</td>
</tr>
<tr>
<td>digging stick</td>
<td>gana</td>
<td>gana</td>
<td>ganda</td>
</tr>
<tr>
<td>hand</td>
<td>mara-marda</td>
<td>mara</td>
<td>maa</td>
</tr>
</tbody>
</table>

Table 5E – Wadja/ Gangulu phonemic variation

52 In addition, there are the following shared proto-Pama Nyungan or proto-Paman retentions: manhina ‘vegetable food’, dalany ‘tongue’, dhanni ‘fat’, dili ‘eye’, dtuaga ‘smoke’, ganni ‘water’, buri-buri ‘fire, mula ~ mara ‘hand’, perhaps also wangal ‘boomerang’ (Alpher 2009).
<table>
<thead>
<tr>
<th>English</th>
<th>Maric south of the Great Dividing Range</th>
<th>Wadja</th>
<th>Gangulu dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>mari~mardi(^3)</td>
<td>mari</td>
<td>bama</td>
</tr>
<tr>
<td>woman</td>
<td>gambi~ambii(^4)</td>
<td>gambu</td>
<td>gayu~giyu</td>
</tr>
<tr>
<td>elder brother</td>
<td>dhagu~dhaguny</td>
<td>dhaguny</td>
<td>gadhana</td>
</tr>
<tr>
<td>nulla nulla</td>
<td>murrru~mudha</td>
<td>mudha</td>
<td>mirru</td>
</tr>
<tr>
<td>shield</td>
<td>burrgu</td>
<td>burrgu</td>
<td>gunmari~mulga</td>
</tr>
<tr>
<td>canoe</td>
<td>guga</td>
<td>guga</td>
<td>dhandul</td>
</tr>
<tr>
<td>head</td>
<td>dhungu</td>
<td>gadha~dhungu</td>
<td>gadha</td>
</tr>
<tr>
<td>forehead</td>
<td>balga</td>
<td>balga</td>
<td>ngamu</td>
</tr>
<tr>
<td>ear</td>
<td>manga</td>
<td>manga</td>
<td>walu</td>
</tr>
<tr>
<td>nose</td>
<td>guwa<del>guu</del>wuu</td>
<td>guu</td>
<td>wudha</td>
</tr>
<tr>
<td>mouth</td>
<td>dhaa</td>
<td>dhaa</td>
<td>barrga</td>
</tr>
<tr>
<td>tooth</td>
<td>diya<del>diirr</del>yirra</td>
<td>yiya</td>
<td>yirra</td>
</tr>
<tr>
<td>stomach</td>
<td>bendu~banbu</td>
<td>banbu</td>
<td>ngalgu</td>
</tr>
<tr>
<td>knee</td>
<td>mugu</td>
<td>mugu</td>
<td>waga</td>
</tr>
<tr>
<td>bone</td>
<td>yarrun~ngagu</td>
<td>ngagu</td>
<td>balban</td>
</tr>
<tr>
<td>fat</td>
<td>widha</td>
<td>widha</td>
<td>dhami</td>
</tr>
<tr>
<td>skin</td>
<td>nguman~wuman</td>
<td>nguman~ngumal</td>
<td>nugal</td>
</tr>
<tr>
<td>grey kangaroo</td>
<td>ngarrgu</td>
<td>ngarrgu</td>
<td>wura</td>
</tr>
<tr>
<td>possum</td>
<td>dhargurr</td>
<td>dhargurr</td>
<td>gulan</td>
</tr>
<tr>
<td>echidna</td>
<td>barrbira</td>
<td>barrbira</td>
<td>malgu</td>
</tr>
<tr>
<td>white cockatoo</td>
<td>dhigari</td>
<td>dhigari</td>
<td>gaarr</td>
</tr>
<tr>
<td>sun</td>
<td>dhuru~dhurdu</td>
<td>dhuru</td>
<td>gari</td>
</tr>
<tr>
<td>black goanna</td>
<td>waruny</td>
<td>warundja~waruwiny</td>
<td>manal</td>
</tr>
<tr>
<td>one</td>
<td>wangera</td>
<td>wanga</td>
<td>waba</td>
</tr>
<tr>
<td>many</td>
<td>mulga<del>mula</del>mula</td>
<td>mulga</td>
<td>buli~muli</td>
</tr>
<tr>
<td>cold</td>
<td>yagal</td>
<td>yaga~yagal</td>
<td>dhawa</td>
</tr>
<tr>
<td>good</td>
<td>miginy</td>
<td>miginy</td>
<td>binbi</td>
</tr>
<tr>
<td>big</td>
<td>malgalja</td>
<td>malgalu</td>
<td>wugal~wiyal</td>
</tr>
<tr>
<td>die</td>
<td>wula+</td>
<td>wula+</td>
<td>mayu+</td>
</tr>
<tr>
<td>see</td>
<td>naga+</td>
<td>naga+</td>
<td>wana+</td>
</tr>
</tbody>
</table>

Table 5F - Wadja/Gangulu lexical comparison

\(^3\) Intervocalic retroflex stops are a diffusional feature of western Maric dialects, particularly in its southern distribution. Terrill (1993:129-132) identifies an alternation between the retroflex stop in Bidyara, i.e. south of the Great Dividing Range, and the continuant in Biri. Terrill’s name for Maric dialects north of the range.

\(^4\) There is significant word-initial velar stop deletion in some Maric dialects south of Great Dividing Range, particularly in those of the Maranoa River. Instances of this can also be found in Maric dialects north of the Great Dividing Range, on the Nogoa and Belyando Rivers. However, the stop deletion of these isolates has a wider range than those of the Maranoa.
Although it can be seen in Table 5F that most lexicon is clearly differentiated between identical or very similar words in Wadj and those Maric dialects south of the Great Dividing Range, there are anomalies. For example, some Wadj dialects have *dhuugu* 'head', in common with southern Maric, and others *gadha* 'head', in common with Gangulu. There are also instances in which Wadj has its own word - *yiya* 'tooth', for example - cognate with both southern Maric dialects (*diya* ~ *diirra* ~ *yirra* 'tooth') and Gangulu (*yirra* 'tooth'). Table 5G compares words shared by Wadj and Gangulu dialects as compared to those of southern Maric dialects.

<table>
<thead>
<tr>
<th>English</th>
<th>Maric south of the Great Dividing Range</th>
<th>Wadj</th>
<th>Gangulu dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>old man</td>
<td>gayara</td>
<td>wadhuri</td>
<td>wadhurany</td>
</tr>
<tr>
<td>old woman</td>
<td>muranyan</td>
<td>wadhugan</td>
<td>wadhugan</td>
</tr>
<tr>
<td>father's father</td>
<td>miya-miyayila</td>
<td>ngadiru</td>
<td>ngadi</td>
</tr>
<tr>
<td>son (m.s.)</td>
<td>dhilgi</td>
<td>dhidji</td>
<td>dhidjina</td>
</tr>
<tr>
<td>plain turkey</td>
<td>bungany</td>
<td>warrga</td>
<td>warrga</td>
</tr>
<tr>
<td>carpet snake</td>
<td>gabul-abul</td>
<td>bunggany</td>
<td>bunggany-bunngi</td>
</tr>
<tr>
<td>death adder</td>
<td>madhamu</td>
<td>yadara</td>
<td>yaldara</td>
</tr>
<tr>
<td>sand goanna</td>
<td>dharginy</td>
<td>manguwany</td>
<td>mangu-manguliny</td>
</tr>
<tr>
<td>tortoise</td>
<td>nindyiman</td>
<td>ngibara</td>
<td>ngabara</td>
</tr>
<tr>
<td>fish</td>
<td>guyu-yuu-wina</td>
<td>wina</td>
<td>wina</td>
</tr>
<tr>
<td>egg</td>
<td>gabuny-abuny</td>
<td>gumaru-gabuny</td>
<td>guma</td>
</tr>
<tr>
<td>bark</td>
<td>bidhal-biya-guga-uga</td>
<td>guga</td>
<td>guga</td>
</tr>
<tr>
<td>ground</td>
<td>nhandi-dhandi</td>
<td>nhani</td>
<td>nhani</td>
</tr>
<tr>
<td>stone</td>
<td>ban-gu</td>
<td>bayi-bayu</td>
<td>bari</td>
</tr>
<tr>
<td>star</td>
<td>dandurr-dandu</td>
<td>budhu</td>
<td>budhu</td>
</tr>
</tbody>
</table>

Table 5G - Wadj/Gangulu and southern Maric lexical comparison

There are good reasons to conclude that Wadj speakers, unique among the Maric speakers north of the Great Dividing Range, are a remnant of an earlier wave of demic migration, the majority of whom are found south of the range. Wadj shares a good deal more lexicon with southern Maric dialects. Moreover, the lexicon it does have in common is more likely to be genetically cognate rather than borrowed. This twofold conclusion is deduced from a greater component of their shared lexicon coming from semantic categories regarded as more stable, such as anatomy. Telling also are the verb roots *wula*+ 'die' and *ngaga*+ 'see', which compare with *muyu*+ 'die' and *tuna*+ 'see' in the Gangulu dialects.\(^{55}\) Gangulu dialects are more closely related to the Wiru dialects of Maric located on the Isaac River to their immediate north, making it probable that Gangulu speakers represent the vanguard of a later wave of Maric expansion that followed these tributaries of the Fitzroy system down from a

\(^{55}\) The words *wula*+ 'die' and *ngaga*+ 'see' are widespread Pama-Nyungan inheritances. This seems to be a pattern in the comparison of Maric dialects north and south of the Great Dividing Ranges (see also *guyu* 'fish').
locus of expansion further north. Words shared by Gangulu dialects and Wadja are found mostly in the semantic domains of flora, fauna, and terrestrial features, which, as noted, are often indicative of a group acquiring the environmental terms of a displaced language. It is also possible that some of these are pre-Maric substrate shared by both Gangulu and Wadja. In addition, there are the few Wadja words that are found in neither Southern Maric nor Gangulu. These words might indicate the presence of a non-Maric substrate in Wadja, the possibility therefore that Wadja speakers, part of a posited first wave of Maric expansion, found in this area speakers of a language or languages other than Maric. This substrate was then passed on to Gangulu dialects, unless (but this is perhaps less likely) Gangulu speakers arriving in the region independently also encountered non-Maric speakers. A significant portion of Wadja lexicon is composed of words that either have no cognates whatever in Maric, such as *giga* 'mother', or else are found also as anomalies in the lexicons of far-flung Maric dialects, such as *gaya* 'mother' found in both Wadja and the Gugu Badhun of the Burdekin River.

Both contrast with *yanga* 'mother', found almost universally in Maric dialects. This contrasts not only with Maric generally, but the variation in the assumed substrate terms themselves might suggest a long history of occupation and perhaps smaller more linguistically diverse social groups. Wadja lexicon of possible substrate origin is compared in Table 5H.

<table>
<thead>
<tr>
<th>English</th>
<th>Maric south of the Great Dividing Range</th>
<th>Wadja</th>
<th>Gangulu dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>baby</td>
<td>nhayilu</td>
<td>nabulu</td>
<td>wanguru</td>
</tr>
<tr>
<td>mother's mother</td>
<td>gani</td>
<td>gamuru-gamiru</td>
<td>gani</td>
</tr>
<tr>
<td>mother</td>
<td>yanga</td>
<td>gaya ~ giga</td>
<td>yanga</td>
</tr>
<tr>
<td>younger brother</td>
<td>wabur-wabunyiyala</td>
<td>baburigila-waburu-waburl</td>
<td>wabu</td>
</tr>
<tr>
<td>elder sister</td>
<td>bar-barindylia</td>
<td>mangungu-bayingala</td>
<td>bayi</td>
</tr>
<tr>
<td>younger sister</td>
<td>wabaganu</td>
<td>manngi-manungun+gu-ala</td>
<td>wabu</td>
</tr>
<tr>
<td>wife</td>
<td>guy-guyara</td>
<td>wuwa-bigu</td>
<td>bigunay</td>
</tr>
<tr>
<td>thigh</td>
<td>dhara</td>
<td>gugal</td>
<td>dhara</td>
</tr>
<tr>
<td>spear</td>
<td>bura</td>
<td>nguru</td>
<td>ganda</td>
</tr>
<tr>
<td>axe</td>
<td>baru-baruny</td>
<td>gubarr-bigu</td>
<td>dugun-galirra</td>
</tr>
<tr>
<td>grey kangaroo</td>
<td>ngargu</td>
<td>buguluwi</td>
<td>wura</td>
</tr>
<tr>
<td>dingo</td>
<td>ngura-wandi-gumbina</td>
<td>mawa~ gagagi</td>
<td>ngura-wawurr</td>
</tr>
<tr>
<td>emu</td>
<td>gulbari-gulbar-gulbi</td>
<td>nguriny-nguwny</td>
<td>gundulu</td>
</tr>
<tr>
<td>eaglehawk</td>
<td>gudhal-wudhala</td>
<td>gwidiya</td>
<td>gwidiyala</td>
</tr>
<tr>
<td>crow</td>
<td>wadha-waragan</td>
<td>wagan-wiyagan</td>
<td>wadhaan~ wadhagan</td>
</tr>
<tr>
<td>magpie</td>
<td>gulbu-gulbaru-ulbu</td>
<td>gurrahan</td>
<td>gaburu-gubanguru</td>
</tr>
<tr>
<td>mosquito</td>
<td>budhany</td>
<td>burudhin-budhuyi</td>
<td>budhing-budhil</td>
</tr>
<tr>
<td>scrub</td>
<td>wadju</td>
<td>mambi</td>
<td>mungaa-mungayi</td>
</tr>
</tbody>
</table>

Table 5H – Possible non-Maric Wadja substrate
A separate category of non-Maric terms are borrowings from Dawson River Wakka (otherwise Yiman), whose speakers occupied the Dawson River country contiguous with Gangulu and Wadjja to the south. Given that Yiman is on the westerly periphery of the Wakka-Kabic expansion, it is likely that contact has been the result of Wakka speakers migrating north along the Dawson River and there encountering the region's Maric speakers proceeding south or already in occupation of country in the Dawson Valley. If so, their encounter, about which little is known, is a case study of contact arising from demic migration. The evidence for Gangulu borrowing into Yiman (which seems the main direction of borrowing) can be found in chapter 6.

The significance of the linguistic evidence becomes apparent when juxtaposed with the evidence of the geographic distribution of the languages compared. On one hand, there are the Gangulu (from gangu 'no, not') dialects of Maric whose distribution coincides with the broad river valleys of the lower Fitzroy River and its tributaries, the Mackenzie, Isaac and Dawson Rivers. This distribution includes a discontinuity, the Brown River dialect, one of the Garangbal dialects, as the western dialects of Gangulu are known (from ganu 'no, not'). The Wadjja dialects are hemmed in to the south by the Great Dividing Range. One Wadjja language, known only from Josephson's list in Curr (1887), which he identifies as Kanoloo, occupies the westerly flowing tributaries that empty into the Comet River.56 The Wadjja, as described by Tindale, were 'on the west side of Dawson River but away from the main river' and elsewhere, 'south west of Duaringa west of the Dawson and north of Bigge Range' (Journal of the Harvard and Adelaide Universities Expedition of 1934:723. Kanoloo is separated from Wadjja country by the Expedition and Shotover Ranges, each occupying the headwaters of different river systems, namely the Dawson and Comet River systems, respectively. According to Tindale's informant Charles Mummins, '[f]ormerly there were two small tribes Wadjja and Wainji'go but they have been one 'for a long time'. Theirs is a constricted range and there is considerable diversity in the Wadjja dialects spoken within it. This is consistent with a history of speakers of once broader language distributions having been forced back into a smaller area. This distribution cannot plausibly be accounted for by Sapir's Age-Area hypothesis, as their relationship with Maric generally makes clear. Wadjja's linguistic affiliations are with the Maric languages south of the Great Dividing Range, rather than with the Maric languages north of the range, including Gangulu. Gangulu's linguistic affiliations, on the other hand, are all with the Maric dialects of the river systems to their north. Wadjja occupy tableland country of indifferent character, poorer than the scrubs, swamps and flats that constitute the Gangulu distribution. That Gangulu occupies the better-resourced river valleys, and Wadjja the less-resourced tableland, is consistent with a model that sees Maric speakers having migrated southward down the major river systems into the area formed by the

56 Whether Josephson's Kanoloo represents a lax pronunciation for Gangulu (with attendant problems of its own for interpretation as an ethonym) or whether it is a phonetic variant – perhaps Ganulu – is impossible to say. This may be an example of the not uncommon problem in the ethnographic literature of 'levels' of social organization, namely, who exactly is being referred to by who. The presence of an isolated pocket of Garangbal speakers [i.e. Gangulu speakers] on the Brown River, proximate to the Comet River, may be relevant.
confluence of the Fitzroy, Dawson and Mackenzie Rivers. It is probable, in my view, that this
distribution was the result of Gangulu expansion postdating that of an earlier wave of Maric
expansion, a language of which, Wadja, is the sole representative left north of the Great Dividing
Range. The Wadja distribution, hemmed in as it is against the northern side of the range, is therefore,
in a sense, an isolate, a linguo-ethnicity that found itself on the south-eastern periphery of the initial
Maric expansion, later becoming separated (other than via the not easily negotiated Bigge Range)
from those Maric speakers to which it was linguistically most closely related. On the basis that
peoples occupy richer country if having a choice in the matter, and on the basis of the linguistic
evidence indicative of borrowing, particularly of flora, fauna and landform terms, and the seeming
compression of divergent Wadja languages into a smaller, less-resourced area, I argue it is probable
that Gangulu were later arrivals in the region, forcing the Wadja out of the river valleys and back into
the hill country.

Conclusion

The two subgroup distributions examined, Western Desert and Maric offer good prima facie cases for
a recent migratory prehistory. Even the arch-diffusionist Dixon (2002) includes the Western Desert
and Maric languages in his category of genetic subgroups as opposed to areal groupings, the
implication being that they were exceptions to his millennial view of Australian language prehistory.
Both are broad, continental language spreads, and both distributions, it is argued, occurred over the
Late Holocene, although not over the same timeframe. The dissimilarity of their internal language
and sociocultural interrelationship is apparent, and a good part of this has to be attributable to
differences in the climate, environment and topography over which their migratory history has
unfolded.

The Western Desert and Maric distributions offer good evidence for a Late Holocene prehistory of
demic migration. They also suggest something of the way in which particular climatic,
environmental and topographic conditions have shaped the economy, culture and sociality of the
peoples concerned. While histories of demic migration are the common denominator, the genius of
Aboriginal culture has been the adaptation of each expanding linguo-ethnicity to a wide range of
physical circumstances. Migratory expansion has demanded each linguo-ethnicity different and
creative responses in almost every aspect of human social endeavour: different economies and
relation to land, different social organization, different material adaptations, different relationships
with their neighbours. Some of the effects of demic migration conform to expectations common in the
history of other continents, the dislocation of weaker peoples in the face of more numerous, better
equipped and better organized peoples being foremost among them (see Diamond 1998:53-7).
Chapter 6
Complex Distributions

The Wakka-Kabic subgroup is located in the south-east corner of Queensland. It can be described as a complex distribution, combining as it does broad spreads, isolates and discontinuities. As mentioned in the previous chapter, our ability to reconstruct the phylogenetic interrelationships of Wakka-Kabic - even to decide whether it is a subgroup at all - is limited by the data being predominantly lexical, and mostly recorded in the 19th century, with variable results.\(^{57}\) Indeed, the evidence required to indisputably identify Wakka-Kabi as a phylogenetic subgroup, that is, shared innovation, is lacking.\(^{68}\) Early colonization has prematurely cut off the opportunity to apply modern interpretative techniques to these languages. One of the few Wakka languages that has had the advantage of modern analysis is Duungidjawu, which was the language of Gaiarbau, the noted informant on south-eastern Queensland (Wurm 1976). Kite and Wurm (2004:3) provide a thorough description of Duungidjawu, which possesses some very distinctive features; among others,

Duungidjawu has an unusual system of core case marking, with nominals (excluding human nouns and dogs) inflecting in an ergative-absolutive pattern, and pronouns and human nouns (and dogs) having ergative marking for A [transitive subject] and nominative and accusative marking for S [intransitive subject] and O [transitive object] respectively. A notable feature of this language is the large number of monosyllabic roots.

Laffan (2003), too, identifies features shared between several languages of the putative Wakka-Kabic subgroup, suggesting possible shared innovation. One is the word *nganu* ‘who’, which ends in \(-du\), ‘a productive ergative suffix in all Wakka-Kabic languages’ (2003:231). Other shared features include: ‘the reflexive and reciprocal suffixes [that] appear after the verb stem (and after the causative suffix if present) but before the final inflection in all of the modern Wakka-Kabic languages’ (They derive intransitive stems from transitives and the resulting subject noun phrases are always nominative;  

\(^{57}\) That Wakka-Kabic is a language subgroup is not a position held by all historical linguists. Unsurprisingly, Dixon (2002:xxxiv) places his Waka-Gabi in his category of ‘areal group’, that is one for which commonalities are explained by a prolonged period of diffusion within a circumscribed areal group that does not have a phylogenetic basis.

\(^{58}\) Koch (2014:28-9) describes the criterion for definition of the phylogenetic subgroup as follows: ‘Establishing a subgroup [...] presupposes a reconstruction of a proto-language, then demonstrates, for a group of languages, that they have undergone a set of identical innovations which are better interpreted as having taken place once in an intermediate common ancestor than having occurred independently or by borrowing.’
processes likely to have been inherited from proto-Wakka-Kabic’ (2003:261); the form *-ndV-, reconstructed as having a causative function in the proto-language, offers evidence of a distinct Wakka-Kabic group since cognate forms cannot be found in languages which share a linguistic boundary with the modern languages’ (2003:294-5); ‘the -ba- and -bama- causative suffixes found in the Wakka subgroup are likely to be innovations which help to define it as there are no cognate forms in the other Wakka-Kabic subgroups. *yi-, a reflexive marker, is also found exclusively within this subgroup’ (2003:295); ‘the demonstratives reconstructed for proto-Wakka-Kabic, *garrV, *gana- and *marra, are not found in any external languages which is justification for claiming that these languages constitute a separate group’ (2003:299).

While the morphosyntactic evidence in Wurm and Kite (2004), Laffan (2003), Holmer (1983) and Brasch (1975) offers the probability that Wakka-Kabic languages do form a subgroup, there are systematic issues with all four analyses. These problems boil down to the significant lacunae that exist in our knowledge of these languages across the board.59 There is a very incomplete range of

59 Duungidjawu, however, is an exception among Wakka-Kabic languages in terms of the material collected for it. It is impossible to argue the unusual morphological and phonological (a five-vowel phonemic inventory) features of Duungidjawu as common innovation for a Wakka subgroup or Wakka-Kabic protolanguage. Laffan’s (2003) comparison is based on Duungidjawu and a number of other Wakka-Kabic languages including Kabi, Bajala and Gurang. As will be discussed, the issue is that a comparison limited to these languages, all of which are probably representatives of very different diachronic levels of Wakka-Kabic
data across all Wakka-Kabic languages, and hence only the supposition that the features identified apply to the entirety of the subgroup as common innovation. Nevertheless, the inference from Kite and Wurm (2004:12-16) is that Wakka is a subgroup, although this is never stated explicitly. For example, they provide a list of all the Wakka vocabularies and grammatical studies, with the implication that these have a bearing on Duungidjawu, and, throughout the text, they provide examples where Duungidjawu grammar and morphology coincide (although not with Wakka only, but also Bandjalang: Kite and Wurm 2004:31-39, 49, 59; Laffan 2003:242-3, 260, 264; Brasch 1975:App. 15B, 38). Bowern and Atkinson (2013:819) have suggested that vocabulary shared across a subgroup can act as innovation, but even here Wakka-Kabic offers only a limited range of possibilities. Some of the lexicon found across Wakka-Kabic also occurs in other east coast subgroup distributions, notably Bandjalang, with the inference that both have a common history in an earlier regional protolanguage.\footnote{Considerable lexical diversity exists in Wakka lexicons, less so in Kabi, this being particularly so in the semantic domains to do with humanity and culture. The presence of fully formed Wakka-Kabic languages, themselves of quite wide distribution, such as Gurang, adds to the impression not only of age, but of a commensurate prehistory of splits, expansions and contractions.} In short, the history of the hypothesized Wakka-Kabic subgroup is complex for two reasons: its intrinsic diversity (the product, it must be assumed, of considerable age) and the absence of data that would help to more fully illuminate the interrelationships that might exist.

\section*{Wakka-Kabic Phylogeny}

If this state of affairs has a positive side, it may be that the demic migration hypothesis offers a different and complementary, non-linguistic, approach to unravelling prehistories such as that of Wakka-Kabic. Demic migration theory offers the relationship of language distribution to environment, topography and inferred prehistory to compare against the deductions derived purely from linguistics. For the purposes of this analysis, I will make the a priori assumption that Wakka-Kabic constitutes a phylogenetic subgroup. However, a reconstruction of Wakka-Kabic in its entirety is beyond the purview of this thesis. While no effort is made to make a case for Wakka-Kabic subgrouping, or to construct a phylogeny, a general outline of Wakka-Kabic interrelationships will be articulated, mainly on lexical evidence. It should be remembered that those who have analysed Wakka languages (Holmer 1983; Laffan 2003; Kite and Wurm 2004) have assumed – or at least behaved as though – Wakka-Kabic is a subgroup. One of the primary misconceptions about Wakka-

\footnote{The evidence suggests that there has been a diachronically intermediate eastern Australian subgrouping between proto-Pama-Nyungan and Wakka-Kabic, either in the classic phylogenetic sense or, as Garrett (2006) proposes for some branches of proto-Indo-European, an areal interrelationship. Bandjalang, like Wakka-Kabic, is dialectally complex, inviting the prima facie conclusion that it and its antecedents have been located in the region for a long period of time.}
Kabic is implied in the name of the subgroup itself, namely that the primary division is between Wakka and Kabi. This suggests that these can be seen as possessing equal weight in the phylogenetic history of Wakka-Kabic languages. There is the implication that each will have approximately the same level of diversity and that they form the original and primary split in the phylogeny of the subgroup. This, in my view, is incorrect.

Wakka languages are considerably more diverse than Kabi, which, for all intents and purposes, can be regarded as a single language. The reason for their equal standing in the name Wakka-Kabic appears to be based in the fact that both have large distributions, and that each is quite distinct culturally as well as linguistically. A survey of one lexical semantic domain, anatomy, provides, in broad brush at least, some of the historical interrelationships of the Wakka-Kabic subgroup. As expected, some terms of Pama-Nyungan origin are shared across the four groups compared – Wakka, Kabi, Gurang and Dappil. There are few Wakka-Kabic words in Alpher’s (2009) proto-Pama-Nyungan etymological list. One of them, *dharrpa ‘thigh’, is found in all Wakka-Kabic groups with the notable exception of the Wakka languages themselves, which invariably have djangurr ‘thigh’. There is significant variation from pPN *dharrpa ‘thigh’ across the other three Wakka-Kabic languages: Kabi is velar-nasal final, dharrang; Gurang is vowel-final diarra; and the medial trill in Dappil is realized as a stop, dhada. This phonological pattern persists across Kabi, Gurang and Dappil. Kabi and Dappil have djangga and djain ‘mouth’, respectively, based on pPN *djain ‘mouth’. Wakka-Kabic languages have pPN *dinn ‘penis’, the exception being Wakka, which has duga ~ dulga ‘penis’. Most of the anatomical Wakka-Kabic lexicon that can be attributed to proto-Pama-Nyungan is also found in Bandjalang, suggesting as already mentioned an inclusive subgroup preceding Wakka-Kabic. All four Wakka-Kabic languages compared have words for ‘foot’ originating in pPN *dina ‘foot’; Kabi and Wakka, however, with the velar-nasal final djinang. A similar pattern applies to pPN *bina ‘ear’, pPN *nsum ‘breast’ and pPN *gumma ‘faeces’. Like Wakka, Bandjalang words such as binang ‘nose’, djinang ‘foot’, gunang ‘faeces’ are velar-nasal word-final. Other anatomical lexicon that points to some shared post-pPN regional relationship that included proto-Wakka-Kabic and proto-Bandjalang, either phylogenetic or diffusional, includes: mi ‘eye’ (although Wakka, Kabi and Bandjalang all have

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61 This error goes back to the original description of the subgroup, that of Schmidt’s (1919 [1972]): ‘Schmidt classified the Wakka-Kabic group as an independent group of the east coast of Australia. In this group he included five languages which he called East Wakka, West Wakka, South Kabi, Middle Kabi and North Kabi. The group was so-called because Wakka and Kabi, both meaning ‘no’ in the respective languages, were at opposite ends of the continuum […]’ (Laffan 2003:5). Thus, Kabi, a relatively undifferentiated language, is made to appear as, or more, diverse than Wakka. This view has been reinforced in subsequent revisions, including O’Grady, Wurm and Hale (1966), Holmer (1983) and Dixon (2002). In all cases the problem seems to have been confusion between the demographic and social status of the various languages and their speakers, Gurang, Kabi and Bajjala chief among them, populous and linguistically distinct, and the actual diversity of the languages themselves.

62 This is a very widespread feature of regional languages (see Dixon 1980:244). Austin (1997b:22-5) reconstructs Proto Central New South Wales (PCNSW), ancestor of languages such as Gamilaraay and Wiradjuri, with word-final ng, most descendant languages, however, having subsequently lost the enclinal: ‘There have been several sound shifts affecting the descent of final nasals between Proto-CNSW and all the daughter languages except Wiradjuri’.
some dialects with *miil 'eye', cf. Alpher's (2009) pPN reconstruction *miil 'eye'; djibing 'eyebrow' (Wakka only); munu 'nose' (Kabi, Gurang and Dappil but not Wakka, cf. Alpher's (2009) pCNSW *munu 'nose'); djang vs. djemgga 'mouth' (Bandjalang and Kabi, respectively); dirung 'teeth' (Bandjalang) vs. diyang 'teeth' (Wakka) and dina 'teeth' (Gurang; cf. eastern PN languages, Koch pers. comm. 12-10-2017); ganggar 'throat' (Wakka and Gurang); walgan 'shoulder' vs. wani (Wakka), wali (Kabi and Gurang); dulgu 'heart' (Bandjalang and Gurang) but dugu and dhu 'heart' (Kabi and Wakka, respectively, cf. Alpher's 2009 pPN *lulu 'heart'); munu vs. munu 'stomach' (Wakka only); dhuu 'penis' (but not Wakka); djuural vs. djuu 'vulva' (Wakka only); ganinu 'hip or loins', buyu 'calf (lower leg)'; wulu 'ankle'; and yelanu 'skin' (Gurang). Other linguistic features, the atypical Australian five (or four) vowel inventory and the fricativization of medial bilabial stops in particular, shared by Wakka-Kabic and Bandjalang (Brash 1975:15B, 3B), may also indicate a common origin preceding subgrouping.

Anatomical lexicon shared between Wakka-Kabic languages, and not included in the categories above, includes the following: djibing > yibing 'eyebrow' (lentition in Gurang and Dappil, with Kabi, however, having dinguur 'eyebrow'); djumnu 'tongue'; giring 'arm' (Wakka and Kabi, but gini 'arm' in Gurang and Dappil); biri 'hand' (Kabi and Dappil), biru (Gurang), bii and nua (Wakka); gilin 'fingernail', git (Dappil); gabur 'urine' (Wakka and Kabi), gawurr (some Wakka) and gabi (Gurang). What becomes most apparent in an internal comparison of Wakka-Kabic data is the far greater diversity found within Wakka languages and dialects than between Wakka, Kabi, Gurang and Dappil. In the synonymy above, for example, while all Wakka-Kabic languages share the cognate biri ~ biru ~ bii 'hand', Wakka not only has bii 'hand' but most dialects have an entirely different word nua 'hand'. Some dialects of all Wakka-Kabic languages have pPN *miil 'eye'; however, most Kabi dialects have miil 'eye' (although a minority have miil 'eye'); while some Wakka languages do have miil 'eye', the great majority have one of a plethora of words for 'eye': maa, mii, mii, miya, miya, miy and miil. Similarly, while Gurang and Dappil have one word for 'beard' (nganbi and yari, respectively), and Kabi has two, or, at least partial semantic shift, yigal 'chin' and ymin 'beard'. Wakka has numerous variant forms: yiga, yigi, yiga, yigal, yiga. This is a pattern found across Wakka languages, but it is particularly noticeable in semantic fields to do directly with society, i.e. words such as djaa, djad, mura, mura, miyan 'man', and mawang, wiyang, maan, mii, mini, nginya, ngunya, djaa 'mother'. The diversity apparent in the Wakka languages can be sheeted home to several probable factors: the greater extent and variability of the Wakka distribution, indicative the greater period of time over which Wakka has taken evolve from proto-Wakka-Kabic (with Kabi representing a later branch of the subgroup); and, the subsumption of substrate found in its lexicon, there appearing to have been a number of different languages in the region prior to the Wakka proto-language. This last is seemingly indicated in the many common words of social significance, such as those for 'woman': muguran; yingang; bubara; gimbun; gia; muryurn; waangga; and 'mother': murray murray; wiyang; manay ~ maan; nginya; nguya; nganga; djua. On this basis, I would argue that languages such as Kabi, Gurang and Dappil, all relatively discrete within themselves, represent branches of Wakka-
Kabic that have split off at later stages of its evolution, Wakka by the time of their split having already undergone considerable diversification.⁶³

Another observable characteristic of the Wakka-Kabic lexical corpus is the degree of semantic shift. For example, *mii* 'eye' in some Wakka languages shifts to mean 'hair of the head' in the Upper Brisbane River language, which has *niya* 'eye' (Landsborough & Curr 1887:3:210-2). A similar semantic shift appears to have occurred in Kabi's split from Wakka, with the former having *mi* 'eye' and the latter *mii* 'nose'. I suggest that something along the lines of the following has occurred:

<table>
<thead>
<tr>
<th>gloss</th>
<th>proto-Wakka-Kabic</th>
<th>proto-Kabic</th>
<th>proto-Wakka A</th>
</tr>
</thead>
<tbody>
<tr>
<td>eye</td>
<td><em>mi</em></td>
<td><em>mii</em></td>
<td><em>mii</em></td>
</tr>
<tr>
<td>nose</td>
<td><em>murru</em></td>
<td><em>murru</em></td>
<td><em>mii</em></td>
</tr>
</tbody>
</table>

Similarly, *gaun* 'head' in Kabi, generally means 'hair (of the head)' in Wakka, languages that have *muru*, *ma*, *murru*, *marr* 'head', as well as some also having *gaun* 'head'.⁶⁴ It is likely that languages such as Kabi and Gurang have developed away from particular subgroup branches of Wakka, and in essence represent no more than particular independent developments, that is, phylogenetically on a par with lower branches of Wakka. The identity of Wakka-Kabic languages such as Gurang appears to be based as much on their distinct cultural identity as it does on any great depth of linguistic divergence from the subgroup.⁶⁵ Similar characteristics are observable in Wakka languages such as Yiman and Wulili on the western periphery of Wakka distribution. Both Wakka languages also have unique words for anatomical features, such as *buginy* [bugwiny] 'hair of the head', *budjung* 'nose' (Yiman), *yilin* 'lip', *gunurr* 'stomach', *biwooy* 'leg', *gunurr* 'knee' (Wulili). Whether adopted from substrate or having developed independently, it seems apparent that such languages were on their way to developing, like Kabi and Gurang, into languages with a very distinct surface identity, with perhaps, at deeper levels, retention of more conservative morphosyntactic Wakka-Kabic commonalities. The western Wakka dialects, while they have their distinctive features, are less divergent than the Wakka languages of the higher, heavily-wooded country in the east of the distribution, where distributions are smaller and languages more diverse. Their lexical inventories differ considerably from those of their neighbours and the concentration of diversity overall is therefore greater.

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⁶³ This is not the standard view of Wakka-Kabic phylogeny or, at least, not that of Laffan, who posits a three-way division between Wakka languages, Kabi and Gurang (the latter consisting of Gureng and Gueng-Gueng). The inclusion of the latter as a fundamental and early split in the Wakka-Kabic subgroup is in my opinion unsustainable. There is clearly far greater variation among Wakka languages themselves than between Wakka, Kabi and Gurang taken as separate entities.

⁶⁴ This and the analysis immediately preceding factor in the possibility of elicitation error, i.e. that someone records a word with meaning 'hair of the head' when what was intended was 'head'. The distinctions elucidated seem to stand statistically irrespective of this possibility having occurred in some cases.

⁶⁵ For example, the various Wakka-Kabic languages have distinct kinship terminologies and these imply distinct and different kinship structures, and, therefore, different interrelationships. A comparative analysis of these kinship systems was originally intended for the thesis but had to be discarded due to length considerations.
Wakka-Kabic Origins

Sapir's (1916[1949]) Age-Area hypothesis appears to apply well to the Wakka-Kabic subgroup. The greater diversity of Wakka languages on the Great Dividing Range and the proximity of other Wakka-Kabic languages indicate that this has been the likely site of the subgroup’s proto-homeland. This model of prehistory receives support from Wakka people’s own idea of their past. Anecdotal history places Wakka-Kabic origins in the forested high country of the Great Dividing Range. H. M. Sedgewick, Superintendent of Cherbourg Mission, in a letter to L. P. Winterbotham (04-09-1952), describes a ‘Wokka Wokka Corroboree’ as a:

[...] description of open country and a reminder to the members of the Wokka Wokka tribe that they were originally a hill tribe living in rough country with plenty of trees and were forced out of this country to the open plains or downs. The Corroboree ends with the assertion that they are going home to their original tribal district.

This anecdotal account is reinforced by mythology. The ‘Cockatoo and Rat Kangaroo’ myth shows two things about the Wakka taken collectively. Firstly, something that might not appear to need reiteration in other contexts, that Wakka speakers were aware of the commonality of their language, and also, I think, without drawing too long a bow, their ethnicity. Secondly, Wakka speakers defined a major difference in their linguo-ethnicity, that between hill-dwelling and plains-dwelling Wakka, on the basis of environment. The word *barungga* ‘kangaroo rat’ is universal to Wakka languages. While identified with a specific ‘tribe’ (Tindale 1974:165) and a language (cf. Holmer’s [1983:2] reference to ‘the Dalby language’) on the Darling Downs, both erroneously in my view, Barunggam is in fact a general reference to the plains dwellers of Sedgewick’s songs, that is, the Wakka who moved from the hinterland out onto the downs at some point later in the subgroup’s history (cf. Jefferies 2015a). The significance of the word as an ethnonym is that the kangaroo-rat is found only on the western plains, and therefore becomes a handy reference for the Wakka speakers living on that country (B. McKenzie correspondence with L.P. Winterbotham 1957):

A messenger came to the Cockatoo and said: ‘We have a fighting man who can beat anyone with a boomerang’ (a big fighting boomerang). The Cockatoo said go and fetch him – I have never been beaten yet. The Kangaroo Rat answered he was willing to fight, but would not do so on the ranges and scrub where the kangaroo lived, but would fight on the level flat of his own home. When they began to fight the Kangaroo Rat always hit the Cockatoo on the top of the head knocking off his feathers, and that is why Cockatoos have a bald patch on the top of their head. The Cockatoo could not hit the Kangaroo Rat at all because the Kangaroo Rat always seemed to disappear when the boomerang was thrown. The Cockatoo said ‘You win, but how did you dodge my boomerang – how did you step aside so quickly. The Kangaroo Rat explained that he jumped into the hole he had prepared in the soft ground the night before.
Western Wakka languages share many commonalities across the board; in general, there is dialectal homogeneity and a significant breadth of distribution, both indicators of language spread. Nevertheless, they identified themselves as discrete regional entities, the Yiriman of the Dawson River Valley and the Wullili of the Boyne and Auburn Rivers being the better documented examples. Sedgwick’s (1952) description echoes the deduction it is possible to draw from comparison of Wakka languages, i.e. the probability that Wakka expansion onto the western downs occurred well after a long period of development in the upland country of the Great Dividing Range. While no obvious diachronic inference can be drawn from McKenzie’s (1957) myth, it does show that Wakka speakers differentiated themselves along east versus west lines, with possible implications for their history. As with Maric and Karnic, it is likely no one single western demic expansion is involved, but a number of expansions, arising in different places, at different times and occurring at different rates of progress. If so, these demic expansions did not originate in one particular Wakka language, but proceeded from several loci, and hence have a variety of dialectal origins. This is borne out in the correspondence of linguistic variables in the comparison of western Wakka languages and their eastern counterparts.

Kabi dialects, in contrast, are typified by their homogeneity. Whereas the Wakka corpus will often have several words or phonological variants for a term, Kabi frequently has only one. Even the most recognized dialectal distinction in Kabi, between the Kabi language and Batjala, is relatively transparent; Kabi dialects, for example, have medial lenition of the peripheral stops found in Batjala (i.e. stops to glides, b > w). Kabi is widely distributed, running some three hundred plus kilometres north to south along the Pacific Ocean coast and, with the exception of major river systems such as the Mary and Burnett, extending never more than 20-25 kilometres inland. Again, the transparency of language interrelationship over a distribution of this magnitude indicates recent and rapid expansion. As with the western Wakka dialects, this combination of dialectal homogeneity and significant breadth of distribution indicates a probable origin in the same high country that is the presupposed Wakka proto-homeland. Kabi demic expansion has been in the opposite direction, towards the Pacific Ocean, from whence further migration has been north and south along the coast. There is a strong correlation between the Kabi language and the culture common to all its speakers; these are people whose economy and culture invariably revolves around the sea and river outfalls close to the sea. Wakka, by comparison, nowhere reaches the sea. Kabi languages occupy the eastern outfalls of the coastal ranges; Wakka languages, including Gurang, the tops and western slopes of these ranges. It is a pattern consistent with many along the east coast of Australia. Such a distribution presupposes that rivers provided avenues of migration between the inland and coast; as already noted, cultures that are well-adapted to riparian environments were well able to adapt to, and thrive, in littoral environments.

Given the reasonable supposition that Kabi distribution was the product of a later branch away from an already evolved Wakka-Kabic subgroup, and not a split in proto-Wakka Kabic, I hypothesise that the Kabi language is reflective of an expansion into a new and hitherto untapped environmental...
niche, namely that of the coast. The most probable scenario is that speakers of proto-Kabi were maximally able, and best positioned, to take advantage of the easterly flowing rivers that emptied into the Pacific Ocean. Kabi can be distinguished from Wakka not only on the basis of its distinct language, but also on that of its considerable distribution, all of which, unlike Wakka's, is maritime. Like the perceived difference between eastern and western Wakka dialects, this is a distinction enshrined in myth. The Kabi myth below provides a good idea of the antipathy with which coastal and hinterland peoples in this region viewed one another (Mathew 1910:189-90):

The Bonyi (bunya) and the Kuloloi (cypress pine) being rivals at one time had a great fight.

Said Kuloloi:

wenyo ngalibo bun-go nyanandigo?

Where (are) we the fight going to have?

Bonyi replied:

korange nyanandi Korawiga

There is the place at Fraser Island.

Then they began to fight and Bonyi speared Kuloloi low down, hence all its lower branches are like spears. As for Bonyi, he was speared high up which accounts for the lower part of the stem being clear of branches to this day.

While the environmental symbolism of the myth is apparent – the cypress representing the sandhills and coastal plains on which it grows, and the bunya, the rich volcanic mountains that are its habitat – the cultural symbolism is less obvious. Meston (OM64-17 Box 2 (3) JOL) records from Fraser Island the following, 'big bullroarer yeengo = out of cooolooli', that is, the 'big bullroarer' of the Batjala was made from the wood of the cypress, indicative of the tree's sacred value to the Batjala, and probably coastal Kabi speakers generally. It is a motif that recurs throughout Kabi mythology. Wakka speakers, on the other hand, while not alone in their possession of bunya country (there were coastal stands of bunyas on Kabi country, for example), were overwhelmingly associated with the magnificent forests of the Bunya Mountains that seasonally drew peoples from hundreds of kilometres. Like the mythical comparison of the plains-dwelling banunga 'kangaroo rat' and the (presumably) ranges-dwelling white cockatoo serving to distinguish a major division of Wakka speakers, this symbolism distinguishes two linguo-ethnicities that shared the same origins but came to represent two distinct environments and their associated ways of life. While not overtly diachronic, the myth can reasonably be interpreted to imply different histories closely linked to these distinct environments.

The one possible exception to Wakka being entirely an inland language is the Dappil language spoken on the lower reaches of the Boyne River and a narrow stretch of coastline between Barney Point on Port Curtis and the northern bank of Baffle Creek some hundred kilometres to the south. Dappil speakers can be grouped into two divisions: those who were littoral proper and those who inhabited the Boyne River. These are referred to by E. M. Curr (1887 V.3: 126, 122) as the Meerooni or
Marooonkee and the Toolooa, respectively. Dappil is an anomaly in Wakka-Kabic inasmuch as, while a language with distinct features, such as vowel-finals (as is Gurang, which is contiguous) and medial fortition, it is impossible to determine whether it is more closely related to Wakka, Kabi or Gurang. Dappil has much less of the cohesiveness found in, say, Gurang. This impression may be due to the relatively poor corpus – about 200 words from four sources – but it is more likely attributable to Dappil’s geographic position as the most northerly of Wakka-Kabic languages, wedged between Kabi on the coast to the south, Gurang, further upstream on the Boyne River, and Bayili, a non-Wakka-Kabic isolate contiguous to the north about which virtually nothing is known. Dappil appears to have been much affected by diffusion from all of these sources. Two surmises as to its origin are possible: either Dappil is a Kabi language, remnant of the earliest wave of Kabi expansion, or (more likely in my view) it descends from a proto-Wakka language that migrated down the Boyne River to the sea. If the latter, it was cut off from other Wakka languages by the later expansion of another Wakka-Kabic language, Gurang, into the upper reaches of the Boyne River. Its distribution on the coast, which, if it is indeed Wakka in origin, was so atypical, combined with its isolation, point to origins early in the history of Wakka-Kabic history. In the former scenario, as proto-Kabi speakers migrated down the rivers that flow eastward from the Great Dividing Range into the Pacific Ocean, proto-Dappil speakers expanded along rivers emptying to the north, eventually occupying parts of the coast. Based on Sapir’s centre-of-gravity principle and the geography, proto-Kabi speakers migrated down the Mary River, the greatest dialectal diversity in Kabi occurring in the vicinity of this river. Having already developed the economy and technology to succeed in the riverine environment, they were, in turn, able to adapt these advantages to the littoral environment. The river valleys and benign coastline of the Pacific Ocean where Kabi was spoken were certainly occupied before the advent of that language in the region; the homogeneity of Kabi over its considerable distribution indicate this, and archaeology provides the proof (Walters).

<table>
<thead>
<tr>
<th>gloss</th>
<th>Dapil Dulua</th>
<th>Dapil Marunyi</th>
<th>Wakka</th>
<th>Kabi</th>
<th>Gurang</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>daan</td>
<td>daan</td>
<td>daan (+)</td>
<td>daan</td>
<td>daan</td>
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<tr>
<td>old man</td>
<td>gungan</td>
<td>gurrpiŋ-ŋ</td>
<td>gurringa-ŋ</td>
<td>winyiŋŋu</td>
<td>guribel</td>
</tr>
<tr>
<td>old woman</td>
<td>gunuwan</td>
<td>gurrinja</td>
<td>marun</td>
<td>winyiŋŋu ~ marun</td>
<td>mungginy</td>
</tr>
<tr>
<td>boy (baby)</td>
<td>budjam</td>
<td>gagarr</td>
<td>gagurr (+)</td>
<td>nguguwaŋy</td>
<td>dabil</td>
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<tr>
<td>father</td>
<td>biya</td>
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<td>babu</td>
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<td>mother</td>
<td>ngaba</td>
<td>ngaba-ŋ</td>
<td>maam ~ nguyang</td>
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<td>yawu ~ yaa</td>
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<tr>
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<td>gaam</td>
<td>mawu-ŋgaam</td>
<td>gaam</td>
<td>warul</td>
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</tbody>
</table>

Table 6B – Dappil compared to other members of the Wakka-Kabic subgroup (continued opposite)

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66 This modelling of northern Wakka-Kabic languages is consistent with Intensification theory: it includes adaptation to a new environment (or relatively new, Wakka speakers generally not being strangers to inland watercourses); progressive occupation of more country; refinement of economic skills; technological innovation; and expansion of resource use.
<table>
<thead>
<tr>
<th>gloss</th>
<th>Dapil Duluwa</th>
<th>Dapil Marunyi</th>
<th>Wakka</th>
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<tr>
<td>eye</td>
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<td>miil</td>
<td>maa-miil</td>
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<td>miil</td>
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<tr>
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<td>yibiny</td>
<td>djibiny - djibinyggirr</td>
<td>dhingga - djibiny</td>
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<tr>
<td>nose</td>
<td>mudhu ~ muru</td>
<td>muru</td>
<td>mii</td>
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<td>yari-a</td>
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<td>yigal 'chin' yarany</td>
<td>nganjbi yibirr</td>
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<td>bii ~ naa</td>
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<td>ngilan</td>
<td>gulu ~ gilany ~ gagarra</td>
<td>babuny ~ ngilan</td>
<td>ngalulam</td>
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<td>djil</td>
<td>murarr ~ murra</td>
<td>bala [badla]</td>
<td>djil</td>
<td>djil</td>
</tr>
<tr>
<td>thunder</td>
<td>burungginiy</td>
<td>mumbal ~ mith</td>
<td>burungginy ~ mumba</td>
<td>burungga</td>
<td>burungga</td>
</tr>
<tr>
<td>one</td>
<td>garun ~ garul</td>
<td>gaalim</td>
<td>gabuin</td>
<td>gaalim ~ garulim</td>
<td>nyularr</td>
</tr>
<tr>
<td>two</td>
<td>bula [budla]</td>
<td>buwarr</td>
<td>bula</td>
<td>bula</td>
<td>bula</td>
</tr>
<tr>
<td>come</td>
<td>bal+</td>
<td>bawi+</td>
<td>baa+</td>
<td>baa+</td>
<td>baa+</td>
</tr>
<tr>
<td>see</td>
<td>yina</td>
<td>nyina ~ yina</td>
<td>nya+</td>
<td>nya+</td>
<td>nya+</td>
</tr>
<tr>
<td>sleep</td>
<td>gunyi+</td>
<td>unyi+</td>
<td>buwa+</td>
<td>gunyi+</td>
<td>gunyi+</td>
</tr>
<tr>
<td>cry</td>
<td>dudjula+</td>
<td>dungi+</td>
<td>dungi+</td>
<td>dungi+</td>
<td>dungi+</td>
</tr>
<tr>
<td>laugh</td>
<td>munydi+</td>
<td>munydi+</td>
<td>wadj+</td>
<td>yadji+</td>
<td>yadji+</td>
</tr>
<tr>
<td>dance</td>
<td>ngari+</td>
<td>gumbiil</td>
<td></td>
<td>nagari+</td>
<td>nagari+</td>
</tr>
</tbody>
</table>

Table 6B – Dapil compared to other members of the Wakka-Kabic subgroup (continued)
Expanding Kabi-speakers must assuredly have encountered speakers of other languages already in residence. It can be deduced therefore that greater population density allied to advantages both material and derived from a more comprehensive and far-reaching social organization were the probable causes that allowed Kabi-speakers to prevail, with the further implication that the environment had hitherto been under-utilized (for further discussion see Appendix 2).

Map 6C – Northernmost distribution of Wakka-Kabic. Erratum: 'Bayli' should be 'Bayili'

Gurang

The remainder of this chapter will focus on two Wakka-Kabic distributions, Gurang and Dawson River Wakka (otherwise Yi:man).\(^67\) While both are mid-level Wakka-Kabic languages, that is, they

\(^67\) The etymology of the ethnonym Yi:man is not well understood. It appears to have been more a sociopolitical designation than the name of a language. For that reason, the distinctive Yi:man language is better described as Dawson River Wakka. However, for the sake of convenience and to avoid confusion, Yi:man will be used to describe the Dawson River Wakka dialects throughout.
have split from Wakka relatively late in its phylogenetic evolution, their dialectal composition indicates two quite different histories. Gurang is usually distinguished as a separate Wakka-Kabic language. This, in my view, has more to do with Gurang’s distinct ethnolinguistic identity than with any profound linguistic variation. To all appearances, it is a fairly recent branch of the subgroup, no more differentiated than numbers of languages identified as Wakka. It has distinctive surface features that set it apart from Wakka generally. These, I argue, indicate a demic expansion away from, or within, the subgroup distribution as it was perhaps a thousand years ago. Among the few linguists to have studied Gurang, Holmer (1983:89-94) refers to Gurang as a language of ‘the eastern Wakka subgroup’, a theme repeated throughout Holmer’s analysis: ‘the phonemes are the same in Goreng-Goreng as in Wakka Wakka’; ‘the structure of the concrete morpheme in Goreng-Goreng is of the same type as in Wakka Wakka’; ‘the verbal derivation in Goreng-Goreng is strictly along the same lines as in Wakka-Wakka.’ The following is a typical example, Holmer (1983:96) highlighting the morphosyntactic correspondence of the two languages:

Of [Gurang] stems ending in a nasal (-ng, -m, -n, -ny) the ergative is formed (as in Wakka-Wakka) by adding to the stem respectively -gu, -bu, -du, and -djii [...] [O]f stems ending in -l or -r, the ergative is formed by the suffix -bu (or sometimes -u, as in Wakka-Wakka).
From this and other examples in Holmer (1983) and Brasch (1975), it is apparent that Gurang is in most aspects of grammar and syntax very similar, and sometimes identical, to Wakka. Kite and Wurm (2004:6-7) describe ‘[t]hree languages, Gabi, Gurung and Dapil, which are believed to form a subgroup with Waga-Waga, on the basis of lexicostatistical figures’ (all percentages, save Wakka and Gurung, omitted):

Vocabulary scores of these languages based on a 90-word list yield the following percentages (Dixon pers. comm.) [...] Gurung - Waga-Waga 35%. Verb comparisons of the languages are Gurung - Wagga-Wagga 54%.

Brasch (1975:4E) describes Wakka as ‘superficially to be very similar, at least syntactically and phonologically, to Gurung Gurung […] in contrast to earlier writers who aligned Gurung with Kabi’. Of ‘250 roots compared’, Brasch (1975:4E) found that ‘there were 53% cognates’, and also that ‘Gurung has approximately the same number of cognates with Kabi as it does with Wakka […] Hence the Wakka-Kabic languages may represent a dialect cluster i.e. a cluster of related languages.’

These raw figures are reinforced by lexical comparison. As might be expected, some cognate lexic is of proto-Pama Nyungan origin, possibly some is descended from a regional protolanguage that preceded Wakka-Kabic, while some, such as djonmu ‘tongue’, common to all Wakka-Kabic languages, are candidates for subgroup innovation. While many anatomical terms are shared between Wakka and Gurung (and Gurang and other Wakka-Kabic languages), there is also consistent phonalogical variation, such as lenition of word-initial di > yi, e.g. djabiny > yibiny ‘eyebrow’, and reduction of disyllabic Wakka words to monosyllables, e.g. giyam > gaan ‘mouth’ (Brasch 1975:7E). There is the absence of the velar nasal word-final, a pronounced feature of both Wakka and Kabi, e.g. bina vs. bina ‘ear’; djanas vs. djana ‘thigh’; ginim vs. gini ‘arm’, etc. The few velar-nasal word-finals that do exist in Gurang, such as ngieng ‘old woman’ and the language name gureng itself, are likely to be borrowings into Gurang. Brasch (1975:16E) says of such words:

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**Footnote:**

64 Verb stems are widely recognized as conservative indicators of phylogenetic relationship. They are generally thought to be less likely to be borrowed than other words (Koch 1997:41; McConwell 2009:795; Koch and Nordlinger 2014:26). My own comparative analysis of Gurang, Wakka and Kabi verb stems (from a small sample of 81 verbs) is less convincing than that of Wurm and Kite (2004). It gives the following figures: of 81 Gurang stems, 39 were found in Wakka (48%), 31 in Kabi (39%). Several factors serve to make even these lower percentages questionable: cognates that are retentions from either an earlier regional protolanguage or pPN; the higher number of cognates that appear in contiguous Wakka or Kabi languages or dialects such as Wulli and Dapil, which might suggest borrowing. Mitigating this effect to some extent may be the semantic shift that appears to have affected many verb stems: whereas, for example, Gurang has yaddulah- and guatul- ‘speak; talk’, these appear in Wakka dialects as yatha- and guyama- ‘to lie (tell an untruth)’. If, as seems likely, numbers of stems have taken on a more obscure meaning, they may not appear in the wordlists, which are in themselves limited.
Four disyllables, those ending in -eng# are stressed on the final syllable [as opposed to the usual first syllable; A.J.]. The language name Gurang is also stressed on the final syllable. It is unusual for the language name not to conform with the overall phonological pattern of the language.

As noted, the word-final velar nasal is a distinguishing feature of Wakka languages (and other regional languages such as Bandjalang). Its absence in Gurang, therefore, is notable, suggesting as it does either that Gurang lost the velar nasal-final in the process of its split within Wakka-Kabic or that it is a retention from an era prior to the subgroup's adoption of this feature. There is a similar pattern in Gurang retic word-finals, which 'occur only rarely in final position in Gurang — both examples gundir 'doctor' and gibar 'young man', in which the final segment is very strongly flapped, are identical with the Wakka forms and may be borrowed' (Brasch 1975:12B). The lexical analysis that follows contrasts words that point to a recent and close relationship with Wakka, on one hand, and words that are peculiarly Gurang, consistent across the Gurang lexicon, and not found either cognate with, or as borrowings in, other Wakka-Kabic languages, on the other. The purpose is to demonstrate that Gurang and Wakka share a common phylogenetic origin, one in which Gurang has only recently branched in its development as an individual language. A second comparative set highlights Gurang's dialectal homogeneity and unique vocabulary, both of which are, in my view, indicative of a rapid development, one that further mirrors a distinctive social history. Table 6E compares kin term cognates in Gurang and Wakka.

<table>
<thead>
<tr>
<th>gloss</th>
<th>Gurang</th>
<th>Wakka</th>
</tr>
</thead>
<tbody>
<tr>
<td>father</td>
<td>baba</td>
<td>bubu ~ babu ~ babun ~ babang</td>
</tr>
<tr>
<td>mother's brother</td>
<td>mama</td>
<td>mama</td>
</tr>
<tr>
<td>elder brother</td>
<td>djajda</td>
<td>djajda</td>
</tr>
<tr>
<td>younger sister</td>
<td>gandawan</td>
<td>gandan</td>
</tr>
<tr>
<td>father's father</td>
<td>maybi-ny</td>
<td>mayi ~ mabi ~ mii</td>
</tr>
</tbody>
</table>

Table 6E - Gurang and Wakka kin terms compared

There can be little doubt that these kin terms share a common origin. Only Wakka-Kabic languages share similar kin terms; Kabi, for example, has babu: 'father' and maybi ~ nibi ~ niyi 'father's father'. Some Kabi dialects and Gurang share terms for 'son/daughter', nuguny ~ ngugiri/ngugangan, respectively (the latter 'brother's children'). The most likely interpretation is that these kin terms are

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69 The absence of the velar nasal-final makes Gurang cognates identical to their pPN etyomns. Possibly, proto-Gurang retained the earlier pPN vowel-final forms while proto-Wakka-Kabic inherited, or borrowed, the feature from a regional Pama-Nyungan daughter protolanguage. Alternatively, Gurang dropped the word-final nasal it had inherited from proto-Wakka-Kabic in the process of its branching away from Wakka. Of all Wakka-Kabic languages, Gurang has most in common with Dappil, contiguous to Gurang on the lower reaches of the Boyne River, including the absence of the word-final velar nasal. This is indicative, it has to be thought, of the greater time depth of contact between speakers of these Wakka-Kabic languages. Also, some dialects of Yiman share the feature, suggesting perhaps that Yiman, representing the most westward Wakka language, may have received some of its hereditary linguistic input from the same source as Gurang.
cognate. If so, the separation of Gurang from Wakka has been relatively recent; little time has elapsed allowing for the adoption of new terms or even their morphological transformation. Given the significance of kinship and its terminology for social organization, I would argue that kin terms also have implication for linguo-ethnicity, both in the diachronic proximity of shared origins and in the differences that have arisen historically. More light is thrown on these historical relationships by the comparison of 2nd ascending kin terms in Table 6F.

<table>
<thead>
<tr>
<th>Gurang</th>
<th>gloss</th>
<th>Wakka</th>
<th>gloss</th>
<th>Kabi</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>gami</td>
<td>father’s mother</td>
<td>gami</td>
<td>father’s sister</td>
<td>gami</td>
<td>mother’s brother</td>
</tr>
<tr>
<td>ngadjam</td>
<td>mother’s father</td>
<td>ngadjap</td>
<td>father’s mother</td>
<td>ngadjap</td>
<td>mother’s father</td>
</tr>
</tbody>
</table>

Table 6F - Gurang, Wakka and Kabi 2nd ascending kinterms compared

The common phylogenetic origin of all three Wakka-Kabic languages is nowhere clearer than in the cognate set for 2nd ascending generation kin terms. Both ngadj and gami have their origin in proto-Pama-Nyungan, for which they are reconstructed for ‘mother’s father’ and ‘mother’s mother’, respectively (Alpher 2009; see McConvell 2013b). It could be hypothesized that these were the meanings present in proto-Wakka-Kabic. If so, Gurang ngadjam and Kabi ngadjang MF retain their original meanings. Semantic shift to ngadj FM as appears to have occurred in Wakka is relatively common. This may have induced a further shift in Wakka languages, pW-K *gami FM to FZ (McConvell pers. comm. 01-01-2016). However these semantic shifts have unfolded, shift in kin term meaning equates to structural change in the kinship system. As these kin terms are consistent across each of the three languages, it can be further concluded that they are effective for the entirety of the speakers of each language, uniquely so, such that the systems distinguish and differentiate Wakka, Kabi and Gurang each from the other. In my view, this distinguishes each as a separate linguo-ethnicity, as well as demonstrating a common origin.

A third category of kin terms are those that are exclusive to only one Wakka-Kabic linguo-ethnicity. Gurang examples are given in Table 6G.

<table>
<thead>
<tr>
<th>gloss</th>
<th>Gurang</th>
</tr>
</thead>
<tbody>
<tr>
<td>mother</td>
<td>yaa ~ yawa</td>
</tr>
<tr>
<td>father’s sister</td>
<td>yabi</td>
</tr>
</tbody>
</table>

Table 6G - Gurang mother and father’s sister

These possibilities have different implications. If the result of borrowing, there would have had to be an ongoing and exceptionally close interrelationship, in this context an affinal relationship, that is, a high degree of intermarriage. There appears to be little evidence for the latter although, naturally, intermarriage between Gurang-speaking and neighbouring non-Gurang-speaking groups did occur. The sort of kinship terminology that usually reflects close affinal interrelationship is in-law terminology, including kin central to the contract of marriage, often father’s sisters and, perhaps, mother’s brothers.
There is no bias in the cognate lexicon Gurang and Wakka have in common. Terms are shared equally across all semantic domains. The commonality of words for arboreal and animal species over the entire region where Wakka languages are spoken implies a long association with the region, not the borrowing that occurs when speakers of an unrelated language are introduced to an environment with which they were previously unfamiliar. While some of this is no doubt due to the same species sharing the range across which subgroup languages are spoken, it also implies that if Gurang has spread, it has done so into unoccupied country - unlikely given its richness - or into country occupied by speakers of other Wakka-Kabic languages. Similarly, there is an absence of variation for many of the basic environmental terms across Wakka-Kabic; alternatively, if there is variation, it is transparent. Thus words for 'hill', 'river', 'stone' etc. tend to be shared in all Wakka dialects including Gurang. There is little evidence of non-Wakka-Kabic substrate in Gurang, although, with vocabulary that is unique, this can never be definitively ruled out. Dialectal variation is minimal and transparent. The one clear dialectal shift is the Guwang dialect, which is the western – or, more correctly, north-western – Gurang dialect found on the Nogo River in the vicinity of Rawbelle and Camboon. Gurang refers to both the language and its speakers, and comes from the word for 'no' or 'not'. Guwang is distinguished from Gurang by lenition of the medial continuant -r- to glide -w-, a distinction made by Gurang speakers themselves, who refer to the unlenited 'heavy dialect' of the Upper Burnett River as opposed to the 'soft, lenited dialect' which is the Guwang of the Nogo River and Upper Three Moon Creek (Cunningham 1967:3, 1966; also Holmer 1983:105; cf. Brasch 1975:1A, 1E-4E). Although lenition is the consistent and easily recognized feature distinguishing the two dialects, there is also lexical variation, notably Guwang having borrowed from the Wakka languages with which it is contiguous, in particular Wullili (see Brasch 1975:3E-4E). Not only do all Gurang dialects share the same lexicon, with little phonological or morphological variation, but the words that make up lexical domains to do with humanity and culture in particular are characteristically Gurang. Unlike much of the Gurang lexical corpus, they are found in no other Wakka-Kabic language. This, I argue, shows that whereas Gurang speakers found little need to introduce new lexicon to describe the environment, they nevertheless had a strong sense of their cultural identity, and this found expression in distinctive terminology for their tools, weapons and artefacts, as well as in their social terminology. There are very few terms for artefacts that are either Wakka-Kabic cognates or were widely borrowed. I would argue that this combination of lexicon unique to Gurang – such as wumi 'woman', gurrel 'old man', mugamy 'old woman', djibil 'boy', for example – and distribution with minimal variation across all Gurang dialects describes a linguo-ethnicity, a discrete population defined by self-identifying language and culture. Examples of distinct Gurang cultural lexicon are given in Table 6H.

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71 The borrowing of words for flora and fauna species and for landforms that can occur when people are introduced to an environment new to them is well-documented (Bowern 2007; McConvell 2009; Koch 2014). It is usually the case that people will adopt these words from the language of the previous occupants of the region, just as often happens with the retention of toponyms.

72 One such, however, banydjiili 'net', clearly an important economic item and one whose innovation was, it must be thought, profoundly influential.
<table>
<thead>
<tr>
<th>gloss</th>
<th>Gurang</th>
<th>Wakka</th>
<th>Kabi</th>
</tr>
</thead>
<tbody>
<tr>
<td>nulla nulla</td>
<td>magu</td>
<td>muur ~ djibil</td>
<td>gudjar</td>
</tr>
<tr>
<td>axe</td>
<td>burgu</td>
<td>buru ~ muyim</td>
<td>mugim ~ muyim</td>
</tr>
<tr>
<td>basket</td>
<td>gindu</td>
<td>dilim ~ diim</td>
<td>nguwaam ~ waam</td>
</tr>
<tr>
<td>food (vegetable)</td>
<td>dugali</td>
<td>djur</td>
<td>bindja</td>
</tr>
<tr>
<td>camp</td>
<td>wabi ~ wabay</td>
<td>marun ~ guyum</td>
<td>djaa ~ djamu</td>
</tr>
</tbody>
</table>

Table 6H - Gurang, Wakka and Kabi cultural terms compared

I interpret the dialectal uniformity of Gurang to be symptomatic of a recent and rapid language spread. I argue it indicates that Gurang was a Late Holocene split away from Wakka, with which, as noted, it shares many similarities, particularly morphosyntactic. The considerable area over which Gurang is distributed makes any suggestion of in situ development highly unlikely. Rather, the extent of Gurang country, together with the homogeneity of its dialects, implies that the language was spread by the physical movement of its speakers. Gurang country is contained in the upland drainage of three rivers, the Boyne, Burnett and Kolan. Gurang was high country, well-watered and generally open forest. Like Wakka, at no point did Gurang country meet the sea. The Gurang distribution is essentially on riverine and hill country, and this is in fact a typical Wakka distribution environmentally. It is nonetheless a discrete region. Its domain is typified geographically by its river valleys being separated by ranges running south to north. Of particular importance are the valleys of the Boyne and Burnett Rivers. These are separated by the Burnett Range, which effectively cuts the region in which the Gurang language was spoken into two. Most of the dialects recorded from these two halves are referred to as Gurang, whether they be to the east or west of this division. The tradition of contemporary Gurang people is that their origins were in the small area of upland country called Gadjadja. Here rise the headwaters of the three rivers over which the language is distributed. Gadjadja, prima facie at least, is the likely Gurang proto-homeland. Linguistically, this is consistent with the locus of Gurang dialectal variation, which appears to have been in the east of its distribution, perhaps in the vicinity of Miriam Vale. Such variation as exists is concentrated in its eastern dialects, and least in its western dialects. This is apparent in the Gurang dialects spoken in places like Miriam Vale and Baffle Creek, that is, only a short distance from the sea, contact with coastal Kabi dialects seemingly accounting for some of this greater complexity. Gurang’s absence from the actual coast is attributable no doubt to its inland origins, but also to the capacity of coast-dwellers to resist any such ambition that Gurang speakers might have had in that direction (see Clarkson et al. 1998:171). As with Wakka demic migration westward onto the Darling Downs, the Auburn and Dawson Rivers, the lenited Guwang dialect, on the more open range country in the west of Gurang distribution, is likely to have been the most recent episode of Gurang demic expansion, the historical evidence indicating that it was in process right up until the arrival of Europeans.
Gurang’s dialectal uniformity and its distribution over a discrete, environmentally and
topographically defined region point to a single historical event, a demic migration, albeit one that
could have occurred over several centuries, and perhaps in a number of successive stages. Almost
certainly, Gurang’s origins lie within the Wakka-Kabic distribution, and its expansion as a separate
language has occurred either at the periphery of that distribution or by the displacement of earlier
waves of Wakka-Kabic speakers, probably the latter. Very likely, this expansion proceeded westward
from the headwaters of the Boyne River, into the valleys of the Burnett and Kolan Rivers. A further
westward expansion followed, into the valley of the Nogo River, where the tenanted Guwang dialect is
found. The broken nature of this topography would suggest that this expansion probably took place
in many small and separate incremental episodes over the length of time indicated. Prior to this,
proto-Gurang had very likely evolved at a much slower rate, perhaps to a degree isolated, and
located in situ in a much smaller territory, or, at least, expansion was much more modest over a
greater length of time. I would argue that, at this stage of its development, proto-Gurang probably
resembled very much centrally-located Wakka languages as they were found in historical times; it
was a small distribution with distinct dialect features, the latter developing as the product of this
postulated long period of gestation and limited contact with other Wakka-Kabic linguo-ethnicities.
Gurang differs from these central Wakka languages in that it was able to expand, while they were
not. The reasons for this can only be surmised. I would hypothesize that much of Gurang’s linguistic
character evolved at this stage of its history. It seems apparent that, from these relatively slow
beginnings, expansion accelerated so that the last phase of this expansion, that of the western
Gurang dialect speakers, was rapid and accompanied by violent contact with its neighbours. The
physical expansion of Gurang speakers over this territory was very likely commensurate with their
development as a culture and society. Dialectal uniformity, I would argue, implies not only a recent
timeframe for Gurang expansion, but also a high degree of social and cultural cohesion within the
Gurang speaking population. I would see the development of Gurang as a distinct language as
intrinsic in a sociopolitical sense to its growing territorial habitation and the increased scale of its
demography: from being just one of numbers of Wakka-Kabic dialects, dependent on relationships
with neighbours, to having endogamous demographic viability and greater independence.

Yiman

Yiman is a Wakka-Kabic language on the western periphery of the Wakka-Kabic distribution,
located in the middle and upper reaches of the Dawson River. Knowledge of the Wakka language

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73 The two earliest sources link the name Yiman to the Dawson River. James Lalor (Howitt (corresp. 02-05-
1884) refers to ‘[a]nother tribe called Emon in the southern part of the Leichhardt district; if you look at the
map and take Taroom for the centre you will be able to form an idea of the locality’, Archibald Meston (Report
On The Western Aboriginals 05-06-1897) mentions an elderly man, Eening-gobilla, whom he met on the
westward travelling train at Dulacona, and who ‘belonged to the Yeeman tribe of the Dawson and spoke Yung-
gumm-bil language’. Harold Hall, a gifted amateur ethnographer, linked Yiman to a different river system.
spoken by Yi:man people is limited to five wordlists: two in Curr (1887), namely O’Connor (in Curr 1887 V.3: 102-5) and Cunningham (in Curr 1887 V.3:106-7); Thomas Illidge’s (1887) list of a language he calls Yabbooburra, taken at Taroom; Harriett Barlow’s (1873) ‘Parrungoom’, and Holmer’s (1983) Barrungam wordlist, the greater part of which is Yi:man.\textsuperscript{74} The Yi:man languages, like Gurang, have

\footnotesize
\textsuperscript{74} Beginning with Tindale (1940), Barunggam has been identified as a Darling Downs Wakka language; however, its consistency with the wordlists identified for the Dawson River, as opposed to those from the Darling Downs, identifies it as a Yi:man dialect. The earlier Wakka dialects recorded from the Darling Downs in the 19th century are distinctly different to Holmer’s (1983) Barunggam (see Jefferies 2015a).
a substantial enough component of basic Wakka to put beyond doubt their genetic origin. Holmer (1983:33-4), the only linguist to make any analysis of Yi:man (under the name Barunggum), makes plain that, like Gurang, Yi:man was very close to Wakka, both phonologically and morphosyntactically:

[A] single informant only was found to be of value for a knowledge of this language. Although he [...] had a fair command of what he claimed to be his native language, he evidently was inclined to fall into Wakka-Wakka – the language of prestige in this area – and probably to a certain extent presented the data in a mixed form. He however pointed out on several occasions that his language was very close to Wakka-Wakka and that many forms were actually the same.

Unlike Gurang, Yi:man languages do not have the appearance of a dialect continuum. There is no relatively homogeneous lexicon and no smooth transition of language features such as lenition (although this does occur) from one dialect to the next. Yi:man consists of quite distinct Wakka languages, with varied lexical inventories and phonology. Illidge's, Holmer's and Barlow's dialects might be regarded as dialects in their relation to one another; O'Connor's is quite distinct, more closely related to the languages of western Wakka generally; Cunningham's is also more divergent, one of its distinguishing feature being the amount of borrowing from Maric. Cognates can be identified with a variety of Wakka languages, often from different parts of the subgroup distribution. This indicates the likelihood, not of origins in one region or language, but of varying origins across the Wakka distribution. The only consistency is the fairly obvious relationship of most Yi:man dialects with other western Wakka languages and dialects, such as Wulilli, to Yi:man's immediate east.

The variability of Yi:man dialects is illustrated in the following examples. Both O'Connor and Barlow's dialects share lenition of the word-initial velar nasal to the velar glide ng > w, as in nguyang > wiyang 'mother', with Illidge's [ngiwiyang] perhaps interim. Other examples are O'Connor's lenition nguwi > wi:yi 'emui' and Cunningham's gugaga > wugaga 'kookaburra'.75 Lenition of the word-initial bilabial stop to the bilabial glide b > w occurs in O'Connor's dialect as well (as it did in Wulilli and other western dialects), e.g. baran > waran 'boomerang'. O'Connor's dialect also has word-initial velar stop to laminal glide lenition g > y, e.g. giyan > yiyan 'mouth'.76 These patterns are not, however, uniform. O'Connor's dialect has guguny 'fire'; the medial velar stop is lenited -g- > -y-

75 Koch (pers. comm. 12-10-2017) has however a different and perhaps more plausible interpretation: 'Given the unusual pronunciation of ng as [w] and the frequent [in early sources] non-hearing of initial ng, it seems likely to me that a form nguyang, pronounced [ngiwiyang] would be heard by early recorders as [wiyang]. Similarly for ngwui [ngwii].'

76 Always discounting the possibility of transcription error in the original Curr document. As, naturally, Curr's data arrived from his far-flung correspondents in longhand form, this always remains a distinct possibility. As Koch (pers. comm. 12-10-2017) points out, 'this is not a usual change, except possibly before i. So the suspicion that g has been misread as y is very plausible'. Refer to other g > y examples also.
guyung ‘fire’ in Cunningham’s dialect, and there is Barlow’s guyung ‘fire’, with both word-initial and medial lenition of the velar stop. O’Connor’s dialect has a laminal glide-medial bi-syllabic word for ‘father’s father’, manyi; Barlow’s is monosyllabic, miil.77 Whereas O’Connor’s and Barlow’s dialects have bisyllabic forms of the word for ‘mouth’ - yiyan and guyan, respectively78 - Cunningham’s dialect is monosyllabic ganu. A different form of reduction to the monosyllabic occurs in O’Connor’s dialect, where the bisyllabic word for manya ‘wallaby’, common in Wakka, is reduced to the monosyllabic yana by the excision of the initial syllable. A related occurrence appears to be the metathesis form of the Wakka word manyu > yiya ‘father’s mother’, also in O’Connor’s dialect.

Initial syllable elision following the velar stop occurs in O’Connor’s dialect, e.g. guruman > [grumun] ‘kangaroo’, but neither in Barlow’s nor in Cunningham’s tokens for this word. Other instances are Illidge and Holmer’s gurinda ‘grey possum’, realized as [gruwanda] in O’Connor’s list and gurlbang ‘native companion’ in Barlow’s, Cunningham’s and Illidge’s lists, but [grabang] in O’Connor’s list. Elision of the medial velar stop also appears to have occurred. Cunningham and O’Connor elide bugunyiny > [bugwiny] ‘hair of the head’; while Barlow and Illidge have bugunyiny ‘hair of the head’. Other examples of medial vowel elision in O’Connor’s dialect are [bugwiri] ‘brown snake’ and [mugwiny] ‘woman’. Elision of the word-initial velar stop is also a feature of the Darling Downs Wakka dialects, indicating a closer possible historical relationship with the O’Connor dialect. Elision following the bilabial stop also occurs, but not in O’Connor’s dialect: O’Connor’s list has bwiya ‘mother’s mother’, whereas Barlow’s has elided the initial syllable producing [bwiya]. O’Connor’s dialect also appears to favour lenition of the word-medial lateral. Cunningham’s dialect (in keeping with Wulili) has bulim ‘skin’; in O’Connor’s dialect, the medial lateral is lenited, making buyiya ‘skin’; similarly, O’Connor’s dialect, along with those of Illidge and Holmer, has guwiny ‘black swan’, compared to Wakka languages generally, which have guuny. Cunningham’s and Barlow’s words for ‘eye’ are lateral word-final and monosyllabic, miil, while O’Connor’s dialect is laminal glide medial, bi-syllabic and vowel word-final < meay >, thus, miya [miyayi]. This pattern is partly replicated in Barlow’s lateral word-final diya ‘bone’ when compared to the laminal glide word-medial, bi-syllabic diya ‘bone’ found in the O’Connor, Holmer and Cunningham. However, his distribution is reversed in the borrowed Maric word wina ‘fish’, retained as such in Barlow’s dialect but with a word-final lateral wina in Cunningham’s vocabulary. While Cunningham’s dialect has retained the usual Wakka velar nasal word-final bunang ‘ear’, both O’Connor’s and Barlow’s dialects lack the enigma, thus bina ‘ear’. However, O’Connor’s dialect retains the nasal word-final with gining ‘arm’, while Barlow’s does not, hence gini ‘arm’. O’Connor has nganu ‘breast’, while Illidge’s and Holmer’s dialects have retained the word-final velar nasal, nganu ‘breast’.

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77 Equally, however, this could be bisyllabic: [miil] > miyi or mayi, ‘with the first i as in high’ (Koch pers. comm. 12-10-2017).
78 Note again, however, the possibility of transcript error, both possibly giyan ‘mouth’.
This variety and dialectal distance suggest that the Yiman dialects, rather than expanding from a single locus, as I interpret Gurang to have done, have arrived in the Dawson River valley from a number of directions at different times, each dialect originating from a separate geographic locus within the Wakka-Kabic distribution. Thus, they appear to have originated in different Wakka-Kabic stock. This suggests that these speakers of different Wakka dialects (in other words, different linguo-ethnicities) arrived independently, probably by different routes, in the Dawson River Valley.

O’Connor’s dialect appears to have been closely related to, or most influenced by, western Wakka dialects such as Djakunde and the Darling Downs dialects, and often differs in fundamental terms and characteristics from the other Dawson River dialects. On this basis, it could be surmised that it was a southern or eastern Yiman dialect, contiguous perhaps with the Djakunde of the Auburn River drainage or Darling Downs Wakka dialects. Cunningham’s dialect was that most influenced by both the Maric language and Wullili and could therefore be surmised to have been the most northern Yiman dialect of those documented. Barlow’s dialect, Parrungoom, Holmer’s Barunngam and Illidge’s Yabooburra are less differentiated; one could speculate this was so because they were located closer to the Yiman ‘heartland’, the central Dawson River Valley around Taroom. Borrowing in Yiman also varies considerably from one dialect to another. This is interpreted as additional evidence for their disparate histories; it is assumed that, in part at least, borrowing indicates the course of their various paths to the Dawson River Valley, and thus the different speakers of other languages they encountered and borrowed from.

As regards Wakka-Kabic languages, untangling common origin from borrowing is relatively easy, given that there is a good deal about western Wakka collectively that distinguishes it from the main body of Wakka languages. The evidence for shared origins, or contact, or both, is with Wakka dialects immediately to the east of Yiman, that is Djakunde in the south, and Wullili in the north. All Yiman dialects share some commonalities with these Wakka languages, although borrowing is most pronounced in O’Connor’s list. This can be interpreted to mean that the speakers of O’Connor’s dialect were the last to arrive in the Dawson River Valley, or, perhaps, that they were simply contiguous with one or both these western Wakka languages. There is a significant correspondence between Wullili and Yiman kinship terms and terms for humanity generally; furthermore these shared terms are predominantly feminine (‘woman’, ‘mother’, etc.), sometimes with semantic shift. Examples are Wullili mugalun ‘woman’ (Mathew 1928), found unchanged in Cunningham’s dialect as mugalun, but in O’Connor’s as muguwiru, both meaning ‘old woman’. The word nguyung ‘mother’ is found in Queenie Meldrum’s Wullili dialect (although nguyye in Mathew 1928), and has its equivalent in a variety of lenited Yiman dialect variants, such as ngwiyung (Illidge) and wiyung (O’Connor and

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79 However, this still leaves the problem of separating borrowing as the result of historic encounter from borrowing between populations once established in situ. This is a virtually impossible task; all that can be expected is that Wakka dialects that share vocabulary with Yiman dialects are identified, and perhaps that some direction of borrowing is indicated by shared processes such as lenition.
Barlow). One interpretation of this is that it indicates Wulilli women marrying into Yiman groups. Another is that some of the Wakka speaking groups occupying the Dawson River valley proceeded from the same population as did Wulilli speakers. And, of course, both are possible. Other correspondences with probable cultural significance are words such as guyum ‘camp’; although this is the universal Wakka word for ‘fire’, only a few Wakka dialects including Wulilli and Yiman employ the word to mean ‘camp’; girum ‘dingo’, literally ‘wild’, also a Gurang word, has possibly arrived in Yiman from Wulilli; biling ‘eaglehawk’ (Barlow, Illidge), namu ‘sand goanna’ (O’Connor), nyumyrau ‘crayfish’ (O’Connor, Cunningham) are all shared, seemingly exclusively, between the Dawson River Wakka dialects and Wulilli.

A considerable amount of Maric has also found its way into Yiman dialects, perhaps unsurprisingly given that Yiman is in contact with Maric languages on all but its eastern and southern boundaries. Whether this reflects Wakka expansion into a Dawson River Valley already occupied by Maric speakers (i.e., whether or not it is substrate) is difficult to discern. There is always the alternative explanation: that Yiman dialects, once situated in the Dawson River valley, were borrowing from Maric languages they were contiguous with. The presence of Maric words such as teina ‘fish’ in Yiman lexicons might indicate the former explanation. Borrowing appears to have occurred mainly with Maric languages directly north of the Dawson, forming an arc from the Leichhardt Range across the Expedition Range as far as the Nogoa River, particularly the Gangua dialects and Wadjia, including Kanaloo ‘from the head of the Comet River’ (Josephson in Curr 1886 V.3:96-9), a Maric language that seems to reflect a particularly close relationship with Yiman. For the most part, this borrowing appears to have travelled from the Maric languages into Yiman and not the reverse. Maric has not affected all Yiman dialects equally, but some more than others, notably, as mentioned, Cunningham’s dialect. Given the amount of borrowing in Cunningham’s dialect, it is possible it has had the longest history in the Dawson River; either it and Maric languages contiguous with it have been in contact for a long period of time (several centuries, say) or, if for a shorter period, contact has been particularly intense. Shared kin terms appear to indicate that intermarriage has taken place. The importance of Maric contact, particularly it would seem for Yiman self-identity, may be indicated by the fact that Illidge’s informant, Yandeegunmun of Taroona, aka Blackboy Frank, gave the name of his language as Yabbaoburra, which could be loosely translated as ‘those who have the (Maric) word yabu, meaning ‘father’’. This word is shared by three Yiman dialects and must be considered significant given the universality of the words babu, baba, babun, babang ‘father’ in all other Wakkalects. At the very least, it indicates a strong connection historically, and probably socially, with

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80 Note, however, that Koch (pers. comm. 12-10-2017) interprets these merely as variant pronunciations, or possibly spelling errors, of nguyang ‘mother’.

81 Again, O’Connor’s dialect proves an outlier with an entirely unique word < boora > buura ‘father’. This has no correspondents in any of the regional languages. It could be speculated that, were O’Connor’s dialect speakers the first Wakka speakers to enter the Dawson River Valley, the word is a substrate inheritance from its pre-Wakka, pre-Maric occupants.
Maric speakers. Words borrowed into Yi:man from Maric are given in Table 6). Distribution is shown as follows: O’Connor (O), Cunningham (C), Illidge (I), Barlow (B) and Holmer (H).

<table>
<thead>
<tr>
<th>Maric word borrowed into Yi:man lects</th>
<th>meaning</th>
<th>Yi:man dialects in which found</th>
</tr>
</thead>
<tbody>
<tr>
<td>wadjuriny</td>
<td>old man</td>
<td>(C)(I)</td>
</tr>
<tr>
<td>nunga</td>
<td>young man</td>
<td>(O)</td>
</tr>
<tr>
<td>yabu</td>
<td>father</td>
<td>(C)(B)(I)</td>
</tr>
<tr>
<td>dyalany</td>
<td>tongue</td>
<td>(C)</td>
</tr>
<tr>
<td>nyarany ~ yarany</td>
<td>beard</td>
<td>(C)</td>
</tr>
<tr>
<td>wina</td>
<td>fish</td>
<td>(C)(B)(H)(I)</td>
</tr>
</tbody>
</table>

Table 6) - Maric borrowings into Yi:man dialects

Holmer (1983:35) identifies, among the few formal deviations from Wakka, the ‘interesting (and perhaps somewhat unusual) type of compound’ *wina manto* ‘pelican’ (literally ‘fish-catcher’), the second component of which, *manto*, is otherwise a verb stem. Most Wakka languages have *djunggar* ‘pelican’. There are, however, formal parallels in O’Connor’s *mait-gwinge* > and Parry-Olgeden’s (1914[1934]) Djakunde < *mei-gwengie* > ‘pelican’, literally, ‘nose + long’. Holmer’s Barunggam term *wina manto* ‘pelican’ calls to mind the lexical calquing that Ross (2003:187) sees as a forerunner to metatypy. Although there is no evidence that such compounding originates in Maric, it could indicate calquing built on substrate.

The diversity of Dawson River Wakka dialects is apparent. Its implications for social identity are less so. It is conceivable, for example, that the valley was occupied by small, independent groups who interrelated in the usual ways, intermarriage, trade and so on, but were in no sense members of an overarching sociopolitical entity. The linguistic evidence, however, suggests otherwise. Another aspect of Yi:man is the vocabulary that the five Yi:man languages share, and without which some would not be identifiable as Yi:man dialects at all (see Tables 6K, 6L, and 6M). This vocabulary, much of which is found in semantic domains such as humanity and culture, distinguishes Yi:man from Wakka generally. Moreover, in sharp contrast to the lexical diversity illustrated, there is a remarkable uniformity in this lexicon across all dialects. This component of the Yi:man vocabulary has parallels in Wakka-Kabic languages such as Gurang and Wullili, in which some terminology – for people, cultural artefacts and practices, but with examples in all semantic categories – is unique. Wakka languages, without exception, have *mii* ‘nose’, including western dialects such as Wullili. All five Yi:man dialects share *budjung* ‘nose’, found nowhere else, despite other anatomical terms exhibiting either abundant diversity or being orthodox Wakka lexicon. Many of the words in this category appear to have sociocultural connotations, distinctive words for ‘man’, ‘woman’, ‘child’ and ‘white man’, for example. Basic kinterms conform to this pattern, *yabu* ‘father’ and *ngiyang* (wiyang in the
<table>
<thead>
<tr>
<th>gloss</th>
<th>Yi:man</th>
<th>Wakka</th>
<th>Distribution across Yi:man dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>woman</td>
<td>nyurum</td>
<td>mugulan ~ yingaran ~ bubarim ~ ginbum</td>
<td>(B)(O)(I)</td>
</tr>
<tr>
<td>child</td>
<td>ngaba</td>
<td>nyuni</td>
<td>(I)(B)(H)(C)(O)</td>
</tr>
<tr>
<td>white man</td>
<td>wubarr</td>
<td>miyi ~ mayi-i ~ muiy</td>
<td>(C)(I)(H)</td>
</tr>
<tr>
<td>father</td>
<td>yamu</td>
<td>babu ~ baba ~ babun ~ babang</td>
<td>(C)(B)(I)</td>
</tr>
<tr>
<td>mother</td>
<td>ng-wiyang</td>
<td>maam ~ mimi ~ muwing ~ nguyang</td>
<td>(O)(B)(I)</td>
</tr>
<tr>
<td>mother’s brother</td>
<td>ngawun</td>
<td>mama</td>
<td>(B)(I)</td>
</tr>
<tr>
<td>father’s sister</td>
<td>buwinya</td>
<td>gami</td>
<td>(B)</td>
</tr>
<tr>
<td>younger brother</td>
<td>ganda</td>
<td>djuwang</td>
<td>(O)</td>
</tr>
<tr>
<td>elder sister</td>
<td>gandan</td>
<td>djawuny</td>
<td>(H)</td>
</tr>
<tr>
<td>younger sister</td>
<td>djawuny</td>
<td>gandan</td>
<td>(H)</td>
</tr>
<tr>
<td>father’s father</td>
<td>mayi ~ mii</td>
<td>yalu ~ yaluulu</td>
<td>(O)(B)</td>
</tr>
</tbody>
</table>

Table 6K - Yi:man and Wakka humanity and kinship terminology compared

<table>
<thead>
<tr>
<th>gloss</th>
<th>Yi:man</th>
<th>Wakka</th>
<th>Distribution across Yi:man dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>spear</td>
<td>duruny</td>
<td>ganayi ~ djuwa ~ guran-ga-urr</td>
<td>(O)(H)(C)</td>
</tr>
<tr>
<td>nulla</td>
<td>muru</td>
<td>murray ~ djeburr</td>
<td>(I)(C)</td>
</tr>
<tr>
<td>axe</td>
<td>birdung</td>
<td>muyim ~ narang ~ djanduwi ~ buru</td>
<td>(O)</td>
</tr>
<tr>
<td>axe</td>
<td>burru-gan</td>
<td>muyim ~ narang ~ djanduwi ~ buru</td>
<td>(I)</td>
</tr>
<tr>
<td>camp</td>
<td>ngunda</td>
<td>murun ~ guyum</td>
<td>(I)(O)</td>
</tr>
<tr>
<td>bora</td>
<td>duwurr</td>
<td>duurr</td>
<td>(H)</td>
</tr>
</tbody>
</table>

Table 6L - Yi:man and Wakka cultural terminology compared

O’Connor and Barlow dialects) ‘mother’ being particularly noteworthy. As indicated above, Illidge’s informant Yandeegunmun identified his language as Yabbooburra, in other words, ‘those who are distinguished by calling their fathers by the name yabu’. The possibility of the reversal of the elder and younger distinction for brother and sister terms in Holmer’s Barunggam may be another typifying feature (although this may also be simply an elicitation mistake). Other Yi:man lists have the standard Wakka age-group sibling designations: djadji ‘elder sister’ (O)(C)(B)(I); gandan ‘younger sister’ (O); and djadja ‘elder brother’ (B)(C)(O)(I).
<table>
<thead>
<tr>
<th>gloss</th>
<th>Yi-man</th>
<th>Wakka</th>
<th>Distribution across Yi-man dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>head</td>
<td>gaam</td>
<td>maarr ~ mawu</td>
<td>(H)(O)(B)</td>
</tr>
<tr>
<td>hair of the head</td>
<td>bugun</td>
<td>gaam</td>
<td>(O)(O)(H)(I)</td>
</tr>
<tr>
<td>ear</td>
<td>bina</td>
<td>binung</td>
<td>(O)(B)</td>
</tr>
<tr>
<td>eye</td>
<td>miil</td>
<td>maa ~ mayi ~ miya</td>
<td>(C)(B)(I)</td>
</tr>
<tr>
<td>nose</td>
<td>budjung</td>
<td>mii</td>
<td>(C)(O)(B)(I)(H)</td>
</tr>
<tr>
<td>mouth</td>
<td>g~yiym</td>
<td>damburr</td>
<td>(B)(C)(O)(I)</td>
</tr>
<tr>
<td>teeth</td>
<td>diyung</td>
<td>diyang</td>
<td>(O)(C)(I)(B)</td>
</tr>
<tr>
<td>stomach</td>
<td>gumurr</td>
<td>muu</td>
<td>(H)(C)(I)</td>
</tr>
<tr>
<td>knee</td>
<td>gumarr</td>
<td>buun ~ bundurr</td>
<td>(B)(I)</td>
</tr>
<tr>
<td>blood</td>
<td>guga</td>
<td>diirr</td>
<td>(C)(O)(I)</td>
</tr>
<tr>
<td>bone</td>
<td>diya</td>
<td>gira~l</td>
<td>(C)(H)(O)(B)</td>
</tr>
<tr>
<td>skin</td>
<td>bulim</td>
<td>biil ~ dumii</td>
<td>(C)(O)</td>
</tr>
</tbody>
</table>

Table 6M – Yi-man and Wakka anatomy terms compared

Weapons, less so implements, seem often to have distinctive names in a particular linguo-ethnicity and the weapons themselves often conform to a different (if sometimes only slightly different) pattern or material from those of other linguo-ethnicities. It is possible to interpret this distinctiveness as emblematic inasmuch as patterns of weapon and their name automatically identify their possessor as belonging to a certain linguo-ethnicity. In this comparison, muru ‘axe’ and diuwr ‘bora’ conform to a pattern that distinguishes them from Wakka generally, i.e. they are disyllabic as opposed to monosyllabic. Yi-man variation from Wakka in the anatomical semantic domain expresses itself in a number of ways: lexically, bugun ‘hair of the head’, budjung ‘nose’, gumurr ‘stomach’, etc.; through phonemic variation, specifically deletion of the word-final velar nasal, binung > bina ‘ear’ – this latter found, seemingly unevenly, across Yi-man dialects: ginung > gina (B) ‘arm’, ngumung > ngumwu (O) ‘breast’, dinang > dina (B) ‘foot’; through the seeming propensity of Yi-man dialects to avoid monosyllables, which are a feature of Wakka lects generally. There are a few anomalies in the data that are not indicated here: some of these words also appear in other western Wakka dialects, such as Wulili, e.g. giyanu ‘mouth’.

Interpretation of the meaning of these unique and shared lexical items revolves around their significance for social identity and social organization. Whether or not one subscribes to the idea of emblematicity – i.e. that these terms are a conscious adoption of distinctive terms in the interests of establishing a self-identity – or to that of a more organic process is less important than the fact of
their existence. As Thomason and Kaufman (1998:35) put it, ‘it is the sociolinguistic history of the speakers, and not the structure of their language, that is the primary determinant of the linguistic outcome of language contact’ (see also Ross 2001:154-5; Nettle 1999:14; Heggarty 2015:600). In other words, however arrived at, lexicon that is shared amongst themselves and no one else – particularly if that lexicon is heavily weighted in social implication – implies for its speakers a significant degree of social cohesion. The degree to which metatypy or convergence was affecting the Yi:man languages is unknown, because the grammatical evidence is lacking. Significant phonological and lexical diversity, however, is a known quantity. On this basis, it is reasonable to conclude that Wakka speakers had not been in the Dawson River Valley for a great length of time but that the exigencies of their presence there were pressing enough for them to have drawn together, this reflected in their shared lexicon. Contact with a pre-resident population is very probable, and perhaps some of the vocabulary unique to Yi:man comes from this source. However arrived at, therefore, emblematic vocabulary points to a desire on the part of these Wakka speakers of disparate origins to be seen as a collectivity.

Conclusion

I reconstruct Yi:man history in terms of speakers of different Wakka dialects having arrived independently in the Dawson River Valley. Their relationship to seemingly older Wakka dialects to the east suggests they have probably followed different routes to arrive there. In the Dawson valley, finding themselves together in a new environment, perhaps also one hostile to newcomers, they were compelled to unite. Two factors contributed to this exigency: firstly, the speakers of these various Wakka dialects were to a large extent isolated from the main body of Wakka speakers; secondly, they were contiguous to another large and expanding ethnolinguistic population, speakers of Maric languages. Whether Maric speakers previously occupied all or some of the valley is unknown; however, the presence of a considerable amount of Maric borrowing, and the seeming social value of that borrowing, might point to that being the case. Certainly, Maric speakers were or had been a similarly expanding population exerting demographic pressure on the Dawson River.

82 Nettle (1999:30), for example, explains the role and process of ‘social selection’ as follows: ‘Social selection is likely to be a key amplifier of variation. It is worth briefly considering the possibility that it is actually a source of variation too. At various points in history, people have deliberately invented words to set them apart from other people with whom they do not wish to identify. The importance of this kind of intentional creation is probably marginal; most linguistic changes and most linguistic variables are well below the level of conscious control. We also know that speakers who want to signal social distance will subconsciously increase the rate of linguistic variables that makes their speech distinctive, just as those who want to signal social solidarity will do the opposite (Bourhis and Giles 1977). Now it may be the case that where there are no such variables, speakers subconsciously introduce them, by some kind of random innovation. It is very difficult to demonstrate that this routinely occurs, but, if it does, it explains why new social dialects arise so fast when new social networks are formed. It would also shed interesting light on the evolutionary significance of language diversity.’
Valley from the north. This has resulted in a linguo-ethnic entity distinct from other Wakka speaking groups. It is hypothesized that Yi:man Wakka speakers found a sense of cultural unity, and probably also political unity (as will explored in subsequent chapters) essentially in the interests of self-preservation. Perhaps also, their combination served to further their own continuing expansionary ambitions in the Dawson River Valley. Yi:man identity, therefore, has grown after the fact of demic migration, unlike Gurang, in which the two developments appear to have been historically intrinsic. In contrast to Gurang, Yi:man is not the expansion of a single phylogenetic protolanguage, but the fusion of subgroup dialects with different and diverse histories; not, therefore, phylogenetic diversification correlative with demic expansion, but linguo-ethnic coalescence as a result of demic expansion. An analysis of Kabi demic migration is found in Appendix 2.
Chapter 7
High Diversity Distributions and Isolates

The subgroup distributions examined in the preceding chapters are examples of a type that comprise the great bulk of language distributions in Australia; that is, they are subgroup distributions that cover significant distributions that are the product of language spread. As discussed, there is also the reaction to broadscale language spread. If some languages have expanded, then other language distributions are evidence of the obverse side of this process, linguo-ethnicities that have been forced into smaller, less accessible, often less resourced environments. These are the languages of those who were disconfitied and perhaps forced to adjust to lesser surroundings as the result of the expansionary activities of others. Narrow distributions of high dialectal diversity, and single language ethnicities surrounded by languages to which they are not closely related, both in their different ways, are seen as the reaction to demic migration. In the former, small linguo-ethnicities have established themselves alongside other linguo-ethnicities presumably subjected to the same demographic pressures in environments that are not easily accessible, although they may be well-resourced. In Australia, the few distributions that conform to this type are found in river estuaries and lowlands, pockets wedged against the coast that seem to offer both security and ready access to the abundant resources of the littoral, ensuring a high population density, perhaps itself a form of insurance.83 Archetypically, the isolate is an individual language which comprises the entirety of a subgroup, that is, with no known relatives below the familial level. As discussed, isolates appear to evince a greater historical depth than the languages that surround them. I interpret isolates as the result of earlier expansions, languages left as ‘islands’ by subsequent linguo-ethnic expansion, and, therefore, unrelated to the languages spoken by the peoples that enveloped them. Consistent with this, isolate distributions often suggest histories redolent of contraction into smaller domains. They correlate to less hospitable environments, typically mountainous regions, these appearing to offer defensive advantages and so a safe haven from the expansionary activities of their neighbours. These refuges, I argue, have enabled these linguo-ethnicities to survive intact, whereas under other conditions they might have succumbed to the demographic pressures exerted by these more numerous neighbours. This chapter will examine one narrow distribution with high dialectal

83 And in general, coastal distributions, usually smaller in area than that of their inland neighbours, were able to resist their incursion to the sea. Some of this ability must be attributed to the higher population density a rich coastal environment afforded. Important too, however, must have been the specialised economic and technological adaptation that put inlanders at a decided disadvantage when attempting to so establish themselves.
diversity, namely that of the Lower Burdekin River in coastal north Queensland, and one isolate, the Kalkutungu, Wakabunga and Yalarnga isolate of north-western Queensland. Another continental isolate is discussed in Appendix 1.3, the Warumungu of central Northern Territory.

The Lower Burdekin River

The lower reaches of the Burdekin River were home to a cluster of very diverse languages about which little is known. Not only do these languages show little evidence of close relationship to one another but each is of very circumscribed distribution. Languages such as these comprise a combination only rarely seen in Australia. They fully qualify for Nichols’ definition of an ‘accretion zone’, that is high language diversity confined to a discrete environment or geographical niche, in this case the resource abundant lower reaches of a major river. Given the extensive language spreads that surround the Lower Burdekin on all sides, both coastal and inland, it is likely that this difficult and not easily accessible environment did provide sanctuary for smaller linguo-ethnicities in the path of expansion. Although the Nyawaygi/Manbara distribution contiguous to the north is one such broad spread, the most influential demic migration must undoubtedly have been that of Maric speakers, the distribution of whose language includes the Burdekin River and its drainage, minus the lower reaches, and, in addition, the coastline contiguous to the south. Maric languages, therefore, effectively wedge this concentration of small, diverse languages into the lower Burdekin River. That some of these Lower Burdekin languages are either Maric, or indicate heavy borrowing from Maric, raises another possibility, that this diversity indicates the Maric proto-homeland or, at least, proximity to the proto-homeland, that the Burdekin River was the locus of Maric expansion. Events then very early in the history of Maric demic migration have had their effect on these languages. As noted, areas of high language diversity need not have one only explanation for their diversity; historical explanations may exist concurrently; in the Lower Burdekin, the fact that some of its languages show no phylogenetic relationship to Maric while others do points to the possibility of both causes for diversity existing side by side. It is possible, for example, that a centre of gravity and an accretion zone have occurred at different intervals of the river’s history, the most likely scenario being the latter having overlain the former.

Previous Analyses

Previous attempts to identify the languages of the Lower Burdekin have, for the most part, consisted of trying to shoehorn them into already recognized language distributions, particularly Biri, a subgroup of Maric that itself has a number of definitional problems (Sutton 1973:60). Later efforts have been more nuanced and make clear that far from being necessarily Maric (or, at least, all of these
languages being Maric) there is, in fact, considerable diversity (e.g. Terrill 1998). Based on lexicostatistics, Breen (2006:7-8) says of the Cunningham and Gorton Lower Burdekin lists in Curr (1887): "Comparing these two lists with one another I found that they have 35% in common. They represent two different languages!" Breen (2009:245), referencing Tindale's (1974:166) identification of these languages collectively as Bindal, elaborated on his earlier comment, again drawing attention to the variation between the Cunningham and Gorton lists, and concluding:

Presumably one of them is Bindal; there seems to be no alternative to calling them Bindal C and Bindal G, or something equally *ad hoc*. Neither of them is a Mari dialect; Bindal C shares about a third of its vocabulary with nearby Mari dialects, and Bindal G about a fifth.

Breen (2009:245) also discounts as Maric Gregory’s ‘Mount Elliott’ wordlist (Curr 1887). Derived from James Murrells, the shipwreck survivor who spent twenty or so years in the region before his
reclamation, ['m]y counts gave 39% (33) with the Cunningham list, 32% (25) with the Gorton list, 26% (27) with Manbarra (= Wulguru, to the north) and 21% (33) with Yuru. It could be a third language of the Bindal area (say, Bindal 'M'). Having compared all three 'Bindal' lists with 'the nearest Biri dialects', and finding relatively low lexicostatistical correspondences (between 14% and 30%), he concludes: 'Clearly none of these three are Biri dialects.' Breen (2006:8), like Terrill, identifies O'Connor's (Curr 1887) 'Mouths of the Burdekin River' wordlist as Yuru. Like Bindal and Giya, Yuru is an ethnonym originally noted by Roth (1910:83) with little information beyond being a name belonging to the Bowen River, some distance from the Burdekin. Subsequently legitimizied by Tindale (1974:172) as a genuine 'tribe', like most of the names now doing duty in this region, Yuru possesses no real provenance. As with its neighbours, Breen concludes that O'Connor's wordlist 'shares 18% (72), by my generous account, with Biri; Terrill (1998:86) made it 13% and that may be more realistic. Any relationship is clearly distant.' Of Shea's (Curr 1887) 'Port Denison to Cape Gloucester' wordlist, which he identifies as Giya, Breen (2009:246) comments: 'Terrill (1998:87) found that this shared 45% with Biri, and I counted 46% (83) (slightly inflated by fauna terms) with Wirri (Bridgeman list). This could be related to the Biri dialects, either as another dialect or a closely related language.' Dixon's (2002:xxxii) identification of a 'Lower Burdekin Group' of languages, an areal distribution without genetic implication for the theoretic reasons discussed in Chapter Two, conforms more closely to the actual evidence. His 'Lower Burdekin Group' comprises the following, each of which he regards as a distinct language:

11 Cunningham 'Lower Burdekin' in Curr 1886 V.2:488-9
12 Gorton 'Lower Burdekin' in Curr 1886 V.2:490-1
13 O'Connor 'Mouths of the Burdekin River in Curr 1886 V.2:454-5

Wisely in my view, Dixon leaves open both the genetic identity and relationships of these languages, as well as omitting the names such as Bindal, Yuru and Giya, that have, for the most part, been tagged on to them arbitrarily. Dixon specifically excludes the Lower Burdekin Group from what he calls the 'Maric Proper Subgroup', which is one of the language configurations Dixon believes to be a genetic subgroup (as discussed in Chapter Five). While not including these languages in the 'Maric Proper Subgroup', he does, however, place the languages under the 'Proserpine group' in a more inclusive 'Greater Maric Group'. This entity subsumes the 'Maric Proper Subgroup', adding neighbouring languages whose relation to Maric is, in Dixon's opinion, more likely due to borrowing. Among the 'Proserpine group' are Giya (Shea's Bumbarra), and Ngaro.
The Source Material

Previous research on the Lower Burdekin River languages is characterized more by what is excluded than what is described. These are not Maric languages (or, at least, not all of them) and the names given to them by Tindale (1940, 1974), following Roth (1910) have no specific relevance to language that we know of. The original data confirms the impression of diversity on which all analysts agree. There are nine direct sources of language material for the Lower Burdekin River. For purposes of comparison these are identified by a capital letter in brackets: Cunningham’s ‘Lower Burdekin’ wordlist (Curr 1886 V.2: 488-89) (C); Gorton’s ‘Lower Burdekin’ list (Curr 1886 V.2: 490-91) (G); O’Connor’s ‘Mouths of the Burdekin River’ list (Curr 1886 V.2:454-55) (O); Gregory’s ‘Mount Elliott’ list (Curr 1886 V.2:448-53) (E); Hall Scott’s ‘Burdekin River – Various Tribes’ (Curr 1886 V.2:492-501) (H); Shea’s ‘From Port Denison to Cape Gloucester’ wordlist (Curr 1887 V.3:4-7) (S); Archibald Meston’s (1889) ‘Townsville’ wordlist (that Bannister attributes to Juru) (M); a list from The Queenslander (08-02-1934) (Q) based on Murrells’ material (as is Gregory’s in Curr) that differs from the latter in some respects with some additional material; and, lastly, a handful of words Captain Jukes (1839) [J] recorded in his diary of exploration in the region. The comparison which follows illustrates the subregion’s linguistic diversity, as well as the occasional commonality.

Lexical Analysis

Anatomy is generally regarded as a more conservative lexical semantic domain, being thought less subject to borrowing than others (Koch 1997:41). Nonetheless, it is clear from the lexicon in this category, as well as lexicon generally, that in this small region there were at least four distinct languages and possibly as many as eight. At least, this last figure was that given by Murrells (Gregory 1896:55; also Gregory 1886 V.2:449), who, despite his unlearned background, provides the only insight we possess into these people’s languages and social organization: ‘They live in tribes, each tribe speaking a different dialect, it can hardly be called a different language; I could speak eight of these dialects.’ There is a recurrence of words across the Lower Burdekin languages. It is noticeable, however, that when words are shared there is little consistency in their sharing; no two wordlists show a decided relationship, despite this lexicon in common across the board. Where correspondence occurs in some words, it is belied in others, with no discernible pattern. This suggests a higher degree of borrowing than usual in Australia and, perhaps, has derived from long co-residence (see Bowern et al. 2011). The data, or lack of it, however, makes determination of phylogenetic interrelationships impossible, save in one or two cases.
Two questions suggest themselves about the Lower Burdekin languages such as we can know them: one, the amount, and type, of communication that might have existed between these languages – their mutual intelligibility – and, the relationship of these languages, or some of them, to Maric. Murrells’ comments on the mutual comprehensibility of these languages, each of which, in his opinion, could ‘hardly be called a different language’, suggests a phenomenon found elsewhere in Australia (e.g. Princess Charlotte Bay (Rigsby 1979, 1992, 1997; Verstraete 2012), the Wik coastline of Cape York (Sutton 1978, 1991, 1997; Von Sturmer 1978), the lower Daly River of the Northern Territory (Ford 1990, 1998; Green 1989), and western Arnhem Land (Green 2003); that is, highly varied lexicon set in a matrix of shared grammatical forms, syntax, common verb stems and pronouns. A common grammatical basis enables ready inter-communication, whereas lexicon serves to distinguish the group speaking that language from its neighbours. As in these other regions, the evidence, admittedly flimsy, also suggests a matrix of shared morphosyntax in the Lower Burdekin region. Murrells’ description (in Gregory 1896) of the Lower Burdekin groups’ sociopolitical interaction similarly suggests that in addition to forces making for regional integration and interrelationship, there coexisted a strong tendency towards local group self-identity and solidarity. This combination gives rise to communities that Ross (2003:183; also 2001:154-6) describes as ‘both open and tightknit’, having ‘a strong social network and [yet which] values its primary lect highly for its emblematic significance’ (see also Ross 2001:157). This is the most fertile linguistic environment for the onset of metatypy, that is, one or more of these languages seizing on the syntactic construction of the most widely spoken and influential subregional language and modelling their syntax on it. Other historical interpretations can be placed on the concurrence of diverse lexicon and mutuality of morphosyntax thought to exist here; rather than a number of separate languages there may have been in fact only one (or, at least, fewer than supposed), with seeming diversity the result of lexical differentiation, whether for emblematic purposes or some other reason (see Breen 2011:235); or the alternative interpretation, that different languages brought into contact with one another have converged morphosyntactically by virtue of prolonged contact and close social interaction, as in the case of the Princess Charlotte Bay languages (Verstraete 2012). Certainly the evidence from verb stems, scant as it is, suggests less differentiation than do the other lexical categories (cf. Fig. 7B).

| come (IMP): kowa (C); kooa (O); cowa (H) |
| sit: thunara (G); thunnango (C) |
| see: thimmii (G); timmi (C); dimmi (H) |
| drink: bithana (G); bithungo (C) |
| sleep: boojaro (M); boogoorooy (G); boogoora (C) |
| die: wulgoon (G); waulgoona (C); walgoon (O); walgoonoo (H) |

Fig. 7B – Burdekin River language verb stems
My view is that the Lower Burdekin was home to several distinct languages. It hardly seems feasible that related languages would possess so little vocabulary in common, including that for 'basic lexicon', as found between these languages. Certainly, to all appearances they are different languages. More compelling, however, is the evidence for historical relationship in some of the Lower Burdekin languages. Table 7C (pp. 146-7) plots the incidence of Maric cognates in the Lower Burdekin languages. It shows that at least one of the Lower Burdekin languages other than Shea’s (Curr 1886) Biri dialect from the Bowen district, namely Cunningham’s (Curr 1886) language, is Maric. All Lower Burdekin wordlists with enough data to warrant a comparison show the presence of some Maric words. As shown below, these Maric words do not usually occur in quantity. Cunningham’s wordlist is the exception, with an amount of Maric lexicon far exceeding that of the other Lower Burdekin languages. Table 7D (pp. 148-9) compares those dialects with a Maric component, the figures at the bottom giving the number of Maric words in the sample, followed by the percentage.

That the Maric subgroup has had a significant influence on the languages of the Lower Burdekin area is hardly surprising given the expanse of the subgroup, whose distribution begins only a short distance up the Burdekin River, as well as contiguous on the coast immediately to its south around Bowen, and the numbers of people this presupposes. The importance of Maric historically in the Lower Burdekin language area remains to be determined. For example, does it provide the morphosyntactic strata that allows the intercommunicability described by Murrells? In other words, is this a case of metatypy, with Maric providing the grammatical model towards which the morphosyntax of the other Lower Burdekin languages has gravitated? While certainly a possibility, it is worth noting that only two of the verb stems that appear to be more consistent across the Lower Burdekin languages are cognate with Maric: guwa ‘come’ and tuwala ‘die’. However, these are also widespread proto-Pama-Nyungan cognates, which significantly diminishes their efficacy as an indicator of a relationship to Maric. This might suggest that if metatypy built on Maric morphosyntax is the case in the Lower Burdekin, it is a pure case, built with languages providing their own lexemes. Another possibility, previously mentioned, is that the Lower Burdekin forms one of Sapir’s ‘centres of gravity’, that is, the Maric proto-homeland, a possibility that need not be inconsistent with Nichols’ accretion zone theory. It might be envisaged various non-Maric languages originated in or found their way to the Lower Burdekin, which was already the site of the Maric proto-homeland. This possibility receives some support from the diversity of Maric language in the area, not only Maric languages such as Shea’s Biri and Cunningham’s language, but also Maric lexicon that makes up a variable component of the non-Maric Lower Burdekin languages.

Shea’s (in Curr 1887 V.3:4-7) Bumbarra language is a Biri dialect of Maric, most likely a later arrival into the region from the Bowen River valley. Cunningham’s wordlist is certainly also a Maric language. While, naturally, it bears some relationship to Biri, most of its cognates are found in the Maric languages of the Isaac and Fitzroy River drainages, including Gangulu, that is considerably far
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Table 7C – Lower Burdekin Languages lexical comparison (continued)

to the south in a totally different river system. Cunningham’s list appears to have less genetic relationship to the languages of the Upper Burdekin, which are in any case quite diverse among themselves. The Maric lexicon scattered throughout the non-Maric languages of the Lower Burdekin do have more in common with the Maric languages of the Upper Burdekin River. There are some indications of an earlier Maric presence in the Lower Burdekin. Thus, almost all Maric languages have dili ‘eye’, which indeed might be regarded as a subgroup innovation. Several of the Lower Burdekin languages – although, interestingly, not Cunningham’s – have dibara ~ dibari ‘eye’, a word found in two Gangulu dialects, Bennett’s (1918) ‘Mt. Spencer Blacks’ on the Lower Dee River, and Cameron’s (1904) ‘Karingbol’ of Jellinbah Station, on the Mackenzie River, both far from the Burdekin River. While Gorton’s (1886 V.2:490-1) language has the near-universal Maric word for ‘father’ yobu (O’Connor’s language having the seemingly initial-syllable deleted form abn).

Cunningham’s list has giya ‘father’, found in only a small number of Maric kin term inventories scattered across Maric’s northern distribution, an example being Meston’s (1900) Yearanthultje Tribe of Charter’s Towers (in Bannister 1984). Breen (2009:225-6) identifies this dialect as Gudjal, a Maric language related to Yilba and Gagu-Badhun, which is found west and north-west of the Lower Burdekin. However, the term also appears in dialects as far south as Springsure. Although the data

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84 Also Meston’s (1900) ‘Homestead Blacks, Hughenden Line’.
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Table 7D-1 – Lower Burdekin lexicon showing Maric component

1/23 (4.6%) 5/23 (23.0%) 6/23 (27.6%) 16/23 (73.6%) 2/23 (9.2%)
<table>
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<tr>
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<th>Meston Townsville 1889</th>
<th>Murrells Qldr 1934 Gregory in Curr 1886</th>
<th>Gorton Curr 1886</th>
<th>Cunningham Curr 1886</th>
<th>O'Connor Curr 1886</th>
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<td>man</td>
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<td>bulgooa</td>
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<td>yoogana</td>
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</tbody>
</table>

Table 7D-2 – Maric lexicon in Lower Burdekin languages
are limited, the evidence suggests that Maric presence in the Lower Burdekin belongs to a succession of time-depths: Shea’s Biri dialect from the Bowen area, very similar to the Biri dialects directly inland, representing the most recent Maric language arrival (this assertion on the basis of the widespread, relatively homogeneous Biri distribution); Cunningham’s dialect, also related to Biri, but with a greater proportion of non-Maric lexicon, much of it ‘basic’ vocabulary, seemingly an earlier Maric language in the region; and lastly, Maric found as lexical traces in non-Maric Lower Burdekin languages, with cognates broadly diffused across the subgroup’s northern distribution, including the Upper Burdekin River, and perhaps then either retentions of the earliest strata of Maric or borrowing from an early period of contact.

Clearly, there has been a long history of Maric involvement in the area, including evidence for Maric language of considerable time depth. Given the extent of Maric language surrounding the Lower Burdekin, a long history of contact is very probable. Further, with what must have been a considerable population discrepancy between the speakers of Maric languages and the smaller groups of non-Maric speakers in the Lower Burdekin, extensive borrowing throughout this long period of contact must also be thought likely. However, there is nothing to show that Maric forms the base of metatypy, or even that large scale borrowing has occurred, merely the persistent recurrence of Maric ‘trace elements’ in the non-Maric languages. The evidence is less solid still for Sapir’s Age-Area hypothesis, that is that the Lower Burdekin was the proto-homeland from where began the Maric expansion. Nevertheless this possibility must remain open. It is reasonable to conclude that enough time has passed from the protolanguage, time during which other languages could have moved into the proto-homeland distribution, for evidence for its existence to amount to no more than the sort of fractured but recurrent data that exists. The Maric proto-homeland has been discussed in Chapter 5, in respect of Dixon’s retelling of Cameron’s (1904 quoted 2002:681-3) Karingbool myth in which the god Beethanooola is said to ‘have come from the sea many many years ago “when this country first been born” and to have brought a great following with him’, a symbolic account, it appears, of Maric’s spread across the country. It is conceivable, given the variety of Maric found among the Lower Burdekin languages, that this is the protolanguage homeland adjacent the sea that the myth refers to. If so, Maric would have travelled up the Burdekin River, before branching off north and south. It is interesting that other protolanguages appear to have been located at the mouths of large rivers emptying into the sea, from where their speakers made their way inland; examples being Bandjalang (Jefferies 2012) and Dhanggati (Crowley 1997: 287-9). Equally, of course, it could have originated somewhere further inland in or near the Burdekin River and its presence at the river mouth part of a complex and multi-layered expansionary history.

Maric can be demonstrated to have had an obviously disproportionate influence in the Lower Burdekin languages in one semantic domain alone, kinship. Most of the admittedly small number of kinship terms recorded are Maric. Whether this is due to genetic inheritance, or borrowing, it
indicates that Maric speakers probably exercised some sort of social dominance in the region, so much so that even the fundamental kinship terms, ‘father’, ‘mother’, appear to have shifted to Maric, irrespective of the otherwise limited Maric lexicon found in these groups. I argue that a sharing of basic kin terminology implies the likelihood that the underlying structure of kinship relations is also shared. If speakers of different languages see fit to borrow kin terms, particularly basic kin terms, this can only be because they share a long history of interrelationship. Judging from Murrells’ account of the size of these linguo-ethnicities, as few as eighty to a hundred individuals in some cases, and his eyewitness testimony to their periodic ceremonial gatherings at which marital alliances formed one of the main agenda items, it seems very likely that exogamy was the social norm. The degree of shared kinship terms, with its implication for shared kinship structure, must reflect the greater influence of the Maric ethnolinguistic groups on the Lower Burdekin population as a whole.

<table>
<thead>
<tr>
<th>gloss</th>
<th>Gorton Curr</th>
<th>Cunningham Curr 1886</th>
<th>O’Connor Curr 1886</th>
<th>Hall Scott Curr 1886</th>
<th>Shea Curr 1886</th>
</tr>
</thead>
<tbody>
<tr>
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<td>yaba</td>
<td>kiya</td>
<td>abah</td>
<td>yaboona</td>
<td>yaboo</td>
</tr>
<tr>
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<td>yanga</td>
<td>younga</td>
<td>yunguma</td>
<td>younger</td>
<td>yanga</td>
</tr>
<tr>
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<td>culna</td>
<td></td>
<td>kummi</td>
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<td>elder brother</td>
<td>wabooa</td>
<td>kudun</td>
<td>cutha</td>
<td>cooloona</td>
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<td>kooda</td>
<td>coothanna</td>
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<td>younger sister</td>
<td></td>
<td></td>
<td></td>
<td>nappona kotha</td>
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</tbody>
</table>

Table 7E – Maric kinship terminology in the Lower Burdekin languages

**Interpretation of Data**

There are perhaps as many as seven or eight languages in the Lower Burdekin subregion. At least two of these are Maric. It seems unlikely that the Lower Burdekin languages are very diversified dialects of a single protolanguage, as is found to exist in other parts of Australia (i.e. the Wik languages of western Cape York). My view – given the very broad differences in basic lexicon – is that several distantly related Pama-Nyungan languages are involved. There is, therefore, a cluster of very small, very diverse languages compactly located around the Lower Burdekin River. That these languages have a history of independent development in situ is, in my view, unlikely. More probable is that, as per Nichols’ accretion theory, there has been a progressive occupation of the area by a succession of linguo-ethnicities speaking a diverse array of languages, including Maric languages. Some languages have a longer history in the Lower Burdekin than others. While the ecological richness of the Lower Burdekin probably attracted these hunter-gatherers, or at least made their residence there possible, it is also probable that the Lower Burdekin, with its mangrove swamps,
marshes and scrubs was a safe haven for linguo-ethnicities displaced by the demic expansion of other languages, chief among whom must have been Maric. If so, these groups would already have been speakers of distinctly different languages when they appeared in the Lower Burdekin, and rather than diversification there has been convergence or metatyp, the development of shared morphosyntax, this allowing for mutual intelligibility. This interpretation is consistent with the language of these linguo-ethnicities each having maintained not only a unique social vocabulary (for common terms such as man, woman, child etc.), and similarly unique cultural vocabularies, but singular inventories in other semantic domains generally considered more conservative, such as anatomy. A common Maric-based kinship terminology and the ethnographic evidence provided by Murrells (in Gregory 1886) suggests that an overarching social entity embraced these diverse linguo-ethnic groups. Whether by design or inadvertently, the ‘emblematic’ lexicon of each linguo-ethnicity worked to maintain the localized self-identity of these small linguo-ethnicities within the broader sociopolitical interrelationship. This model is consistent also with the possibility of the progressive arrival of new linguo-ethnicities into the region and their incorporation into the economic, social and political life of the Lower Burdekin.

Continental Isolates

The term ‘isolate’ is a relative designation. In the context employed here it indicates that the language or language bloc in question is both linguistically and geographically circumscribed, that is, below the familial level it has no deductible relationship with the languages that surround it or, indeed, any languages that can be discerned. Language isolates are not restricted to islands off the coast, as is the case with Nhulla (cf. Appendix 2). There are, in addition, what I refer to as continental language isolates. These language distributions are found in what can be described as islands within the continent, that is, in high country, or country with other topographic or environmental qualities that permit independent development free from external interference. The physical characteristics of these environments, it is argued, have provided advantages to the speakers of these languages, enabling them to withstand the broad language expansions that surround them and which are associated with the better resourced river valleys, plains and coasts that provide avenues of demic expansion. Seen historically, spread and isolate distributions can be said to form the inverse of one another; whereas the language spread expands and diversifies over broad swathes of country, the isolate occupies a topographically discrete area and retains, for the most part, an undifferentiated linguistic and cultural identity. In most cases, broad language expansions have enveloped language isolates, and, in some cases, expanding demic migrations continued to exert pressure on these isolated pockets of linguo-ethnicity. Isolation can be interpreted as having come about by failure, or unwillingness, to engage in further migration. The linguo-ethnicity has adapted to its particular environmental conditions and either sees no need to move further, or else is prevented from doing so.
by the presence of neighbouring linguo-ethnicities who are better adapted to environments conducive to spread. There is some similarity between isolate histories and those of accretion zones in as much as the environments and topographies of both seem to have offered refuge from the attention of expansive linguo-ethnicities. Unlike accretion zones however, there is no necessity for isolate linguo-ethnicities to coexist with others of dissimilar linguo-ethnic origin. Isolate distributions are environments with which the speakers of these languages have been long familiar, and which have qualities amenable to defence, often intractable environments such as mountain ranges. This, seemingly, has enabled these isolate linguo-ethnicities to preserve their independence.

Kalkutungu, Wakabunga and Yalarnnga

Kalkutungu fits both the linguistic and physical characteristics of a continental language isolate; it is a language ‘not closely related to any neighbouring language’ (Blake 1969:1), as well as which its distribution over mountainous country fulfills one of the physical characteristics typical of this type of distribution. The Kalkutungu distribution is, however, not quite as simple as the factors above might indicate. While its relationship to the broadly distributed surrounding subgroups, Mayi, Tangkic, Karnic and Warluwaric, is relatively distant (Blake and Breen 2007:2), this is not the case with the Yalarnnga language, contiguous to the south. The relationship between Kalkutungu and Yalarnnga is historically complex (Blake and Breen 2007:70-1; also Breen 1990:158; Blake 1979:3):

We claim that Kalkutungu and Yalarnnga are more similar to one another than either is to any other language and we would claim that this is true independently of any local diffusion. Kalkutungu and Yalarnnga are relatively close genetically, but this does not imply they form a subgroup. They may do but it is difficult to find evidence of common innovations.

Borrowing accounts for a considerable proportion of the lexicon shared between the two languages, which, when factored in, reduces the percentage of probable cognates from 43% to 23% (Blake 1979:128-31). The semantic categories most shared are those of flora and fauna, inanimate nature, and culture, pointing (as previously discussed) to a long history of interrelationship, but possibly not genetic relationship. However, while borrowing is indicative of long and close physical interaction it does not explain the entirety of the linguistic relationship. Blake and Breen (2007:83-4) conclude that the retention of old language material accounts for their similarity as much, if not more, than diffusion:

It is clear that Yalarnnga and Kalkutungu share old material both lexical and grammatical, some of the latter being irregular. It is also clear that similarities between the two languages have been augmented by diffusion. This can be seen in the formation of the compound cases
Map 7F - Kalkatungu and contiguous languages
and in the parallel formations of the verbal purposive, and possibly some other inflections. About two-thirds of the shared grammatical material is widespread, or at least found in a few non-contiguous languages, and must be old material from a remote proto-language or languages. Yalarnga and Kalkutungu are similar in terms of grammatical forms partly because they share more than the average of old forms, and partly through diffusion. There is no clear evidence that Yalarnga and Kalkutungu share innovations. Some of the exclusively shared forms such as -ngarra ‘other’ and -(a)jithnu ‘hence’ could be shared innovations or innovations in one language diffused to the other.

Kalkutungu and Yalarnga, therefore, ‘constitute a relic area’, in which ‘[i]t is possible for two languages within a set of genetically related languages to be comparatively close because they are conservative’ (Blake and Breen 2007:84). The authors address the extralinguistic circumstances that might account for this conservatism, ‘the question of whether they are conservative because of conditions in the area, for instance, being located in a mountainous area away from contact with other languages’; a question they answer in the negative (Blake and Breen 2007:84):

Kalkutungu, but not Yalarnga did occupy mountainous territory, but the mountains are not particularly formidable and there is no sharp boundary between the relatively high country of the Kalkutungu and the surrounding country. In any event the Yalarnga did not occupy territory that was significantly mountainous.

This, however, is not quite accurate, or, at least, sufficient explanation for their linguistic isolation in anthropological terms. Firstly, at least some of Yalarnga country was mountainous (Memmott and Sackett 2005:n.p.); secondly, a mountain range does not have to resemble the Himalayas to form an effective barrier to, or retreat from, transgression. It is impossible to unravel whatever history contributed to Kalkutungu and Yalarnga linguistic commonality. Juxtaposition of Kalkutungu’s mountainous and Yalarnga’s partly upland, partly plain distribution, the sharing of a considerable amount of terminology for flora and fauna, may indicate origins in an environment that included both plains and high country, followed by a retreat into the hills, with, perhaps a status quo reached between these two environments. Equally possible is an historical scenario in which both shared mountainous country, from which Yalarnga later partially emerged. In any event, their languages point to a long period of association that distinguishes them from the extensive language subgroups that surround them. All early authorities are in agreement that Kalkutungu country was distinguished by a mountainous and deeply cut riverine topography (Roth 1897:42):

The Leichhardt-Selwyn District includes the Selwyn Ranges and the highlands (Barkly Tablelands &c.), drained by the Leichhardt and various tributaries (e.g. Buckley River, Moonah Creek of the Upper Georgina); its southern limits extend to Chatsworth, Mount Merlin, and
Buckingham Downs. In the main this area might be described as wild, mountainous country, watered by natural springs. It is chiefly occupied by the Kalkadoon tribes.

‘Nearly all mountainous and very rugged’ (Bulleta 1895:547; also Pearson c. 1934:132), this terrain distinguishes the Kalkutungu from those peoples occupying the plains country that surrounds them on all sides, leading to descriptive appellations such as ‘hill-bred tribe’ (Pearson 1949:149). The Kalkutungu are also often distinguished in the literature by phrases such as ‘the most savage of the [A]boriginals under consideration’, although it is difficult to know whether this actually applies to their martial prowess or simply the more protracted fight they were able to put up against the European invader due to the rugged country in which they lived (Roth 1897:135; Pearson c. 1934:133). This insularity becomes apparent in post-colonial times when their plains-dwelling neighbours were subjugated more rapidly under European hegemony than were they themselves (Memmott and Sackett 2005: n.p.):

This was in contrast to the surrounding plains people to the east, south and west who succumbed relatively swiftly to the advancing frontier, and whose lands were occupied in the late 1860s and early 1870s. The pastoralists effectively surrounded the mountain country of the Kalkutungu and their neighbours to the immediate south and north-west, the northern Yalaranga and Warkabunga respectively.

The third language component of this continental isolate is the Wakabunga, a language contiguous to Kalkutungu occupying the coast-flowing outfall of the Selwyn Ranges, the ‘Upper Leichhardt River and Gunpowder Creek’ (Tindale 1974:187; also Pearson 1934:185; Lamond 1948:21). The most reliable early observer, Edward Palmer (1884:277) associates the Kalkadoona with the Upper Leichhardt: ‘[they] inhabit the country at the heads of the Cloncurry, and southwards for a very long way; westwards across the heads of the Leichhardt and Gregory Rivers, and next in position to the Mygoodsano tribe.’ Owing to the rapid disappearance of the Wakabunga as an independent entity, most writers have been tentative in their attempts to identify the language and its speakers’ identity. Only Tindale appears in any way confident, asserting baldly: ‘They are related to the Kalkadunga’. Breen (2004b:1) hedges his bets somewhat: ‘I suspect, on the basis of the opinion of a couple of old people that the Wakapunga […] spoke a dialect of the same language [as Kalkatungu], but I have no real evidence.’ Blake (1990:52), however, takes a different tack, arguing: ‘On the basis of its location, and the fact that there is an unnamed vocabulary (Curr 1887: II: 318) that comes from this location and which is a Mayi dialect, I suspect that Wakabunga is a Mayi dialect.’ The Curr wordlist in question, Montague Curr’s ‘No. 96 Kamilaroi Station’ is indeed a Mayi dialect; however, Kamilaroi
Station, while predominantly Mayi speaking country, probably included also Wakabunga country. Tindale’s (1938:727) Notes from the Harvard and Adelaide Universities Anthropological Expedition recorded at Woorabinda (Wednesday Nov. 23 1938) from informant ‘N 129’; Harry Green would appear to be conclusive but in fact raises only more questions:

A Maidakari man of Fort Constantine described the boundaries of his tribe and that of the neighbouring ‘Kalkadunga and Maikundung. The latter two tribes circumcised and subincised, but his own practiced neither rite.

Maikundung: Kamilaroi Station
Maidakari: Coolullah, also Aragon, Cabbaroo and Fort Constantine
Kalkadunga: At Coorooyah, Martindale and Sulolo

Tindale (1974:180) identifies the Maikudung (as Maikudunu), that is a Mayi speaking linguo-ethnicity situated on ‘the boundary of the rites of circumcision and subincision’ into which rites ‘some men had been initiated’. Kalkutungu association with Kamilaroi Station is undoubtedly historical, the Kalkutungu concerned having been driven from their country by a concerted Native Mounted Police campaign: ‘There seems to have been a sizeable migration via the Leichhardt River in the wake of this assault, a type of escape route to the north, but also the north-west via the Gunpowder Creek Valley’ (Memmott and Sackett 2005). In all probability, this too accounts for the fate of the Wakabunga as an independent people. Closely related in all respects to the Kalkutungu, the survivors of both groups quickly and seamlessly melded into one, the Wakabunga name, to all appearances, vanishing. The information available suggests Breen is right in his surmise and that Kalkutungu and Wakabunga, both linguistically and culturally, should, for our purposes, be taken as linguo-ethnic divisions of the one entity. The anthropological data in particular supports this view. Sharp’s papers, for example,

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85 Significantly, Montague Curr describes the Mayi dialect as coming from ‘twenty miles below Kamilaroi Station’, that is, closer to the sea. Breen (1981:8) concluded that the language spoken at Kamilaroi Station was Mayi-Yapi, while Mayi-Kutana was spoken ‘twenty miles below Kamilaroi Station’.

86 I find Tindale’s analysis unconvincing. He says himself: ‘Similarities between the name of this tribe, the Maikulan, and the Maithakari have been sources of past confusion’ (1974:180). Also confusing is Tindale’s assertion that ‘some men had been initiated’, whereas his informant Harry Green has both Kalkadunga and Maikundung practising circumcision and subincision, i.e. as linguo-ethnicities, not as some members of the linguo-ethnicity. Tindale (1974:180) equivocates further when he says: ‘The line marking the limits of the rite was in process of shift eastward, but Turnbull [1896, 1903] considers the Maikudunu were in process of rejecting the customs.’ Despite the ethnonym seeming to indicate that the Maikudunu were Mayi speakers I think there has to be some case that the people Harry Green is referring to are Wakabunga. Perhaps more likely, (and as appears to be suggested in Tindale’s map, Australia N.E. Sheet) Wakabunga country extended closer to the Leichhardt River. It seems a not unusual case of Tindale shoehorning the Maikulan, Maithakari and Maikudunu into smaller territories to accommodate ethnonyms some of which are in fact synonymous.

87 Some indication of this unity, although it can only be speculative, may be found in the linguistic record. Blake’s (1979:168) list of Kalkatungu kinship terms includes a separate list under the heading ‘rare forms’; comparison of the two lists gives the following doublets (with known Kalkatungu first): mantu ~ manu ‘mother’; lupu ~ ngarnu ‘elder brother’; papi ~ yaladja ‘mother’s brother’; and, upadji ~ ngamarra ‘mother’s sister’. While there certainly may be some other explanation these doublets are intriguing.
include the note 'Wawkabunga: mate belong Kalkadoon' (Item 9, 14/25/2618, Box 85, no. 45). Moreover, many of the places associated with Kalkatungu historically are in fact in Wakabunga country, Battle Mountain, site of the Kalkatungu’s apocryphal last stand (Armstrong 1975); and Mount Oxide, the copper lode that enriched Ernest Henry, and to which he was led by his ‘Waggabooonga’ companion (Philips 1923:134). It is probable, in my view, that Kalkutungu and Wakabunga origins were genetically close and that the river falls, southerly in the former, northerly in the latter, and the respectively different social and cultural orientations this might have implied, were the determining factors in the differentiation of their identities.\(^{88}\) In this respect, subdivisions within Kalkutungu itself may be relevant (and which, conceivably, might be talking about the Kalkatungu/Wakabunga divide itself). Roth (1897:42) described how the Mitakoodi, Kalkutungu’s eastern and northern neighbours ‘[s]ometimes speak of these Kalkadoon as consisting of two main divisions – the Muntaba (i.e. southern) and the Roongkari (i.e. western)’. Breen (2001b:n.p.) comments: ‘In fact they are Mayi-Thakurti words for ‘south’ and ‘west’ respectively (which is not to say they were not used for names of people).’

The impression given in the literature is that the Kalkutungu were self-contained and independent, less willing to travel the great distances we know were common with their Karnic neighbours to the south for example. Roth (1897:135) describes how ‘[i]n the Leichhardt-Selwyn District, the Kalkadoon travel southwards but very short distances outside their own immediate country.’ Other early observers too appear to stress a certain indefinable difference, a reclusiveness, in describing the Kalkutungu; Palmer (1884:277, 295), for example, states that ‘[n]ot much is known of this peculiar people, as they only occasionally visit the Upper Cloncurry’. However, insular the Kalkutungu might have been, more modern studies, particularly archaeological investigations, reveal that their degree of involvement in regional politics and economics was probably of no different order to that of the plains country people who surrounded them, and perhaps, in some respects, greater. Their apparent conservatism, if true, did not prevent the Kalkutungu from pursuing the broad regional trade known to have been such an important factor in the economies and cultural lives of the region’s peoples generally (Roth 1897:135; also Tibbett 2002:23):

[T]hey come down from their highland home to Camooweal, Headingly, &c., to meet the Workia [Wakaya] and Yaroinga [Yarannga]; to Fort Constantine to see the Mitakoodi [Mitakudi]; and to Buckingham Downs, &c., to visit the Yunda [Yanda], Yellunga [Yalannga], and other Boulia District tribes. At the Georgina River markets the Kalkadoon exchange lunga-lunga boomerangs, stone-knives, human-, opossum-, kangaroo-, and wallaby-hair (in the rough), koolamons, short woomera-spears and long gidyea ones – for blankets, human-hair

\(^{88}\) Lamond (1948:21), for example, instinctively uses the lay of the land to describe their country, country he appears to have known with close personal familiarity: ‘North of the divide, on the coastal fall, there’s the Waggabooongas. I was the first white child born in their area. They adopted me and raised me to royal rank [...]’

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twine, other boomerangs and spears, nulla nullas, fighting-ponies, grindstones, red ochre, dilly-bags, grass necklaces, hook-boomerangs, and shields. To Buckingham Downs, Chatsworth, and until a short time ago, Noranside, the Kalkadood bring similar articles to those taken to the Georgina; but in this case they return chiefly with pituri, fishing-nets, &c.

Like all the peoples of this region, Kalkutungu dependence on the products of the region was as significant as that of any other people in the preservation of their ‘standard of living.’ Outstanding among trade items was the export of stone tools from the mineral rich Leichhardt-Selwyn Ranges:

The highlands contain a great diversity of rocks and minerals [...] the Kalkutungu were already famous for their stone implements (axes, knives, spearheads) and exported them far and wide. Their preferred working stone was reported as ‘greenstone’ by Pearson (1949:205) which he described as an igneous rock, coloured by amphibole, containing a high percentage of silica and taking a high polish. Another stone, given by ‘Pack Saddle’ (1935:45) was blue diorite, exported by the north-west neighbours and allies of the Kalkutungu, the Warkabunga. (Memmott & Sackett 2005; also McBryde 1987:265)

Mike Smith (2013:289-90) describes the extraordinary scale and sophistication of the trade in stone axes proceeding from this region:

The largest arid-zone quarries – as well as an extraordinary density of quarries – occur in the meta-basalts around Mt. Isa (Davidson et al. 2005). These quarries were pivotal in interregional trade because of the systematic large-scale mining and production that took place here, and their strategic position near the headwaters of the Georgina-Mulligan River system... The scale of production reflected in the Mt. Isa quarries was immense. At LMI, Hiscock (2005) estimated that 800,000 axe rough-outs were stockpiled across the site [...] if we scale up to include the other quarries in the Mt. Isa district, it is clear that axe production may have been in the order of 10,000-15,000 axes per year, reflecting a considerable surplus above normal replacement needs for these implements within the region. But it is not just the sale that suggests large-scale production for exchange: finished implements were also highly standardised in size and shape, reflecting routine application of a set sequence of production.

As Smith (2013:271) points out, here there was a contrast between the standard ‘down-the-line’ exchange networks common to most of Australia, where goods passed from hand to hand in an established, even ritualised process of transference from individual to individual, to ‘long transfer’ of goods, namely export as we understand it in our own culture, on ‘a corporate rather than an individual level’, from which items could then enter ‘reciprocal exchange networks, creating a

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secondary pattern of diffusion of goods. Archaeologists have speculated that the rock art of which the Kalkutungu region abounds is symbolic of these broad trade relationships:

In the Mt Isu region [...] a distinctive, recurring painted anthropomorphic figure (usually bi-chrome and with a 'fern' headdress) [appears] in the rock art during the last millennium, with slightly different but standardised forms in adjacent geographic areas. This region was the source area for stone axes used in long-distance exchange in the Lake Eyre basin, and Ross argues that use of this recurring motif signals a more bounded group identity as a response to increased interaction between groups involved in this exchange network. (Ross 1997 in Smith 2013:259)

It is apparent that the Kalkutungu in the run-up to European settlement were as active a participant in regional affairs as any of their neighbours. There is no suggestion that Kalkutungu were in any way disconnected from the peoples whose country bordered theirs, but on the contrary that the security of their high country provided a base for active social and economic engagement. In that sense, the Kalkutungu, as with continental isolate groups generally, were no whit different to those peoples with a more recent expansionary history. Their supposed conservatism has much to do with their history; firstly, that they are speakers of a Pama-Nyungan language that has no proximate close relatives, with the implication therefore that it has evolved in isolation for some considerable time (excluding that is the thus-far ambiguous Yalarrnga speakers); and secondly, the language speakers' long association with a difficult mountainous area that prevented the incursion of other linguo-ethnicities. This suggests the probability that both were connected, that the preservation of the Kalkutungu language is associated with an environment that made for resistance to the language-spreading demographic forces much more effective than in the flatter country that surrounded them. Having occupied, or possibly been forced to occupy, their highland home, they remained immune from the expansionary demographic currents that continued to unfurl around them.

Cultural attributes that support this theme of isolation are few and ambiguous. The Kalkutungu were practitioners of both circumcision and subincision, and are on the boundary of these rites' distribution west of the Leichardt River, presumably then recent adherents to them. Roth (1897:42) lists Kalkutungu's 'messmates' as 'the Workoboongo, Injillinji and Oborindi', all of whom practised circumcision and subincision. As regards the section systems, it appears Kalkutungu were on the conservative side of section distribution, possessing a four section system just east of the boundary with the later eight subsection system, which was diffusing eastward from linguo-ethnicities to their west and north (McConwell 1985a, 1985b). In this too they are in no way different from the groups that surround them. Roth (1897:57) provides some detail that seems to indicate, if only obliquely, their separation from the plains peoples to their east and south, describing the distribution of the four section terms, Koo-poo-roo, Woong-ko, Koor-kil-la and Bun-bur-i, as follows:
They [sections] are universal throughout the Boulia District among dozens of different tribes occupying it; each tribe having four identically-named divisions. Also outside this area, exactly the same terms are applied at Roxburgh on the Georgina River, among the Miorli and Goa people of the Middle and Upper Diamantina River, and among the aboriginals of the Cloncurry and Flinders Districts.

Significantly, however, three groups in the region did not share these terms, Kalkadoon, Miubbi - Breen’s Mayi-Yapi, which Roth (1897:62) attributes to ‘Canobie country’, possibly Kamilaroi station - and the Workoboongo. Roth (1898:57, Table 1) gives these section terms as follow in Table 7F:

<table>
<thead>
<tr>
<th>Kalkadoon</th>
<th>Miubbi</th>
<th>Workoboongo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pa-ting-o</td>
<td>Ba-ding-o</td>
<td>Pa-ting-o</td>
</tr>
<tr>
<td>Kung-gi-lung</td>
<td>Jim-mi-ling-o</td>
<td>Jim-mi-ling-o</td>
</tr>
<tr>
<td>Ma-ri-nung-o</td>
<td>You-ing-o</td>
<td>Ka-poo-dung-o</td>
</tr>
<tr>
<td>Toon-be-ung-o</td>
<td>Mar-ing-o</td>
<td>Mar-ing-o</td>
</tr>
</tbody>
</table>

Table 7F - Roth (1898) Section Terms

Some things are obvious from this paradigm: that, unlike the very wide distribution of section terms described for the predominantly Karkin and Mayi groups of the surrounding country, each group has a section term inventory that is somewhat unlike that of its neighbours. This appears to indicate some degree of insularity, at least compared to the ‘four identically-named divisions’ of their plains-dwelling Karkin and Mayi speakers to their respective south and north-east. Kalkatungu is most divergent, its inventory, minus the commonly shared Padhingu, unique. Mayi-Yapi and Wakabunga share three of the four section terms, perhaps indicative of closer social ties including, presumably, intermarriage. Sharp (1938/9:449-50), apparently on the basis of Roth (1897), includes Workabunga among his Okerilla Type moiety and section structure, in common with Mayi dialects but distinct from Kalkatungu (Maitakudi Type).89 One last curiosity does stand out among cultural practices that separate Kalkatungu from their neighbours: ‘Among the Kalkadoon, female infants are said to have the top joint of the little finger amputated’ (Roth 1897:184). This practice is limited otherwise to coastal groups from about the Tropic of Capricorn south to Port Jackson, with at least one coastal isolate in the Northern Territory. The peoples of broadly-spread subgroups around the Kalkatungu have no part in it. It is tempting to think that this practice is the artefact of a deeper history, although this is of course never likely to be known.

89 There is, however, reason for caution in Sharp’s ascription: Kalkatungu, too, includes Mayi speakers among supposed practitioners of this form of totemic organization (patrilineal moieties as opposed to matrilineal in the case of Wakabunga). It is also apparent that Sharp (1938-8:450-1) received little direct information on the Wakabunga. He says for example, that ‘[t]he general term for totem is the same as that for dream (Note here names for totem/dream are provided for all ‘tribes’ with the exception of Workabunga)’, implying that he received his information from neighbours, possibly Mayi speakers.
Conclusion

Australian language distribution, particularly in the interior of the continent, is dominated by broad language expansion, justifying Nichols’ (2010:367) claim that Australia is ‘a natural spread zone’. Small distributions, whether the language isolate represented by Kalkatungu or the contiguous and diverse distributions of the Lower Burdekin, are the exceptions. The Lower Burdekin languages and Kalkatungu, Wakabunga and Yalarunga provide only a sample of language distributions that do not conform to spread distributions. They do not exhaust the variations it is possible to find; these are as varied as the histories that shaped them, the social and cultural compromises people found necessary to ensure a linguo-ethnicity’s survival. Ultimately, it is the creative power of Aboriginal people in the Late Holocene to adapt to circumstances both natural and social that is revealed in a study of language distribution. All cases have one thing in common; that the demographic pressures to which people responded were dictated by demic migration. The migratory distribution of languages must have been occurring since human occupation of the continent. Mid-Holocene Pama-Nyungan distribution too must be considered to be the result of demic migration – the movement of people who spread their language as they migrated. Thus, Late Holocene demic migrations have overlain the results of thousands of years of preceding population movement. Late Holocene demic migration has therefore either enveloped or lapped around distributions formed from previous expansions (see McConvell 1996). Very probably, earlier waves of demic migration provided the linguistic stock from which languages such as Kalkatungu were drawn. The close genetic relatives of relic populations of early waves of expansion such as Kalkutungu have either disappeared or moved on, in the process changing to a degree that makes their genetic relationship to the isolate unrecognizable. Language distribution, therefore, reflects this ceaselessly moving, changing prehistory, not a deeper millennial stasis in which all histories are products of the same timeframe, and shaped in the same way, by contingent response to natural forces.
Chapter 8
Higher Order Social Organization – Part I

It is the ubiquity of evidence for demic migration, spread over many centuries, that leads to the surmise that a regional sociopolitical level of social organization – which had to be intrinsic to demic migration and its demographic consequences, existed in Late Holocene Australia. These could only be the confederacies, messmates and nations of the nineteenth century ethnologists. Crucial to understanding this overarching level of social organization is language. As previous chapters have attempted to show, it is the demographic process of language spread, and its impact on the speakers of languages either not migrating, or else also migrating, that sits at the bottom of Late Holocene demography. If institutions of higher order social organization have grown out of these demographic conditions there will have been an intrinsic relationship of social organization to language by virtue of lingue-ethnicity, the identity of the people affected in demic migration in one way or another.

Further consequences should be considered probable, that conflict and the prospect of conflict would engender alliance and compromise, resulting in the broadening of sociopolitical relationships generally. I consider it likely that linguo-ethnicities would combine to further expansionary ambitions or to be able to more effectively resist the same.

Modern Australian anthropology has struggled with the issue of language’s role in social organization. This was not always the case. Language was critical to Radcliffe-Brown’s (1931:5) original definition of ‘tribe’: ‘The primary mark of a tribe is that it consists of persons speaking one language, or dialects of one language. Its unity is primarily linguistic.’ As the discipline progressed and more and more reports flowed back to the centres of study from the field it became increasing obvious that in many instances this was not the case, and in fact may never have been the case. The one-to-one relationship of language to society, the dialectal tribe model, became untenable. Radcliffe-Brown’s ‘dialectal tribe’ gave way to post World War Two enquiry based on fieldwork and the raft of new ideas flowing into Australia, principally from the United Kingdom and the United States, including from the latter, Neo-Evolutionism. These ideas tended to diminish the level of complexity in social organization thought possible for the Australian Aboriginal. Attention focussed on observable social institutions, the estate patriclan and the band or ad hoc economic unit (Stanner 1965). Although a rearguard (Tindale 1974; Birdsell 1958, 1968) continued to defend the dialectal tribe, in general, Australian anthropology moved away from the notion that Aboriginal Australia
was capable of social organization on a broad scale, and by and large this is the position held by the discipline today. This left language, and in particular the relevance of language to social organization, in an equivocal position (cf. Peterson 1999:319). The failure to see a connection is, in my view, largely the result of social anthropology being a synchronic discipline; because very little evidence was forthcoming from the field of a role for language, for linguo-ethnicity in social organization; it was thought not to exist. Alongside this was the very real difference between pre-colonial Aboriginal societies unfettered politically in their actions, and those to be found, however close in other ways to their traditional cultural practices and values, in the European-administered reserves and communities of the modern era.

Peter Sutton (1990)

Sutton’s (1990) landmark paper ‘The Pulsating Heart’ provided a timely review of the ideas on Aboriginal social organization current among the pioneer ethnologists of the late 19th and early 20th centuries; this generation, almost unanimously, accepted the existence of overarching institutions of social organization, the so-called nations, confederacies and messmates; and further, despite some speculative and later easily dis-proven theorization on their purpose,93 were able to provide evidentiary examples (Roth 1897:42; Curr 1883:246). If we accept Gellner’s (1989:131) observation on the premature disappearance of ‘political achievements on a grander scale’ in West Africa as relevant to post-colonial Aboriginal Australia, the good probability is that the pioneer ethnologists, A. W. Howitt, R. H. Mathews, W. E. Roth, Baldwin Spencer and F. J. Gillen among others, were more likely to have encountered these institutions, or encountered those who had had firsthand experience of them, than latter-day anthropologists (cf. Radcliffe-Brown 1931:4). Sutton’s paper suggested, for the first time since Radcliffe-Brown’s dialectical tribe some sixty years earlier, that there might after all have been higher order institutions of Aboriginal social organization in pre-European times such as those described by the pioneer generation. Among the characteristics of this level of social organization, Sutton (1990:73) identified the following: 1) numbers in the hundreds, if not thousands; 2) ‘often’ intermarriage between member parties; 3) distributions ‘that tended to cover linked sub-parts of a drainage system, where drainage was clearly differentiated’; 4) ‘commonality of prescriptive marriage rules’; 5) ‘collaboration in ceremonies’; 6) ‘[a] maximum range from which allies might normally come in times of conflict.’ The relationship of such institutions to language, however, was less clear cut. While there might be ‘surface similarities’ that suggested, to Sutton,

93 The problem with the early writers was that often they discovered the widespread distribution of social institutions such as section systems, or recognised the commonality of broad language distributions, and mistook them for evidence of closer, deeper social relationship; in other words, that these were evidence for, and defined, nations, confederacies and messmates. It is now known that many of these institutions, section and subsection systems, circumcision and subincision, spread by diffusion on a scale far too broad to indicate any local or regional affinity (cf. McComb 1985a, 1985b, O’Grady 1959, Dousset 2005).
diffusion: 'phonetics, kinship-pronominal categories, floral and faunal taxonomies, rules for speech
etiquette, and the semantic structure of idiomatic expressions', these contrasted with the absence of
'those historically deep differences of grammar and vocabulary, which yield the genetic groupings
postulated by comparative linguists'. Hence, 'genetic groupings of languages frequently fail to match
the "messmate" groupings in the ethnographic present'. While, then, the higher order institutions of
a previous era had a number of observable commonalities, an endemic language was not one of them
(cf. Walsh 1997:401). Despite also the sometimes very specific examples of 'nations, confederacies and
messmates' provided by the early authors, no one had actually been able to come up with a plausible
explanation of their purpose, or the sociopolitical context in which they existed.

Late Holocene Social Organization: An Hypothesis

To resolve this conundrum this thesis proposes a hypothesis. It is a hypothesis that links language to
higher order social organization, but does not make it conditional on language. Higher order social
organization, as envisaged here, identifies the peak level of social organization in Aboriginal
Australia, the level of organization once thought to have been occupied by the tribe. Rather than
tribe, however, I prefer the term alliance, both because it refers to the sociopolitical life of Late
Holocene Australia, in which the alliance was the key regional institution, and because there is less
implication of permanence in the term. Alliance replaces the variety of terms used by the nineteenth
century ethnologists, but carries much the same descriptive weight as that articulated by Sutton
(1990:73). Unlike Radcliffe-Brown's 'dialectal tribe', the alliance is not 'primarily linguistic'.
Language, however, is of crucial importance to understanding the origin, composition and purpose
of these higher order social institutions; not as language per se, but because within language is
encoded history. As discussed, as language subgroups divide into lower order subgroupings,
distancing themselves both linguistically and spatially from their origins, linguo-ethnicity becomes a
factor not of a subgroup distribution per se, but of these lower order subgroups as they become
sociopolitically regional and independent and take on linguo-ethnically distinctive, self-identifying
characteristics. Confined as these individuated subgroupings are to particular areas, a river valley or
range of hills for example, with close contact limited to neighbouring groups that are perhaps
economically and culturally similar, a more localized consciousness develops. Linguo-ethnicity
becomes determined not only by genetic origin and inheritance, but also by different histories of
expansion and contact, including the absorption of external cultural influences encountered en route,
and different histories of accommodation with neighbours, whether these were of similar
phylogenetic background or not. The linguo-ethnicity's distinctive 'language' will be as much a
sociopolitical artefact as it is linguistic due to its unique properties making it conducive to self-
identification. Relationship to country will be to some extent a factor of a linguo-ethnicity's migratory
history. It may be country acquired in the process of linguo-ethnic expansion, or country retained

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historically from a previous episode of migratory expansion, or country of less pleasing aspect into which the linguo-ethnicity had been forced to withdraw. Set in the general Late Holocene demographic climate that I have described as dynamic, if not periodically turbulent, the linguo-ethnicity will find itself in an on-going political climate; bordered by peoples to which it has a close, historical relationship; or, at the other extreme, neighbours with no such shared history, towards whom it may feel only fear and enmity. My argument is that, dictated by these politics, and depending on the many and variable historical and environmental circumstances that constitute the linguo-ethnicity’s circumstantial position, it will ally itself with its neighbours in order to ensure its security. The alliance thus formed is as close as it is possible to get to a social entity that might be described in Radcliffe-Brown’s terms as the ‘tribe’, a social entity that does act, if only periodically, and only in certain situations, with a unity of purpose, with whom relationships of all sorts, marital, economic, and cultural are regular and of an order greater than relationships with regional neighbours generally, and between the members of which develop the common and distinguishing features of language and culture alluded to by Sutton. Such a ‘higher order’ social entities are likely to possess endogamy within the alliance; commonalities of environment or topography; collaboration in ceremony, particularly initiation; indulgent and favoured treatment in the sharing of resource windfalls; shared commonalities of language, either phylogenetic or borrowed, and, most importantly, a commitment to support one another if threatened individually.

I argue that the Australian Late Holocene was defined by three predominant characteristics: 1) rapid population growth, 2) sociocultural development, and 3) pervasive demic migration. In this environment alliance building became an imperative, firstly, for a linguo-ethnicity to undertake demic expansion, that is, to overcome the resistance of others in the attainment of its expansionary ambitions, or in the obverse situation, to counter the expansionary movement of others as they sought to impinge on one’s country. Thus, I argue, alliances were based on two principles, aggression and defence. Because the formation of alliances grew out of linguo-ethnic demic expansion, there is a strong correlation between the composition of these alliances and language, although language itself is by no means an indicator per se of higher order social organization. Alliances are distinguishable by their social organization, each bearing a different relationship to language, encoded within which are disparate prehistories. Either they will have been contracted between speakers of the same language (i.e. members of the same linguo-ethnicity) and alliance has been the direct product of linguo-ethnic demic expansion, or alliances have been contracted between linguo-ethnicities for whom mutual proximity and common political circumstances, namely those of imminent or potential threat, will be the determining factors. Unlike the former, shared ethno-linguicity is not a pre-condition for alliance formation and they may be composed of disparate linguo-ethnicities. Language can only be described as a ‘passive’ factor in the definition of these alliances. On one hand, the expansionary alliance is connected to language by its members all being involved in the same linguo-ethnic demic expansion; and, therefore, closely related phylogenetically; on the other, alliances
contracted between disparate languages or dialects will converge to some extent by the borrowing that ensues from closer contact.

Homogeneous Aggressive Alliance (HAA)

The hypothesis I present here proposes a dichotomy between these two types of alliance. The first category of alliance I refer to as Homogeneous Aggressive Alliances (HAA), homogeneous because comprised of dialects of the same language subgroup, and aggressive because formed on the basis of active demic expansion, often involving therefore imposition on the country of others. HAA correlate closely to broad Late Holocene language expansions. The historical background to rapid and wide language expansion has been described; these language subgroups were expanding spatially, all the while diverging phylogenetically, from protolanguages to dialects and dialectal subgroupings, and finally to individual languages. Simultaneously, while being drawn apart linguistically, they were diverging socially and culturally, creating as they did so new regional linguo-ethnicities. In the full flush of demic expansion, alliances are formed between the speakers of close and neighbouring dialects of the expanding language subgroup in the interests of furthering expansion. Their identity is tied to their progressive diversification from the protolanguage, and may therefore be loosely equated to ‘daughter languages’ branches of a subgroup tree. The speakers of these dialects could be expected to have shared not only a close linguistic relationship but a parallel social and cultural one, the product likewise of shared history. This can be envisaged as an organic process, speakers of the same linguo-ethnicity remained in contact as they drew apart spatially from others of the same linguo-ethnicity, and formed a regional alliance coterminous with language subgrouping. Isolation and common contingencies reinforced the linguo-ethnic bonds that already exist. Thus, no conscious seeking of commonality is required; the alliance is built on relationships and understandings members of the linguo-ethnicity have always possessed.

Geographical isolation has forced greater inter-dependence and acts to more narrowly define relationships. Aspects of this linguo-ethnic commonality could be drawn upon to strengthen the notion of their singularity and unity. At base, are their shared demographic circumstances; that they are all were in the process of expanding into the same new country; they were all conscious of the same enemies and impediments to expansion. HAA alliances are then the immediate expression of phylogenetic language diversification, for which reason they were often found at the perimeter of spread zones. That HAA might equate to speakers of the same branch of subgroup daughter languages is only the least complicated instance of this form of higher order social organization. It is possible, for example, for speakers of related languages to have appeared in a region by different migratory routes, their dialects having begun to diverge in the interregnum. Actively expanding on the periphery of a subgroup expansion, with their inter-dependence politically and socially
prompted by the circumstances they have encountered, they will be drawn together, fusing a new HAA linguo-ethnic identity. Aggression is relative. Certainly, HAA classification is defined by demic migration and language spread, implying the subsumption of land and people, with the probable further implication of violence. However, the sociopolitical integrity of the HAA is also a factor, particularly their stronger social ties and the greater efficiency of their cohesiveness; they expand in some sense as a collective, and it is their collective ‘weight’ demographically that allows them to achieve an advantage over those of other linguo-ethnicity they encounter in the process of demic expansion.

HAA can be subcategorized into two types. Those actively expanding groups at the margins of spread-zone are regarded as homogenous, aggressive alliances in their active phase (aHAA). Such HAA are expansions either in still in train or are of such recent occurrence that their characteristics have not begun to break down under the influence of subsequent sociopolitical forces. Active HAA apply to the most recent phase of Late Holocene prehistory. Cases of migratory expansion that have spent their impetus, while still retaining in their distribution evidence of their original incorporation, are called homogenous, aggressive alliances in their benign phase (bHAA). These latter imply migratory expansion has occurred at some time depth, and their active expansionary thrust has been spent. Nevertheless, their social and cultural uniformity, expressed in dialectal homogeneity, indicates a relatively recent expansionary history. In these cases there can be, depending on the topography and environment of their distribution, and the degree of historical pressure they are subject to, a degree of linguo-ethnic independence, that is, for the most part, the HAA seems to rely on its own human resources to reproduce.

Heterogeneous Defensive Alliance (HDA)

The corollary of HAA are HDA - Heterogeneous Defensive Alliances, heterogeneous because linguistically composed of languages or dialects that are not closely related, and defensive, because their purpose is not the furtherance of demic expansion but the prevention of the expansionary designs of others. The linguo-ethnicities that comprise HDA formations are the result of a longer and more complex history than that of HAA alliances. Constituent linguo-ethnicities, for example, may already have experienced multiple episodes of migratory expansion, contraction and geographical relocation in previous epochs. As noted, a language expansion over time will split into smaller, independent units. The product of earlier episodes of demic migration, and their parent subgroup having achieved the limit of its expansion, these individual linguo-ethnicities may have been left isolated, in as much as they have no close relationship with contiguous or neighbouring linguo-ethnicities. Migratory expansion having subsided, there is no necessity, or possibility, for the formation of active, aggressive alliance as is the case with HAA. Typically, they will occupy less
accessible, perhaps less well-resourced environments, often in upland country or less inviting parts of the coast. HDA will be found in areas consistent with Nichols' accretion zones that are less productive or less accessible, occupation of which is either the result of previous expansion that has run its course, or because environmental and topographic, and/or obscure historical factors, have served to inhibit further linguo-ethnic expansion. HDA linguo-ethnicities have neither the requisite population, nor are they geographically sited to participate in active expansion. By the calculus of Late Holocene demography, this makes them vulnerable to the attentions of HAA expanding at later stages of prehistory. HDA are the conscious alliance of otherwise linguo-ethnically diverse groups in the interests of self-preservation. Because they do not have the human resources to independently resist the expansion of HAA entities, HDA linguo-ethnicities seek to ally themselves with other linguo-ethnicities in the same predicament as themselves. HDA exist as much for the purpose of maintaining a viable demographic level and to represent themselves in regional politics at the level found in HAA as for the outright prevention of encroachment by expansionary groups into their territory. These alliances, therefore, are those common to human societies everywhere. They are contingent, formed with others in similar circumstances, usually, those faced with the same external threat. Thus, this quest for safety in alliance will be undertaken with others irrespective of whether these share a close linguo-ethnic history or not, that is, HDA may be comprised of languages that that are unrelated on the subgroup level, or less closely related (perhaps languages and dialects of the same subgroup, but not those of the same phylogenetic branch). These latter may be re-aligning politically after a considerable passage of time has elapsed from their earlier divergence. As this is a matter of their survival as independent entities, whether or not they are related genetically or not to their companion HDA groups is incidental to the purpose of the alliance.

**Gangulu**

Being on the periphery of a subgroup expansion, HAA are often involved in a confrontational relationship with those of whom they have divested of their territory and/or other expansionary linguo-ethnicities with whom they have come into contact. Archetypically, this is on the boundary of subgroup expansion; however, it applies equally to lower level expansions within the subgroup. The language relationship to those they encounter, and whose lands they may end up occupying, therefore, may be on the familial level or on the subgroup level. The Gangulu dialects of Maric fulfil the requirements of aHAA categorization. They have dispossessed an earlier wave of Maric speakers, the Wadjia, of their hold on the rich riparian country of the Mackenzie, Dawson and Comet Rivers. In addition, it is probable they were also involved in an intense, probably periodically violent confrontations with the Yi:man, Wakka speakers contiguous to the south on the Upper Dawson River. Yi:man, themselves were relatively recent arrivals in the region. They also were very likely in the process of expansion, northward up the Dawson River Valley in their case, that is into country in
the possession of Gangulu speakers. Both Gangulu and Yi:man then were probably seeking purchase on a greater extent of the bountiful Upper Dawson. Both in the act of expansion, they had, at some point, come into contact. Contact between Gangulu and Yi:man was the most recent of these two episodes, current at the onset of European settlement in the region. Conflict between Gangulu and Wadj probably continued into colonial times also; however, this has been a contact with deeper roots, exemplified by the Wadj having been dispossessed of the riverine land and occupying the poorer tableland country, into which, seemingly, a number of diverse groups had had to accommodate themselves (see Chapter Five).
The Gangulu dialects encode their shared history. On one hand, there are the distinctive features they have in common that tend to differentiate them from Maric generally. Examples of Gangulu-typifying phonology are the lenition of medial rhotics, thus bari > bari ‘fire’; the reduction of some trisyllabic words to disyllables and disyllabic words to monosyllables, e.g. yuri > yigi > yiti ‘meat’ (i.e. ‘tongue’), dhilany > dhan ‘tongue’; marr > mala > man ‘hand’, gagara > gog ‘moon’; lexicon distinctive from Maric generally includes: waga vs. mugu ‘knee’, yirgungu vs. guna ‘blood’, dugun vs. burn ~ bolgu ‘tomahawk’, gulan vs. guladjiu ~ dugur ‘possum’, gula vs. didiny ‘kooka’, malgu vs. barribir ‘echidna’, goarr or garr-garr vs. drungi ‘white cockatoo’, buuggany vs. gumbul ‘carpet snake’, manul vs. mar community ‘black goanna’, dibiru vs. balbar ~ bar ‘river’, daawu vs. yagul ‘cold’ (Breen 1973, 1981a, 2009; Holmer 1983:268; Terrill 1993;129-32; Jefferies 2006).

Other characteristics across Gangulu dialects suggest that this was not a straightforward subgroup branching of Maric but these Gangulu dialects had individual histories prior to unifying in some measure as a Gangulu identity. McIntosh et al. (in Curr 1887 V.2:59) noted what might be expected: ‘Many words are differently pronounced by different branches of the same tribe.’ A variation in pronunciation might be expected across the Gangulu dialects but the morphological differences appear to go deeper. There is not insignificant lexical variation; while McIntosh et al. (in Curr 1887 V.2:59) gives dhan ‘tongue’, some Gangulu wordlists have dhalany ~ dhal ‘tongue’, consistent with the ‘Biri’ dialects of Maric. Lagoon is variously called Tatying, Kaakan, Ngikana, and Ngarkan. Some Gangulu dialects appear to have retained lexicon not shared among the dialect group generally, e.g. Bennett’s 1913 ‘Mt. Spencer Blacks’ list and A. L. P. Cameron’s 1904 Karingbol (Garingbul) list from Jellinbah Station on the McKenzie River dibir ‘eye’ (< tee-par-ee > and < deebury > respectively). All other Gangulu lists having the near-universal Maric dili ‘eye’. There seems to be the variable presence of different forms, and amounts, of substrate, including substrate (or borrowing) from Wadjia (Jefferies 2006b). Given the nature of the Gangulu distribution, extensive, and including the occupation of several rivers and tributaries that are to some extent isolated from one another, it is not surprising its component dialects should also exhibit a considerable amount of divergence. It does, however, raise an important question for reconstruction, namely the degree to which Gangulu sociopolitical unity has arisen in the process of occupation, or has arisen post-occupation. The probability is that historically this process was not so clear-cut; that the formation of Gangulu identity began in the migration into the Lower Fitzroy and continued to evolve and strengthen once there. As with Yi:man already discussed, very likely, Gangulu dialects arrived in the region separately, by a number of different routes, perhaps in succession; the occupation of the several Fitzroy River tributary valleys seeming to suggest this as much as their dialectal variation.

91 Alpher (2009) in his proto-Pama-Nyungan etymology has *dhalany (calany) ‘tongue’ in proto-Paman and proto-Central New South Wales and a great many Maric languages compared to *diuri ‘tongue’ with a distribution that includes proto-Karri. Given the ubiquity of dhalany ‘tongue’ in Maric, dhaa ‘tongue’ in some Gangulu dialects must be thought an independent innovation.
Gangulu is distributed over the confluence of the Fitzroy River and its tributaries, the Dawson and Mackenzie Rivers, and the Dawson's tributaries, the Dee and the Don Rivers, much of which is a rich, subtropical riparian environment of scrubs, swamps, billabongs and well-timbered river flats, quite different to the often drier, less endowed tableland environments of the Maric speaking peoples that surround them. This seems to suggest a more efficient adaptation to this rich environment, one that has meant higher population density, and the demographic advantages, leading to sociopolitical ones, that flow from that. Whatever superior adaptations to the riparian environment Gangulu speakers possessed, it is likely that they developed in the course of proto-Gangulu expansion almost certainly southwards down tributaries feeding into the Fitzroy River. The ethnographic record offers little to suggest the cultural or material characteristics that might have distinguished Gangulu from their Wadja (and other) neighbours. It is possibly the more significant use of netting, a valuable adaptation to this environment; conducted collectively, netting was capable of producing significant quantities of fish and game.\(^9\) Where Gangulu differs from most other similar regional configurations is that there is ethnographic evidence to connect this demic migration to higher order social organization. One of the few ethno-historic sources to provide a specific description of higher order social organization is that of McIntosh et al. (in Curr 1887 V.2:58), in which he describes a Gangulu ‘confederation’:

The Kaangooloo are a tribe, or rather a confederation of several tribes – the Karranbal, the Maudalgo, the Mulkali, and others inhabiting the country on the eastern slopes of Expedition Range, the Lower Dawson, the Upper Fitzroy, and their tributaries – all speaking the same Thna or tongue. In common with many other tribes, their negative kaangoo also expresses the generic name of their tribe, Kaangooloo.

Further ethnographic evidence for the sociopolitical integrity of Gangulu speakers comes from Caroline Tennant-Kelly (1934) whose fieldwork from Cherbourg, Central Queensland confirms, if only in outline, the social ties and institutions that make for higher order social organization. Like McIntosh, Tennant-Kelly (C.T.C. 70) confirms the existence of three Gangulu speaking groups:

In with Kangulu is the Karangbul = No; [they] (talk heavier) and the lighter = Kaingbul = No. Kangulu = No. These 3 ran together = you follow your father’s lingo but follow the grannie. I am Kaingbul. My wife is Kangulu. So my girls Kaingbul but follow Kangulu mother.

\(^9\) Arthur Palmer (2017) in his homage to Graham L. Walsh recalls Walsh’s recount of Leichhardt having acquired bark rope to mend his badly torn about baggage train from the region’s inhabitants: ‘The Traditional Owners of this area were noted for very superior bark rope production technology. Most hunting was net based and the various types of rope and nets made in this district were exported along traditional trade routes and during the Bunya gatherings. Reportedly even dugong and turtle nets used by Stradbroke Island people came from the Carnarvon region.’
Tennant-Kelly's brief description allows us to conclude that the three groups of Gangulu speakers were likely to have been, as McIntosh describes it, some form of 'confederation' ('these three ran together'). This concurrence of language and exogamy can be contrasted with the comments of Tennant-Kelly's (CTC 70) Gangulu informant on the Wadjara speakers of the high country contiguous to Gangulu's west and south: 'Springsure to down Nogoa River [is] Wyjango, a hard quick language I don't understand or marry'. By this measure, Tennant-Kelly's informant implies that political and cultural cohesion among the Gangulu speaking peoples was maintained by exogamous intermarriage, to the effective exclusion of non-Gangulu speaking peoples including the Wadjara. Dialectal differences were signalled, as is often the case, by distinctive words for 'no'. As with many Aboriginal languages a dialectal distinction is made between 'heavier' and 'lighter' pronunciations of the same or similar language, as a factor by which they were distinguished among themselves (cf. Holmer 1983:268 re. similar comments by Gangulu informant Claude Anderson). Another Tennant-Kelly reference, while not as specific, also points to an implied unity of Gangulu speakers (given, however, obscurity in the meaning of some ethnonyms). The Dharumbal, occupants of the lower Fitzroy River and Port Curtis coastline, were contiguous to the east of Gangulu speakers. While Dharambul speakers occupied the coast and lower reaches of the Fitzroy River, Gangulu country lay immediately to the west over the Great Dividing Range. Dharumbal informant Sonny Sunflower reported to Tennant-Kelly (C.T.C. 91) on the specific and variable relationship of Dharumbal with its neighbours, saying of the Gangulu:

Karangabul + Kangalu + Wurabul + Kungmal: [we] used to fight [them], although we understand them.

Although not specified as a unity by Sunny Sunflower, their inclusion in the same category implies that, for the purpose of warfare at least, they were regarded as the one entity. Other sources point to the Gangulu acting collectively in wider regional interactions, particularly with their fellow Maric speakers: 'Mr. Chatfield adds, as worthy of remark, that the tribes of the Nogoa and Dawson, though they sometimes meet the Cape River tribes at Peak Downs, never use the woomera' (Thomson and Chatfield in Curr 1887: 473; see also Tennant-Kelly 1934 No. 52 'Wierdi Ethnography'). Gangulu fulfils the requirements Sutton (1990:73) lists for higher order social organization: a shared drainage system, 'many surface similarities among languages' [i.e. composite dialects], to which can be added Caroline Tennant-Kelly's (1934, 1938) fieldwork data on social organization: endogamy, collaboration in ceremony and collective action 'in times of conflict', all of which might be expected to provide the

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95 More can be inferred from Sunflower's description; it is possible that 'we understand them' should be interpreted with a more ergative inflection, namely 'we've reached an understanding with them'. It is a political statement more than a linguistic one. Dharambul and Gangulu were not either in a position to easily covet their neighbour's property, and therefore fought but not in deadly earnest, but to symbolically preserve some of the region's stability; thus, a disinterested neutrality. Both had neighbours whose attentions were of a more pressing nature; Dharambul had contiguous Maric neighbours with whom relations were much less cordial.

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internal cohesion expected to apply to a ‘confederation’. Gangulu conforms to the HAA categorization: clearly the dialects that comprise Gangulu are closely related, and are a distinct branch of Maric, readily distinguishable from the Maric languages that were their neighbours. Gangulu’s distribution, on the interface of Maric distribution with alien languages, Dharambul to the east and Wakka (Yi-man) to the south, its relationship to contiguous languages both Maric and non-Maric, point to the place in history argued for it, Late Holocene demic expansion having brought these contending parties into contact.

Yinibara

The classic description of a HDA alliance was provided by L. P. Winterbotham in a manuscript completed between 1954 and 1956. It is worth dwelling on the circumstances by which this ethnography came to be written. Winterbotham was an amateur, president of the Queensland Anthropological Society, but professionally a doctor of medicine. His information came from Gaiarbau (‘Willie Mackenzie’), a Yinibara man born in the late 19th century. Gaiarbau was a man of ‘vital intelligence and incredible knowledge’, and it was this circumstance, that Winterbotham was essentially the amanuensis to Gaiarbau – a rare occurrence – that allowed the ethnography to express the worldview Gaiarbau wished to record and share, not the relevant features as conceived by a European (Wood 2003). Of the Yinibara as an institution, Winterbotham recorded from Gaiarbau little directly; most has to be inferred from context:

94 While it is not as though Aboriginal informants have never tried to communicate the aspects of their culture of greatest importance to them through the anthropologist (and is probably more common than suspected), Gaiarbau is an individual who would be distinguished in any company. He was a scholar who deliberately set out to accumulate the fast-disappearing pre-European knowledge of his people, which, he was quick to realise, could only be preserved somewhat ironically through the auspices of the European. He was informant to a long line of anthropologists, Caroline Tennant-Kelly in 1934; N.B. Tindale 1938, and lastly Winterbotham 1949 through to 1958. Gaiarbau knew what anthropologists were about. Although there is no evidence to confirm it, I think it probable that he spent the decades following his meetings with Tennant-Kelly and Tindale doing his own research, for it is certain he knew most of not all the last generation of S.E. Queensland Aboriginals who had deep personal knowledge of their traditional culture. Some of these, such as Batjala man Barpoodeera (William Cobbo) he introduced to Winterbotham. When he began working with Winterbotham in 1949 he had therefore not only a working knowledge of anthropology but the gathered fruits of many hours of interview and discussion with others as equally well-informed as himself. Importantly also, he was confident. That Winterbotham was an amateur, and likely therefore to more amenable to Gaiarbau’s agenda than the more self-assertive professional anthropologist is fortunate, for while Winterbotham’s anthropological contemporaries were focussing on the patrician and the band, Gaiarbau’s interests was on regional politics and higher order social organization. Only later did Winterbotham make contact with Tindale at the Adelaide Museum, Tindale’s influence creeping into later drafts of his work in sterile innovations such as use of the word ‘horde’ and International Phonetic Alphabet orthography, converting ethnonyms such as Yinibara to Jinibara (cf. Kite & Wurm 2004:14). (Notably, Winterbotham’s earlier drafts have the eminently sensible everyday pronunciation). Unsurprisingly then Winterbotham also employs the word ‘tribe’ to describe the Yinibara, and ‘horde’ to describe its component parts (although neither exclusively nor consistently).
The place of general meeting of the Jinibara tribe was at Buruja (Mt. Archer). Jinibara itself was at the head of Kilcoy Creek on Mt. Kilcoy and was in the Dungidau tribal area, and literally means the place of lawyer cane. It was a small patch of lawyer cane scrub on the Dividing Range.

Something of the character of Yinibara’s social organization might be inferred from this description, namely from the ethnonym itself: yini ‘vine sp. + bara ‘people, group’; the fact that the root part of the word is semantically transparent, implying no great historical depth in its use, likely indicates that the vine was merely a convenient symbol for people who dwell in the mountains and valleys where the scrub species was common. This generalization applies to all that Gaiarbau has to tell us about the Yinibara and the relationship of its component groups to it. Symbolism linking part to whole is invariably shallow, the communal acts and relationships by which solidarity is forged, logical and prescribed; seemingly not, in other words, the product of common origins and a lengthy shared history having welded a true familial identity. Examples are numerous; among others:

Men of each tribe had distinctive markings on their weapons. These were tribal not totemic. The Dungidau had a fishbone design, the Da.la and Nalbo a fern, on both shields and boomerangs. (Winterbotham 1954b:65)

The meaning of some of the local group names as given by him are as follows: Dung means river, Day means Water gum, Da.la is the name of hard fungus which grows on trees; Nalbo is the name for gum from pine trees. (Winterbotham 1954b:67)

Even when not painted with their tribal emblems, the tribe to which a man belonged could be at once recognised by the cuts made on his body and limbs. The Da.la had a transverse cut on each side of the abdomen, and a lot of little perpendicular nicks on the chest and shoulders. The Dungidau had long cuts on each shoulder, transverse cuts on the hips, and also down the midline of the abdomen, and two longitudinal cuts (boomerang shaped) on the outside of each arm [...] Also the painting for a big tribal show would be a full dress – an official pattern, so to speak – different from and much more particular than that of a small camp show, in which each individual man might be patterned differently. In the big show, each man would be dressed alike with their tribal patterns showing. (Winterbotham 1954b:64)

To choose the man who was to go [seeking the cause of continual storms from the west] the four groups that comprised the tribe met at Baruja, (Mount Stanley), and decided that one man from each should give the tribal cry, and the one who was considered the best performer should be their tribal messenger. These four were the Dungidau, the Da.la, The Nalbo and the Garamunga. The Dungidau cry was the one used by the Jinibara tribe as a whole (probably because the
actual Jinibara ground was in their territory). It was Jinibara, gari garunbai, douwunu
ngaringnu’ and meant ‘I am giving a call from my home.’ The Dala cry was: ‘Im:arwonja natju
bunbunda gatjabain’ meaning ‘Where is that animal I aimed at?’ The Nalbo cry was
‘Gubargunda ganjibarum jerai jeren ngerier waigarn wyar ngubar ngidj-dar-ngubar’ and meant
‘Brother, my grandfather coming home [in the] range cold fog.’ The Garumnga cry is not
remembered. The best performer having been chosen, he set out giving the Jinibara cry at each
boundary he came to, before he ventured in. (Winterbotham, 1954a:107)

The activities that united the Yinibara are addressed only haphazardly by Winterbotham (1954b,
1956a, 1956b). Consequently, how the relationships between the component groups of Yinibara
played out in practice has largely to be inferred. Like Yinibara ornamentation, however,
communal activities seem also to have been of a symbolic character, largely there to reinforce
the existence of the higher order association itself. One such account is that of the Yinibara ‘Funeral
Procession’, presumably of an individual important enough to have warranted the attendance of
members of all four constituent groups (Winterbotham 1956b:86-7):

When the funeral procession started the head man of the tribe to which the dead man belonged,
preceded the four men who were carried the body and these were followed by the blood
relatives. Then came men belonging to the same totem to which the dead man belonged. Next
came the leader of the Nalbo horde and then his Nalbo friends and tribal relatives. Further back
in the procession would be the leader of the Dungidau horde followed by his Dungidau friends
and tribal relatives. This order was followed because of the natural division of the country; the
Nalbo horde was in the hills country, and next to them on the plains country was the Dal.a and
next to them on the river itself was the Dungidau, so that the leader of the horde whose territory
was nearest to the territory of the deceased, had the place of honour behind the relatives of the
dead man. Had a Dungidau man died, this place would have been occupied by the Dal.a
tribesmen and the Nalbo man would have come last.

Nalbo chief
Dead man
Blood relatives and dead man
tribal brothers and friends
Dal.la chief
Dal.la tribal relatives
and friends
Dungidau chief
Dungidau tribal
relatives and friends
If the corporate nature of the Yinibara ‘tribe’ was shallow-rooted historically and somewhat contrived in its cultural expression, the same cannot be said for the four linguo-ethnicities that comprise it. That these four groups have deep and more profoundly integrated histories is revealed in several ways: 1) linguistically 2) territorially 3) culturally and 4) historically. As noted above, the Yinibara was comprised of the Duungidjawu (Dungidau and other spellings), Nyalbu, Dalla, and Garumngar (or synonymously Dungibara) linguo-ethnicities (Winterbotham 1956). Of these the Duungidjawu and Garumngar or Dungibara were Wakka languages. Alone of the Yinibara languages, Duungidjawu, Gaairbau’s first language has received modern linguistic analysis (Wurm 1976; Kite and Wurm 2004). Gaairbau provided a lexical comparison of Duungidjawu and Dalla (Winterbotham 1954b), with Tindale (1938) and Tennant-Kelly also contributing data on this language; Garumngar (Dungibara) is known from a number of sources, Landsborough and Curr’s (in Curr 1886 V.3:210-1) ‘Upper Brisbane River’ language and Meston’s (c. 1895 in Bannister 1984) ‘Goora’ wordlist the most complete. While comparative data is limited to lexicon, it is clear that Duungidjawu and Dungibara are closely related dialects of Wakka. Shirley (1896) said of the Dungibara language:

A commencement was made with a vocabulary of this third language, but it was pointed out by Dr. Lauterer that a list of words in this Wackar tongue already existed in The Australian Race Vol. III p.210 by E. M. Curr. No name was given to this tribe by Messrs. Landsborough and Curr who supplied the vocabulary, nor is the locality specified [beyond the Upper Brisbane River] but a comparison of my list with that of Curr’s work proved their similarity.

Winterbotham (1954b:6) provides further description that points both to the probability of genetic closeness for the Duungidjawu and Dungibara languages, as well as complicating factors within the latter linguo-ethnicity:

The Garumngar local group occupied a large area of territory and were in contact with the Gittabul tribe in Ipswich and with the Doongibarra tribe on their western boundary. Their dialect differed a good deal from the northern [i.e. Kabi speaking] groups of the Jinibara tribe. Gaairbau gives us instances of this that while he called a boy gynunah, they would call him neumay which in Doongidau means a girl – a girl they’d call wougan which was the same word in Doongibara who would in their language call a boy gym-nay.

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95 Winterbotham records that Gaairbau ‘could converse in several dialects including Dal’a, Nalbo, Gabi Gabi, Batjala, Waka Waka, Dungibara, and of course in his own Dungidau, and could understand Dowarbara’.

96 Although I don’t intend here to dig into the minuita of these distinctions I think it is highly probable that Winterbotham’s depiction of ‘Doongibarra tribe on their western boundary’ of Garumngar is a product of Tindale’s influence, his well-known creative approach to the determination of boundaries. There is no indication of this relationship in Winterbotham’s notes as derived directly from Gaairbau and much to suggest that the division was one incipient within these Upper Brisbane River Wakka speakers for reasons that are discussed following (see Jelferies 2015).
It seems plausible to me that these semantic oppositions might well be emblematic; conscious and symbolic efforts to differentiate one language from the other; in which case the conclusion might be that these Wakka languages were not all that genetically different from one another – thus necessitating the semantic inversion of these everyday terms. Otherwise, Garumngar lexicon appears to be practically identical to the much better-attested Duungidjawu. A further complication is the presence of two ethnonyms for the people of the Upper Brisbane River Valley: Garumngar and Dungibara, expressed linguistically in the considerably more diverse lexicon found in the wordlists of this area. Further, Winterbotham (1954:11) points to what was the ambiguous position of Garumngar within Yinibara:

The status of the Garumnga seems to be rather irregular. Gaiarbau states that the members in the northern part of its territory would fight for the other members of the Yinibara tribe, whilst those in its southern part would fight with the Kitabal and Yukambe tribes, and that the language of this southern part contained many words similar to these two southern tribes, where as the northern section was more like to the Dungibara.

This difference is reflected in the lexicon, the southern Dungibara dialects containing a significant amount of Yagara lexicon (notably Meston’s Gooray and Eipper’s (1842) Humpybong word lists), particularly in key semantic domains such as kinship terminology. Other wordlists, from the more northerly reaches of the Upper Brisbane River (e.g. Landsborough and Curr’s 1886), are consistently Wakka with little or no Yagara words. Winterbotham (1954b:3) goes onto imply that at least part of the Dungibara (the southern section usually called Garumngar) was allied to Yagara speaking peoples contiguous to their south:

The Garumngar hordes’ territory extended across the Brisbane River - the Gittabul97 area extended from Ipswich up to the foot of the range - to Gatton and Helidon, Grandchester and Franklyn Vale. The Yougumbair horde was East of the Gittabul and went at least as far as Oxley and South to Canungra and Beaudesert. These two, with two other hordes, formed the Birreens tribe.

Thus, the assignation of the two ethnonyms, Dungibara and Garumngar, to separate entities that appear to previously have been one seems to indicate an incipient social and political division. This division, I would argue, is indicative of the shifting historical scenario in which these peoples found themselves; namely, that if once united as Dungibara (as their shared Wakka dialect would indicate), political circumstances have moved on, southern Dungibara (newly self-christened perhaps as

97 Gittabul (or Kitabal) here not to be confused with the Gidabal, Bandjaliang speakers of the headwaters of the Richmond River on the Queensland/New South Wales border. The latter were in fact a component group of another HDA designation that included also the western Yagara speakers of the Fassifern and Lockyer Valleys and probably also the Bandjaliang-speaking Geynyan of the Upper Clarence River (see Jefferies 2015, 2016).
Garumngar), finding it more expedient to ally with their Yagara and Bandjalang speaking neighbours to the south (cf. Petrie 1904:55, 160-3).

The Nyalbu and Dalla were speakers of Kabi dialects, the latter with a significant addition of Wakka lexicon. Nyalbu country is contiguous to its east with an extensive Kabi distribution, the Wundambi (Undumbi or Oondumbi) whose dialect was Ngunda (from 3rd person accusative ‘him’): ‘He [Gaiarbau] states that the Undumbi territory touched theirs about Caboolture, then went along the Nalbo lands, and touched the Gabi Gabi tribe on their northern boundary. They inhabited the coast line from the Brisbane River to Noosa’ (Winterbotham 1956a:6-7). The Wundambi were exclusively coastal; in the Nyalbu case, therefore, environmental considerations (i.e. that all the Yinibara groups were inland peoples) mitigated against alliance with their fellow language speakers to the east. Territorially, Yinibara is defined as merely the sum total in area of the linguo-ethnicities that defined it; actual description of country itself, and relationship to sites within it, seems always to have been associated with one or other of its composite linguo-ethnicities. Winterbotham (1956b; see also Tennant-Kelly 1934 No. 178), for example, is quite specific in describing the extent of Gaiarbau’s Duungidjauw country:

Starting at the junction of the Stanley and Brisbane Rivers […] it followed the Brisbane River up its eastern bank to Moorotown (Wungar), from there cut across country eastwards to the Jimna Range. It then went in an easterly direction, through Mount Kilcoy, Villeneuve, and Neurum to Durundur […] From there it continued in an almost straight line to Caboolture, and from there went straight west to the starting point.

Similarly, the Dalla were associated with a specific portion of country within the area embraced by Yinibara (Winterbotham 1954b:2):

The Dalla local group inhabited the mountains at the head of the Mary River - known now as the Conondale Range - and went down into the Mary River Valley - Gaiarbau states that they were largely displaced when Doorandoor was taken up as a cattle station.

Meston (c. 1895) described the country of his informant Yamurra of the Tawobbera tribe (a synonym for Nyalbu) as extending from ‘Mooloola to near Durundur’, presumably inland from Mooloola on the Pacific Ocean coast. According to Winterbotham (1954b:13), both Dalla and Nyalbu ‘lived on the same range at the head of the Mary River and on the Mary River Plains’. Tennant-Kelly (1934 CT-K No. 59:4) is more specific in describing Nyalbu country in relation to Dalla:

Stanley River – Nalbo and the Dhaliya [Dalla]; Nalbo had only a short run – a creek at Kilcoy Station its junction where it joins the Stanley right to Collingdale; and the Dhaliya a run on the
other side; Nalbo is from the top and Dhalya in the flats and this is [the] difference. To Maroochy.

Shirley (1895) described the Dungibara (although not by name) in relation to the Wakka dialects of the Upper Burnett River contiguous to its north:

To the south of the Gowburra and Koolaburra another cognate tribe resides, whose hunting grounds extend from Esk and Cressbrook to Crow’s Nest, over country watered by Cressbrook Creek, and other tributaries of the Brisbane River, joining it on its right bank.

Tennant-Kelly (1934 CTK No. 59:5) also provided a description of the Dungibara distribution:

Brisbane River – starts with Dhungiwara. These on the Range following the channel because it is our range feeding the river and the fishermen. Stop where deep water is; Comes down as where the Stanley empties in that carrier (Dhalya, Nalbo) Dhungyou and Dhungiwira at the Junction and each go home up their own channel.

Tennant-Kelly describes in some detail the role topography played in distinguishing the various component Yinibara linguo-ethnicities; firstly, the range separating the Dungibara and Duungidjawu of the Brisbane River from Wakka speakers to their north: ‘Nanango watershed – on one side empties into Brisbane River. On the other side into Burnett (that is the dividing Yaraman Range); and, secondly, that separating Wakka speakers to the west from the Dalla and Nyalbu to the east: ‘The dividing range is Kinbombe – for the fall of water (lower lot of range) falls on to Mary River and then South Burnett D[istrict]’ (CTK No.59:3). To this Tennant-Kelly (CT-K No. 59:3) added the annotation, very probably the observation of her informant, rather than her own: ‘It takes Ranges and water to divide languages’. Recurring throughout Winterbotham are references to particular places within the countries of the Yinibara linguo-ethnicities. To these the linguo-ethnicities appear to have had exclusive ownership and access. Examples are:

Ga iarbau knew of at least three such rainmaking places on the Stanley River. One was at Durundur and another at Burarum (this name means Water lily in the Dungidau dialect) is not far from the Stanley River. Burgalba, too, was one of the places, and was near where eagle hawks used to build nests in the box trees; it belonged to the Dal.a horde which lived at the headwaters of the Stanley River. Burarum belonged to the Nalbo horde. Bu ruja is in the Dungidau district of the Jinibara tribe and the word means ‘Mountain oak’. This used to be the name of the mountain now known as Mount Archer (Winterbotham 1954b:13).
Warrumbee – right on top of Main Range, in Dalla Territory – literally means place where Parrots feathers are scattered. Warrum means Parrot [...] (Winterbotham 1954b:13).

For colouring dancers red, the Doongidow horde used a red soil dug up at Boongalbar (which means a Box tree), near Dooroonoo station. It had a shiny appearance. They rolled it into a ball, and very little was needed to colour them up – a ball 2 inches in diameter would do 100 men. It was traded to Roma, Dalby and Fraser Island (Caiarbau recordings August 1954).

Equally, throughout Winterbotham’s material it is made clear that, like language, cultural practices were distinctive and usually the province of the linguo-ethnicity rather than the over-arching Yinibara. For example, in the rites associated with rain-making:

In the Dalla tribe a white crystal, Jinding is also used. Their medicine man dives into a waterhole with this crystal in his hand. He puts the crystal in his mouth, takes a mouthful of water, removes the stone, and then sprays the water which is in his mouth towards the west whence the rain usually comes.

In another method of rainmaking, the medicine man lit a fire and held dry seaweed over it. The dry weed he swung around and over his head, and then threw it away from him (usually in a westerly direction). This was the Nalbo method.

Lastly, Winterbotham makes mention of events concerning the past interaction of the Yinibara linguo-ethnicities; as is invariably the case in such Aboriginal recounts, they occupy neither the category of history nor that of myth, but that twilight designation usually glossed as ‘legend’:

They [the Dalla] were at one time at enmity with the other local group, the Nalbo who also lived on the same range at the head of the Mary River and on the Mary River Plains, but after a big fight, long before his time, they became firm friends.

The countries of Yinibara linguo-ethnicities do not appear to have been deep ancestral inheritances; rather, the linguo-ethnicities appear to have had a history of movement over the landscape, the result of demographic pressures; and, secondly, that the formation of Yinibara was a historical process, and, from all indications, a relatively recent one. This begs the question addressed by the hypothesis, namely the purpose of such higher order social organization. Part of the reason for the existence of entities, whether HAA or HDA, was economic, they provided the means by which it was possible to extract increased and more varied resources from the environment, niches of which may not have been found to any extent in the linguo-ethnicities’ own territory. Alliances expanded the country from which economic benefits could be obtained. Equally important were the demographic
implications of alliance; sociopolitical alliance had the additional salutary effect of guaranteeing that population levels were likely to remain stable; in other words, that men were likely to find wives. 

These marriages, of course, in turn, cemented the alliance. As will be seen below, this appears to have been the way Yinibara themselves viewed the matter. For both Nyalbu and Dalla, and Duungidjawu and Dungibara, Tennant-Kelly (CT-K No. 59: 4) recorded an alliance based on allied economic and marital reciprocity. Both sets were in parallel environmental relationships; of the Nyalbu and Dalla, Tennant-Kelly (1934 No. 59) says:

Nalbo is from the top [of the range] and Dhalya in the flats and this is [the] difference. The fishermen [were] Dhalya and the hunters [were] Nalbo. The fisherman is not taught to climb at the Bora [i.e. to hunt possums, procure honey]. Tribes are divided [according to] those and the Bindi [totem] is according to this. And yet they could marry each other. They didn’t mind sending a girl up to the mountains – the children came back around.

The relationship between the Duungidjawu and the Dungibara is described in exactly the same terms (CT-KC No. 59): ‘Brisbane River; River flats (fishermen) Doongibura; (hunters) Doongijow’. Tennant-Kelly (CT-K No. 180) describes this reciprocal relationship, essentially expanding on the description already given in outline for the Dalla and Nyalbu:

If you will look at the map you will notice that this country is hilly and so the tribes around here are divided into two as the names above indicate and one portion kept to the hills and were the hunters and the others followed the River and were the fishers. Thus, in this case, the fishermen were the Dunkibura and the hunters were Dunkijow. In the days when the Bora was existent the fishermen were instructed in their future work of fishing and the hunting boys in hunting but never did a man learn the two and on no account would the fishing people tell a hunter how to catch fish, cook it, or in fact anything to do with River life. The hunters were just as secretive. It was necessary to marry, that is one frequently married a River woman if one was a hunter, because the totems would be so widely different that it constituted a ‘good’ marriage. Each side said they did not mind giving their women because they had the children back in the next generation; for one woman many young men were returned to them. There were of course many marriages in which hunters had married hunters and vice versa but only when the totem was widely separated from one’s own.

As Gaiarbau makes clear, both the contract of marriage and the ceremony surrounding its realization were inter-‘tribal’ affairs, that is, conducted between the two linguo-ethnicities concerned as social entities, not merely as individuals or immediate families (Winterbotham 1954b:4-5). The Yinibara HDA alliance, particularly for its relatively small constituent linguo-ethnicities, had the virtue of enlarging the society of which one was a part, accessing the benefits, and perhaps providing for the
necessities, that flowed from the wider social sphere. Undoubtedly linguo-ethnic exogamy, and a
significant degree of HDA endogamy, were important societal outcomes of these alliances. While
there is no statistical information, anecdote points to this state of affairs, Gaiarbua’s mother, for
example, being Dalla (Gaiarbua himself having been Duungidjawu).

‘Tribal’ endogamy and economic reciprocity go more to description of the workings and internal
relationships of higher order social organization generally, not the purpose for which they were
created. Their raison d’etre, I argue, was grounded in the demographic conditions of the Late
Holocene, namely the necessity of maintaining population levels, and, in particular the number of
males of a suitable age, to initiate – or ward off – as the case may be, linguo-ethnic expansionary
migration. Gaiarbua’s (Winterbotham 1954b:3a; see 8.6.1.3-4) understanding of the purpose of
alliance configurations such as the Yinibara is never in doubt. The regional scope of S.E. Queensland
alliances and the activities with which he associates them makes it plain that their purpose was
political, including that politics by another name, warfare. Gaiarbua documents their extent
uninterrupted across south-east Queensland and northernmost New South Wales:

As the Yinibara tribe consisted of four hordes as already stated. Similar combinations of other
hordes also existed. The Wakka Wakka combined with the Booylebara and Dacoondair – the
Gubbi with the Doolingbara and Oondumbi. The Battala with the Dowarbara and the
Gnooloongbara. The three tribes on Garee (Fraser Island) with the Doondoobara. The
Dariebellum tribe from Bundaberg would come down from there with its allied tribes and fight
the others (Winterbotham 1954b:3a).

Gaiarbua states that the coastal tribes collectively called themselves Bugarnura but that to him
they were known as Mwoirnewar, or saltwater people. This term is applied to the Gabi,
Undumbi and the Dulingbara. The group consisting of Badtala, Ngulungbara, and Dundubara
went under the general name of Dundubara. The Waka Waka, Bujibara, Dagundeir and Wilili
tribes, if they went over the Bunya Mountains to fight were called Waabar by the tribes on the
Darling Downs. The name Bargumar was given to the group composed of Gabi Gabi, Undanbi
and Dulingbara; and that of Owari to the group of Waka Waka, Bujibara, Dagundeir and
Wilili. Yarbu was the name given to the Yinibara folk. (Winterbotham 1956a:6-7).

Yarbu was the name given to the Yinibara folk, Gaiarbua thinks. that with his own tribe of
Yinibara, other groups were also given names that indicated a prevailing aspect of their country.
He instances the name of Mungar (spotted gum) being applied to the Waka Waka group (as
above), and Nalbu (River Chestnut) to the Gabi Gabi group (above), so that there seems to be a
composite name for several groups. This is seen among the tribes south of the Brisbane River;
there, the Birin comprises the Yukambe (Yugambeir) tribe around Ipswich, and as far south as
Caungra and Beaudesert, and east as far as Oxley; to the west of them, were the Kitabal who went as far as the Main Range, and to their east were the Yagara tribe. Gaiarbau thinks that there was a fourth tribe included in this group but cannot remember its name. (Winterbotham 1956a:6-7).

Some aspects of the alliances Gaiarbau enumerates are obvious, firstly the large areas they covered. The ethnonyms he lists are generalized terms for large regional groupings. Contiguous, then, as these regional formations are, they must be regarded as fundamental to the sociopolitics of Late Holocene Australia, reflecting the era’s politics on the broadest scale. The component members of these alliances were in themselves significant linguo-ethnic aggregations; for example, the Wundumbi, whose country, as noted, extended from Noosa Heads along the coast as far as the Brisbane River. Most of the alliances Gaiarbau describes consisted of speakers of the same language, the Wakka of the Burnett River; Buyibara (‘carpet-snake’ + ‘people’), Wakka speakers contiguous to the south at the confluence of the Burnett and Brisbane Rivers; and the Djakunda, Wakka speakers contiguous to the west on the Auburn River, are examples. The Wakka and Kabi configurations are all HAA; the Fraser Island alliance is HDA, although all its composite groups belong to the same Wakka-Kabic subgroup (cf. Appendix 1.5). Only Gaiarbau’s ‘Birryean tribe’ (from Biriny ‘south’) is genuinely HDA, being composed (seemingly) of two Bandjalang speaking (Gidabal and Geynyan) and Yagara speaking (Ipswich and Fassifern Valley) groups. In all cases, the groups comprising the alliance are contiguous. Alliances and enmities could shift and so alliances could be to some extent malleable, depending on who was fighting who at any given time.

Ostensibly, as Gaiarbau repeatedly makes clear, the members of these alliances travelled to engage in combat with alliances elsewhere: ‘The Dariebellum tribe from Bundaberg would come down from there with its allied tribes and fight the others’; ‘The Waka Waka, Booyiebara, Dakuondan and Williilliee tribes were called Wahbah by the tribes of the Downs if they went over the Bunya Mountains to fight’ (Winterbotham 1954b:5; also 1956a:2-3). These encounters drawing hundreds of participants from many kilometres distance, usually lasting several days, and were not at all, as is sometimes stated, merely symbolic confrontations. They were frequently observed and commented on in the early ethnography of south-east Queensland and settled Australia generally (see Petrie 1904:160-5; Rudder 1899, Science of Man 21-01-1899: 264-5, among many examples that could be cited).

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58 Similarly, Gabi speaking groups are allied, the Dulingbara, Kabi speakers extending from Noose Heads north to the southern portion of Fraser Island, and the Wundumbi and the Kabi themselves, living predominantly on the upper reaches of the Mary River. Gaiarbau’s third group, ‘the three tribes of Garee’, as previously examined (cf. 6.2.6), were all speakers of Wakka-Kabic languages occupying Fraser Island and the mainland coast opposite, some of whom appear not to have been closely related.

99 The Garumngar, whose allegiance variably to the Yinibara and the Yagara and Bandjalang speakers to their south (the Biriny) has been mentioned and was probably replicated in other instances. Winterbotham’s (n.d.) marginalia includes an annotation that ‘also the coastal half of the Doondooibara [i.e. Mary River Kabi speakers] combined with the other three’ [i.e. the Fraser Island ‘tribes’, the Ngulungbara, Duwarbara and Batjala]. Presumably this was when occasion demanded, when coastal groups were arrayed against inlanders.
That these engagements had to be well-organized should be assumed, on the basis of the hundreds of men, and not infrequently their accompanying families, were involved. Giarbau (Winterbotham recordings 1955) documents a number of ‘fighting grounds’ at which large numbers assembled to do battle: ‘Goola Barnyeen (‘where the native bear stood to talk’) – the flat which in times past [was] an old fighting ground belonging to the Booyiebara tribe’ and situated between Nanango and Gayndah; ‘another fighting ground Googoondair, on South Burnett [River] belonging to Booyieburra and Wakka Wakka and Dakoondali tribes’.100

Conclusion

Political alliances found expression in one of two ways: (a) the periodic massing of contingents of warriors to engage in confrontations with similarly organized bodies; and (b) large gatherings of linguo-ethnicities at periodic regional gatherings, usually ceremonial or, at least having ceremony as one important component, often to initiate young men. While fighting emerges as the salient expression of these alliances, it is only their most obvious manifestation. They are testimony to the perpetual demographic pressures that Aboriginal peoples in the Late Holocene were subject to. Of equal importance to the ability to defend – or encroach – on the country of others was the maintenance of population numbers and population density. When linguo-ethnicities were in the throes of rapid expansion numbers were probably rising rapidly in commensurate fashion; however, with linguo-ethnicities such as those who comprised the Yinibara the avenue of natural increase, due to environmental and therefore demographic limitations, was denied. This critical shortfall was made up for by the contract of alliance. Higher order social organization existed primarily for the purpose of defence and this can be interpreted in two ways: firstly, the periodic undertaking of warlike expeditions into the country of neighbouring peoples, and secondly, the demographic implications, that broad alliance meant the maintenance of numbers, this ensuring the control of land and resources.

100 Giarbau (Winterbotham 1956:3) elaborated on these arrangements: ‘The Waka Waka tribe used to hold meetings with the Dakundeir and Bujibara tribes, at a place close to the spring near Ban Ban Station, on the road to Gayndah. There was a place called Buji (Carpet snake), but they did not meet there. Their Bora Ring was at Kingaroy, and their fighting ground a few miles from Barambah at a place called Gugundair (Black Opossum). This was the common and recognised fighting ground for all the Brisbane River tribes, the Gabi Gabi, Dakundeir and Darling Downs tribes. When any fights were planned, they would take place there.’
Chapter 9
Higher Order Social Organization – Part II

Not all higher order social organization conforms to the two examples of HAA and HDA given in the previous chapter.\textsuperscript{101} While Gangulu (HAA) and Yinibara (HDA) are admittedly exemplary, a good part of the reason for their selection is the more comprehensive evidence that exists for higher order sociopolitical structure in these two cases. Variation from these typological norms is due to two main reasons, the length of time that has elapsed since the end of a cycle of demic expansion, and the physical extent and/or topographical nature of the language distribution that has resulted. As argued, HAA relationships can be described as aHAA, alliances in their active, expansionary phase, in which sociopolitical interrelationship is still an essential component of ongoing migration, or bHAA, alliances in their benign phase, in which a relative distributional stability has been arrived at consequent on the limits of demic expansion having been reached. It can be concluded that once this limit is reached the politics of demic expansion enter on a new phase, namely, that of linguo-ethnicities having to adjust to contiguity with other linguo-ethnicities in possession of the same demographic and material advantages as themselves. In bHAA the evidence for demic migration is historical; it has left its mark in the distribution of language; its sociopolitical manifestations, however, may have changed. The sociopolitical relationships that characterized its expansion may have become compromised. New alliances are just as likely to be HDA, with linguo-ethnicities less closely related, as with those closely-related, particularly if these are sited on the periphery of HAA distribution. Thus, there is often some degree of sociopolitical disintegration on the periphery of language distribution; if for instance other contingencies have acted on the original migratory HAA to force wider, extralinguistic alliances at the margins, and the original HAA may be in some degree of dissolution (cf. Sahlins 1968:45). This might express itself in the dialect concerned in some form of ‘indeterminateness’, in reality, the presence of a high degree of borrowing (Radcliffe-Brown 1930:36-7; cf. Harvey 2011:367-70).\textsuperscript{102}

\textsuperscript{101} As Nettle (1999:67) puts it: ‘Like almost all dichotomies, the distinction [...] simplifies an underlying continuum.’

\textsuperscript{102} Radcliffe-Brown (1930:36-7) provides a description of this effect from his fieldwork: ‘[I]n some instances at least, the boundary between one tribe and another may be indeterminate. Thus in Western Australia a horde lying on the boundary of the Ngaluma and the Kariera tribes was declared to me to be ‘half Ngaluma, half Kariera’, i.e. belonging properly to neither of the two tribes. Similar instances of hordes which occupy an indeterminate position between two adjoining tribes of similar language and custom occur elsewhere in Australia.’
Detection of these historical subtleties is often not easy. Very little direct evidence of linguo-ethnicities in the process of demic expansion emerges from ethnography, either in modern times or in the colonial record. Hence the reliance on deductions from historical linguistics, and, hopefully, increasingly the evidence from genomics. Ethnographic evidence for higher order social organization abounds. However, its usefulness is limited by circularity; with no record of any particular application to demic migration, it provides the evidence for a supposition that returns the favour. If attributes or functions of higher order social organization are observed in the societies that come into ethnographic focus, these will occur in apparent social isolation, observation will be devoid of context, as memories rather than receiving active expression, and as such any historical meaning is not easily interpretable. They will have become disconnected from their original function, and exist, as it were, as relics. A distinction has to be made between societal activities and institutions that are relevant to a history of demic migration, and those that are not. Thus, in endeavouring to describe the range of social manifestations of demic migration in individual cases, several factors need to be considered: social organization will vary according to the length of time elapsed from the onset of migratory expansion; geographical factors will have acted to influence social organization; there will likely be little evidence in the modern or contemporary cultures of Aboriginal people, be these in other aspects quite traditional, to indicate their pre-European history and higher order social structure.

Yolngu

Evidence for the existence of higher order social organization can emerge in branches of anthropology other than ethnography however, such as linguistics, already commented on, and biogenetics. White and Parsons (1976:224), for example, compared their data on dermatoglyphics - fingerprint variables - in Yolngu populations with a range of social, cultural and physical variables: dialect groups, ceremonial/‘war’ groups and marriage clusters, biological variables and drainage divisions (following Peterson 1976). Their conclusions in respect of the ceremonial/‘war’ grouping were as follows:

Total ridge-count was analysed according to dialect unit affiliation within recognised ceremonial/fighting groups. These groups were said by Aboriginal informants to be ‘tied together for maridjama (fighting) and manikai (ceremonial singing)’. The analysis revealed statistically significant differences, all of which were accounted for by the ‘fighting’ group known as the Balamumu, a collection of dialect units in the Blue Mud Bay area. This suggests that the Balamumu, at least, functions largely as an endogamous unit, being genetically distinguishable.
White and Parsons (1976:224) concluded that social and language variables tended to compound, that ‘dialect groups form an intermarrying complex with no genetically significant endogamy between them’; ‘the marriage data [...] correspond to those dialect units among which there was at least 70% endogamy’; ‘marriage clusters are also associated with drainage divisions’; and, lastly, that ‘[t]he marriage cluster centred on the Blue Mud Bay region was distinctive, an observation consistent with our findings for the Balamumu fighting group’. White and Parson's (1976) concatenation of findings is significant for our thesis, particularly the overarching social entity to which these are factors are all linked being the ‘ceremonial/“war” group’. The authors (1976:224) concluded:
Yolngu function as a marriage network of endogamous units within a broad cultural and linguistic complex. At both the ‘tribal’ and regional level these endogamous units seem to be closely related to the drainage basin. This finding supports Warner’s description of ‘Murnginy’ (Yolngu) society as a ‘confederacy’ of several ‘tribes’, at least when the term ‘tribe’ is used in the biological sense.  

Schebeck’s (2001:7) etymological analysis of Yolngu language, which aims to arrive at an understanding of ‘the relationship between dialect differences and the social organisation in northeast Arnhem Land’, suggests the same structures within Yolngu as those described by White and Parsons. The ethnonyms previously used to identify the Yolngu as a whole, Murngin (Warner 1937:15) and Miwoj and Wulamba (Berndt 1951:20-3), fall into one of three categories, i.e. ‘warrnames’, ‘ceremonial names’ and ‘by-names’, the last referring to terms that denote general features of landscape or environment. Schebeck (2001:46; see also Peterson pers. comm. in Tindale 1974:141-2) notes the former two are ‘a classification which is independent from the types of social groupings distinguished by anthropologists’: ‘The terms Murrnginy, Wittij mala, Rangipuyngu and Manydjikay are examples, for each level distinguished, of groups bigger than those usually given as “clans”’. Warnames include the former ‘tribe’ names used to describe the Yolngu such as Murrnginy (Murngin) and Mewatj (Miwoj); the former, for example, Schebeck (2001:39, 45, 52-3) describes as deriving from ‘murrnginy’ = the type of spear used throughout northeastern Arnhem Land today and called ‘shovel(nose) spear’. While no longer possessing great day-to-day currency in Yolngu society, such names ‘reappear with a higher frequency when stories about old fights are told’ (Schebeck 2001:47). Schebeck (2001:47) further notes:

This is also true for unetymologicalisable names such as, for example, Nharrkala, which seems to occur relatively often in fighting stories or in ‘political’ discussions, while Dhalwangu is more often heard in daily camp life [... another indication in the same direction is the fact that Nharrkala, and not Dhalwangu, had been exchanged against Gurrukawutha, the last name of which is etymologisable in a war-like way.  

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103 By ‘biological sense’ White and Parsons presumably mean both the recurrence of genetic markers across the ‘ceremonial’/‘war’ group as well as a high degree of endogamy, which, of course, ensures a commensurate high degree of reproduction from within the group.

104 Schebeck (2001:48) is somewhat ambivalent about the distinction between the two names: ‘I have distinguished between “warrnames” and “ceremonial names”. It must be stated that this distinction is not to be looked upon as very well defined. For example, when the Djapu people have a shark as their totem, it is obvious that this totem has also a war-like significance. Thus, for instance, Djapu people will dance the shark dance before fighting; just as the Gumatj people will dance the crocodile dance.’

105 The relationship of war cries to social organization is by no means limited to the Yolngu. Hiatt (fieldnotes 27/10), for example, noted several such of the Burarra, these however linked to moiety affiliation: ‘Yirritja (irrespective of language, country) make the sound of the Barramundi “wur” (i.e. as it thrashes through the water). Djowunya make the sound of the Shark – “bul” (i.e. as it falls after leaping out of water). Djowunya warriors are sometimes called “bulk mandja”. If a Yirritja man has been killed the victorious warriors (even if
Schebeck (2001:48-51) also makes the distinction between names applied to others ('nicknames') and names applied to one's own group. Schebeck makes no attempt at describing the groups to which the warname applies, concluding only that 'I have tried to show that all three names proposed by anthropologists for naming the whole northeast Arnhem Land group, have at least a strong warname component' (Schebeck 2001:53). However, the application of these ethnonyms to the whole of northeast Arnhem Land by Warner and others suggests that they are terms that applied to groups occupying significant parts of the Yolngu region. Keen's (1982:631) comparative analysis of Gidjingali and Yolngu social organization based on marriage patterns between patri-clans, suggests of the latter that,

The main characteristic of the Yolngu pattern is the unidirectional flow of rights in women of the man's mother's clan as wives and mother's mother's clan as wives' mothers. Relations of marriage between clans tend to persist from generation to generation.

Alliances were based on intermarriage. Thus, 'two clans of opposite moieties whose members intermarry form long-term alliances' (Keen 1982:632). Keen cites as example 'an alliance between Daygurrurr and Djambarpunngu-speaking clans', which 'existed in 1926-7 [and] still persisted in 1976' (Warner 1937[1958]:170 in Keen 1982:632). These relationships served to reinforce alliance between the clans so related in their conflicts with similarly organised alliances, and these could, and often did, continue over generations.

Warner considered the Yolngu to be a war-making unit and the ceremonial leader to be the warleader. Although the clan did not enter as a group into battle, clans were engaged with others in eternal feuds which resulted in occasional ambushes. Fighting occurred most often between clans of the same moiety, whose male members were rivals for women of one or more other clans. Competition over women, and blood vengeance were the most common reasons for fights. Warner's case study of a lengthy feud shows that the clan, its allies in the same clan-aggregate ('phratry') and its allies through marriage formed the pool of recruiting warriors. The clan itself was the focus of identity in feuding (Keen 1982:632 quoting Warner 1958: 144ff).
According to Sutton (1978:26-7), White and Parsons (1976) work in N.E. Arnhem Land describes ‘a situation remarkably similar to that of the Cape Keerweer region [i.e. the Wik languages of western Cape York Peninsula]’. Among other commonalities are the social aggregations attending ‘pitched battles’ fought after cremations such as the one Sutton (1978:66-8) documents at the fighting ground Kayawayya on the middle Kendall River. This involved ‘inlanders’, the Wik-Ilyanh against the Wik-Ngatharra and Wik-Ngathana, coast-dwellers from the Love River-Kendall River area: ‘I have a large amount of information on the personnel present at such battles in the coastal area, and this information is almost invariably given in terms of nicknames (names of regional origin), not dialects [...] at cremations the geographical origins of opponents were normally different.’

He concludes: ‘Attendance at cremations, rituals of other kinds, and large battles is normally stated in terms of nicknames. This gives the ethnographer a clear guide to the composition of such events and also to the geographic range of bands’ (1978:126). The ‘nicknames’ Sutton (1978:126) refers to are based on country:

The members of any clan may be known by a name which refers to a salient aspect of their country. In some cases it refers to the type of environment encapsulated in their country and in others it refers to an important place-name. Some sets of clans with contiguous countries are known by a single name of this type; these I refer to as nickname clusters. Such terms are ‘nicknames’ because they figure prominently in disputes and may be hurled at others as a form of abuse. They are, however, used without pejorative effect as well, and may even be used of one’s own people with some pride. As a reference to a clan or one of its members, a nickname states where people are from in terms of clan country.

While linguistic affiliation among the Kugu Nganchara south of Cape Keerweer is tied to estate, with estates and their associated dialects sometimes in contiguous blocs and sometimes not, ceremonial groupings are focussed on the lower courses of rivers, the woman ceremony on the Holroyd River and the puela on the Kendall River being prominent examples (von Sturmer 1978:365-6). It is to these ceremonies that ‘men will habitually assign themselves’, irrespective of estate and dialect:

‘ceremonial groupings cut across linguistic affiliations’ (von Sturmer 1978:175-6). Affiliation to these riverine environments determines the higher order social structure of the Kugu Nganchara:

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107 As with Mathew’s (1910:189-90) Kabi myth recounted in Chapter 6, the people of western Cape York had recourse too to differentiating coastal and inland peoples mythologically. Laurent Sharp (Fieldnotes Ms. 685 (i) 8/2 A.I.A.T.S.I.S.) documents a Koko Bera myth of the Edward River as follows: ‘Tide limit (Salt – Fresh Water boundary) on Edward River is just west of Police Lagoon, about 6 miles east of Eden River Mission. Here occurred battle between Salt and Freshwater crocs [crocodiles]; former sent down to [the] sea; [the] latter going way up the Edward [River] to spread news.’
People are classified and classify themselves according to the river or watercourse on which their 'estate' is located. It is legitimate to talk of the 'Kendall River mob', the 'Holroyd mob' and the 'Christmas Creek mob'. These groups are seen as having a social as well as a geographical reality. To give some simple examples, terms such as 'Holroyd mob' and 'Kendall mob' are invoked when explaining present-day fighting at Aurukun (von Sturmer 1978:269-70).

von Sturmer (1978:245-6, 427-8) sees such 'corporations' as those most likely 'to sustain the intense pressures to which they appear subject among the Kugu-N'ganchara, because based on 'co-operative economic activities':

The land base of these corporations consists of a number of 'estates', generally located on a single river or stream. The land to which members of the corporation have access includes all the major habitats necessary to their survival. I propose calling this corporation a company [...] used in its most inclusive sense (to cover a large riverine system), from a number of lower order companies (or constituent companies).

It is the economic and, to large degree, demographic viability (i.e. their capacity to self-reproduce) that affords the riverine corporation, or company, a strength that would otherwise be lacking in the individual estate, or impossible to coordinate where dialect-identified estates are distributed apart. According to von Sturmer (1978:288), 'the easiest way to define 'outsiders' or 'outside people' is to see them as people from different riverine systems who are not considered genealogically connected with any member of the corporation, or with any spouse of any member.' Relationships do transcend geographical affiliation, and, therefore, endogamy within the 'river system' is a tendency, not an absolute: 'The riverine systems cannot be considered endogamous. Nor is endogamy at this level ever put forward as desirable' (von Sturmer 1978:288-9, 443-4). Nevertheless, the genealogical and affinal links that do exist within the Wik 'ceremony/war groups' are an important factor in the solidarity of any such group and its numerical strength in conflict situations:

The social bond between affines of a locality make for military strength. It is often mentioned in descriptions of fighting that one group were mungthia-moorininhthjanha, a compound term denoting a set of cross-cousins. At a broader level, warmaking alliances are stated in terms of nicknames or areal groupings (Sutton 1978:130).

Unlike the Yolngu, there is no one-to-one correspondence between the 'nicknamed' areal grouping and a particular Wik dialects or dialect groups. The only distinction of this kind – and a general one – is that between the inland or upriver Wik dialect Wik-Iyannah and the complex of varied coastal Wik
dialects; in this case, and in dialects generally, it is the political, environmental or historical associations (and, most often, a combination of all three) that count, not actual phylogenetic linguistic distance (von Sturmer 1978:174). Comparing Wik to the Kuku Yalanji on the eastern Cape York coast, Sutton (2003:59) remarks:

The neatness of this [Kuku Yalanji] schema cannot be replicated in the Wik region of western Cape York Peninsula, where linguistic varieties do not map uniquely onto drainage sub-systems in this way, nor are local environmentally based estate clusters aligned with single linguistic varieties in each case, as they are here.

Like the Yolnu, Kuku Yalanji is a single, closely related language, the ceremonial/war groupings/geographic groupings in these cases forming a HAA configuration.

The diversity and frequent discontinuity of Wik dialects, despite the fact of metatypy (‘Most utterances in one Wik language are readily translatable, morpheme-by-morpheme, into another Wik language’), points to a long and complex history having caused their very disparate distribution; hence a HDA classification is more appropriate to describe its sociopolitical implications (see Sutton 1991:59-62). Sutton (2003:71-2) describes the coastal estates between the Embley and Edward Rivers where, in the southern region, ‘[t]wo or more estates may be identified as belonging to a single “company” or single patrilineally recruited group under its totemic emblems, yet subgroups are identified which possess non-contiguous tracts that may in fact be ascribed different linguistic identities and that have no common identifiable ancestor […] a single estate (or set of substates) assert ownership of differently named and linguistically distinct speech varieties.’ Further north, adjacent estates may share overlapping totems, ‘[a]nd yet the three estates and groups are distinct and each traditionally owns a distinct speech variety, respectively Alnigith, Linnigithigh and Mamangathii. Of these Alnigith and Linnigithigh are close dialects, but they belong to a separate technically-defined language than that of Mamangathii (Hale 1966:163).’ Sutton (2003:72) concludes:

The estate group sets in either kind of case cannot be described as subgroups of single language groups, although this may be true of their component segments or sub-clans.

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108 It is significant that Sutton (1990:75) documents that of over 150 marriages of Western Cape York Peninsula, most of them unaffected by mission influence, and find that coastal men only married Inland women in 13% of cases. Despite the disclaimer, I think it is likely the percentage was at least a little lower in pre-Sovereignty times.

109 This might be indicated by the presence of seemingly peripheral and quite divergent dialects among the coastal Wik dialects in some areas. Von Sturmer (1978:172-3) mentions Kugu Mangk and Kugu Y’anj, which are excluded from Kugu Ngancha, the general sociopolitical language designation south of the Kendall River. These dialects are described by speakers of other Wik dialects as ‘very hard’ with, ‘[m]oreover, speakers affiliated with the dialect(s) [being] treated as marginal within the broad context of social and political life within the region’. These dialects have a minimal presence physically in only three estates, one of which is extinct (von Sturmer 1978:175). It is quite possible these two dialects represent a survival of an earlier occupation of this part of the western Cape York coast.
severally. That is, a clan of this Embley River type or a sub-clan of the southern Wik 'company' type may belong to a culturally recognised local unity that is linguistically diverse and at the same time may belong to a distinct grouping of neighbouring estate groups whose members enjoy a single common linguistic identity. I have no doubt that both kinds of collective identity could be brought into play in different contexts and for different purposes, depending on the fluctuating fortunes of alliances. Along the coast, however, unity of named linguistic variety was not normally a basis for concerted political action.

The motivation for Wik higher order social organization can be found in von Sturmer's (1978, 1987 in Sutton 1990:75) conclusion regarding the historical forces that shaped Wik social organization:

Evidence in territorial shifts, whether those merely desired or those achieved as well, shows pressures from inland to coast, and - within the coast - from 'hungry country' between rivers to lower riverine frontages. Inlanders press towards coasts. Coastal people pursue claims to river embouchures if they can.

Not only has this shaped the distribution of estate and language distribution along the Wik coastline of Cape York, but much else that continued to constitute important elements of Wik social organization and culture: the performance of regionally based ceremonies, and the amalgamation of HDA groupings on the lower reaches of the rivers that empty into the Gulf of Carpentaria.

Kuku Yalanji

A good example of bHAA, a language distribution that is no longer active, and hence termed benign, which reflects therefore a prior, but not current, history of demic expansion is Kuku Yalanji, a language subgroup of coastal North Queensland. Sutton in his Native Title in Australia employs Kuku Yalanji to exemplify what he refers to as 'nested hierarchy', a form of social organization 'such that each higher-order grouping is more or less neatly made up of two or more segments of a smaller or lower order'. While disclaiming any ubiquity in Australia, Sutton (2003:58) posits of this form of social 'pyramidal structure' that '[i]t's actually does apply to certain kinds of Aboriginal country groupings, as reported, but no means all of them':

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The 'nations' as they are called in local English, or *jaawunkarra* in Kuku Yalanji,\(^{110}\) are clusters of estates sharing common drainage. Estate groups have names formed by the addition of *-warr* to estate names. In the earlier literature on the area it tended to be these small *-warr* groups which predominated and were called 'tribes' by writers. In the 1930s it was the riverine dialect group which tended to attract the attention of anthropologists and to be labelled 'tribes'. Anderson [1986:91-2] used the term Kuku Yalanji for people belonging to all three nations [i.e. Kuku-Nyungkulu, Kuku-Yanyu and Kuku-Yalanyu] for convenience and because it was used by people in the region. As one goes through time with the sources, the labels used by observers get more inclusive and the units larger. (Sutton 2003:58-9, Fig.2)

As both Anderson (1986) and Sutton (2003) make clear, it is not the case that Kuku Yalanji forms, or in fact ever formed, an overarching higher order sociopolitical entity (cf. Wood 2016:337). Given the transparently dialectal nature of its linguistic interrelationships, however, Kuku Yalanji has the attributes of a HAA alliance, albeit one that now denotes only a history. Acknowledgment of shared Kuku Yalanji identity has come only with the post-colonial historical forces that have forced on people recognition of their linguo-ethnic commonality. The reasons for the absence of higher order sociopolitical interrelationship are not hard to find. Predominantly, topography and environment conspired to make a truly effective relationship of this type difficult, if not impossible. Anderson’s (1986:17) description of eastern Kuku Yalanji country is graphic:

> The eastern side [of the Great Dividing Range] is drained by the Normanby, Annan, Bloomfield and Daintree Rivers. This region is one of high ecological diversity, and it has a host of impressive physiographic features. The landscape is dominated by steep-sided valleys, fast-flowing creeks, high thundering waterfalls, huge granite formations, and dense rainforest-clothed mountains.

Accordingly, the *jaawunkarr*, each associated with a riverine or coastal system, the Upper Annan, Upper Bloomfield and Lower Bloomfield Rivers (cf. Fig. following Sutton 2003: 58, Fig. 2), provided the most inclusive extent of Kuku Yalanji social organization, the very nature of the landscape and environment itself precluding any more encompassing relationship. These *jaawunkarra* are, respectively, the domains of the Kuku-Nyungkul, Kuku-Yanyu and Kuku-Yalanyu. Each consists of eight or nine estates (Anderson 1986:87-90):

> The upper Annan river area contained nine clan estates roughly equal in area. Each estate was based on a discrete portion of the greater Annan River system: for instance Kuna, the drainage from Mt. Finnigan (Parrot Creek), Yulbu, the eastern slopes of Mt. Poverty (Stony Creek), and

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so on. The total area for this country (i.e. all nine estates) was about 350 square km. an average estate size of 39 square km. each. In the Bloomfield region there was a distinction between those estates along the coast and the tidal part of the Bloomfield River, and those inland. The lower Bloomfield River and immediate coastal cluster contained nine estates. The marine estates were all centred on freshwater creeks emptying onto sand beaches, while the estates along the Bloomfield River were associated with freshwater systems that drained into the river. All these coastal estates had an average length of 4.75 km and extended inland approximately 2 km, which gives an average area of 9.5 square km. as the marine estates extended into the sea for at least several hundred metres, covering the immediate offshore reefs. The eight inland Bloomfield estates included those on the upper reaches of the Bloomfield River, on Roaring Meg Creek, and in the Mt. Boolburn, upper Granite Creek and Main Camp areas. This area as a whole was about 400 square km and thus each estate averaged about 44 square km.

To any effective degree, therefore, jawunkarra were self-contained social entities. There were incentives for relationships beyond the confines of each jawunkarra distribution, trade or the exploitation of economic windfalls greatly in excess of the capacity of regional groups to exhaust them - the annual harvest of geese eggs from the flooded lakes and swamps of Kings Plain in the wet season, or cycad nuts in the dry season being examples (Anderson 1986:106-8). Equally, there were long-standing enmities between jawunkarra. Anderson (1986:307), on the evidence of his informant Oscar Olufson, reported:

The different tribes in the [Bloomfield] valley only had a bit to do with each other. The Thompson mob stayed pretty much in that valley and moved around there. The salt-water mob stayed out on the coast. They all came together for funerals, though they were also always having these big spear fights where nobody got hurt.

Whether 'nobody got hurt' applied to pre-European days is a question that will be addressed later. Anderson (1986:92) makes apparent that, until the advent of the European, in all the most important respects, demographically, economically and politically, life proceeded within the confines of each jawunkarra river valley or coastal strip:

Jawunkarra did not only share dialects and estate contiguity. They were free to travel without formal permission over all other estates in the nation and to use the resources there, although there were restrictions. The nations were apparently largely endogamous, with all recorded marriages which occurred before 1885 having both partners with patrilineal estates in the same nation. Well into the twentieth century there was still a tendency towards nation endogamy: 48 out of 61 marriages (79%) between 1885 and 1915 were ones where both partners were from the
same nation. Additionally, where the ideal birth on one’s patriclan estate could not be realised, it still seemed to occur on a nearby estate within the nation. Of those twenty persons born before 1885 for whom I have comprehensive data and who were born on their father’s estate, nineteen (95%) were born within their own nation area. In addition, as I shall show later, it was most often co-nationals who cooperated in certain production activities, particularly when surpluses were available in certain areas at certain times.

Importantly, *jaununkarra* social self-containment appears to have included initiation. While in many other places the record strongly suggests that initiation was a means of securing solidarity among higher order alliance members, among the Kuku Yalanji taken collectively this does not seem to have been the case. Although Meston’s (1896:1202 in Anderson 1986:138-9) account is somewhat ambiguous, it suggests that initiation, in this case confined to the Annan River, was circumscribed by *jaununkarra* affiliation:

> In 1895, Meston and Missionary Schwartz, when travelling near Helenvale on the Annan River, observed ‘about 250 blacks assembled on the Annan the tribes for fifty miles around initiating a number of youths in the mysteries of the bora ceremony.

These divisions were not merely the product of sociocultural insularity but dictated by the topography of the country itself (Anderson 1986:93-4):

Apart from their convenience as socio-ecologic markers, the mountain ranges did also act as actual physical barriers to human travel, or at least to regular or frequent travel. As far as I can determine through reconstruction of the location of early Aboriginal paths and from reports of early white settlers, there was only temporary visiting between, for example, Bloomfield and Annan groups, and all this primarily by way of the track over Stuckey’s Gap. Just as the Finnigan Range blocked Shipton and Romeo groups from each other and was seen as an estate boundary, Mt. Hartley with its rugged form and dense vegetation, was designated the divider of Rossville groups to the north, and the Cedar Bay and northern Wyalla Plains groups on the east and the south. Travel between the Stony Creek, Romeo area and the upper Granite Creek region was described as uncommon and exceedingly difficult. Travel from the areas around the upper Bloomfield to the Mt. Windsor Tableland region and down into the Palmer region, as well as south to Daintree, was possible only by defined tracks though gaps in the ranges. Natural features such as drainage patterns and topography thus were constraining, static forces within Kuku-Yalanji life. They also provided markers for social boundedness.

Looked at historically, that is, in line with the diachronic expectations derived from linguistics and archaeology, Kuku Yalanji is a recent demic expansion, its history stretching back by the most
conservative estimate only some one to one and a half thousand years.\footnote{Barry Alpher (2016:53) suggests Kuku-Yalanji origins are linked to a posited Alaya-Athima subgroup centred on the Mitchell and Palmer Rivers of Central Cape York Peninsula which includes the Kuku Thaypan language. Alpher (2016:69-70) lists a number of morphosyntactic resemblance that point to a relationship: ‘There is virtually no vocabulary item shared between Kuku-Yalanji and Alaya-Athima languages that are not a common Paman or Pama-Nyungan heritage. There is, however, a striking similarity in the noun-inflectional system, the neutral Ergative and Instrumental case-ending –bu.’} This is reflected in the distribution of the Kuku Yalanji language as a whole, its speakers divided by the Great Dividing Range, some to the east and some to the west (Wood 2003:4):

There are two large Aboriginal groupings in Southeast Cape York that use the name Kuku-Yalanji. They are the Eastern Yalanji, often described by both themselves and their Aboriginal neighbours as madjaji or uwarraji (‘rainforest side’) Yalanji, and the Western Yalanji, known as ‘Sunset (west), ’Maytown’, or ‘outside’ Yalanji to themselves and neighbours, and also labelled by the easterners both in the past and today as ngalkalji ‘outside people’ (ngalkal ‘outside’ + ji suffix).

Significantly, Eastern Kuku Yalanji have only come to consider themselves as a discrete body of people in the post-colonial period, although it can reasonably be speculated that in pre-European times there would have been a consciousness of shared linguo-ethnicity (Sutton 2003:58-9; Wood 2003:5). Given the relatively homogeneous nature of the language, the demic expansion that resulted in the occupation of the ‘rainforest side’ must have also occurred recently and relatively quickly. It is a typical, medium-sized, east Australian coast language, exhibiting little of the divergence that Sapir (1916[1949]) associated with depth of time. As with the southern east coast Wakka-Kabic languages examined in Chapter 7, the western expansion of Kuku Yalanji would appear to be an event subsequent to the eastern demic expansion. Given the intractability of the terrain it must be considered very likely that the occupation of the valleys of the Annan, Bloomfield and Daintree occurred via egress from the coast. This surmise is compatible with the language’s relative homogeneity, namely a reasonably rapid move down the coastline followed by independent entry into the three valleys. The differentiation, if not alienation, of coast-dwellers from those inland, a persistent pattern along the extent of the east coast, the difficulty of the terrain at the heads of the river valleys, would account for the isolated development of each jambulkarn in situ. The rugged, segregated nature of the eastern Kuku Yalanji distribution would have worked against the maintenance of close sociopolitical ties such as those found among the widespread inland distributions. These river systems were rich enough to support populations that could to large degree be self-supporting and self-replicating, and free also from the likelihood of incursion by outsiders, they were left to develop largely on their own. Kuku Yalanji therefore represents the type of HAA demic expansion I have designated ‘benign’, because while language homogeneity makes it very likely that this was the demic expansion of a linguo-ethnicity, there is no evidence to show that a sociopolitical relationship was being maintained at the onset of European occupation.
Warlpiri

Just as the mountainous terrain of Eastern Kugu Yalanji mitigates against the establishment and maintenance of higher order alliances and confers a larger degree of independence on what otherwise might be component linguo-ethnic social entities of a HAA or HDA configuration, so too geography of an altogether different sort can be productive of the same outcome. This limitation is particularly relevant to desert and arid environments where distributions are thinly spread over very large areas. The most extreme instance – and that which from Berndt (1959) onwards has set them apart as an exemplar of Australian social organization – is the Western Desert people. While the sheer physical breadth of Western Desert distribution has entailed some degree of regional subidentification (one exacerbated by post-colonial conditions), nonetheless, it is a central part of the Western Desert ethos, and one inculcated deep into social structures, that all are one ‘countrymen’ (Myers 1986:94-6, 259-60; Tonkinson 1987:217; Stanner 1934). Alliances are loose and changeable, incorporating, theoretically, any Western Desert speakers, and thus a people are able to survive, flourish – and demographically expand – in a harsh and unremitting environment. The same sentiment of collective identity was observed also in the Warlpiri: ‘The residents of all the countries [comprising the Warlpiri distribution] also thought of themselves as members of the subordinate Walbiri tribe, which was distinct from all other tribes’ (Meggitt 1962:49). According to Meggitt (1962:49), solidarity, or at least tolerance, was afforded fellow Warlpiri well ahead of non-Warlpiri:

Certainly, men today can recall occasions on which inter-country disputes flared up but, to judge from their accounts, the groups never displayed to each other the intense and continuing hostility that Strehlow (1947) has said characterized the interaction of some of the divisions of the Aranda.

Moreover, Warlpiri identity was something people were quick to claim and express pride in (Meggitt 1962: 34-5):

When associating with Aborigines they work within a simpler frame of reference. ‘There are two kinds of blackfellows,’ they say, ‘we who are Walbiri and those unfortunate people who are not. Our laws are the true laws; other blackfellows have inferior laws which they continually break. Consequently, anything may be expected of these outsiders. The Walbiri maintain their identity wherever they settle. When one takes a wife from another tribe, the children are Walbiri, no matter if the couple live in the wife’s tribal territory or even in the same camp as her near kinsmen. The people cannot believe that a person fortunate enough to be born a Walbiri would ever allow his ‘citizenship’ to lapse, and I have never encountered a Walbiri who has done so.
While, then, the importance of being Warlpiri in the minds of those who are so is clear, how this plays out, or did play out, in any form of cooperative action is left unstated. The one reference Meggitt (1962:42) makes to collective action is the conflict with traditional enemies the Waringari ('For as long as the Walbiri can remember they have been in intermittent conflict with the Waringari') over native wells in the Tanami Desert sometime around the turn of the 19th century. Meggitt here

112 According to McConvell (pers. comm. 04-09-2017) Warnayaka is not an ethnolinguistic name but refers to a generic denomination, 'Warnayaka appears to be a Mudburra type reflex of what comes up in Gurindji as warnayak, meaning 'foreigner, stranger'. Waringarri is from Jarragan languages (Kija, Miriwung) etymologically from wary 'fight' and a suffix -garri, so originally 'fighting group' or something like that, but actually means 'crowd, many' in recent times in Kija and Miriwung. Kija people tell of a group of Waringarri people who moved across Kija country from west to east maybe about 100 years ago. I couldn’t get a fix on what language they spoke. These are both exonyms and shifters – they don’t necessarily refer to the same ethnic group in different places.'
refers to the Warlpiri as though their participation was collective but there is little reason to believe this would have been possible; more likely, the particular Warlpiri involved were those Meggitt (1962:48) identifies as the Waneiga, occupants of the north-western extent of the language’s distribution. This is one of the four regional groups or communities Meggitt (1962:47) identifies as comprising Warlpiri as a whole: ‘Most Walbiri still believe that their territory comprises four major divisions or ‘countries’, which were formerly occupied by the Yalpari (Lander), Waneiga, Walmalla and Ngadia subgroups of the tribe.’ These are the regional entities Meggitt (1962) refers to as ‘communities’. The community, I argue, is analogous to the alliances discussed in the previous chapter. It is important to note that while the identification of four communities comes from Meggitt’s Warlpiri informants, the concept of the community itself is something he introduced from Murdock (1949). According to Murdock (1949:79; see Peterson 1969:29-30), the features defining a community were as follows:

1. Its membership was relatively stable within more or less permanent territorial boundaries;
2. Male members were generally born into the community where as many female members were recruited by marriage from other countries;
3. It had a legitimate title to its domain or country the resources of which it exploited (often cooperatively);
4. It had custody of totemic sites within its territory;
5. It cared for aged and weak members, as a form of social insurance;
6. It displayed in-group ethnocentrism and discovered its scapegoats in out-groups;
7. It protected its members from external attack;
8. It was in many respects the maximal political entity’

In a very real sense, Meggitt can be seen as a proxy, applying Murdock’s ideas to the Warlpiri in the field. Throughout, he applies the elements of Murdock’s definition quite literally to his understanding of the Warlpiri community, with variable success (Peterson 1969:30; Niblett 1992:78-9; Sutton 2003:101). On this basis, Meggitt (1962:58) concluded: ‘The [Warlpiri] tribe comprised four large communities, each with its own domain or “country”. Relations between communities were analogous with those of the tribe and its neighbours.’ Irrespective of whatever value we accord the term ‘tribe’, it seems apparent that Meggitt intends for each of the communities a degree of independence, insularity and regional group solidarity. In common with most, if not all, broad

113 However, it is another of Murdock’s stipulations for the community that has proven most influential, and, in my view, least warranted: ‘I shall henceforth refer to the largest group of countrymen as the community – ‘the maximal group of persons who normally reside together in face-to-face association’ (Meggitt 1962:51 quoting Murdock 1949:79; see Niblett 1992:72-3).
114 At least one of the four communities that according to Meggitt constitute the Warlpiri is stated by Tindale to be a separate ‘tribal’ entity. According to Tindale (1974:236), ‘Meggitt’s inclusion of the Ngalia in this tribe [the Warlpiri] reflects post-1935 changes, although he does not recognize it.’ Under his tribal listing of Ngalia, Tindale (1974:233) further says: ‘Until after 1931 they had a four-class social organization but later changed to the system of the Walpiri with whom they mixed after that time.’ It is worth noting that Tindale (1974:156) was
linguo-ethnic distributions, Warlpiri communities differentiated themselves by what may be regarded as ‘emblematic’ distinctions, small (to the outsider) variations in speech and custom that serve to identify and reinforce local affiliation (Meggitt 1962:49). This, in Meggitt’s words, is productive of ‘a mild local ethnocentrism in each group’:

The distinction between one’s own countrymen and other Walbiri was to some extent sharpened by the recognition of minor cultural differences among the four local groups. Some of the most obvious of these diacritical marks concern linguistic variation. Thus, the Yalpili of Lander Walbiri are said to ‘talk light’, that is, to use unvoiced consonants, and the others to talk ‘heavy’. The Ngalia vocabulary includes a great many words common to Pidjandja languages, whereas, the Waneiga frequently employ words derived from eastern Kimberley languages.

As with messmates, confederacies and nations, ‘community’ found little support among the anthropological contemporaries of Meggitt (1962) and Hiatt (1962) when they first applied the term in Australia, and has found little since.\textsuperscript{115} It is necessary therefore to briefly address the arguments that have been raised to discount the prospect of higher order social organization in the form of the community. The original objection, and most hotly contested, is not that of the stipulations listed above (the more obviously improbable ones being easy to dismiss) but the definition first provided by Meggitt (1962:51; see Niblett 1992:72-3): ‘I shall henceforth refer to the largest group of countrymen as the community – “the maximal group of persons who normally reside together in face-to-face association (Murdock 1949:79).”’ It is the perceived inability of Aboriginal people to congregate in sufficient numbers, or for a sufficient period of time, to permit the sort of interaction considered necessary for higher level organization (by this definition) that has constituted the most adamant obstacle to the prospect of the community’s existence; as Birdsell (1968:234) originally articulated the objection:

\[\text{[I]t is to be noted that the reality of such [larger] groups can be reconstructed only where sufficient food and water resources can be systematically demonstrated by detailed data. This has not been done, for example, by either Meggitt (1962) or Elkin (1962) for the Warlpiri of central desert Australia. This does not deny that transient groups of several hundred}\]

\begin{footnotes}
\footnotetext{115} Birdsell (1970) in the wake of the seminal Man the Hunter conference in 1968 published an article, ‘Local Group Composition Among the Australian Aborigines: A Critique of the Evidence From Fieldwork Conducted Since 1930’, in which he took issue with ‘a small group of Australian anthropologists, either trained at, or residing at, the University of Sydney’, which included Hiatt and Meggitt. According to Birdsell (1970:116), Hiatt et al. had ‘launched a series of assaults on such well-established concepts as the Australian local group, its territory and the aggregation of such hordes into the dialectal tribe’. Meggitt and Hiatt’s main omission, in Birdsell’s (1970:116) view, was their wilful ignorance of ‘the ecological realities of their country’, namely his own ‘cell-like formations’, that anchored Australian Aboriginals to a locally constrained, hand-to-mouth economic existence.
\end{footnotes}
individuals may not congregate where food and water resources are available, for evidence indeed suggests that this is an almost universal human impulse. But a temporary aggregation cannot be considered as representing local groups or communities who demonstrate their territoriality in some consistent fashion.

Implicit in Birdsell’s argument was the notion that a condition for the existence of community was their permanent residence in ‘face-to-face’ contact, the idea that Aboriginal societies lacked the sophistication to conduct communal activities in any way other than as a permanently co-habiting society (Birdsell 1958:200-I, 1970:116). Undoubtedly, cohabitation involving the entirety of a community would have been, as Peterson (1969:30) observed, ‘rare if ever’. However, periodic large-scale meetings did occur; Meggitt (1962:54-5) recounts instances in the post-colonial period of ‘large groups of perhaps 400 to 500 Warlpiri’ assembling for circumcision, subincision and Gadjarji (Big Sunday) ceremony, commenting that ‘gatherings of this size were more common in the desert than generally realized’.116 The precondition for ‘face-to-face’ contact was also an important part of Sutton’s (2003:101) re-visitiation of the argument for the validity or otherwise of the Warlpiri community, whether or not ‘a Meggitt “community” would ever be assembled as one on the ground’. In this, Sutton concurs with Peterson’s view:

> [O]n the internal evidence and in strict all-members present sense, it would have been at best unlikely [...] We are told that during autumn and part of winter the community would congregate in one or two large groups. It is hard to imagine the composition of a camp of 300-400 people remaining constant for three or four months of the year.

I would argue, however, that these are imposed conditions, that few if any human societies have ever been capable of fulfilling. Regular or prolonged ‘face-to-face’ interaction, I would argue, is a fundamentally erroneous imposition to load upon any definition of higher order social organization. Like some of Murdock’s other requisites for the community – care for the aged and sick and the custody of totemic sites – this requirement is altogether unnecessary (Peterson 1969:30). It seems obvious to me that a permanency of ‘face to face’ contact has rarely, if ever, been a condition for social organization in any human society.117 In these societies, as in our own, it is knowledge of the larger picture that counts, combined with intercommunication, albeit periodic, not whether there is some form of on-going physical contact. Such arguments imply that communication has to be ever-

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116 Many instances are in fact documented in the ethnographic literature, in Central Australia as elsewhere. Examples are particularly abundant in the literature on the Aranda (Strehlow 1947:49-50, 59, 61; Kimber and Smith 1987: 224-31).

117 Even the best example of ‘face-to-face’ functioning democracy of which history informs us, the Athenian democracy of the 4th and 5th centuries BC, assembled only a small proportion of its eligible population together for decision-making at any one time. Hume (1993:280-1) describes it as follows: ‘The republic of Athens was, I believe, the most extensive democracy that we read of in history: yet if we make the requisite allowances for the women, the slaves, and the strangers, we shall find, that that establishment was first made, nor any law ever voted, by a tenth part of those who were bound to pay obedience to it.’
present for collective action, or even collective self-identification to exist, and this is rarely if ever the case. In short, the 'face-to-face' proviso is a red herring. This, however, does not exhaust the objections modern anthropologists have found with the community. Such is the animus against the prospect of higher order social organization that anthropologists have continued to find alternative explanations for the data, however, in my view, improbable. As averred by Sutton (2003:100), for example, Meggitt's fieldwork happened to catch his informants at an historic 'window' when it suited them to construct and run a particular view of their collective relationship to land:

In Meggitt's fieldwork period, Warlpiri were not concertedly pursuing concrete land uses across a broad spectrum of country, but were fairly localised or demographically concentrated; much of this vast region was for the time being unpopulated, and Meggitt's assessments of the nature of land-holding relationships were highly retrospective or 'reconstructionist'. A different picture may have emerged if Meggitt had been among the Warlpiri either while they were economically dependent on the land alone, or were pursuing current forms of legal tenure, decentralization and resource allocations based on royalties and government transfer funds. His fieldwork coincided with a window between two distinct eras of concrete political action focussed on land as a material resource base.

This synopsis seems unlikely, both from the evidence available, but also the proposition that an understanding of communal division would have had to permeate the entirety of the Warlpiri at reasonably short notice - a far greater feat of organization than that claimed by Meggitt to have been traditional. Sutton's (2003:100-1) critique raises a number of issues that appear to contradict the existence of the communal group: 'mixed linguistic affiliation, sometimes to mutually unintelligible languages'; ['no] statistically significant frequency of in-marrying versus out-marriage, although they are slightly endogamous (in-marrying) on the figures'; 'not sets of people bounded by mutual participation in initiation ceremonies.' At least one of these objections can be challenged on empirical grounds: 'Tindale's (1931/1953:174-8) Ngalia numerical data for 156 marriages includes 144 that are endogamous and 12 that are exogamous. The exogamous marriages as depicted at the

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118 Sutton's (2003:100) critique of Meggitt (1962:100) description of the four Warlpiri communities on the basis of its being 'reconstructionist' appears to me irrelevant: all attempts to understand Aboriginal pre-Sovereignty social organization must by definition be 'reconstructionist'. This seems to imply as Niblett (1992:87-8) in fact states outright, that an accurate reconstruction of an unrecoverable past', is by definition an impossibility and therefore not worth the honest attempt. I would say that the anthropologist will always take with them a view of their subjects' past - there are only so many ways to explain what is before one's eyes - better then to be informed by a conscious attempt at 'reconstruction' than be prey to subconscious presuppositions.

119 That this last may not be entirely accurate is at least be provisionally indicated in Tindale (1974:139) in respect of the Ngalia: 'The Ngalia tribe was first mentioned by Carl Strehlow and was met and studied at Cockatoo Creek in 1931 by the members of the University of Adelaide Anthropological Expedition in August of that year [...] At Mount Lidgb in eleven months later many of the same people were encountered again and it was possible to get details of their movements over the intervening time. It indicated that the journeys of newly initiated young men covered many miles. Some mention has been made of this data by Tindale (1946:74-8) and T. G. H. Strehlow (1965:132n). The full detail awaits recording in the light of the many place names still only tentatively identified.'
bottom of the figure are clustered very tightly among groups directly adjacent to the Ngalia’ (Tindale 1931 in Denham 2013:20). Meggitt (1962: 57), however, contradicts Tindale: ‘My own analysis of people’s genealogies revealed that marriages made within the community slightly outnumbered those made between communities, but the difference is not statistically significant.’ It may be that Tindale’s endogamy referred to Warlpiri rather than specifically to Ngalia. As for ‘mixed linguistic affiliation’, if – as I argue here – the ‘community’, or linguo-ethnic alliance to give it another name, was the peak level of Warlpiri social organization, then the sorts of peripheral affiliations, including, linguistically, the influence of other languages, contributes to the individual character of each Warlpiri community (as, in fact, stated by Meggitt 1962:49). To infer – as Sutton (2003:101) appears to do – that ‘mixed linguistic affiliations’ vitiates Warlpiri identity is not borne out by the evidence. Undoubtedly, some of the assertions made by Meggitt (1962), following the strictures for ‘community’ set by Murdock (1947) are misconstrued. Peterson (1969:30; also Sutton 2003:100) is undoubtedly right to assert that given that ‘roles in ritual are primarily determined by kinship’, including kin, ‘many of whom are members of other communities’, ‘it is difficult to understand what is meant by custody over the totemic sites in its territory’. That this is so is confirmed by an abundance of ethnographic evidence (cf. Niblett 1992: 71-2, who cites Strehlow 1947 and Pink 1935).

The strength ultimately of Meggitt’s (1962:47) identification of four Warlpiri communities, however, is that the information comes directly from his informants (‘most Walbiri still believe that their territory comprises four major divisions or ‘countries’). It is, according to Meggitt, the Warlpiri’s own account of their pre-European social structure – in which case, if wrong, Meggitt erred in his elicitation. Whether or not Murdock’s stipulations provide an altogether accurate rubric through which to comprehend the community is an altogether different matter. The inadequacy of the ideas available to the anthropologist shouldn’t be confused with the existence or not of the institutions claimed by their adherents.120 The argument made here is that well-founded ethnographically observable social relationships and higher order social organization do not have to be mutually exclusive. Sutton (2003:100) is no doubt correct to quote Niblett’s (1992) thesis providing a valuable critique of Meggitt’s assertion that land “title” was held essentially by “communities”, because ‘Meggitt did not explicate adequately the land interests of communities vis. a vis. the ritual property interests of patrilocal groups and their kurdungurru or ritual managers’ (see also Peterson 1969). A failing of Meggitt perhaps, but not one that discounts the possibility of concurrent ‘levels’ of social

120 Niblett’s (1992) thesis does do an excellent job in exposing the ‘obsccurities and ambiguities’ of Meggitt’s case. I agree with Niblett (1992:68) in as much as he states his aim is not ‘attempting to critique Meggitt’s account in the light of some better and more “accurate” ethnographic knowledge, but rather to see precisely how his depiction was textually constructed and consider why this might have been so’. Meggitt’s inability to make a truly convincing argument would seem to me also to stem from the fact of him being an anthropologist of his times’, that is, having only the ideas then currently abroad to work with, those most often associated with Elkin and Stanner which put clear limitations on the capacity of Aboriginal society to organise and innovate - their purported slavish adherence to the ‘enduring master plan’ of the Dreamtime and so on - much as Niblett himself seems to have taken his analytical point of departure from then new post-modern ideas.
organization. It could never be argued that higher order social organization fulfils all the roles observed in Warlpiri (or any other Aboriginal) society anymore than it conforms to the entirety of Murdock's criteria. A large part of the problem has been the failure, evident in works such as Meggitt's, to distinguish the place of community-level social organization among the cultural and social relationships and activities still in place in Warlpiri society. I have argued, per Gellner (1989), that much of the purpose and vigour of higher order social organization had long dissipated by the time the modern anthropologist arrived on the scene - not least because this power has been usurped by the Australian nation state. If we look at many of the attributes Meggitt claims for the community, these can all be interpreted as consistent with higher order social organization: that these were 'active groups' and not 'categories'; that there were 'no individual or family possessive rights over tracts of land or waterholes' [i.e. as seen from the view of the community]; that it was the community, 'not the individual residential food-gathering camp which was the locus of economic land rights among the Warlpiri'; and that their boundaries were 'fixed, validated and remembered through the agency of religious myths' (Meggitt 1962:249, 48). If, as I argue, the Warlpiri communities did exist, their purpose had something to do with both 'action' and 'land' but on an overarching level, above the concerns of the individual and the patrician, and, perhaps, largely irrelevant to the concerns of ritual life.\footnote{Hiatt (1996:24-5) was quick to realize that Meggitt's argument envisaged a hierarchy of control. It was not then that communities controlled 'sacred sites' but that the responsibility for their protection ultimately resided in the last of Murdock's (1949:79) stipulations for the community, 'maximal political entity': 'The community constituted the maximal political entity; it protected its members from external attack and exercised custodial responsibility for sacred sites within its boundaries. Political criteria were this deemed by Meggitt to confer 'legitimate title' to domain [...] whereas religious criteria were deemed to constitute something less than ownership of sacred sites within it.'}

That the community persisted as a significant idea that continued to demand symbolic recognition is apparent among post-settlement Warlpiri. For example, in their new and unfamiliar surroundings the Warlpiri continued to differentiate these traditional divisions in their residential arrangements (Gutwirth 1969:10):

In a modern Walbiri camp, small shelters are scattered about in apparent confusion. Meggitt reports that closer observation reveals that several camps are, in fact, separated from each other by narrow belts of sparse acacia and eucalyptus scrub. The divisions correspond roughly to the traditional community territories.

Sutton (2003:101-2) provides some indication of what the purpose of the community might have been: 'Meggitt referred to community members as "countrymen", as displaying "in-group ethnocentrism", and indicated that they enjoyed solidarity in that they found scapegoats in other communities and protected fellow community members from attack (Meggitt 1962:51).’ In other words, as has been seen in other accounts, the community's primary purpose had to do with
collective security. Presumably, any unauthorized infringement of boundaries would not have been tolerated, and, in the context of the Late Holocene, could have prompted a collective and retaliatory reaction from a community's menfolk. This in my view is the hitherto unseen historical dimension of higher order social organization, the demographic context in which institutions of such social organization evolved and existed to serve. In my view Sutton errs, or perhaps more accurately, is limited, in his assessment of Meggitt's Warlpiri community because its raison d'être is no longer apparent. Sutton (2003:101), however, is correct to conclude: "This abstract set from which action groups were drawn was "in many respects the maximal political entity" - again, one should read this, I think, primarily as a reference to a constituency rather than to an assembly." To the degree that the Yalpari, Waneiga, Walmalla and Ngalia subgroups of Warlpiri were self-enclosed sociopolitical entities probably has most to do with the sheer physical impediments to organising collective action within a reasonable timeframe over the considerable distances involved. Warlpiri communities can only be interpreted as HAA, Meggitt's (1962:242) informants telling him boldly as much: '[The Warlpiri] assert that they have always been a people distinct from others, that they have never been members of any wider confederation or 'nation' of contiguous tribes.' Equally, however, this HAA is not the 'dialectal tribe' of Radcliffe-Brown, Birdsell and Tindale - there is no one-to-one equation of linguo-ethnicity and higher order sociopolitical organization. Warlpiri linguo-ethnicity is a different matter to the four communities that are its peak sociopolitical institutions. Although Warlpiri collectively can be said to represent, among other things, the contemporary artefact of a prehistoric demic expansion, it is not this shared linguo-ethnic identity that is important - although this is happily acknowledged. As with the Kuku Yalanji, physical conditions, in this case distance as well as harsh terrain, has meant that HAA do not equate to linguo-ethnicity (in its widest sense) but the more practical regional subdivisions identified by Meggitt as communities.

**Conclusion**

While the HAA/HDA distinction is a valid dichotomy, it is not a delineation pure and simple. Variation is found along two parameters. Geographically, space, topography and environment will exercise a profound influence on the development of an alliance. In the case of Kuku Yalanji, an intransigent topography mitigates against the preservation of a HAA alliance, even though the historical linguistic evidence points to recent linguo-ethnic demic migration. In Warlpiri another geographical factor intervenes: the fact that considerable distance makes a HAA entity embracing the entirety of the speakers of the language an impossibility, even though they subscribe to the notion of a unified sociopolitical entity in theory. Again, the fact that the Warlpiri language is not greatly diversified indicates a recent prehistorical expansion. Perhaps the acme of this effect is the Western Desert language where regional subdivisions, although they exist, are weak, and a consciousness of sociopolitical unity across the language has morphed into an absence of strong.
distinguishing social barriers within the community of language speakers. The second factor is history. It can be the case that a language subgroup once having expanded, the inherited social and cultural ties that originally bound the language speakers will dissipate. New alliances might have formed, perhaps with speakers of other languages, particularly if these were on the periphery of distribution, and enmity may even arise between speakers of the same language. In general, the more recent the historical events that have led to a language's distribution, the more transparent will be the sociopolitical relationships that existed. Examples are Gangulu and Yinibara, HAA and HDA respectively, for which little mystery exists regarding their higher order social organization.

Relationships within other subgroups can be harder to discern, a greater period of time having led to more convoluted, and perhaps more localized, arrangements. Yolngu and Wik might be seen as examples of this effect. The consistent feature in all these historical and geographical configurations is that demic migration has been involved to shape events one way or the other, and this has occurred not in the deep past but in the Late Holocene.
Les Hiatt and Central North Coast Arnhem Land

The geopolitics of pre-European regions is hinted at in the writings of Winterbotham (1954, 1956), but it is difficult to get an idea of the demographic pressures involved, except perhaps for the perennial drive to get to the sea. Access to seemingly better resources is not always the simple answer to these questions; there must have been a considerable degree of historical memory, hereditary friendships and aversions. The Arafura Sea coast of central Arnhem Land provides as good evidence as is likely to be found for regional tensions and their resolution in linguo-ethnic alliance. This is the area in which Les Hiatt observed and commented on the sociological entity he called the community, so there is his work on which to build a platform.

Hiatt lived among the Gidjingali at Maningrida in central Arnhem Land in 1959-1960, publishing the results of his fieldwork as Kinship and Conflict in 1965. As noted in the previous chapter, Hiatt (1965:24) reintroduced an old idea, under a new term, to Australian anthropological discourse. Like Meggitt (1962), Hiatt referred to higher order social organization spoken of by his informants as the community. However, while the first generation of Australianists gave an ambitious definition to higher order social organization (see Sutton 2003:43), defining language groups in their entirety, and often extending beyond to include the distribution of social institutions such as section systems, Hiatt’s meaning was altogether more modest: ‘I use the term ‘community’ for the group of people who customarily moved about together.’122 Obviously, it is a definition that allows considerable room for interpretation. I will argue that Hiatt’s ‘community’ was in fact the higher order institution introduced in the previous chapter; namely, those that can be differentiated by either a close (HAA) or distant (HDA) relationship to language. Consistent with the above, Hiatt described two sets of higher order social entity in central coastal Arnhem Land, each of which bears a different relationship to language. Before turning to Hiatt’s examples, however, it is necessary to examine the broader cultural context in which Hiatt’s work was sited. Armstrong (1967:11-13 in MacKay 1981:214)

122 Hiatt’s definition is taken almost verbatim from Murdock, who, as seen in the previous chapter, provided the original anthropological definition for the community: ‘the maximal group of persons who normally reside together in face-to-face association’ (Murdock 1949:79 in Niblett 1992:73-4).
described a ‘Western Arnhem Land’ group, centred on the Liverpool River, comprising a number of distinct languages, each with a relatively small distribution:

These groups share the Western Arnhemland type of social structure which is strongly matrilineal. They have been bound together by intermarriage […] they were associated with a ceremonial exchange system which had its centre in the Oenpelli area, and they visited each other for ceremonial occasions. (Armstrong 1967:12; cf. Elkin, Berndt and Berndt 1951)

Contiguous to the east, ‘Burarra, Djinang and Yarnangu, together with the Yolngu groups to their east, belong to the Eastern Arnhemland type of social system, which is strongly patrilineal’ (Armstrong 1967:14; cf. Berndt 1955). The Eastern Arnhem Land group practices circumcision while the Western Arnhem Land people are non-circumcising’ (McKay 1981:214). Keen (1982:621) also noted this cultural divide:
Gidjingali or Burarra social organization [i.e. directly contiguous to the east of the Liverpool River groups] has a form intermediate between the non-circumcising Gunwinjgu, characterised by an Aranda-like kinship system, matrilineal moieties and totemic categories and patrilineal land-owning groups (R. M. Berndt 1971; Berndt and Berndt 1970); and the circumcising Yolngu, marked by a Karadjari type kinship system, patrilineal moieties and patrilineal land-owning groups. The Gidjingali social system includes circumcision initiation, an Aranda-type kinship system, patrilineal moieties and patrilineal land-owning groups. Speakers of other languages in the Blyth River region, such as Nagara and Gunavidji, appear to have a social organization more similar to the Gunwinjgu [i.e. western Arnhem Land]. These people tend to classify the Burarra with Yolngu speakers (McKay 1981). Similarly, Warner (1958) classified the Burarra together with Yolngu language-groups as the ‘Murngin’ bloc of tribes. Nevertheless, Gidjingali, like other languages spoken to the west and south of the Yolngu area, is a prefixing language, whereas Yolngu languages are suffixing (Dixon 1980:257; Oates 1975:18).

That the Liverpool and Blythe River region represent a significant transitional cultural zone in Arnhem Land is readily apparent; less obvious is the correlation of culture (including language) to topography, which, as I have argued, has significant implication for the region’s prehistory. Peterson (1976:65) drew attention to the fact that cultural divides in Australia usually had an associated physical dimension; namely, that they can be mapped onto drainage basins; these were separated from each other by landforms, often not easily negotiated, and as such obstacles to communication and interaction:

A more fundamental boundary relates to the watershed between the Blyth River and the Glyde which is marked by a major linguistic and art style difference. The Rembarnga and other groups who occupy basin 24 and the Nunggubuyu who occupy basin 2, fall into the prefixing language group, while the occupants of 25, 26 and 1 are speakers of suffixing languages [see Map]. Natural barriers and easy lines of movement have apparently played an important part in the culture history of the area [….] the western boundary of basin 24 which lies in flat and undifferentiated coastal country yet coincides with the boundary between the Nakara and Gunavidji dialects. The boundary between circumcising and non-circumcising people also lies in this area (basin 23) which cannot be unrelated to the fact that this is where the stony country comes closest to the present day coastline.

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The division between prefixing and non-prefixing languages, and the cultural institutions that pertain to each, including a transitional zone in which exist components of both inventories, are thus not simply matters of choice or accident; that these linguo-cultural variables map onto topography (which includes the all-important coast vs. hinterland dichotomy; see White et al. 1990) indicates a complex prehistory of movement and contact; as does also the archaeological interpretation of the landscapes central, most particularly, to coastal dwellers such as Hiatt’s Anbarra community (see White et al. 1990:175-6). This then is the broader cultural setting, allied to a physical setting, within which exists, as McKay (1981:214) describes it, a ‘deep social division’; a division which ‘cuts right through the middle of the Maningrida community, situated at the mouth of the Liverpool River on the central north coast of Arnhem Land.’

Hiatt’s (1965) description of his two types of Central Arnhem Land community has to be viewed in this context.

The Gidjingali

The predominant focus of Hiatt’s (1965) study was the Gidjingali. The Gidjingali community or ‘tribe’ is defined by its concurrence with a particular language: ‘Gidjingali is the term for the language spoken by people who, before the time of my fieldwork, lived south of Cape Stewart and around the mouth of the Blyth River’ (Hiatt 1965:1). This language is now known more generally as Burarra; Green (1987:1-2; see also White et al. 1990:176-7) describes Burarra and its dialectal inter-relationships as follows:124

Burarra is a non-Pama-Nyungan, multiple-classifying, prefixing language spoken in Arnhem Land in the Northern Territory. The Burarra language is also known to its speakers as Gu-jingarliya (‘language’) or Gu-jarlabiya (‘it goes fast’). One major dialect difference exists: my informants distinguished their own language, which they referred to as Gu-jingarliya or Gu-jarlabiya, from Gun-nartpa (named from its word for the demonstrative ‘that’, gun-narda in the speech of my informants). I was told that there used to be three dialects, but two are now not distinguished; differences in the remaining two are largely in the area of vocabulary. Dialect differences are noticeable amongst speakers of Gu-jingarliya, particularly in the vowels.

124 Green (1987) is consistent with Armstrong (1967:13) who earlier identified a similar basis for dialectal identity: ‘There are dialectal differences in vocabulary. The Blyth River people are commonly called ‘Ganarda’ and the Cadell River people called ‘Ganardba’, two terms which both mean ‘that one’ but highlighting the dialectical difference. The Blyth River word for ‘he said that’ is ayerna-garda and the Cadell River word is ayerna-gardba.'
Hiatt (1965:2; cf. ‘Household Census 15/5/58’ for Maningrida, A.I.A.T.S.I.S. Ms 4129/7/4) numbered the Gidjingali in 1960 at 294; other contemporary estimates are generally higher; Kyle-Little (1957:217) estimated ‘the total strength of these people to be approximately two hundred and thirty’; Glasgow (1984) gives their number as 600, Elwell (1977) as 594 (as of 1970), and a 1966 government census at 350 (Green 1987:1). They were occupants of ‘Cape Stewart, extending to the Blyth River and all the country on both banks of the river to the tidal head’ (Kyle-Little 1957:217; also Armstrong 1967:13). The Gunartpa (or Ganardba) are located further inland on the mid-course of the Cadell River (Armstrong 1967:13). This group will be discussed separately to the Gidjingali. Hiatt (1965:14) describes the Gidjingali as ‘divided into nineteen groups, each owning a cluster of named sites’, in other words the familiar patriclan and associated estate model, common to many of the more densely populated parts of Australia. In the course of his fieldwork, Hiatt (1965:16) uncovered only one hard and fast estate boundary, that between Dua and Yiritja moieties: ‘It is the only boundary I recorded in the course of plotting some fifty sites in the Blyth River area.’ Within Gidjingali, and encompassing the nineteen patrilineal estate-owning clans, Hiatt (1965:24) recorded four higher order social groupings; these are the social entities he referred to as communities:125

The Gidjingali were divided into four-loosely-knit communities called the Anbara,
Marawuraba, Madai, and Maringa […] only one of the community names is translatable
(Anbara means river mouth). Thus the Anbara were from around the mouth of the Blyth River,
and Maringa from Cape Stewart, and the Marawuraba and Madai inlanders from the south-west and south of Cape Stewart.

Hiatt’s (1965:24) social description of the Gidjingali community is consistent with then contemporary anthropological definitions of both the ‘band’ and the ‘horde’: ‘The regular members were (a) men of four or more land-owning units whose estates formed a continuous area, [including] (b) their wives,
and (c) their unmarried children.’ Of more interest, however, is the connection each of the Gidjingali communities has with a local area. Sutton (2003:104) refers to these subgroups as ‘environmentally-based categories’, nominating the ‘real’ and effective unit of social organization, the ‘land-holding unit’, as the ‘patrilineal subgroups, which he [Hiatt] called patriclans’. There is, however, a contradiction inherent in Sutton’s view. Hiatt (1965:24) asserted that Burarra communities are composed of ‘men of four or more land-owning units whose estates formed a continuous area’, linking these communities to specific, although not always permanently or exclusively-occupied, territories (Hiatt 1965:24). White et al. (1990:177) distinguish ‘a common home range (as distinct from neighbouring home ranges)’ as the first of their seven attributes of the community (which they refer

125 According to Kyle-Little (1959:217), ‘[t]he groups who speak this language are divided into five groups, each with a named sub-group’. He does not elaborate on precisely what he means by this description. It is possible he is here differentiating the Gunardba as separate to the four Gidjingali communities identified by Hiatt.
to as the ‘band’). Sutton, however, has a different view, deferring to Bagshaw (pers. comm. in Sutton 2003:106-7) for his interpretation as environmental generality: ‘Bagshaw calls these Hiatt community names ‘regional designations’. They translate as, for example, ‘river mouth’, ‘grass plain’, ‘mangrove fruit’, ‘tree blossom’ and so on.’ Sutton’s (2003:105) interpretation is that the people of these regional designations constitute ‘bands’, as per Stanner (1965), that is, their composition is malleable, unfixed to specific territory beyond the possession of estates within the defined area, essentially ad hoc and linked predominantly by economic considerations:

These environmental terms refer to the typifying environments of the combined estates of their constituent patrilocal groups. While then the patriclan is the primary land-owning group, the community is ‘the primary land-utilizing group’.

I take a different view, one I think more consistent with the evidence. Rather than being ‘categories’ or ‘designations’, or simply people periodically united by their utilization of a common environment, I would argue that these environment-typified ethnonyms refer to integral social units. To begin with, the ‘environments’ that supposedly typify these groups appear to be considerably more complex than Sutton and Bagshaws’ analysis suggests (Meehan 1977:365):

The Anbara are a group of Gidjingali-speaking Aborigines who have recently returned to their own territory after having spent the last fifteen years at Maningrida, north coast of Arnhem Land, Australia. Anbara territory is situated around the mouth of the Anagatja Wana or the Blyth River about 60 kilometres east of Maningrida, where they own about 50 square kilometres of country which contains productive tracts of mangrove swamp, jungle patches, fresh water billabongs, grassy plains and beach front. They also have access to another 80 square kilometres of land, adjacent to theirs, which belongs to neighbouring Aboriginal groups.

Meehan’s description seems to imply that the Anbara belonged to a place, not an environment as such (cf. Hiatt fieldnotes A.I.A.T.S.I.S. Ms 4129/6/15). The environment, far from being encapsulated in terms such as ‘river mouth’ or ‘grass plain’, are clearly more a series of micro-environments, all of which, one suspects, combine to make a relatively small area economically feasible; the ethnonyms which refer to them are more symbolic than in any way truly descriptive. Whatever the distinction between ‘land-owning’ and ‘land-utilising’ in this case, it is evident that the Anbara, and no doubt the other Gidjingali groups, were integrated by ties stronger than merely possession of a periodically employed common hunting and gathering range. It is significant, in my view, that Millikens’ (1976:241-2) figures for the Aboriginal population of the Northern Territory, recorded notionally by

127 Hiatt (1965:24) implies as much in his interpretation of the meaning of these ethnonyms: ‘they seem comparable with regional expressions like ‘the Lake District’ or ‘the North Coast’ and provide a convenient if loose way of referring collectively to the people of a broad locality […]’.
language, do not give a single figure for Burarra speakers, but are listed under the individual communities of Burarra speakers: Anbara (189), Gunardba (53), Mukali (48), Madai (142), Maringa (80), plus another 82 unaffiliated Burarra. Presumably, these identifications emanated from the interviewees themselves. What it meant to be socially integrated in a community was spelt out by Hiatt (1965:135):

Among the Gidjingali the political unit was also the community of people who regularly lived together. But this comprised the male members of not one, but from four to six land-owning units (four to eleven patrilineal groups). People spoke of opposition between two communities in pitched battles and on occasion organized for the formal punishment of murders, and not merely disputes between particular individuals of different communities. Revenge expeditions included men of different land-owning units within the community (1965:135).

Hiatt (1965: xiv) also refers to the high level of solidarity within the community:

Inter-community fights often aroused some degree of community solidarity, and men of different patrilineal groups in the same community often acted together in them. Within the community, patrilineal groups never opposed each other as corporate units.128

However, despite the ties that bound the Gidjingali community together, it is not, and could not, be the case that Anbara, or any of the other Gidjingali communities, enjoyed a complete autonomy divorced from speakers of the same language. Hiatt (Ms 4129/6/1 A.I.A.T.S.I.S.) notes of his attempts to map Gidjingali residential patterns at Maningrida that, 'with reference to the Madai, Marawuraba and Maringa [...] there is considerable dispersion and intermingling among the respective members'. It is clear that, whatever land-owning affiliations applied, this did not inhibit Gidjingali from freely intermingling. Keen (1982:631) also premised his comparative analysis of Yolngu and Burarra kinship (focussed on polygynous marriage) on the primacy of the community as the effective level of Burarra social organization (in contrast to the more selective alliances of Yolngu speakers). According to Keen (1982:631-2), 'Gidjingali patrilineal groups are small and each is related to many others through marriage ties. Hiatt's data (1965:131) show that Gidjingali men of each patrilineal group have wives in eleven or more other groups on average.' Tindale (1974:221-2), on information provided by Hamilton, asserts not only that the Gidjingali had 'a tribe-like structure', but

128 In his footnotes Hiatt (A.I.A.T.S.I.S. Ms 4129/6/14) is even more explicit on the primary role of the community: 'The Anbara is the war-making unit and revenge seeking unit (Demonstrated with blocks representing various p. grps [probably patrilineal groups]); also Hiatt (A.I.A.T.S.I.S. Ms 4129/6/15): 'Terms like "Anbara", "Matai", "Marawunpa", "Kaiko", "Madarapa" etc. are fairly vague and are often used in connection with fighting, makhula. Informants compare these terms with "Army", "Navy". The main principal of recruitment (each term includes about six or more bupara) appears to be territorial proximity; although in some cases dialectical differences are attributed e.g. Matai.' White et al. (1990:176-7) list as fourth of their band (community) attributes that it was a 'defensive unit vis. a vis. other bands ("soldier mob")'.

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was ‘endogamous’. Tindale, however, is over-stating the case; a more precise evaluation is provided by White et al. (1990: 177-78):

From Hiatt’s work we have then a reasonably precise spatial and social description of the Anbarra which initially we believed to be a close approximation of the breeding unit. On returning to the detailed genealogies […] covering the period from 1875 to 1975, we find that of 286 marriages over six generations involving the Anbarra, only about 60% are endogamous (that is, with other Anbarra); approximately 18% involve marriages with other Gidjingarli (but rarely Gunadba) while nearly 22% of Anbarra marriages involved clans from different languages – indeed, from different language families. This pattern persisted across six generations but were least typical in the youngest generation presumably as a result of the changing settlement and increased mobility of people in recent years. Ninety percent of marriages involve groups living within a radius of about 15 km. The striking feature of Anbarra (and indeed, Gidjingarli) marriage patterns is their ecological orientation – that is the demographic unit or breeding population is to a large extent, ecologically bounded, with the great majority of marriages (nearly 90%) involving other coastal groups. We have then, a population unit in terms of marriage incorporating a number of territorial units extending across major language boundaries, but which involve predominantly people living in similar environments within a maximum of 20 km along the coast.

Two factors are at work: one, the relationships predicated on linguo-ethnic commonality; that, beyond other Anbarra, Anbarra will ally maritally with other Gidjingal; and an environmental consideration, that Anbarra will intermarry with other coastal people, particularly with those contiguous (and, in particular, as Hiatt’s data makes clear, the contiguous, eastern clans of Nakara speakers). It can readily be seen that such arrangements provide the conditions for securing alliance across the individual Gidjingali communities, but also across Gidjingali speakers more generally (excluding the Gunadba), but, also, to a lesser extent, with immediate non-Gidjingali neighbours. Parallel to this, Hiatt’s observation that rigid estate boundaries were lacking within community territories suggests that while patriclans might be land-owning, identification with them was not the sociopolitical imperative, and that this resided in community allegiance. I would argue that while Anbarra intermarried with Nakara, this probably occurred less frequently with the other Gidjingali communities, thus giving Anbarra both a demographic and locality-based identity distinguishable from their linguo-ethnic fellows. While this seems undeniable in the case of Anbarra, it also probably applies to the Gidjingali taken as a whole; while Gidjingali communities appear to have possessed an individual independence and integrity, they also sought collective alliance with one another ahead of alliance with outsiders. Green (1987:2) describes, dialectal variation within Burarra (‘Dialect differences are noticeable amongst speakers of Gu-jingarliya, particularly in the vowels’). Although this is nowhere stated explicitly, this may have distinguished the four communities that Hiatt
identified as comprising the Gidjingali. In terms of the theory on which this thesis is based, communities such as the Anbara are the equivalent of the linguo-ethnicities that combined make the Gidjingali a HAA institution of higher order social organization.

The Gunadba

Significantly, the region’s other Burarra speaking population, the Gunadba, inland on the Cadell River, was listed by Hiatt (1965:24-5) among those languages whose speakers were socially distinct from the Gidjingali:

The Nagara, Gunavidji, Gunadba, and Gungoragoni, being fewer than the Gidjingali, were not divided into regional subgroups. Each formed the basis of a single community.

As noted, Green’s (1987:2) informants distinguished the Gunadba (Gunya-nartpa) dialect from Burarra generally (‘my informants distinguished their own language, which they referred to as Gujingarliya or Gu-jarlabiya, from Gun-nartpa’). However, this dialectal division seems to have been based more in politics than in language: ‘The Gidjilingi speech is similar to Gunadba, and eastern neighbours refer to them both as Burera’ (Hiatt 1965:1-2); ‘Both [i.e. Gidjingali and Gunadba] are emphatic that they speak Burera/Burada’ (Armstrong 1967:13). Despite this close linguistic relationship, there appears to have been a decided antipathy between these two Burarra speaking groups. The fact of common language seems to have meant no particular social or political closeness, and, in fact, quite the opposite (Hiatt 1965:154):

Although the Gidjingali accepted official classification with the Gunadba and even used the term Burera themselves when speaking to whites, they admitted that in the past they were on worse terms with this group than with the Gunavidji [Ndjobbana]. I recorded several serious fights between Gidjingali and Gunadba natives but none between Gidjingali and Gunavidji.

One of Sutton’s (2003:106) arguments against Hiatt’s Gidjingali communities is that there is no linguistic consistency in the patrclans who identify as Gidjingali: ‘A problem here is that some of the constituent patrilineal groups making up ‘Gidjingali’ land-owning units named languages other than Gidjingali as their primary tongue’ [and that] ‘[t]here is thus no neat categorical alignment between “community” and single language affiliation in this case’. There is, according to this view, no linguistic unity, and therefore no sociopolitical unity, in the Gidjingali communities identified by Hiatt, clearing the way therefore for the widely-accepted idea that the patrilineal clan is the primary or most complex level of Aboriginal land-owning social organization. As argued in the previous chapter, I do not see unity of language as a necessary precondition for higher order social
organization. In this case, I think Sutton is also wrong in detail. Clearly, while there is a considerable interrelationship between both Burarra speaking entities and Yolngu speakers, this cannot be seen to have had identical implications. Armstrong (1967:15) identifies two Yolngu speaking groups with close association to Burarra speakers, the Yarnangu (Schebeck: Gurryindi) who ‘are intermarried with the Burada people chiefly from the Cape Stewart area’, and who have ‘strong ties with Milingimbi’. This, however, appears to have been an ambiguous relationship, with considerable friction also the norm between these two peoples: ‘Feuds between the Milingimbi and Blyth River people in the 1930s are mentioned in Kyle-Little’ (1957:19-32 in Armstrong 1967:4).

Another Yolngu speaking group, the Djinang, have a stronger association with the Gunardba, and, I would say, an association on a different level: ‘The Djinang people belonged to the country on the mainland south of Milingimbi. They have strong ties, geographically and matrimonially with the Burada (Ganardba and some Gidjingali)’ (Armstrong 1967:15). It seems apparent that the two groups of Burarra speakers have different relationships with Yolngu speakers, Gidjingali oriented more coastally, Gunadba inland, the latter having a closer connection to the similarly inland-oriented groups. Schebeck (2001:17-8) mentions two Burarra speaking groups with affiliation to Yolngu social entities: ‘[T]here exists also a Burarra-speaking Madarpa group. There exist also a Djinang-speaking and a Burarra-speaking Marrangu group.’ Schebeck describes these groups as part of Yolngu speaking clan associations; the precise nature of the integration, or lack of it, of either Burarra speaking group is not clear. Closer study might reveal, as with the Anbara and their relationship with the easternmost Nakara clans, that such extralinguistic relationships helped to define the constituent communities rather than Gidjingali as a whole.

A significant discrepancy in size has to be taken into account in comparing these two Burarra speaking populations. Hiatt (1965:2) speaks of there being ‘fewer Gunadba and Gungoragoni’ in the Maningrida community than, say, the 71 he lists for Nakara. Tindale (1974:221-2) describes the Gunadba as ‘some sixty persons still living about 20 miles (30 km.) inland on the Blyth River [sic Cadell River].’ This compares to the 350-600 population range identified for the Gidjingali. This, in my view, puts the relationship with their inland neighbours in a different light. Whereas Gidjingali not only have a much greater demographic viability internally, and their outward social and cultural

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129 To argue the HAA and HDA distinction, predicted on unity of language in the former, and in the latter its opposite, it is necessary to point out that the distinction is a dichotomy; in other words, a theoretical artefact. The distinction has to do with origins, not with appearance on the ground. The presence of non-genetic language factors in HAA groupings could be said to correspond to the appearance of borrowing, or, in different circumstances, substrate, in a language; that is, while either of these may have some influence on the appearance of a genetically-defined language, neither diminishes this essential quality; the same applies to non-genetic social units within a HDA grouping.

130 Armstrong (1967:15) notes on such association: ‘The Burada-Gidjingali described by Hiatt (1965:69-70) had trading associations with the Yarnangu to the East, Nakara to the West […]’ (cf. Thomson 1949); seemingly a trade route that followed the coastline. Hiatt’s fieldnotes (A.I.A.T.S.I.S. Ms 4129/6/15) also make apparent the distinction recognised by people themselves: ‘The language groups known to the above [informants] are divided into two major categories a) those spoken by the coastal people b) those spoken by the inland people (‘gungabaitjira’ and ‘gungabainuwo’ respectively) […]’ (cf. also Armstrong 1973:6).
links are oriented seaward, the Gunadba on are not viable demographically, and have a wider social orientation not only with inland Yolngu speakers such as the Djinang but also with inland-dwelling speakers of Gunwingguan languages:

They [the Rembarrnga] say their domain is on the headwaters of the Cadell River – south of Burada-Ganardba territory. In social structure, Elkin and Berndt (1951) lists them with the Western Arnhem Land type. They have intermarried with the Burada-Ganardba, with Gunwinggu and with the Dangbon. (Armstrong 1967:15)

The social closeness between these groups is made manifest in a number of ways other than intermarriage, and includes their common participation in ceremony, trade and domestic arrangements. The latter is seen in their preferred proximity to one another when attending ceremony, and also in the layout of the nascent Maningrida township (Armstrong 1967:11a). It is my view that these three groups Gunadba, Djinang and Rembarranga (with the possible additional inclusion of the Dangbon), consisting of they do of speakers of three separate languages, constitute a HDA alliance.

The Liverpool River

This brings me to the crux of the investigation: whether or not Hiatt (1965:24-5) is correct in identifying the Nagara, Gunavidji, and Gungoragoni, like the Gunadba, as constituting ‘the basis of a single community’. Few of the Liverpool River region groups number as many as a hundred, and some considerably fewer (cf. Hiatt 1965:2). Green (1987:1) lists the Nakkara, Gunavidji (Ndjebbana) and Gurrgoni (Gungoragoni) among the non-Burarra languages at Maningrida, the speakers of the first two numbering ‘approximately 100’ each; Hiatt (1965:2) gives the Nakkara figure as 71, Gunavidji as 102 and ‘fewer Gungoragoni’.\footnote{Kyle-Little’s (1957:212-4) figures are similar: the Manbuloi People (Gungorogone Language) he numbered at 50; the Ranba (Nagara Language) at 60; the Mabanat (Gunaviji Language) at 100. Armstrong’s (1973:7) figures are also roughly consistent: ‘The present Gunavidji population is approximately 140 […] They are surrounded by other smaller tribes: 25 Gungaragone (probably much smaller than earlier days) and 80 Nakara.’ Elwell’s (1982:86) figures (presumably for people living at Maningrida) are: Gunbalang/Kunibidi 114; Burarra 340-360; Nakara 75-100; Gunwinggu 150-60; Djinang 100-110; Rembarrnga c. 150, and Gungurrugoni c. 30. Milliken’s (1976:241-2) figures, obtained from Department of Aboriginal Affairs as of 31 December 1972, and collected from across the Northern Territory, are probably the most comprehensive: Burara Anbarn 189; Burara Gunardba 53; Burara Mukali 48; Burara Madai 142; Burara Maringa 82; Burara 80; Dangbon 98; Gungorogone 37; Gunwinggu 929; Gumawurrk 5; Gunavidji 153; Nakara 114; Rembarrnga 433; Walang [Gunbalang] 106.} I will argue, first and foremost, that none of these groups has, or ever had, the population to be independently demographically viable, and, failing that threshold, social reproduction depended on them contracting marital alliances with speakers of other languages. Two possibilities present themselves: exogamous alliance could be random, or affinal
relationships could be formed with the speakers of some languages, to the exclusion of others, the latter with the purpose of reinforcing the political alliances already discussed. Given the vulnerability of such small populations individually to the influence of larger HAA higher order social entities, the Gidjingali contiguous to the east, and Gunwingguan speakers to their south and west, there is the prime facie possibility of these groups forming a HDA higher order alliance. There is much to suggest this, collective social integration and cooperation, patterns of intermarriage, patterns of multilingual preference, and the pervasive enmity documented between the Gidjingali, in particular, and speakers of Liverpool River languages. Hiatt (1965:26) records:

In August or thereabouts the Anbara crossed the river and joined the Marawuraba. With these folk they picked the cycad nut, which grew only on the east side. A few months later, accompanied by their hosts, they re-crossed and made their way to a large inland swamp where the spike rush grew in abundance. Here also great flocks of geese gathered as the smaller waterholes dried up. Ownership of the swamp was divided among units of three different communities – Nagara, Gunadba, and Gungoragoni. During October and November five or six communities gathered around the edges. By December the mosquitoes had become intolerable, and people began moving back to the coast.

The gist of Hiatt’s description is that while the spike rush-producing swamp west of the Blyth River, was owned by the Nagara, Gunadba, and Gungoragoni, two or three Gidjingali communities, which included the Anbara and Marawuraba, would also gather there after the Dry Season to take advantage of the seasonally abundant resource. The shared ownership is, I think, significant. Having said that, however, it is impossible to say precisely what this significance is; as already argued, the Gunadba’s sociopolitical ties appear to be with other inland groups east and south of the Blyth River; the absence of the Gunavidji seems as relevant as the presence of the Nagara and Gungoragoni.132 Similarly unclear is Armstrong’s (1967:13) reference to relationships west and south of the Liverpool River; Armstrong cites ‘an old Gunavidji man’ who commented on the fact that ‘the groups who live along the Liverpool River system have a real sense of belonging together’:

‘We are all company for country […] we’ve got one land, one creek […] we can talk
Gunbalang, Gunavidji, Gunwinggu mixed’; and he added: ‘We understand Maung (spoken at Goulburn Is.) and Nakara.’ On another occasion a Gunavidji had returned from hunting geese

132 And, unfortunately, Hiatt’s fieldnotes, housed at A.I.A.T.S.I.S. offer no further illumination on these larger gatherings, either in general or in regard to detail on the spike rush swamp. One attribute all the non-Gidjingali attendees have in common (as opposed to non-attendees) is their inter-connection to Burarra, although this is on different bases. As noted, Gunadba is a Burarra language, as is Gungurruguny (although more distantly so); Nakara, or, at least some Nakara, have a close sociopolitical relationship to the Anbara in particular.
and barramundi at Marawalidpan. When I commented that this was Gunwinggu country he replied ‘The Matli (Gunwinggu) can’t growl […] we’re all one nation’.

While, Armstrong’s Gunavidji informant reflects the cultural divide between eastern and western Arnhem Land already noted, it does not necessarily indicate higher order alliances per se, references to sharing ‘all one nation’ notwithstanding. Other observations in the ethnographic literature appear to either contradict the possibility of higher order alliance, or, at best, provide only weak support for it. Sweeney’s diary for August 11th 1955, for example, notes: ‘Burada, Gunwinggu, Gumawurwurs and Gunggeragoni were participating in a ceremony associated with barramundi fish on Gungoragoni country.’ Armstrong (1967:70) describes the primary initiation ceremony of the region, the Kunapipi, as ‘a unifying influence among the tribes’, quoting one owner: ‘Kunapipi is a proper dear one. It doesn’t matter what different countries people belong to – Rembarranga, Gunavidji, Gunwinggu, Djinang. They come from everywhere.’

Land Ownership and Residence

It is only when a tighter focus on land ownership and land use is taken that the possibility of closer, more permeating ties become discernible. Armstrong (1973:7), for example, says of the Gunavidji: ‘[T]he Gunavidji are strongly dependent on other tribes for marriage, co-operation in major ceremonies, and in their hunting range, particularly into Walang [i.e. Gunbalang] and Nakara territory.’ This interdependence is seen in the frequent ‘company’ sharing of nganiborla, the patrilineally-inherited territories otherwise known to the Gunwinggu as gunungugur (Berndt and Berndt 1970:54). While such cross-lingual company nganiborla involve the speakers of many of the region’s languages, examination does reveal a statistical pattern. Elkin et al. (1951:297) provide a list of 26 nganiborla described as belonging to a ‘Gunavidji-Nagara-Gadjalibi Bloc’ (Gadjalibi referring to ‘Eastern Gunavidji’). Of those that are company, one is ‘Gunavidji-eastern Gunwinggu, located in the

133 Interestingly, Armstrong (1973:6) records a somewhat different attitude: ‘I once asked a Nakara man if he ever went hunting at Maragabidjan on the Upper Liverpool. He smiled in surprise and said ‘No!’ We can’t go there! We are salt water people.’

134 Elkin, Berndt and Berndt (1951:277) refer to the ‘patrilineal, patrilocal, exogamous, land-owning local groups’ associated with western Arnhem Land as Namawamadji. The people to whom this type of social organization pertain are listed as follows: ‘The Namawamadji (loosely translated as ‘follow my father’) inheritance operates among the Maung, Marlgu, Gunwinggu, Gunbalang, Gunavidji, Nagara, Gadjalibi, Yiwadja and Rembarranga, as well as among certain smaller affiliated tribes, but not, apparently, among the Cape Stewart [i.e. Gidjingali] people […]’ (Elkin et al 1951:294). In reference to the Gunavidji, Armstrong (1973:9) notes: ‘The patrigrup is known locally as a Yakarrara’. Berndt and Berndt (1970:85) say of company associations: ‘Gunungugur that overlap in reference to certain sites [such as Barbin and Mairrugulidj at Djuriga] are ‘company’, in the sense that they have one stretch of country in common although form other purposes they are separate. The word usually translated as ‘company’, -gadjurum, means ‘follow each other’, or ‘mix together’, and is applied in other circumstances too. It need not imply a formal association.’ Hatt (A.I.A.T.S.I.S. Ms 4129/6/11) noted in reference to the Anbara: ‘The word ‘company’ crops up all the time, and one ends up uncertain just where ownership starts and ends.’

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bush country north of the Liverpool River’, one is ‘Nagara-Gadjalibi’ and one, ‘Gunavidji and Nagara’. It is possible one of these is the site referred to by Sweeney in his diary entry for August 19th 1955 in which he ‘tells of Nakara and Gunavidji at Juda Point for a native companion ceremony’ (Armstrong 1967:21; see also Peterson and Long 1986:40-41). Hiatt’s fieldnotes (A.I.A.T.S.I.S. Ms 4129/6/11) lists a further three ‘nominated homes of land-owning groups’, and these present a somewhat different pattern, Gunadjangga and Djunawunja (both Gidjingali, Nagara) and Anameyara (Nagara, Gunavidji). The somewhat invidious position of the Nakara, a small group wedged as it were between the Gidjingali and Gunavidji, will be returned to. There appears also to be a close relationship between Gunavidji and Gungaragone company ngamiborala and the ceremonies associated with them; Armstrong (1973:12), for example, notes that:

From a waterhole in the mid-Gudjerama Lek guraynijija southward into Gungoragone country is a dua moiety area known as ‘Bovaliba country’, and people associate together in the Bovaliba ceremonial dances. This is a sacred site which Gunavidji share in company with Gungaragone at the foot of a hill here.

Armstrong (1967:12) makes a good general point concerning the Liverpool River region groups already referred to: ‘Neighbouring tribes naturally had closer associations than with more distant groups. The Nakara for example were more closely linked with the Gunavidji and Burada (Gidjingali) than with the Gunwinggu.’ While, then, company estates suggest close alliance, this can be ambiguous, particularly, as in the case of the Nakara, where circumstances appear to dictate the wisdom of divided loyalties. Better insight into the regional alliances that are hypothesized to have existed comes from accounts of attendance at ceremony. Consistent with the broad cultural divide already described, attendees at ceremony tended to orientate at polar extremes around the Burarra on the east and the Gunwinggu on the west, as well as coast as against hinterland. Patterns of association when camping at ceremonies, and later residually in the nascent Maningrida settlement, reveal much about these larger associations. Kyle-Little (1957:89-90) describes a ‘great crocodile corroboree’, attended by ‘a dozen or more different tribal groups’, who occupied a ‘whole series of camps, which stretched for the best part of a mile towards one of the larger billabongs on the Upper Liverpool’:

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135 Armstrong (1973:10) also refers to Anameyara: ‘In contrast, the ngamiborala land owning group own three major areas - Biyndjawa, an important ritual site at Balbanara, Namonba on the Anamayrra Creek, where they are ‘company with’ the Nakara, and away to the south-west, manganbola, south of the Tomkinson River.’ These company places in particular appear to be redolent of mythological significance; e.g. ‘The Gunavidji and Burada people speak of two creator women (although there are variations) who came down along the Arnhemland coast from beyond Croker Is. The Gunavidji say that they reached Anamayra, a point almost half way between the Liverpool and Blyth rivers, gathered the Gunavidji people there and then travelled to the Tomkinson for ceremonies. Later they returned to the Liverpool Estuary and entered the ground at Juda Point’ (Armstrong 1967:68). It is, of course, difficult to say what this significance might mean in respect of any alliances that might have existed.
The Ramba people from Boucat Bay were next door to the Mabanat people from Juda. The Gurnuwurk people had the river bed and close to the largest billabong were the Gungareguwen people from Imaarut, a native camping place on the Liverpool River about forty miles from Entrance Island. There were Dangbon people from the headwaters of the Liverpool on the north side of the sandstone escarpment. There were Muralidaban people, Goiyakbe people from the headwaters of the Blyth River and some Nulgan people who came from Junction Bay, between the Liverpool River and Milingimbi.

It is a pity Kyle-Little was not more attentive to the exactitude of camping arrangements, for, were the posited alliances to have existed, it is almost certain its members would have camped in close proximity to one another. As it is, that the Ramba (Nakara) and Mabanat (Gunavidji) did camp side by side is, in my view, significant. It seems clear, there was a division in camping arrangements between coast and inland-dwellers. Noticeable too is the fact that Burarra speakers people appear to have been entirely absent from this large gathering. Most of the attendees are either Gunwinggu speakers from the vicinity of the Upper Liverpool River or the speakers of a variety of languages from the Lower Liverpool and its adjacent coastline. Conversely, there appears to have been a tendency for Burarra speakers and Yolngu, particularly Gunadba and Djinang, to associate in ceremony. Armstrong (1967:71) describes an attempt to revive the Maraian ceremony at Maningrida by ‘Djinang, Yarnangu [i.e. Yolngu], Rembarranga and some Burada’; the participation of Liverpool River language speakers is conspicuously lacking. As noted, Armstrong’s (1967:11a, 14) map ‘Traditional orientation of the tribes in their camps at Maningrida settlement’ (Map 10B), of which he comments: ‘they seem to orient themselves to one another, according to the geographical position of their countries’, is also revealing. Armstrong’s map shows ten camps extending west to east from the estuary of the Liverpool River, in this order: Gunwinggu, Gunavidji (both on the banks of the estuary), Nakara, Nakara/Burada, small unnamed camp, Burada (Ganardha), Rembarranga, Dangbon (these last two with a southern, i.e. inland orientation), Djinang and Burada (Gidjingali). This arrangement mimics their geographic distribution. Hiatt (1965:33) documented the history of this development as follows:

The earliest arrivals built along the beach head. Western Gidjingali, mostly Anbara, occupied the eastern section; Gunavidji the western, and Nagar a the middle. Later some of the Gidjingali moved elsewhere. Gunadba, eastern Gidjingali, Djinang, and Janjango arrived in that order and settled to the south-east of those already in residence. A Gungoragoni settled in the middle of the Gunavidji section, and a Gunwinggu and Gunbalang at the western end.

This arrangement reflects a strong tendency for the groups proximate to one another to be closely associated socially, culturally and politically, and for those most distant to be viewed with, at its extreme, fear and suspicion. I would argue that this arrangement is a topographic representation of
the region's politics, those on the far ends being most in opposition; in this schemata, the Nakara, a small group and, perhaps, vulnerable, contiguous as their country is to that of the Gidjingali contiguous to the east, forms as it were a bridge between east and west. Nakara had a presence in both Gunavidji and Gidjingali camps. This distribution reflects the 'division which cuts right through the middle of the Maningrida community', between the Burarra speakers and their allies and the Liverpool River peoples, who gravitate to Gunwinggu speakers as their source of strength (McKay 1981:214). This dichotomy found expression within almost every avenue of social interrelationship in the Maningrida community. It expressed itself, for example, in the 'the tendency for people of linked tribes to form work gangs together to the exclusion of others, and to sit together in the communal kitchen according to traditional patterns' (Armstrong 1967:15-22; also McKay 1981:214; Elwell 1982:88). Later, however, when housing allocations had scattered people throughout the township irrespective of tribal affiliation: 'It is quite common to see people walking from one side of the
settlement to the other each day in order to spend the day with others who traditionally have relatively close ties with them, completely ignoring their next door neighbours from other tribes’ (McKay 1981:214). Both in physical distribution, where possible, and in habits of relationship, there were well-demarcated social universes.

**Interrmarriage**

If, as argued, there is a pattern of alliance in the Liverpool River region, contrasting, on one hand, a Gidjingali HAA alliance with a Liverpool River HDA alliance, the latter consisting of Gunavidji, Nakara (or, at least, some Nakara), Gunbalang and Gungurruny, this ought to find expression in patterns of marital alliance. While evidence for this pattern of relationship is not conclusive, there are, nonetheless, relationships consistent with the hypothesis. Commentary on this question tends to be general. Hiatt (1965:1-2, 25; cf. Armstrong 1967:12), for example, makes the point that marital alliances, when not community endogamous, tend to be with neighbouring, if not contiguous, groups:

Marriages within and between communities were equally acceptable, and both types occurred. Most inter-community marriages were between neighbouring peoples, and residence was patri-virilocal.

Sutton (2003:105-6) expands on Hiatt’s observation, noting ‘more marriages occurred between communities than within them […] statistics showing very substantial proportions of inter-community and inter-language marriages.’ It is not enough, however, to observe merely that marital alliances were contracted with ‘neighbours’: the more pertinent question is ‘which neighbours?’ Hiatt’s (1965:25; cf. Sutton 2003:105) statistical analysis of intercommunal marriages focuses on two communities, the Anbarra, a Gidjingali community, and the Nakara. As predicted in this thesis, the marital patterns of these two groups demonstrate a greater proportion of marriages with other Gidjingali in the case of the Anbarra (i.e. consistent with a HAA identity) and a more diverse range of marriages with speakers of other languages, particularly Liverpool River languages, in the case of the Nakara (i.e. consistent with HDA alliance). Hiatt’s data (Table 10C) reveals a significant discrepancy between the Anbarra and the Nakara in the ratio of community endogamy to exogamy: 19:13 in the former, 8:16 in the latter. This appears to indicate greater demographic self-sufficiency in the Anbarra than in the Nakara, although it might also indicate a greater social and political pressure to out-marry for the Nakara. The identity of Anbarra and Nakara out-marriage partners, as well as the identity of those marrying into each group, is revealing.

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136 This, of course, is not quite accurate, at least as the figures regarding Anbarra are concerned; White et al. (1990:177-8) recorded that of 286 Anbarra marriages across six generations, ‘about 60% were endogamous’.
<table>
<thead>
<tr>
<th>Wives to</th>
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<tr>
<td>Anbara</td>
<td>Maringa (5); Nagara (4); Djinäng (2); Madai (1); Gungoragoni (1)</td>
</tr>
<tr>
<td>Nagara</td>
<td>Gunavidji (8); Anbara (4); Gungoragoni (1); Gunbalang (1); Gunbalang (1); Marawuraba (2)</td>
</tr>
<tr>
<td></td>
<td>Nagara (4); Gunadba (2); Maringa (1)</td>
</tr>
</tbody>
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Table 10C – Anbara and Nakara marriage patterns
(Source: Hiatt 1965:25, Table 2)

Although the statistics cannot be described as conclusive, some patterns are discernible; notably, Anbara intermarriage with other Gidjingali groups (6:7 of out-marriages contracted), a relationship entirely lacking in the case of Nagara. Other features of Anbara out-marriage are alliances with Yolngu speakers (2:11) and with Nagara (4:9). As regards the source of women marrying into Anbara, Nagara features prominently (4:3), with the remaining three coming from other Burarra speaking groups, including Gunadba (2:5). Nagara out-marriages present a similarly strong bias: Gunavidji (8:8); Anbara (4:12); and two with another Burarra speaking group (Marawuraba) (2:14). Similarly, women marrying into Nagara are predominantly Anbara (4:8) and Gidjingali (3:9). In general, the Nagara figures display a wider range of groups both marrying in and marrying out, as Hiatt (1965:25) says: ‘I have included the Nagara figures to stress that difference in language is no barrier to marriage.’ Nagara intermarriage with Anbara and Gunavidji seems to reflect its geographic position between these two larger groups. More telling, however, are the figures Armstrong (1967) adduces for Gunavidji (Table 10D):

<table>
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<tr>
<td></td>
<td>Nakara (8); Gunbalang (6); Gunwinggu (4); Gungoragoni (0); Maung (0); Burada (1); Yarnangu [i.e. Yolngu] (1)</td>
</tr>
</tbody>
</table>

Table 10D – Gunavidji marriage patterns
(Source: Armstrong 1967:12)

A predominant feature is a strong tendency for Gunavidji endogamy (9:6). Armstrong’s figures also seem to suggest a one-way traffic for marital interrelationships with Nagara speakers; namely, that although a significant proportion of Gunavidji men’s wives are Nagara, there is no reciprocity. Also notable, is the complete absence of any Gunavidji men marrying Burarra speaking women, and only one example of a Burarra woman marrying into Gidjingali. An important marital interrelationship appears to exist between Gunavidji and Gunbalang. Lastly, Hiatt’s informal census of Maningrida, dated 15 May 1958 (Fig. 10E), sheds perhaps a slightly different light on patterns of intermarriage; his
figures identify a number of dwellings or camps of mixed occupation. The pattern of co-residence is significant. Some of the marital relationships uncovered in the census conform to the patterns already found in Hiatt's (1965) and Armstrong's (1967) data, namely the intermarriage of two Nakara men with Burarra wives (one and two wives respectively), and one Gunavidji man who appeared to have three Nakara wives (or, at least, was living with three Nakara women). This reinforces the view that while Nakara and Gidjingali marriages might have favoured alliance of Nakara men and Gidjingali women (or, at least, reciprocity), intermarriage between Gunavidji and Nakara seems to have involved Gunavidji men contracting marriages with Nakara women. Also reinforced is the notion that Gunbalang and Gunavidji intermarriage was reciprocal; and lastly, that intermarriage between Nakara and Gungoragone may also have been reciprocal. Most of this evidence is suggestive rather than conclusive; nonetheless, some interrelationships seem more certain than others. The most obvious conclusion is that drawn by Mackay (1981:217):

It is, nevertheless, true to say that there is very little intermarriage of Gunibidji speakers with members of the Eastern Arnhem Land group. No intermarriage with the nearest of these groups, the Burarra, was reported by those interviewed. Armstrong tabulates 26 intertribal marriages involving a Gunibidji speaker and a spouse from another tribe. Only two of these involved a person from the Eastern Arnhem Land group, only one of whom was a Burarra person.

**Multilingualism**

It is well-recognized that a high incidence of multilingualism prevails among the people living in Maningrida and western Arnhem Land generally (Rumsey 1993). Hiatt (1965:24, 1-2), for example, describes multilingualism as a ‘commonplace’, with ‘many natives [being] bilingual and some
trilingual’. However, it is important to recognize what multilingualism does not entail: first and foremost, that multilingualism is not interpreted as meaning an equal social or cultural status in the mind of the multilingual speaker for all the languages he or she speaks. As is widely recognized, the father’s language is usually regarded as the individual’s primary language (Green 2003b:127 Abstract, 131; Harvey 2011:361). However, Hiatt’s data also reveals a sizeable minority for whom the mother’s language was primary (Hiatt 1965:30-31; Ms 4129/6/11 A.I.A.T.S.I.S.). This seems to some extent to have been the result of a husband’s untimely death or other circumstances separating husband and wife. In sociological terms too, the preference for learning some languages over others, including the antipathy expressed towards particular languages, go towards uncovering fault lines of alliance and enmity among central Arnhem Landers. Several studies reveal these patterns. There is, for example, a difference in the extent of multilingualism found among the speakers of the various languages people identify as. Elwell (1982:91-2, Table 3) gives the ‘Average number of languages spoken or heard by people interviewed from each tribal group’ as follows: Nakara (7; i.e. number of individuals in sample), 5.5; Djinang (16), 5.2; Kunibidji (19), 5.2; Burarra (34), 3.2; Gunwinjgu (12), 2.4. On this basis, Elwell (1982:91-2) concludes:

Gunwinjgu has the highest currency as a second language, in terms of both absolute numbers and the number of tribes whose members at least understand it as a second language. Burarra follows closely behind in terms of absolute numbers, though fewer tribal groups speak it as a second language.

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137 For example, Green (2003:131, Abstract) says unequivocally of Gurr-goni speakers: ‘Children are expected to speak their father’s language, and the practice of giving a child the language, speaking the language to the child and emphasizing the child’s identity with the language, has ensured, and continues to ensure, that Gurr-goni is learned and spoken as a first language. Crucial to this process is the expectation of wives of Gurr-goni men that they will speak the father’s language to the child, and the wives acceptance of this expectation. This requires multilingual capacity […]’ Green (2003b:131) gives an example of this process of multilingual transmission inter-generationally operating as follows: ‘In the Boburrerre clan group I observed the grandfather, JY’s language is Gurr-goni. His wife KM’s own language is Njebbana, and their children all speak both Gurr-goni and Njebbana. One son is married to a Njebbana woman, one to a Nakara woman […] One daughter is married to a Burarra man (who lived with his wife’s family), and one has also had a Burarra husband […] The son’s children are all addressed in Gurr-goni, by their Njebbana grandmother, Njebbana and Na-kara mothers, and Burarra uncle, as well as by their Gurr-goni grandfather, fathers and aunts. The daughter’s children were addressed in Burarra, by all their mothers, uncles, aunts and grandparents, as well as by their Burarra father.’

138 Hiatt (1965:30-1) recorded that, ‘In a sample of twenty-six marriages in which husband and wife spoke different languages, offspring of seventeen regarded the father’s tongue as theirs, the offspring of nine the mother’s’. Hiatt offers as explanation for this that ‘[o]ften this is because the mother had remarried within her first community after the death of her first husband, taking her children with her; or because children of a marriage within the community had accompanied their mother when she re-married out of it’. Elwell (1982:93) states that ‘[i]f an individual’s parents first languages differ, the speaker is much less likely to consider the mother’s language as first language, though it is often the first language learned. This occurs among both the matrilineal and patrilineal groups.’ Elwell’s sample is larger and shows a less deviation from inheritance of the father’s language. ‘Of a total of 33 informants with parents speaking different first languages, in 28 cases the informants regard the father’s first language as “own” first language. In only five cases is the mother’s first language regarded as the informant’s first language.’
Perhaps unsurprisingly, the more populous language speakers at Maningrida, Gurnwinjgu and Burarra, tend to be less multilingual. These languages are more prestigious and the less numerous first speakers of other languages have them as second languages, while the first language speakers of Gurnwinjgu and Burarra do not need to know the smaller languages, for the same reason (Elwell 1982:100). While languages may be widely spoken due to the political and cultural influence a language has, particularly in the then new conditions prevailing in the Maningrida settlement, the depth of knowledge of the two more influential languages may be less than that of second languages, with whose speakers a more intimate relationship exists. This is particularly so for Burarra, ‘the numerical and political dominance of Burarra people in the Maningrida community over a number of years’, ensuring a wide, but not necessarily deep, knowledge of the language in among other language speakers in the settlement (Mackay 1981:216; also Elwell 1982:92). Mackay’s (1981:215) analysis of the second languages of twenty seven ‘adults claiming Gurnvidji as their first language’ (about a third of the Gunavidji adult population) gave the following results: Burarra (22/81%); Gunbalang (27/100%); Nakara (23/85%); Gurnwinjgu (25/93%); Maung (22/81%); Gungorrgone (9/33%). These raw statistics are classified further under three categories: ‘full command’, ‘some only’ and ‘listen only’ and these show further variation in the degree of engagement of Gunavidji to particular second languages; whereas, for example, only 9 (41%) Gunavidji have ‘full command’ of Burarra, 11 (50%) have ‘some’ and 2 (9%) ‘listen only’; this compares to Gunbalang with 24 (89%), 3 (11%) and zero in the three respective categories. Gurnwinjgu, Nakara, Maung and Gungorrgone\footnote{Mackay (1981:215) more or less discounts Gungorrgone in the analysis ‘as its people are few in number and not very influential in the total Maningrida community’.} in descending order fill the gap between these two extremes. Mackay (1981:215-6; also 1981:218-9) concludes:

It is clear from these figures that though the total number knowing some Burarra is very close to the number knowing Gunbalang, Nakara, Gunwinjgu or Maung, the overall level of competence in Burarra (at least as perceived by the speakers themselves) is rather lower, especially in relation to Gunbalang and Gunwinjgu.

Significant also is Mackay’s (1981:217, Table 2) data on his Gunavidji interviewees’ ‘mother’s and spouse’s first languages’, from which he concludes: ‘mother’s language is always Gunavidji or one of its immediate Western Arnhem Land group neighbours, Gunbalang or Nakara.’ This close affinal relationship is reflected in the high incidence of Gunavidji having a good command of Nakara and vice versa (and this probably applies equally well to Gunavidji-Gunbalang):

Kunibidji and Nakkara, both western Arnhem land groups with traditionally close relations, have a less diversified spread of second-language speakers. All the Nakkara could speak or ‘hear’ Kunibidji, while most of the Kunibidji could speak or ‘hear’ Nakkara. Nakkara was
slightly more prevalent among the Burarra than was Kunibidji, but the reverse was true
among the Djinang (Elwell 1982:92).

In general the speakers of the other smaller languages tend to gravitate around either Gunwinjgu
or Burarra depending on their geographic orientation (Elwell 1977:80A, Table 3-4 in Mackay
1981:216):

Overall in the Maningrida community her [Elwell’s] figures on languages showed a tendency
for all the different language groups to retain their eastward or westward orientation. Her
general summary of language attitudes at Maningrida (Elwell 1977:105-10) strongly implies the
continuing relevance of this traditional division between Eastern and Western Arnhem Land.

The political significance of this dichotomy largely centres on the Burarra, for whom the site of the
Maningrida settlement was not their traditional land, being on Gunavidji country, yet over which
they exercised considerable control due to their greater numbers and ability, or willingness, to
cooperate with Europeans. This was a position the Burarra could assert aggressively: ‘the Burarra
[…] are less willing than most groups (except the Gunwinjgu themselves) to learn other languages.
The Burarras are keen to promote the image of Burarra as lingua franca in Maningrida’ (Elwell
1982:91-2). Thus, there was a decided political dimension to multilingualism in Maningrida, reflected
both in decisions people were asked to make regarding their language, and anecdotally in the
feelings they expressed about other languages. This is most clearly seen in the resistance of western
Arnhem Land groups to perceived efforts on the part of Burarra speakers to impose their language as
a ‘lingua franca’ on the settlement (Elwell 1982:98; also Mackay 1981:215-6):

Although the Kunibidji are a large group in Maningrida and are the traditional landowners,
they are neither dominating nor aggressive, and tend to lack political motivation, at least in
comparison with the Burarra. They willingly learn other west Arnhem Land languages, but
mostly express some resistance to the idea of learning Burarra. Most Kunibidji adults
acknowledged a command of only ‘some’ Burarra, although there are benefits to be gained
normally in speaking the language of the community’s most dominant group. Because of the
frequently mentioned difficulty of the language and because the Kunibidji tend to learn other
people’s languages, Kunibidji is not a very common second language, except among the
Nakkara, who are traditionally close associates.

The general antipathy of the Gunavidji towards the Burarra is apparent in their reluctance to
counterance the adoption of an already existing Burarra orthography to make a written form of their
own language. Mackay’s study, undertaken in 1979 for the Northern Territory Department of
Education, reveals the preferences given in Table 10F:
<table>
<thead>
<tr>
<th></th>
<th>Burarra</th>
<th>Gunwinjgu</th>
<th>Maung</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number favouring</td>
<td>3</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>% favouring</td>
<td>11</td>
<td>59</td>
<td>30</td>
</tr>
</tbody>
</table>

**Table 10F – Preferences for an orthographic model for Gunbidji**
(Source: Mackay 1981:218, Table 3)

Mackay (1981:218) concluded from these figures:

There is no doubt from these figures about the predominantly westward orientation of Gunbidji speakers and the disregard for Burarra. That is, 89% of those interviewed preferred a Western Arnhem Land model while only 11% chose the Eastern Arnhem Land model (Burarra). This was in spite of the fact that many Burarra people but few Gunwinjgu and a negligible number of Maung people live regularly at Maningrida. A spontaneous desire was expressed by almost half the informants, for uniformity of orthography among various groupings, each comprising Gunbidji and at least one of Gunbalang, Nakara, Maung and Gunwinjgu. The strongest preferences were for Nakara and Gunbalang, though these languages have as yet no established orthographies.

In my view, these preferences express, even if unconsciously, not only the fear felt towards the Burarra and their allies (particularly Yolngu speaking allies) but their instinctive turning to western Arnhem Land neighbours for security. While in pragmatic terms this now means Gunwinggu speakers taken in their entirety, the traditional allies were Gunbalang, coastal speakers of a Gunwingguan language, and Nakara. Although Gungurrugoni could also be included in this list, its absence is probably accounted for by its demise as an effective social force.¹⁴⁰ Most illuminative of the Gunavidji reaction to the prospect of a Burarra orthography are their anecdotal responses. Mackay (1981:218) noted that "[o]ne informant observed that the Burarra orthography should not be the model, otherwise "our old people will get angry". Perhaps even more compelling is the following (Mackay 1981:216-7):

¹⁴⁰ Elwell (1982:103) also mentions a similar study of the orthographic preferences of the Nakkara study conducted by (Ether 1979) that 'showed similar results for this language group'. This is not quite accurate. Ether (pers. comm. 28-07-2016) reports that 'Nakkara lands lie between these two nations and they have important intermarriage connections with both Njebbana [Gunavidji] and Burarra people, so they are quite diplomatic. I could tell that they did not want to offend either side and thereby affect their status as the peaceful go between nation. Some asked me if they could have their own. Some asked could they have both. There were also questions in the survey about the orthographies of other nations like Rembarrnga and Kunwinjku. When the Nakkara heard that the latter two used a system more like the Njebbana system, they reluctantly decided that they would go with the one similar to Rembarrnga and Kunwinjku, without stating that this was going against Burarra. They were not entirely happy with the process or the outcome, presumably because it might cause friction with their Burarra neighbours.'
Three older informants made comments which implied continuing friction between Burarra and Gunibidji people. One commented that he used the Burarra language, among other things, ‘for trouble – bularr (= trouble/ fighting […])’. Another commented that traditionally Burarra and Gunibidji people used to fight ‘like war’, while he claimed that Gunwinjgu, Gunbalang and Gunibidji used to ‘gang up friends’.

Conflict

That a fierce rivalry between western and eastern Arnhem Landers existed in the nascent Maningrida township is apparent from the work of all observers. Elwell (1982:84), for example, describes the relationship between ‘two unofficial blocs’, ‘an eastern Arnhem Land bloc and a western Arnhem Land bloc’ as one in which ‘contact was minimal and generally hostile’. Further, according to Elwell (1982:100-1), these ‘traditional hostilities […] do not seem to be diminishing, although members of the two groups now live side by side in Maningrida’. This animosity seems to have galvanized around, on one hand the Gunavidji, the owners of the land on which Maningrida was built, and on the other, the Gidjingali, who represented the most populous of the eastern Arnhem Land groups, and who were, probably, the true traditional enemies of the coastal Liverpool River people (Elwell 1982:86-7):

Maningrida is built on Kunibidji country, which extends mainly along the east bank of the Liverpool River and some way along the coast. Although the Kunibidji are one of the biggest groups in Maningrida and are its traditional landowners, they are not respected by the Burarra or Gupapunya.

One anecdote appears to sum up the worst of the arrogance attributed to the Burarra, as well as providing an insight into the fears and suspicions Gunavidji in particular might have had regarding them (Hiatt 1965:153):

I asked a Burera man I had not seen before what was the name of his country. He replied: ‘Liverpool’. When I pointed out that this was Gunavidji territory, he said: ‘Not any longer. The Gunavidji are finished. The Burera own that country now.’

Hiatt (Ms 4129/6/11 A.I.A.T.S.I.S.) records numerous instances of the Gidjingali attitude to Gunavidji in particular, a good deal of humour based around the supposedly exaggerated size of Gunavidji women’s genitalia, and outright comments such as the following; ‘Geridawaya said yesterday that Bulmala was wrong in giving his niece to a Gunavidji man because these people are “different kind”.’ This antipathy was reciprocated by the Gunavidji. Armstrong (1967:17) reports one
exchange in which ‘a rumour was abroad that the Gunavidji wanted to expel other tribesmen’. This altercation did not proceed to violence but was settled verbally, revealing the perhaps predictable attitude of both Gunavidji and Burarra: Stephen (Namaanaalidi - Maningrida): ‘My father and I belong to this country and we say “You people go back to your country. You people belong to different countries’; and the response from Tommy, “a level-headed Burada”: We will return [to our country] and make our own station, garden, farm, timber [...] because we are tired’ (Armstrong 1967:17). These points of view which, one imagines, must have been a stock-in-trade of those gathered uncomfortably together at Maningrida, were accompanied by attitudes to the other that say much about the way Gunavidji and Burarra viewed themselves and each other (Armstrong 1967:18):

Johnny an older Gunavidji whose mother belonged to the Maningrida namananidji, spoke vigorously: ‘You see that these people [i.e. Burarra] are a big crowd. Don’t touch them and their women. There are only a few of us Gunavidji and they have more. We can’t fight them. We have to be friends.’ After this a Burada informant commented with great relish: ‘the Gunavidji mob stood like a log’141

Hiatt’s (1965) Kinship and Conflict documents a considerable amount of the violence that occurred in Maningrida during his fieldwork there. This violence consists for the most part in accounts of revenge expeditions and feuds that sometimes resulted in individual deaths, less often a tit for tat chain of fatalities (or, at least, one that can be discerned). Most originated in the ‘acquisition of wives’, which, if the equation of endogamy with higher order social organization is correct, would imply conflict within communities or allied peoples, rather than between them. Clearly, these conflicts are of a different order to those premised to have once occurred on a larger scale.142 That conflict could occur on the larger scale, and that this was in some sense underwrote societal violence is has already been mentioned (Hiatt 1965:135):

Among the Gidjingali the political unit (if it can be so called) was also the community of people who regularly lived together. People spoke of opposition between two communities in pitched battles and on occasions organized for the formal punishment of murderers, and not merely of disputes between particular individuals of different communities.

Violence, then, was the province of the community, the broader social grouping, not that of the individual, family or patriclan; serious violence quickly brought into play a larger circle of

141 Hiatt (fieldnotes Ms 4129/6/118/10 A.I.A.T.S.I.S.) records one Gunavidji describing the Burarra as being ‘Like ants’

142 Hiatt (1965:121) summarized the fatal consequences for Anbara men in fights as follows: ‘Between 1940 and 1960 only three Anbara men died as a result of physical injuries. Two were murdered by members of other communities; one death was a retaliation for a previous killing. The third, who died fighting a member of his own community over a woman, was avenged when a relative murdered the woman. During the same period Anbara killed several men of other communities whose deaths [...] were not avenged.’
individuals, members one’s community, not necessarily one’s patriclan. Hiatt’s material, however, makes no specific mention of the interlingual conflict described by Mackay’s (1961:216-7) three elderly informants; given that Hiatt describes the Gunavidji and Nakara and other smaller linguo-ethnicities as communities, it is not that much further to go to see that this may have been the level on which violence found its culmination in pre-European times. Hiatt’s frequent mention of the role played by the European Australian staff at Maningrida in suppressing outbreaks of serious inter-communal violence points to this potential.143

Hiatt (1965:125-6) makes only one brief mention of a fight that might have had some of the characteristics of a more serious interlingual conflict: ‘In another [inter-communal fight] an Anbara injured a Gunwinggu, and several years later warriors of the two communities fought a battle lasting most of one morning. It ended when an Anbara received a minor head wound.’ The fact that the contest seems to have been of a largely symbolic nature points, in my view, to the revisiting of old forms and traditional animosities but also perhaps that amity now outweighed enmity. It is in sharp contrast to the brutality of the violence that has a personal component. It would appear that the mere fact of the Liverpool and Blyth River peoples having agreed to live in the same settlement under European authority ushered in a new period of interaction between them, albeit one that retained much underlying fear and suspicion. It might also be surmised that the genuinely ‘political level’ of violence had ceased with the advent of European influence; i.e. that the overriding dominance of the Australian state has effectively replaced the former role of these institutions. The demographic collapse that appears to have taken place in the late 19th and early 20th centuries, and perhaps the slow acceptance of European domination is most likely behind this accommodation. Perhaps the closest on-going expression of the traditional enmity argued to have existed between the Gidjingali and Gunavidji and their respective allies is expressed symbolically in the composition of the two Maningrida Australian Rules football teams (Hiatt 1965:154):

In football matches, Gidjingali and Gunadba usually combined against Gunavidji and Nagara. Supporters stood on opposite sides of the ground, and the games were not always played in the spirit of ‘let the best team win’.144

143 Hiatt (1965:13, 98, 110, 120 (twice)) mentions five occasions when the intervention of settlement officers terminated spear fights. See also Armstrong (1967:62).
144 Hiatt’s (AATSIS Ms 4129/6/11) fieldnotes describing an altercation in the Gidjingali camp over the composition of Maningrida’s two football teams again shows the ambiguous role Nakara played in these rivalries: ‘Gurm, Malkoda and Nampoda were discussing the fight yesterday between Duwargan and Mati and this led to a consideration of the constitution of the two teams. They thought the Waratahs should include only Gunavidji, Maili, Gunwinggu etc. while Wanderers should be confined to Nakara, Burera (including Gunadba), Ulaki etc.’
Regional Interrelationships and Alliances

Some of the social and cultural architecture for the institutions of higher order social organization argued for are readily apparent: that the Liverpool and Blyth Rivers marks a significant cultural divide between east and west, one of which both parties were fully aware, and which influenced not only their culture, but the wider sociopolitical world in which they moved. The evidence, in my view, demonstrates the existence of Gidjingali communities; but more, it demonstrates the probability that the Gidjingali collectively possessed the potential and willingness to act in solidarity; in other words, that they constituted a HAA. The Gunadba, like the Gidjingali, Burarra speakers, did not possess a close relationship with their fellow Burarra speakers. The reason for this distance can only have been that the Gunadba were inlanders, unlike the Gidjingali who were coastal people. Their preference was for alliance with other inland groups, in particular the Rembarrnga. If so, these inland groups, being speakers of diverse languages, formed a HDA. That the coastal linguo-ethnicities of the Liverpool River area similarly formed a HDA is, in my view, also likely. This probability can be inferred from the pattern of residence and ceremonial association, intermarriage, multilingualism and those who were sided with in conflict situations. A close association existed between the Liverpool River linguo-ethnicities and Gunwinggu speakers (cf. Armstrong 1967:13). However, alliance with Gunwinggu speakers in their entirety was not the case. Another factor intervened, namely that already mentioned, the sociopolitical dichotomy that existed between coast and inland dwellers. True alliance with Gunwinggu speakers is more likely to have been limited to coast-dwellers, namely the Gunbalang, who feature almost routinely in enumerations of Gunavidji friends. Gunwinggu speakers, particularly on the upper Liverpool River, while enjoying a certain degree of homogeneity, were composed of groups such as the Gumauwurrrk,145 whose status as independent entities seems to have been subsumed within Gunwinggu (Kyle-Little 1957:214; Berndt et al. 1951:253–4). Despite the willingness of Gunavidji and other Liverpool River language speakers to identify with the Gunwinggu as a counterweight to the influence of the Burarra, it is apparent that this relationship too was not without its problems; Elwell (1982:99; also Elwell 1982:87; Armstrong 1967:13, 15) describes how:

The Gunwinjgu have had a checkered career in Maningrida. Even the other western Arnhem Landers regard them as an aloof, arrogant group of people. Gunwinjgu is regarded as something of a lingua franca in western Arnhem land and [...] is acknowledged as being widely spoken or understood as a second language in Maningrida.

145 Kyle-Little (1957:214), for example, describes the Gumauwurrrk, whose main camp is between the Upper Liverpool and Tomkinson rivers on the bend of a small creek, and whose health was good and whose ceremonial life was still in tact, as numbering 392. Milliken’s (in Peterson 1976:241) statistics of 1972, however, list those people identifying as Gumauwurrrk as numbering only 5. Gunwinggu speakers, on the other hand, number 929.
While short on specifics, Armstrong (1967:62) provides one account of 'common assault charges' arising from 'a vengeance spear fight on Anzac Day 1964 when a party of about fifteen Gunwinggu men, daubed with white ochre, attacked a group of Western Arnhemlanders'. One of the western Arnhemlanders appears to have been Walang (i.e. Gunbalang), from which it might be assumed the western Arnhemlanders were Gunavidi and their allies. While then the Gunwinggu in Maningrida were regarded by the Gunavidi and Nakka as a source of strength in their opposition to Burarra speakers, it is not the case that approval was unreserved. The reason, I think, is not hard to find: the fear and suspicion that coast-dwellers attach to inland peoples, whose numbers are a constant threat to their own more fragile demography. It may therefore be a situation like that von Sturmer (1978) described for the Wik region, with inlanders exerting a constant demographic pressure on coast dwellers. In historical terms, I think this is brought out by the languages themselves, Gunavidi and Nakka are not closely related to Gunwinggu; Gungurruguni is related to Burarra (Elwell 1982:88; Harvey 2011:352); only Gunbalang (Elkin et al. 1951: 1951:254) is a Gunwingguan language. Like many of the languages on the east coast of Australia they have found themselves with small distributions on rich and productive coastal land, hemmed in on their hinterland by greatly more expansive and populous linguo-ethnicities.

A Liverpool River HDA Alliance

I surmise four linguo-ethnicities comprised a Liverpool River coastal HDA: the Gunavidi, Gunbalang (Walang), Nakka and Gungurruguni. Elwell (1982:86, Table 1) in her list of language group populations, includes all the linguo-ethnicities individually – except for Gunbalang/Kunibidi (population: 114+) which are combined; this can be seen reflected in Armstrong's (1967:12) and Hiatt's (A.I.A.T.S.I.S. Ms 4129/7/5) figures which show a strong tendency for these peoples to intermerry. According to Elwell (1982:93) intermarriage may account for 'Gunbalang's relative prominence as a second language, at least among the western Arnhem Land tribes', a situation described by her as 'anomalous'. Gunbalang country is described as '[a]joining Kunibidi country to the west, along the Liverpool River' (Elwell (1982:87), and, as has been shown, numbers of gunmugunur estates in this area are held in 'company' between Gunbalang and Gunavidi. Elkin et al. (1951:254), however, describe the Gunbalang as having being 'closely allied to the Maung', and, given this linguo-ethnicity's distribution along Junction Bay, it is reasonable to assume that, like the Nakka, there loyalties were divided, perhaps dependent on the proximity of Gunbalang local groups to one or other east-west extent of the group's distribution. The Gungurruguni are an inland people, presumably greatly reduced in numbers, the highest figures provided for them being only 50; their country is 'on the Upper Tomkinson River, where the river runs through two hills, each about five hundred feet high' (Kyle-Little 1957:213-4), which, according to Elwell (1982:87) places them in 'the country immediately to the south of Kunibidi territory.' Elwell (1982:88) describes them 'a
matrilineal group, socially affiliated with the west Arnhem Land groups, but linguistically clearly related to the patrilineal east Arnhem Burarras'. Elkin et al. (1951:254) places them in alliance with the coastal Liverpool River groups:

On the eastern banks of the Liverpool River and in the jungles are the Gungururgunji (or Gungarawoni), allied to the Gunavidji and Nagara, and the Gadjali on the beach side of the Liverpool, merging with the Nagara.

Finally, the Nakkara, as has been seen, appear to divide their loyalties between Gunavidji contiguous along the coast to the west, and the Anbara, contiguous to the east; Elwell (1982:87, 98) says of them that ‘[t]raditionally they were on good terms with tribes to both east and west’, describing them as a ‘buffer people’ in Arnhem Land between easterners and westerners. According to Elwell (1982:98; also 92), ‘their affiliations with the west, the Kunibidji in particular, are stronger’. Observers tend to emphasize their weakness relative to their neighbours: ‘The general health of this group was very poor. There is little ceremonial life and what there is rapidly breaking down’ (Kyle-Little 1957:213); and ‘[t]hey seem to be regarded (both by themselves and other tribes) as a group on the decline’ (Elwell 1982:98). One of the indications of this, according to Elwell (1982:98), is that ‘[w]hile they are willing to learn other languages (Kunibidji, Burarra and Gunwinjgu in that order) relatively few other people seem willing to learn Nakkara’. However, the Nakkara also appear to be a group whose support is sought by both Gidjingali and Gunavidji. This was support that could in itself have been a bone of contention between Gidjingali and Gunavidji. Hiatt (A.I.A.T.S.I.S. Ms 4129/6/11) makes a somewhat ambiguous reference to this in an argument he records between the two groups over who should play for what Maningrida football team:

They thought it wrong that Malakalia and Malyilpa play for Waratahs and speak of recalling the latter. I asked about Danika and Kalamunda and the feeling was that they should be playing for Wanderers. Djundeiya, Jerawola were doubtful cases. Ok if they play for Gunavidji. The feeling is definitely concerned with the Eastern Nakara.

Elsewhere, Hiatt (1965:153) refers to ‘Western Nagara’, emphasising their position in respect of Burarra speakers:

[F]or perhaps the first six months of the settlement the Burera occupied an ascendant position in the general work force. But as other people moved into the village and, in particular, as Gunavidji and western Nagara returned from Goulburn Island, officers distributed jobs more widely.
Hiatt nowhere specifies the exact sociological significance of distinguishing western Nakkara from eastern Nakkara, and only so much can be inferred from context. Given the numerous references to *gunnugugur* or *labaru* shared by either Gunavidji and Nakkara or Gidjingali and Nakkara, this would appear to lie at the bottom of the distinction (cf. Hiatt 1965:17). Hiatt’s fieldnotes contain the following, which provides as good a picture of their affiliation as is likely to be obtained:

About 100 or more people were camped at the well area Manugan. At the west end, about 20 or 30 Gunavidji and Nakara. At the east end, Burera Anbara, and in the middle Nakara.

How this played out politically in pre-European times or even in the Manningrida of the late fifties and early sixties is not commented on. Milliken’s (1976:241-2) population figures for the region show clearly the pronounced discrepancy between Gidjingali and the coastal peoples to their east taken as individual communities: Burarra speakers (excluding Gunadba) Anbara 189; Mukali 48; Madai 142 and Maringa 80; plus unattached Burarra 82; in total: 448; compared to Gunavidji 153; Nakkara 114; Walang [Gunbalang] 106 and Gungurrunguni 37; total: 410. However these numbers compare to those of pre-European times, they at least raise the possibility that a demographic balance existed; that is, were the Liverpool River coastal peoples to have combined their manpower when required by circumstances, they would have been a match for expansionary forces either from Burarra speakers on the coast to their east, or from Gunwinggu speakers inland to the south-west.

**Conclusion**

Few places better illustrate the demographic/historical forces that played out in sociopolitical alliance than central Arafura Sea Arnhem Land. It makes clear that for this region, linguo-ethnicity was a significant element of social organization, for the very historical reasons that shaped the language also shaped its distribution, the historical and lived relationship of its speakers with neighbours, and the larger regional picture of which a small linguo-ethnicity felt vulnerably a part. Alliance was not merely a political pact but a social arrangement that brought peoples, even peoples of different linguo-ethnicity, into a close and trusting relationship that affected the social fabric of the whole. There is no reason to think the entirety of Australia during the Late Holocene would not have been animated by the same sort of demographic forces and their sociopolitical response that emerge from a study of this region.
Chapter 11
Conclusion and Further Research

Space dictates that here the thesis must end. It is certainly lengthy and I hope well argued enough that the hypothesis it presents is thought probable enough to warrant further exploration. The author cannot help however be conscious of the fact that, given the breadth and originality of the propositions, that evidence is all the more crucial. If given greater room the thesis would have supplemented the material provided with additional argument and evidence bearing on the higher order social organization deemed to have arisen from the demographic conditions of the Late Holocene; in three categories, (i) kinship, specifically the classificatory kinship developed to embrace wider numbers, groups and territory; (ii) male initiation ceremony, embracing as this did attendance from groups gathered from far and wide, but, I argue, regional attendances defined by the HAA and HDA classifications hypothesized; (iii) warfare, and, more particularly, warfare over land; iconoclastically then, that land in the Late Holocene, pursuant of the linguo-ethnic expansion and contact described, could change hands as the result of socially organized violence. These are wide-ranging propositions requiring their own set of analyses and evidence. They are also likely to be as controversial in themselves as the assertions on which the thesis rests, and as such will add little to its immediate acceptability. A mitigating factor, however, is that the more these individual facets can be demonstrated, the greater the likelihood of the entire argument being true.\(^{146}\)

Kinship, I would argue, is integral to the process of demic migration: a group departing the territorial main of its linguo-ethnic fellows remains contiguous with it, ties are not broken but kept intact, and the medium for this is kinship. The exogamous exchange of wives ensures that at no stage is the social homogeneity of the linguo-ethnicity broken; when this does eventually occur it is because the groups occupying the furthest extent of the linguo-ethnic population can no longer be effectively in touch with one another, and hence affinal interrelationship is both less probable and less desirable. As the Late Holocene evolved, with speakers of large subgroup languages increasingly coming into contact, ratcheting up demographic pressure, further sociopolitical adjustments would have needed to be made. Kinship, and particularly classificatory kinship, would have been one of the mediums for achieving this. Kinship systems will have evolved from the simpler relationships that pertained

\(^{146}\) Or, as Descartes (Discourse 6) put it: 'It seems to me that my reasonings follow each other in such a way that, as the last are demonstrated by the first, which are their causes, the first are proved, reciprocally, by the last, which are their effects.'

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among smaller isolated populations to embrace the greater scope, complexity, and variation needed to meet Late Holocene conditions; their purpose expanded to create and sustain relationships over wider rather than narrower social fields. If so, kinship systems as described ethnographically are a Late Holocene development; developing idiosyncratically (that is, from within linguo-ethnic populations) to meet new and unprecedented conditions. That kinship systems correlate to linguo-ethnicity (Kariera, Aranda systems and so – although this correspondence is only so accurate) is also significant. That this scenario is very probable can be demonstrated in the comparison of ‘close’ and ‘distant’ kinship relationships and terminology; the former retain a simplicity much closer to biological kinship; the latter, which are based in the forging of affinal ties, is often varied and complex (Jefferies 2016). These could be said to represent analogically original and expanded kinship systems.

The initiation of young men plays a central role in alliance formation and maintenance (cf. Sutton 2003:95). Again, I interpret one of the underlying purposes of male initiation, which are always communal and brings in participants from over a wide region, to be the maximisation of breadth of a community’s social reach. I would argue that initiation ceremonies were a primary means by which the component groups of an alliance, whether HAA or HDA, renewed and reinforced their allegiance to the overarching sociopolitical entity. The initiation of male youths into adulthood meant that they became, when called upon, warriors, capable of playing their role in the defence of their community, its land and resources. Earlier descriptions invariably include a ritualized fight in which the initiands demonstrated their martial willingness and prowess this pre-empting their future involvement in the warlike activities of the alliance. On a political level, common initiation ceremony demonstrated the commitment individual ethnolinguistic groups were making to the alliance in terms of numbers of men that could be mustered and their readiness to fight.

The oft-mentioned negotiation that ensued at initiation ceremonies between those usually too geographically distant to contract and conclude marital arrangements served to strengthen the social bonds tying the alliance entity together. Initiands graduated to become, at least potentially, husbands, the sires and providers of a family, and thus, at least indirectly, maintainers of alliance demographic viability. Reproduction within the alliance ensured the numbers necessary to guarantee the continued existence of constituent linguo-ethnicities in the broader Late Holocene sociopolitical landscape. Marital contract between alliance members only infrequently in contact shored up the inter-familial group relationships that formed the backbone of the alliance.

The third of this triumvirate undoubtedly constitutes the most far-reaching and, perhaps least anthropologically comfortable idea emanating from the thesis, namely that the purpose of higher order institutions of social organization was politics and warfare, whether for the defence of one’s territory, or the acquisition of the territory of others. It contains the implicit claim that the acquisition
of land by warfare was a significant aspect of Aboriginal society and culture in the Late Holocene, the idea of which Australianist anthropologists from Spencer and Gillen (1904:13-14) to Sutton (2003:121-22) have discounted.\footnote{The inconceivability of warfare leading to land relinquishment is probably the most widely adhered to, and uncontested, proposition of Australian anthropology. Other emphatic deniers of warfare for 'conquest' of land include Stanner (1979:40) and Hiatt (1996:92). The list of anthropologists prepared to consider the possibility of warfare involving the exchange of land ownership is considerably shorter; it includes von Sturmer (1978:204) and, surprisingly, Tindale (1974:33-4) whose position is unequivocal. ‘Occasional instances of all-out attack on a tribe of people and the usurpation of a tribal area by members of another tribe are matters of history.’} The position has always been that there is no place for warfare in discussion of Aboriginal society and culture. Without diverging here too much from the main thrust of my argument, it appears a good part of this denial has to do with the nature of social anthropology itself, that it has been by and large a synchronic discipline, with the field in modern times providing little evidence for warfare. Colonial literature, however, provides a different perspective, abounding in evidence from innumerable firsthand accounts in colonial journals, and the pioneer memoirs of a somewhat later date. These describe large and frequent conflicts, with, often, the significance for land-ownership clearly implied (with, however, modern historians wont to interpret this conflict as the result of the European presence). It seems clear to me that the evidence for pervasive, large-scale warfare set in the Late Holocene context of demic expansion leaves little other credible explanation than a direct connection between these two occurrences. However, this is a complex question in its own right, one requiring a thesis devoted solely to it, and hence here little more can be said than the above – that the good probability is that warfare, aimed at the dispossession of others, was a significant aspect of the Australian Late Holocene.

Lastly, to reiterate the outlines of the case I have attempted to make in this thesis: it is my view that the thesis is built on a solid foundation, firstly that of the deductions of archaeology and climatology indicating steep population rise in the Late Holocene accompanied by significant economic and technological innovation. This indicates that the Late Holocene was like no other period of Australian prehistory. Secondly, the diachronic deductions of historical linguistics, that, failing the entirely unproven ‘exceptionality’ claims having made Australia in some unaccountable way a case apart, Australian language distribution has occurred in something like the same relative timeframe as languages worldwide. This too, by all accounts, is the Late Holocene. Here the argument meets a Rubicon; the first instance where a stance entirely in opposition to the received wisdom of the social sciences in Australia has to be broached. For while linguists and archaeologists (Evans and Jones 1997) have been prepared to contemplate language spread in Australia, few, and in fact only one to my knowledge, Patrick McConwell, have been willing to take the next step and propose that language spread is based in migration. If for no other reason than migration being the default position for the explanation of language spread worldwide, and the paucity of alternative arguments, it deserves to be the first consideration for the explanation for language distribution. Migration was not that of individuals or of small founder groups away from an original population but the spatial expansion of a population that does not lose on-going physical contact with the parent population,
an historical process called demic migration. Demic migration presupposes a nexus between language distribution and migratory population expansion; the populations are linguo-ethnic and as they moved further afield so the distribution of the language correspondingly increased.

This then is the demographic model I propose for the Australian Late Holocene, rapid population increase, tied to widespread demic migration as encoded in the distribution of Australian languages. There is a secondary round of demographic implication that flows from this model. If demic migration does characterize the Australian Late Holocene, then expectations for social organization will follow, particularly if these are already on the ethnographic record. Almost certainly there will have been contact between expanding linguo-ethnic populations and others resident in their path, as well as contact between expanding linguo-ethnicities. The broader demographic circumstances of the Australian Late Holocene inferred from this mobility lay the basis for deductions concerning social organisation. I argue that this was a period of unprecedented development in Aboriginal sociopolitical relations; of contact between previously more isolated linguo-ethnic populations; cultural diffusion; but also conflict brought on by greater numbers seeking access to resources, with wider social organization evolving as a response to this climate of uncertainty. While this raises the possibility of violence, it also raises the possibility of alliance, of social organization beyond the contingent and localized. On this basis, and following Peter Sutton’s (1990) ‘The Pulsating Heart’, I propose in the thesis a revision of Australian anthropology’s understanding of social organisation, namely a reinstatement of the level of social organization Sutton refers to as ‘higher order’, that described by 19th century ethnologists such as A.W. Howitt, R.H. Mathews, and W.E. Roth as consisting of ‘messmates, confederacies and nations’. I build this reconstruction on two of the variables mentioned, the demographic conditions of the Late Holocene, and the demic expansion and contact of linguo-ethnic populations. Based on inability to reconstruct this level of social organisation on the basis of language, specifically as an analogue to Radcliffe-Brown’s (1913:144) ‘dialectal tribe’, I propose two higher order types, HAA and HDA categories, the first Homogeneous Aggressive Alliances, the second, Heterogeneous Defensive Alliances. These have different historical origins, each determined by different outcomes in relation to Late Holocene conditions. HAA originate from subgroup demic expansion in the first instance, and therefore have a close phylogenetic relationship to language; and HDA which is the more conventional alliance of linguo-ethnicities in spite of their language.

The Late Holocene shaped the Aboriginal Australia made familiar to us by ethnography. It is surely axiomatic that the Aboriginal culture, including social institutions and mores encountered at first settlement, is an extension of the two and a half thousand years that immediately preceded it. This is not to say, of course, that, as with language, institutions and mores do not have a deeper origin; they do; however, as with our own society, it is the entities that have developed in the recent past that most typify the culture; and, therefore, the culture that ethnography presents to us. The Aboriginal
world described ethnographically is not the modern-day survivor of an interminably ancient and unchanging world as all too often described or inferred in discourse both popular and academic. Much as our own, it is a world shaped by relatively recent historical developments. Unlike then the contentions on which the thesis is built, those of archaeology, climatology, geography and particularly historical linguistics, which project forward to necessary implication, the presuppositions offered for social organisation project back; in other words, it is the logic and consistency of the roles proposed for these institutions that makes it very probable their origins were in the demography of the Late Holocene. Alternative explanations, should they arise, have to explain the ontology of each institution individually, with little more than coincidence to link them together. The strength of demic migration as an explanation of Australian Late Holocene demography lies in only demic migration offering a complete answer to the evidentiary variables found in all the anthropological subdisciplines: archaeology, historical linguistics, biogenetics and social anthropology. Only the explanation offered in this thesis ties together all the cross-disciplinary evidence to provide a cogent historical account.
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Appendix 1

Demic Migration: Reconstruction Case Studies


Terry Crowley’s interest in migration began from his work on the Nganyaywana language of the New England Tableland in New South Wales. Originally, due to its initial-dropping phonology, thought of as a language isolate, or even as a ‘non-Australian language’, Crowley (1976) was able to show that Nganyaywana was in fact simply an unusual member of the same subgroup as its neighbours, as indeed is the case with other instances of initial-dropping languages scattered across eastern Australia. Crowley (1997:284) proposed that:

The two Nganyaywanas [there were two contiguous dialects sharing initial-dropping] were phonologically aberrant members of a larger group that covered an area about that of Scotland, which extended from the tableland to the coast down the Macleay, Hastings and Manning river valleys. This group also seems to have included a number of closely related dialects to the north (extending from Tingha, Inverell, Glen Innes and as far as Tenterfield) which can be referred to collectively as Yugambal (although the local names Ngarbal and Marbal are also recorded). Yugambal, however, was typologically divergent and apparently escaped the drastic phonological changes of the two Nganyaywanas to the south.

Basing his argument on linguistic relationships and archaeological findings, Crowley (1997:285) conjectured that:

[The less inviting tableland areas were settled from the coast via the Manning, Hastings and Macleay valleys. A working hypothesis might be that the tablelands were originally either unoccupied, sparsely populated (by unknown groups) or perhaps only occasionally visited by various coastal peoples or the inland Gamilaraay.

Again on the basis of linguistic relationship, Crowley (1997:285) thought it most likely the occupants of the New England Tableland were speakers of Djangadi and Gadjang, closely related languages spoken on the lower reaches of the Manning, Hastings and Macleay rivers. Crowley (1997:285-6) observed of the languages of the northern New South Wales coast generally,
The most striking feature is that there are large geographical areas which appear to have relatively little linguistic diversity. The Bandjalang, Gumbaynggir and Djangadi-Gadjang areas are about the size of small European nations. Although there is evidence for dialectal diversity within each of these north coast language areas, this diversity is evidently not great, with the exception of the Bandjalang area [which, nonetheless Crowley (1997:287) previously had described as dialect chain]. However, there are a series of major linguistic cleavages at various places along the coast: at the point where Djangadi came into contact with Gumbaynggir, at the division between Gumbaynggir/ Yaygir with Bandjalang, and between Bandjalang and Yagara in the north.

Crowley (1997:287-9) goes on to suggest that, as with Nganyaywara and its New England neighbours, linguistic discontinuities might be ‘the result of population movements from one area into a previously unoccupied area which brought groups that were originally located apart geographically into immediate contiguity.’ Similarly, on the coast:

[If we were to assume a less dense coastal population originally, it might be logical to assume that populations were concentrated around the mouths of the various large river mouth environments, making only occasional forays into the intervening areas of coastline. The sharp linguistic discontinuities that we found along the coast at the time of European contact could have arisen as a result of populations moving from initial river mouth concentrations north and south along the coast, eventually meeting somewhere in the middle between the major rivers.]

Based on archaeological evidence, Crowley surmises the Djangadi and Gadjang to have later migrated inland by proceeding upstream along their river systems, eventually occupying the New England Tableland.

2. Bowern (2007) - Nyulnyul, N.W. Western Australia

Claire Bowern’s (2007) ‘On Eels, Dolphins, and Echidnas: Nyulnyulan Prehistory through the Reconstruction of Flora and Fauna’ examines the relationship of flora and fauna terminology to Nyulnyulan subgroup distribution, drawing from it some of the correspondences already mentioned: that lexical borrowing, particularly that of flora and fauna, can be indicative of population movement; and that deeply-rooted association of such terms in language can indicate a likely place of origin. Nyulnyulan is a non-Pama-Nyungan subgroup whose speakers occupy the Dampier Peninsula as well as extending ‘inland several hundred miles along the Fitzroy River’. In addition, there are ‘also speakers of Nyulnyulan languages in the Derby area, on the eastern side of
King Sound’ (2007:2). It is the difference between the lexical inventories for flora and fauna of coastal and inland Nyulnyulan languages that points to the subgroup’s likely origins and its subsequent migrations. Nyulnyulan, the languages of which ‘are closely related to one another, perhaps as diverse as Romance’, can be reconstructed to two protolanguages, Proto-Western or Proto-Eastern Nyulnyulan, which are associated with the Dampier Peninsula sea coast and inland distributions respectively (2007:3, 18). Bowern’s analysis is based on the fact that:

The words [for flora and fauna] correlate, perhaps unsurprisingly, with environment: for the Western Nyulnyulan languages we can reconstruct sea terms which have no cognates in the (inland) Eastern languages, while in the Eastern languages there are more reconstructible terms for fresh-water and desert species (2007:18).

Apart from flora and fauna words for which ‘the species have the range of the area where the languages are spoken’, there are also words that, while cognate, have two different meanings, dependent on whether found in Western or Eastern Nyulnyulan; for example, ‘*harrjaniny has the meaning of the most common macropod in the area, a rock wallaby on the Dampier Peninsula and the large river kangaroo in the east (2007:21). Western Nyulnyulan languages exhibit little borrowing in this semantic domain, and considerable borrowing in others, from which Bowern (2007:27) concludes: ‘[T]he extensive vocabulary reconstructible to Western Nyulnyulan implies the speakers of Proto-Western Nyulnyulan were sea people and have remained so.’ The situation for Eastern Nyulnyulan is, however, quite different:

[In] Eastern Nyulnyulan […] We see extensive borrowing from neighbouring languages (e.g. Yawuru from Karajarri, Nyikana from Mangala, Warrwa from Worrorra). We can also reconstruct some borrowings to Proto-Eastern Nyulnyulan (e.g. *jawarri ‘crow’). The loans appear to occur in a single direction, that is, into Eastern Nyulnyulan from the surrounding languages. This is not true in general; there are borrowings in both directions in other semantic fields (Bowern 2007:27-28).

Bowern (2007:28) concludes that the evidence points to Nyulnyulan origins as coastal people on the Dampier Peninsula, from which ‘speakers of Eastern Nyulnyulan languages spread into an area already inhabited by speakers of Pama-Nyungan languages, and when they moved inland they encountered a new environment and borrowed names for many new species from the previous inhabitants. In other cases (such as *bjalbarra), they applied an old name to a new animal.’ As with the flora and fauna borrowing already mentioned (Heath 1981), the adoption of flora and fauna terms from other languages, and the semantic shift of terms in one’s own language to accommodate a new environment and the flora and fauna in it, point to demic migration. This is an inference Bowern
(2007:28) also arrives at: ‘The distribution is suggestive of a migration east and inland from the Dampier peninsula, rather than the reverse.’


A similar analysis is McConvell’s (2009, 2014) reconstruction of prehistory in the Victoria River Downs of the Northern Territory. As with Crowley, McConvell’s (2009) study begins with what might be regarded as a distributional anomaly, the disproportionately high degree of borrowing of lexicon and morphosyntax into the Pama Nyungan language Gurindji from its northern and eastern non-Pama-Nyungan language neighbours. McConvell (2009:790-1) describes Gurindji as ‘part of a dialect chain going west’, constituting ‘the Eastern Ngumpin branch of the Ngumpin-Yapa subgroup.’ The distributional relationship between the Ngumpin-Yapa languages, of which the Eastern Ngumpin is one branch, and non-Pama-Nyungan languages to their north is complex:

The Eastern Ngumpin languages are among the most northerly Pama-Nyungan languages, in contact with Non-Pama-Nyungan languages to the north, east and west. The Eastern Ngumpin languages constitute a northerly ‘bulge’ in Pama-Nyungan in this region. It has been hypothesised that this distribution has resulted from a northerly expansion of Ngumpin-Yapa languages which may have also been a cause of the discontinuity between Eastern and Western Mirndi (McConvell 2009:790-1).

The non-Pama-Nyungan language families that surround Eastern Ngumpin on much of its perimeter are members of three distinct families, ‘to the west the Jarragan languages; Mirndi (Harvey 2008) to the north and to the east (eastern branch, including Jingulu abutting on to Mudburra, and the Barkly Tablelands languages including Wambaya further east); Wardaman to the north-east (McConvell 2009:792). To these NPN languages can be traced the most of the borrowing that constitutes a significant part of Gurindji, including about 45% of its vocabulary. A significant component of Gurindji’s borrowed vocabulary is environmental terminology, ‘55% of animals and 66% of the physical world with most of these being from Non-Pama-Nyungan sources’; furthermore, there is a correlation between borrowing and Gurindji country: ‘The vocabulary which is specific to the environment of the Victoria River Basin as compared to the southern semi-desert is overwhelmingly borrowed from the Non-Pama-Nyungan languages to the north of Gurindji’ (2009:799). McConvell (2009:799, 803) is able to stratify these borrowings diachronically based on whether or not there is lenition, an innovation defining the Eastern Ngumpin branch of Ngumpin-Yapa:

The borrowed environmental vocabulary can also be divided into strata based on whether lenition has operated or not. The word for ‘fish’, for instance, yawu descends from ‘yaku ‘fish’ a
Western Mirndi root, which is found in Jaminjung today as yak due to another sound change in Western Mirndi languages dropping final vowels after certain consonants. The term survives in Ngardi and some Jaru dialects south-west of Gurindji as yaku. This indicates that the term was borrowed into a group of Ngumpin-Yapa languages including eastern members of Western Ngumpin, and lenition subsequently operated on the Eastern Ngumpin languages.

There is also structural borrowing: ‘coverbs around 70% [of which] are borrowed, mostly from Jaminjung/Ngaliwurr [of the western branch of the Mirndi subgroup; A.J.]’ (McConvell 2009:795). Percentages of borrowings into Gurindji from NPN are as follows, Jaminjung-Ngaliwurr (Mirndi family Western Branch) 19%; Miriwig (Jarragan) 7%; Wardaman (Yangmanic) 3% (McConvell 2009:800-1). The presence of these NPN borrowings in Gurindji is apparent in different ways; Wardaman, for example, has a larger vowel component than the three-vowel system of Gurindji; borrowings from Wardaman therefore undergo a distinctive vowel shift, thus, ngone ‘spear’ > nguni ‘short jabbing spear’; in this case there is also the distinctive semantic shift from general to specialized term, often indicative of the direction of borrowing (McConvell 2009:801-2). Some borrowing also appears to indicate the possibility of historical change in land ownership: ‘Gurindji and other Victoria River Eastern Ngumpin languages share some aspects of semantic organization with their Non-Pama-Nyungan neighbours rather than with Western Ngumpin and Yapa within Ngumpin-Yapa. These include areal polysemies like the equation of ‘hill’ and ‘head’ in Victoria River Eastern Ngumpin (ngariaka and walu in Gurindji), contrasting with the equation of ‘hill’ and ‘stone’ in other Ngumpin-Yapa languages. Such areal features apply whether or not the words in question are loanwords (for instance, walu is an inherited Ngumpin-Yapa term.’ Finally, there is toponymical evidence for migration: ‘Recent examples include the westward expansion of Ngarinyin, during which two languages probably of the Jarragan family to judge by place-name evidence (McConvell 2004, 2009b) ceased to be spoken’ (McConvell 2009:793).

McConvell’s intensive analysis of Gurindji and its neighbours strongly suggests a recent prehistory of migration and contact, the linguistic results of which have been the extent of borrowing into Gurindji and the other Eastern Ngumpin languages. McConvell (2009:793) concludes that the most likely scenario for this prehistory has been that:

[In the more distant past, perhaps 2,000 years ago, it seems likely that the ancestral languages of the Eastern Ngumpin languages moved from the semi desert to the south-east into the Victoria River basin where they are currently. It is probable that this event is the reason for the major flows of loan words into Eastern Ngumpin, especially from Western Mirndi (Jaminjungan). Some of these importations may have been substratal – the result of Western Mirndi and other non-Pama-Nyungan speakers shifting to Eastern Ngumpin.}

Jefferies’ (2012) thesis, ‘G guar, the language of Moreton Island, and its relationship to the Bandjalang and Yagara subgroups: a case for phylogenetic migratory expansion?’ also begins with a language distribution anomaly. Moreton Island is the most remote of a chain of islands forming a barrier between the Pacific Ocean and Moreton Bay, in south-east Queensland. The first Europeans to take note of Guwar, the language spoken by the Ngugi people of Moreton Island, noted its lack of congruence with the languages on both the mainland opposite and adjacent islands. The idea began, and persisted, that Guwar was a language isolate, a language with either no close relatives or whose related languages are so linguistically and geographically distant as to be unidentifiable. In fact, Guwar is a detached or non-contiguous member of the Bandjalang subgroup, whose nearest other members were located some sixty kilometres south, on the other side of the Logan River (Crowley 1978; Sharpe 1998). Interposing between Guwar and its Bandjalang relatives is another language subgroup, Yagara, related to Guwar, as far as is known, only at the familial Pama Nyungan level. Yagara’s distribution included North Stradbroke Island and the adjacent coastal reaches of Moreton Bay, lying north of the Logan River. Jefferies’ thesis argued that prehistorical demic migration is the explanation for Guwar’s separation from the main of the Bandjalang subgroup distribution.

The thesis hypothesizes that there were two successive demic migrations. The first was the expansion of Bandjalang from its proto-homeland which was probably at the mouth of the Clarence River some two hundred and fifty kilometres south of Moreton Island. From there the language spread northward via the Clarence and Richmond Rivers and along the Pacific Ocean coastline. It is argued that this original Bandjalang distribution extended further north than the present post-European distribution to include the Brisbane River Basin and the islands of Moreton Bay. A later expansion of Yagara speakers from a proto-homeland west of the Great Dividing Range, eastward down into the head of the Brisbane River valley and its tributaries, downstream along the Brisbane River and ultimately to Moreton Bay and its islands, dislodged the Bandjalang speakers resident from the earlier wave of demic expansion. Moreton Island, remote and not well resourced – lacking, for example, marsupials and many species of reptile – became, in Nichols’ terms, a refuge zone for these dispossessed Bandjalang speakers, who otherwise retreated into the Bandjalang main south of the Logan River. It is possible prior to the Yagara expansion that Moreton Island was visited seasonally rather than permanently inhabited but whether or not this was the case, the island’s environment indicates the Ngugi economic dependence on the sea was close to complete, a situation matched in Australia by only a few similarly island-bound peoples. It seems unlikely that such an environment would have been chosen for habitation as a preference, negating therefore the slim possibility that Bandjalang speakers might have migrated there as a founder population at some later stage.
The majority of the evidence for demic migration being the likely explanation for Bandjalang speaker's occupation of Moreton Island comes from linguistics. Although described by Crowley (1997:287) as 'a major language cleavage', which it undoubtedly is, nonetheless, as with the PN and NPN interface in the Victoria River described by McConville, the relationship between Yagara and Bandjalang is characterized by intensive borrowing. Lexical borrowing from Bandjalang into Yagara favours semantic categories such as flora and fauna and landforms, indicating the probable occupational precedence of the former. There is also evidence also for the adoption of technological terms, and humanity and kin terms indicative of social interaction (Jefferies 2012:96-102, Fig. 4E) between the two languages. Phonological features such as word-final peripheral nasals, found in Bandjalang but not originally Yagara, again are indicative of the likely direction this borrowing has taken (Jeffries 2012:93-5, Figs. 4B, 4C). Linguistic evidence also includes considerable toponymy of Bandjalang origin within the Yagara distribution - as well as toponymy whose origin appears to precede both languages (Jeffries 2012:70-3). On both lexical and very limited grammatical evidence, borrowing between Guwar and Yagara was of a very high order, approaching 50% in the former category (Jeffries 2012:114-23). Included in these borrowings is the Yagara pronominal paradigm, as well as some kinship terms (Jeffries 2012:121-5, Fig. 5A). That Nunukul, Yagara speakers of the northern end of North Stradbroke Island, and the Ngugi would have had a close relationship is beyond doubt; given the small number of Ngugi (perhaps 200-250), and their isolation, demographic sustainability must have depended on intermarriage with their Yagara neighbours on North Stradbroke Island (Jeffries 2012:118). This, then, is very much the situation described by Heath (1981:364-5) as conducive to borrowing, that is a small, isolated population adjacent a larger population with the probability of a high degree of demographic, cultural, and economic dependence of the former on the latter. While Guwar's genetic language origins are unquestionably in Bandjalang, however, this is overlain with a great deal of borrowing from Yagara, the result of a long and close historical association with Yagara speakers.

Yagara is a language of limited distribution, confined to parts of the Brisbane River drainage, the separate Pine River system to the north, the Moreton Bay foreshores, North Stradbroke Island and a number of smaller islands in Moreton Bay. The language has little dialectal variation, suggesting a recent prehistory. The economy and culture of Yagara speakers was specialized, limited to the rivers and rich riparian open forest and scrubs of the Brisbane River Valley. This makes it quite distinct from its Wakka and Bandjalang neighbours, who for the most part were upland forest-dwellers and whose economy, generally speaking, was more omnivorous. Later, the Yagara economy adapted to the littoral environment of Moreton Bay and its islands. Although as yet undemonstrated, Yagara is probably related to the East Queensland Border languages of the New England Tableland mentioned in connection with Crowley (1997). If this can be shown to be so, it raises the possibility of Yagara having one had its origin in coastal languages as far south as the Macleay River to re-emerge centuries later on the sea at Moreton Bay (Jeffries 2012:63-7). The
combination of dialectal homogeneity and an economy and culture very much tied to waterways suggests the possibility a superior adaptation to these environments; also, perhaps, a more cohesive social organization, with the possibility of greater cooperation; and, lastly, the probability that Yagara’s demic expansion followed closely on that of Bandjalang, perhaps not allowing the latter sufficient time to establish themselves in numbers in the Brisbane River Valley.

Various aspects of language distribution point to the likelihood that Bandjalang speakers had occupied the Brisbane River Valley and Moreton Bay foreshores and islands prior to the arrival of the Yagara: the presence in both Yagara and the Bandjalang dialects contiguous with it of a considerable amount of lexicon borrowed one from the other, mythological references, and toponymy. A concentration of diverse Bandjalang dialects in the Gold Coast region, that is, contiguous with Yagara’s southern distribution, first noticed by Crowley (1978:145-7), could be interpreted as an outcome of the same Yagara expansion that stranded Guwar on Moreton Island. Consistent with Nichols’ (1997) idea of accretion zones, it is argued that Bandjalang speakers retreating south beyond the Logan River before Yagara expansion were forced to concentrate in a smaller area, the narrow coastal plain of the Gold Coast, resulting in smaller distributions of more diverse dialects (Jeffries 2012:87-92; Crowley 1978:146-7). The coastal dialects of Bandjalang (excluding those of the lower Richmond River) have a distinctive character within Bandjalang, being known as the Mibiny dialects after their distinctive word mibiny ‘man’. Among these are a kinship system similar to that of Yagara, and unlike other Bandjalang systems, which could also be interpreted as having resulted from historical contact between the two languages (Jeffries 2012:145-7). Guwar’s linguistic relationship to the Bandjalang subgroup is also says something of their shared history: while Guwar has some cognates in the Coomera dialect of Mibiny contiguous with Yagara’s southern boundary, there are many more found in distant Clarence River dialects that are not found in Mibiny. This indicates that Guwar belongs to an earlier period Bandjalang prehistory, preceding Mibiny’s development as an entity within Bandjalang (Jeffries 2012:81-2).

5. Memmott et al. (2015) – Tangkic, Gulf of Carpentaria, Queensland

Memmott et al.’s (2015) ‘Fission, Fusion and Syncretism: Linguistic and Environmental Changes amongst the Tangkic People of the Southern Gulf of Carpentaria, Northern Australia’ is the most recent, and possibly most effective, reconstruction of prehistorical Australian demic migration. The description ‘effective’ is appropriate because this study is the first to bring all the anthropological subdisciplines (minus bio-genetics) into focus on the reconstruction of a language expansion. The model is a complex one, arguing that ‘[t]he modern configuration of Tangkic owes its form to pulses of outward movement from Mornington Island followed by subsequent linguistic divergence in both grammar and lexicon of the varieties’ (2015:1: Abstract). Included in the reconstruction is inter-

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dialectal borrowing (‘linguistic syncretism’) between Tangkic dialects brought on by ‘an extreme environmental event’ in the period 800-400 BP, namely the flooding of low-lying coastal areas that forced their abandonment and the consequent co-residence of neighbouring Tangkic groups. Data from linguistics (including the recent recovery of archival recordings and fieldnotes), archaeology and climate science suggests the proto-Tangkic homeland was Mornington Island, from which:

At 2000-1500 BP temporary visits to the coastal mainland and South Wellesley Islands intensified, leading to colonisation and then fission into a Northern Tangkic group on Mornington Island and the Southern Tangkic colonists on the adjacent mainland and intervening islands (2015:8).

This reverses the previously held view of Tangkic prehistory, namely that the language spread from the mainland to Mornington Island (Evans 2005). Memmott et al.’s (2015:1-2) model posits an initial divergence of Tangkic into northern and southern subgroups, thought to have been followed by a long period of ‘relative insularity’ (c. 1000 years), in which period both branches developed independently into separate languages. A second wave of expansion from Mornington Island followed—commencing therefore c. 1000-500 BP—leading to a ‘hypothesized Northern Tangkic-offshoot language’, ‘a northern variety, with strong affinities to the ancestor of Lardil’ (Memmott et al. 2015:8-9). This second Tangkic expansion spread from Denham and Forsyth Islands just south of Mornington, probably along the coast and up the Nicholson River and most likely spreading also to Bentinck Island’ (Memmott et al. 2015:9). The hypothesized coastal flooding occurred shortly after (c. 800-400 BP), leading Northern-Tangkic-offshoot speakers to seek ‘refuge with the mainland Southern Tangkic people, leading to a linguistic-cultural process of syncretism’, this expressed as the metatypic or grammatical convergence not atypical in Australian coastal languages, that is, where ‘one language becomes grammatically, but not lexically, like another.’ This reconstruction ties in with the folklore of the neighbouring Garrwan who claimed the vacated coastal land and ‘remember a lost tribe (the ‘Nyangga’, Furby and Furby 1977) whom they replaced’ (Memmott et al. 2015:10). This close historical interrelationship of second wave Northern Tangkic and Southern Tangkic speakers resulted in the distribution of the subgroup’s languages as we know them today,

The metatypized Southern language variety, which had thus arisen and diverged markedly in grammar, yet barely at all in vocabulary, from the Southern Tangkic tongue later became Yangkaal-Kayardild and Yangarella-Nguburrind – languages which we collectively refer to as Eastern Tangkic. The more purely Southern, unmetatypized mainland language continued on, largely unaffected by this event in a gradual development process to become Gagalinnda (Memmott et al. 2015:11).
Part of the rearrangement of territories following the hypothesized climatic event was the reoccupation of Bentinck by the Yangkaal-Kayardild group (Memmott et al. 2015:12-3). The Yangkaal, later occupants of Denham and Forsyth Islands between Mornington Island and the mainland, were to play an important role in Tangkic relations (Memmott et al. 2015:19):

[The Yangkaal were trading 'brokers' who controlled trade between the mainland and Mornington Island despite the disproportionate size of their respective territories (Memmott 2010:82-86). Participation in inter-tribal initiations by Yangkaal with both the Lardil of Mornington Island and the Gangalidda on the mainland generated mutual social relationships, tribal inter-marriages, and behavioural obligations based on subsection, totemic and kinship classifications.

The shared history of these speakers of different Tangkic languages is reflected in their continuing interrelationship.

6. Various Authors – Nyungar n.d., S.W. Western Australia

A region with perhaps the clearest case of having had a history of migratory movement, and one for which further study continues to amass evidence, is the interface between southerly moving Western Desert people and in situ Nyungar speakers in the King George Sound region of Western Australia. That Western Desert speakers impinged on the territory of Nyungar, and used circumcision as a means of incorporating Nyungar into their culture seems beyond doubt. The degree to which this occurred post-colonially, or was exacerbated by post-colonial conditions, varies from author to author; O'Grady (1959:164), calculated on the basis of rates of movement suggested by Bates, that the Galagu-Eastern Mininy group had adopted circumcision 'not earlier than 1750', clearly then, well before the arrival of Europeans.148 O'Grady (1959:1-2; also Bridges 1992:94; Bates n.d. NLA 15/322, IV 1:76) suggests that circumcision, if not the driver of territorial acquisition, was integral to it:

Radcliffe-Brown (1913) and Bates both mention the initiation of a circumcising tribe of some of the youths of a neighbouring non-circumcising group, and the latter goes so far as to state that

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148 Berndt (1980:81-2) is quite adamant in associating the spread of circumcision with European settlement: 'a merging of social units occurred quite early during the contact period, when people from different language groups were obliged to live in mixed-membership settlements'. Bates (1985:87) is more ambivalent, as regards both the effect of Europeans settlement on Aboriginal communities, and the direction of its influence on circumcision: 'At the present day adoption into one or other of the tribe is accomplished, but in the old native days no Jukwak or other circumcised man would be found amongst the Southern coastal people. The settlement of the country by the whites and the safety that such settlement affords to the native law-breakers, has been taken such advantage of by those who are not desirous of keeping up the traditional laws and customs of their forefathers, that every native law which made for a certain tribal morality is now set aside, and men marry when and whom they can, ignoring all rules, and daringly venturing into districts where without the protection of the white man their lives would not be worth a moment's purchase.'
Youths taken from the Esperance area towards the Nullarbor Plain for purposes of initiation ‘never returned again to Esperance, becoming members of the tribe of those who performed the operation’. This could be taken to have involved the abandonment by such youths of their mother tongue, and the adoption by them of the speech of their circumcisors.\textsuperscript{149}

Gibbs and Veth (2002:14) interpreted circumcision under these circumstances as the ‘ritual engine’, i.e. the prestige factor already discussed, the circumcision of coast-dwellers by Western Desert people slowly shifting the demographic balance between coast-dwellers and themselves in their favour, permitting them gradually to expand their territory southward. This domination was achieved by the ‘four major mechanisms’: ‘making periodic ceremonial visits to the southwest areas, bringing new dances, magic, ritual objects and other inducements’; kidnap, circumstances in which boys from coastal areas ‘had been captured and circumcised by men from the interior areas’; ‘the threat of sorcery and to a lesser extent of physical retribution; and the use of ‘newly-circumcised men and boys [...] as proselytising agents’, combined with the intergenerational transmission of circumcision (Bates in Bridges 1992:94, 150; Bates n.d. NLA 13/322 IV 1:76, 15/252, IV I, NLA 15/322 IV 1:76 in Gibbs and Veth 2002:15-6; see also von Brandenstein 1986:3 in respect of ‘proselytes’). I would envisage the role of circumcision in Western Desert expansion in somewhat different terms: namely, that circumcision fulfilled the same ideological role in Western Desert populations as found in the expansions of religions such as Islam and Christianity in historical times: it assisted with cohesiveness in the expanding population; provided an additional sense of militancy; and sharply separated their population from neighbouring, non-circumcising populations; but circumcision alone, with or without additional inducements, was not enough to ensure the acquisition of new lands. This seems to be borne out in the more detailed accounts of Western Desert and Nyungar contact. Tindale (1974:254; also 261) described the territorial extent of the Njunga as follows:

From Young River west to Israelite Bay along the coast and inland for 30 miles (50 km.), with a disputed area between Point Malcolm and a native place called (Kap’kidja’kidji), at the northern end of Israelite Bay, claimed also by the Ngadjunmaia. These people had begun to accept circumcision but not subincision and had separated from hordes west of Young River who refused to undergo the rite and preferred the name Wudjari, although they also used on occasion the eastern name Nunga.

Both Tindale (1974:78) and von Brandenstein (1986:3) provide significant detail on this dispute, whose origins clearly belong within the context of southward Western Desert migration:

\textsuperscript{149} Gibbs and Veth (2002:15) describe how, ‘Bates interviewed several older men, originally from the coastal areas, whom as boys had been captured and circumcised by men from the interior areas (Bates n.d. NLA 15/322, IV 1:76). This usually occurred during the novice stage when, in the southwest tradition, they spent several years being passed between distant camps in order to receive training from men of the opposite moiety (Bates 1985:150). During this travelling phase they were in unfamiliar territories and away from the protection of families, making them extremely vulnerable to ‘capture’ by circumcising groups.’
[There is] a disputed boundary at Israelite Bay in the eastern part of southwestern Australia. There the Ngadjunmaia of the Balladonia area and the Njunga of the Esperance area both lay claim to Israelite Bay. As claimed by the Njunga the boundary is at a place 5 miles (8 km.) north of Cape Dempster, which they call Tjitjalap. The actual boundary watering-place they name as Kaapkidjakidj, where kaap is ‘water’. As proof of the justice of their claim they say that their ancestral hero being named Paljat chased a kangaroo from east of the Thomas River, Bojatap, following it northeastward along the coast to well beyond Israelite Bay. The Ngadjunmaia claim that their country extends to Jawarangap, or Point Malcolm, and call Israelite Bay and Cape Dempster both Tjitjilanja (Tjitiilanja), placing their own suffix on the name. In support of their view they claim that Kaapkidjakidj is near Thomas River and not at the northern end of the bay. The disputed area extends inland and amounts to approximately 500 square miles (1,300 sq. km.). Inland it is marked by Mount Ragged which the Njunga call Karaap (Karap) while the northern people call this height Paningganja (Paningganja) which means the ‘lookout or overlook of the Paningga hawks’. The literary evidence does not support the Ngadjunmaia position beyond Mount Ragged. They clearly have adapted southern names for the area they are usurping.

von Brandenstein’s (1986:6) account of this contested land is very much in agreement with Tindale’s – with the addition of some telling detail:

The boundary between Ngadju-maya and Nyungar remained in dispute until fairly recently. At stake is a triangular piece of land bound in the west by a line from Mt. Ragged to Point Malcolm and claimed by the Ngadju-maya, and bound in the east by a line from Mt. Ragged to Gogalup Point, the latter being the English distortion of Tiurt-yaarl-ap ‘White-earth-become’; the Nagadjja-maya call it Tidilana). The decisive border point is a waterhole named Gaip-qitaqqqit, ‘One-spear after another’, indicating some heavy fighting among the one-time friends. The Nyungar placed this waterhole near Gogalup, the Ngadju-maya near Point Malcolm.

Both Tindale (1974:78) and von Brandenstein (1986:6) are in agreement that the disputed land is by right Nyungar country; the former describes it as ‘a territorial grab followed by an attempt at modification of the nomenclature by a people with a different dialect’; the latter too has no doubt of the legitimate owners, referring to ‘the disputed land in between being Nyungar and not Ngadju-maya land right’. This, of course, is a conclusion that can only be arrived at if one takes the view that Aboriginal land ownership must be in some way inherently immune from the forces of history. The context of this struggle in pre-colonial times goes back considerably further: ‘The southern people who were originally non-circumcising have been on the defensive against the aggressive
circumcising people from the north for several generations at least, indeed as far back as memory goes' (Tindale 1974:78). Again, both authors' reconstruction of this history in essentially the same:

At the time of first European contacts, the Njunga were passing through a phase of splitting into two tribes under pressure from the people to the north. The eastern hordes wished to adopt the rites of circumcision and subincision and within a few years those of Fanny Cove had accepted the rite after a period of disputation with the Ngadjunmaia over the possession of Israeliite Bay. Thereafter, in place of their earlier name of Wudjari, the eastern hordes preferred to be called Njunga which means 'man' and even Bardonjunga or 'circumcised men' to advertise their new status. The people west of Fanny Cove, in avoiding the rites, shifted west towards Ravensthorpe so that at the time of their settling down among the incoming white settlers they were almost a separate tribe. They adopted a name, Bardok, for the members of the eastern hordes who had the male initiatory rite. They did visit each other but there was some ill feeling between them because of the superior attitudes taken by the Bardok men (Tindale 1974:78; also von Brandenstein 1986:3-4).

von Brandenstein (1986:4) places these events around 1800. At this time, '[l]arger numbers from the south went over to the Ngadju-maya, became their allies and were accordingly called by them Nyungurra, meaning 'allies''. Those uninterested in the Western Desert peoples or their rites, according to von Brandenstein, then made 'the further decision to leave the homeground around Qaip-Qaill (Esperance) and move away to the west', this resulting in a new name applied to them by the Ngadju-maya: 'they were called now Wudja-arri meaning 'Runaways':

Those who moved away as far as Ravensthorpe accepted that name [i.e. Nyungar] and are so named today. This move started a big migration to the west, a migration not only by people, but also by the newly created language. Many single migrants who 'ran away' farther north contributed to the diffusion of the new language which became later known as Nyungar, Nyungar proper could we say.

This westward movement of the Wudjaari is marked by 'the diffusion of the placenames [ending] in -up' (von Brandenstein 1986:6). The conversion to circumcision of the Nyungar speakers who had remained at Israeliite Bay, however, had not abated the desire of Western Desert inlanders to reach the sea; as a consequence, '[t]he Ngadju-maya pushing for the coast disputed the Nyungurra territory and tried to take over', resulting in the on-going struggle for the country between Israeliite Bay, Point Malcolm and Mount Ragged described above.

19 Tindale's (1974:78) cites an interesting bit of evidence for this assertion: 'The European name for the [Israeliite] bay is an indication that at the time it was given, the Ngadjunmaia were in evidence there'. (i.e. around 1805).
Appendix 2

Kabi

The Kabi distribution is hypothesized to have separated from Wakka-Kabic some time after the initial breakup of the protolanguage, and, therefore, to be descended from one of the lower branches of its phylogenetic tree. This presupposes a more recent demic migration. Nevertheless, Kabi's distribution quite complex. There appears to have been three waves of Kabi migration, the ethnographic and linguistic evidence for this assertion being found primarily on Fraser Island. The salient environmental characteristic of Wakka-Kabic distribution has been pointed out, the dichotomy between the Wakka and Kabi distributions, these being inland and coastal respectively. Wakka speakers, while often occupying country quite close to the sea, for example, within the now City of Brisbane extending as far east as suburbs such as Enoggera, nevertheless seemed incapable of, or unwilling to, occupy littoral stretches of rivers or the maritime environment. Kabi speakers, on the other hand, when their country was not situated along the lower reaches of large rivers such as the Mary and Burnett Rivers, were entirely coastal. Originating in the same protolanguage, Kabi and Wakka were as much differentiated by their speakers' relation to environment as by language itself.

Kabi extends from Barney Point, on the southern outskirts of Gladstone, south along the coast as far as Breakfast Creek, a tributary of the Brisbane River, including the northern bank of the Brisbane River to the river mouth. This is a distance of approximately three hundred kilometres. Only along the major rivers, the Mary, Burnett and Kolan, does its distribution extend more than about twenty kilometres inland. Although this can't be stated with certainty, the Mary River seems to have been the Kabi 'heartland', running as it does south to north behind the Pacific Ocean coast, geographically central to Kabi distribution and proximate to the greatest diversity of Wakka-Kabic languages. A further hypothesis might be that Kabi expansion began at or near the head of the Mary River and north and south along the Pacific Ocean coast. Clearly, adaptation to coastal environments was a significant factor in their demic migration. This points to the development of their economy as being one geared to exploitation of the littoral environment, possibly with technological advantages derived from their posited original habitation of riparian environments.

151 In historical terms this can only be explained by others having already occupied these environments ahead of Wakka speakers and these others having established themselves economically and technologically such that the Wakka – despite no doubt possessing much the same economy and technology as it applied to riverine environments – was never able to overcome the intrinsic advantages of those in situ.
As noted, the Kabi language is generally undiversified, indicating recent demic expansion. There are, however, exceptions. Dappil, for example, the northernmost Wakka-Kabi language, fits the environmental profile of a Kabi language, situated on the lower reaches of the Boyne River and the adjacent coast. While a large part of Dappil lexicon is cognate with Kabi, nevertheless, such are the array of influences it is possible to discern within it, combined with the slim corpus of data, that identification as a Kabi language can only be speculative (see Capell 1962:6-7; Schmidt 1972). The lack of variation in other Kabi dialects, such as Ngunda, at the southern end of Kabi distribution, extending along the Pacific coast from Noosa Heads to Breakfast Creek, points to very recent expansion, this surmise one of the very few reinforced by European observation (Petrie 1904). The three Kabi expansions appear to have overridden one another, leaving language isolates surrounded by later migration. From a locus probably on the Mary River, I posit an initial wave of expansion, the surviving remnants of which included Dappil on the lower reaches of the Boyne River and adjacent coast, Nhulla on Bribie Island, and possibly the Ngulungbara language on the northernmost tip of Fraser Island. A second wave of expansion resulted in the Batjala distribution, covering much of Fraser Island and the Hervey Bay coast on the mainland opposite, extending northward as far as the lower reaches of the Burnett and Kolan Rivers. The last expansion brought Kabi speakers onto the southern end of Fraser Island, as well as south along the Pacific Ocean coastline as far as the Brisbane River. Fraser Island provides a microcosm of this prehistory containing as it does linguistic evidence of the three successive migrations postulated. Each migratory wave resulted in a separate linguo-ethnicity. Each has left a trace in the Fraser Island language, now known as Batjala.

The Fraser Island Languages

Some hundred and fifty kilometres south of Gladstone, jutting out into the Pacific Ocean, is Sandy Cape, the northern tip of the hundred and twenty kilometre long Fraser Island. Fraser Island was the home of three Wakka-Kabic languages, today known collectively as Batjala. Batjala, however, more correctly refers to one of the Fraser Island languages, that which occupies the middle third of Fraser Island and the adjacent mainland coast, from approximately the mouth of the Mary River to Burrum Heads. In historical-linguistic terms Batjala represents a particular episode of Wakka-Kabic history, an expansion that probably began in the Mary River valley, and extended northward into Hervey Bay and onto Fraser Island, and from there along the coast as far as Baffle Creek. Batjala represents in linguistic terms little more than a dialect of Kabi. It is, however, also a discrete event in the history of Wakka-Kabic speakers. Batjala’s expansion was over country that had been occupied by a previous wave of Wakka-Kabic speakers. These people were left isolated on the northernmost third of Fraser Island. Whether the Ngulungbara were speakers of Kabi at all or some other language will never be known, for a number of reasons, a lack of data foremost. However, even were the Ngulungbara to have spoken a non-Wakka-Kabic language, centuries of contact with Kabi speakers has obscured this.
As it is, the linguistic and ethnographic data suggests the probability that they were speakers of a Wakka-Kabic language. After Batjala expansion occurred a third wave. This migration included the Wundambi,\(^{152}\) whose country extended from Noosa Heads to the Brisbane River and the Dulingbara, speakers of a very similar dialect, who occupied the southern third of Fraser Island and the coastal country south of Inskip Point to Noosa Heads. The hypothesis is therefore that Ngulungbara was the remnant of the first Wakka-Kabic expansion (which may not necessarily have been Kabic), followed by the Batjala, and lastly the Dulingbara, the latter two progressively pressuring the preceding occupants into a smaller, more northerly part of Fraser Island. The ethnographic evidence for the existence of these different languages is good. Caroline Tennant-Kelly (1932:2-3), who worked with Batjala people in the 1930s, documented the existence of Kabi on the island and surmised its origins:

My informants, however, were emphatic that the Kabi were mainland people, and that from Witoomba (about the middle of the island) north to Sandy Cape the suffix employed was ‘ala’, Batchala, Wythala, etc., and that the word for ‘No’ was Woi, the people being known as the Kowoi. Among the Kabi the word for ‘No’ was Kabi. This would indicate then, a different tribe than the Kabi and from the information I received I consider it possible that the island originally belonged to the Kowoi and that the mainland Kabi [...] were invaders who gained a footing and continued to possess the island from Witoomba southwards.

Tennant-Kelly (1932:2-3) expanded on these comments to add:

This is borne out geographically by the Kabi area being at the most convenient place for journeying between the island and the mainland [i.e. between Hook Point and Inskip Point]. It is interesting to note that the Kabi people who belonged to Fraser’s Island regard themselves as distinct from the Kabi of the mainland – a slight scorn of mainlanders being noticeable even in conversation with present-day natives. Another interesting point is that the word for totem among the Kabi is Euri and among the Kowoi, Binda.

Finally, Tennant-Kelly (1934a) includes the following in her notes made later at Cherbourg (‘Badjela Language and Kinship Notes’):

<table>
<thead>
<tr>
<th>Kabi</th>
<th>No among the Kabi Kabi</th>
</tr>
</thead>
<tbody>
<tr>
<td>among Badjela</td>
<td>Waka means No</td>
</tr>
</tbody>
</table>

\(^{152}\) This is given in the literature (i.e Winterbotham 1954, 1956) as Undanbi. Undoubtedly the true spelling is semi-vowel word-initial. It could conceivably be Yundanbi but I consider it more likely, the first vowel being /u/ that that semi-vowel is /w/, hence Wundanbi. This concurs with Tennant-Kelly’s elicitation from Galarbau obtained in Cherbourg in 1934.
Elsewhere, Tennant-Kelly (1934f) obtained from her informant, probably Gaiarbau (Willie Mackenzie), the ‘tribal’ distributions concurrent with that of their languages (No. 178 ‘Neighbours of the Dunkibura and Dunkijow’):

The Dhulingbura from Maroochy to Tin Can Bay and up to Bauple Mountain inland. From Yabba Station right to the junction of the Mary River where Yabba Creek joins it and across to Imbil is the Wundumbi. The Dhoabura now joins them at the Mary River and runs right along the river to the salt water. (‘Where the salt water begins the language changes’). These people run right to Kilkivan. Bauple Mountain is the dividing range for these people and the Dhulingbura. At Tin Can Bay the Bajela start and they go up the coast as far as the mouth of the Mary River and up that river as far as the salt water goes. These people also ran on Frasers Island on the other side. Frasers Island was divided between the Bajela on the southern side as high as Whitecliffe and Yeni Creek. From there to Sandy Cape was the Wulumbura.

The notebooks of Archibald Meston (c. 1895) also provide a commentary, if somewhat cryptic, on the language situation on Fraser Island (OM64-17 (2) JOL):

‘wah’ = no; ‘wah’, ‘wacca’ and ‘cabee’ spoken
Toorobbera tribe at Hook Point = ‘Yoorrr’; spoke Wah

The same document provides the additional correlative data:

Carree [i.e. Kari = Fraser Island] blacks spoke ‘wah’
White Cliff blacks spoke Cabbee and Wacca

Meston (1905:4) was later to conclude in his ‘Report on Fraser Island’ for the Queensland Home Secretary:

There were three dialects spoken, as proved by the three negatives.

Finally, and perhaps conclusively, we have the work of L.P. Winterbotham, an ethnographer of the post-World War 2 period, whose work possessed one inestimable advantage, namely that of access to the knowledge of two of the last fully informed traditional people of south-east Queensland, Gaiarbau and Barpooodera (Cobbo Williams), the last of whom was Batjala. Winterbotham’s (1953) running notes to the songs he recorded from Barpooodera provide the information: ‘There were three tribes on Gari (Fraser Island): Ngulungbara in the north, Batjala in the centre and Dulingbara in the south.’ The data these two men provided to Winterbotham made its way into Tindale’s (1974:124-5; also 1974:165-6) Aboriginal Tribes of Australia:
New is the suggestion that the Dulungbara, either a separate tribe, a horde of the Kabikabi or of the Batjala, claimed possession of the southern third of Fraser Island. The Batjala are thus credited as holding only the middle third of the island, but having extensions of their territory onto the mainland at Tinina (or Tinane) Creek with rights northward along the coastal strip to Pialba. From Gaiarbau and other sources it seems clear that the northern end of Fraser Island was held by the Ngulungbara which he regarded as a separate tribe, despite the -bara suffix of the name.

While then the anecdotal evidence for the existence of three Fraser Island languages is good, description of them, and, particularly, what differentiated them linguistically from one another, is not. There is a considerable amount of source material (some twenty odd wordlists), modern dictionaries (Bell 1994) and some morphosyntactic analysis (Bell 2003). However, attribution of wordlists to a particular language is invariably absent, although this can be sometimes inferred, if tentatively, from the whereabouts of the list’s elicitation. By the time most vocabularies were collected Fraser Islanders were living in missions and fringe camps. These appear to have consisted of speakers of at least two of the dialects, not difficult to imagine given their demographic dependence on one another even in pre-colonial times, and the sharp decline in numbers thereafter. Possibly the camp at Pialba consisted of Ngulungbara and Batjala speakers, and that at Urangan, Dulungbara and Batjala speakers, a possible explanation for the animus prevailing between the two camps. Language analysis is, therefore, no straightforward task. Particularly in the case of Ngulungbara, the least known of the languages, it relies on what Baker (2010:85) referred to as ‘dark matter’, that is, the anomalous material in the sources for which no definite attribution can be made, and which contrasts with better attested Batjala and Kabi lexicon.

<table>
<thead>
<tr>
<th>gloss</th>
<th>Dulungbara</th>
<th>Batjala</th>
</tr>
</thead>
<tbody>
<tr>
<td>wife</td>
<td>malimgan</td>
<td>narringang</td>
</tr>
<tr>
<td>husband</td>
<td>malidjanni</td>
<td>narra</td>
</tr>
<tr>
<td>stone axe</td>
<td>murgim</td>
<td>burgu ~ burwu</td>
</tr>
<tr>
<td>meat (tolem)</td>
<td>yuri</td>
<td>binda</td>
</tr>
<tr>
<td>teeth</td>
<td>dangga</td>
<td>nyiling</td>
</tr>
<tr>
<td>dingo</td>
<td>wadja garum</td>
<td>wangari</td>
</tr>
<tr>
<td>pelican</td>
<td>buluwalum</td>
<td>bululong ~ bulung</td>
</tr>
<tr>
<td>plover</td>
<td>buyubila</td>
<td>buyurung</td>
</tr>
<tr>
<td>kookaburra</td>
<td>gagung</td>
<td>gawung</td>
</tr>
<tr>
<td>mullet</td>
<td>ngandiya</td>
<td>gabunyurr</td>
</tr>
<tr>
<td>oyster</td>
<td>dilda</td>
<td>dilha</td>
</tr>
<tr>
<td>sun</td>
<td>dhirum</td>
<td>nguruny</td>
</tr>
</tbody>
</table>

Table App. 2A - Batjala and Dulungbara lexicon compared
Batjala and Dulungbara are certainly closely related dialects. Fraser Island dialects collectively are quite readily distinguishable from Kabi by features such as the medial lenition of peripheral stops in the latter, (-g- -> b-) to glides (-w- -> y-), e.g. nggun > ngunj ‘stone axe’; waba > wonna ‘crow’, or trill+stop heterogeneous cluster to trill (-g- -> r-), yirgan > yiran ‘woman’; wurgu > wurru ‘girl’; bargun > barra ‘boomerang’. This distinction does not seem to apply on the island, where, with some exceptions, all three dialects share the same phonotactics (cf. Holmer 1983:2). Some few examples of distinctive Batjala and Dulungbara lexicon does emerge from the corpus. The data can be divided into two categories: wordlists that seem solid examples of one or other dialect, such as Curr’s (1887: 111:134-5) Maryborough wordlist, which, having the most lexical similarities with Kabi, and the fewest Fraser Island idiosyncrasies, appears to be Dulungbara, or Meston’s notes and wordlists collected from Ahning-ga (c. 1895, OM 64-17 (2)), whose mother he reports as coming from ‘Carree’, that is, Sandy Cape, and, containing as it does a high percentage of anomalous material, is likely to contain Ngulungbara language. The second category is comprised of wordlists containing a certain amount of duplication, such as Meston’s (c. 1895, OM 64-17 (17)) Pialba wordlist, collected from Gittahmah of the Columbarah local group. This list has a number of duplications indicative of dialectal variation, probably between Batjala and Ngulungbara; examples being wana vs. wakka ‘no’ (but the ‘Pialba Blacks’ themselves described cryptically as < cabbeeabhee >); gina vs. wing ‘fire’; yanuvs vs. wunggun ‘beard’. No claim is made that the data presented below identifies Ngulungbara unequivocally; however, the probability, convergent from linguistic and ethnographic sources, points to some likelihood in all cases, and significant probability in many. One consistent characteristic that appears to separate Ngulungbara from Batjala and Dulungbara is the greater degree of lenition in Ngulungbara; e.g. ngawal vs. ngawang ‘mother’, yawiny vs. yabuny ‘elder sister’, wayawun vs. wayun ‘scrub turkey’, and gijung vs. gijing ‘white cockatoo’. This implies a possible gradient of lenition increase south to north over the entirety of Fraser Island. Most of the ‘dark matter’ that could likely be Ngulungbara is, however, lexical.

<table>
<thead>
<tr>
<th>gloss</th>
<th>Batjala ~ Dulungbara</th>
<th>Ngulungbara</th>
</tr>
</thead>
<tbody>
<tr>
<td>woman</td>
<td>yirrgan</td>
<td>midjam</td>
</tr>
<tr>
<td>young woman</td>
<td>ngiyam</td>
<td>ngayang</td>
</tr>
<tr>
<td>girl</td>
<td>wurgu</td>
<td>gilanggan</td>
</tr>
<tr>
<td>father</td>
<td>babuny</td>
<td>miyi</td>
</tr>
<tr>
<td>husband ~ wife</td>
<td>narra ~ narringang</td>
<td>nguruwiny</td>
</tr>
<tr>
<td>fishing net</td>
<td>mula</td>
<td>bundjili</td>
</tr>
<tr>
<td>canoe</td>
<td>gulurr</td>
<td>gununguwa</td>
</tr>
<tr>
<td>camp</td>
<td>dhaa</td>
<td>munya</td>
</tr>
<tr>
<td>red ochre</td>
<td>gudjing</td>
<td>mula</td>
</tr>
</tbody>
</table>

Table App. 2B – Batjala and Dulungbara lexicon compared to Ngulungbara
(continued overleaf)
<table>
<thead>
<tr>
<th>head</th>
<th>gam</th>
<th>gang</th>
</tr>
</thead>
<tbody>
<tr>
<td>mouth</td>
<td>dangga</td>
<td>ganga</td>
</tr>
<tr>
<td>stomach</td>
<td>dhunguny</td>
<td>ganang</td>
</tr>
<tr>
<td>tame dog</td>
<td>wadjja</td>
<td>miri</td>
</tr>
<tr>
<td>plain turkey</td>
<td>yaam</td>
<td>yangga</td>
</tr>
<tr>
<td>black cockatoo</td>
<td>wiya</td>
<td>waa</td>
</tr>
<tr>
<td>death adder</td>
<td>mandulum</td>
<td>manulgung</td>
</tr>
<tr>
<td>mullet</td>
<td>gabunyurr</td>
<td>gubiyugarr</td>
</tr>
<tr>
<td>grass</td>
<td>baan</td>
<td>gugu</td>
</tr>
<tr>
<td>fire</td>
<td>gira</td>
<td>wili-ng</td>
</tr>
<tr>
<td>ground</td>
<td>dhaa</td>
<td>nyuran</td>
</tr>
<tr>
<td>moon</td>
<td>babuny</td>
<td>ngilan</td>
</tr>
<tr>
<td>star</td>
<td>diri ~ dirayi</td>
<td>yawuriny</td>
</tr>
<tr>
<td>one</td>
<td>gaalim</td>
<td>garulim</td>
</tr>
<tr>
<td>to run</td>
<td>bidjali+</td>
<td>gambarang</td>
</tr>
</tbody>
</table>

Table App. 2B – Batjala and Dulongbara lexicon compared to Ngulungbara
(continued)

Lastly the various attestations from Meston and Tennant-Kelly of words meaning ‘no’ can be compared, these invariably in south-east Queensland and elsewhere ethnonyms identifying a language distinct from other languages. As noted, these are at best cryptic and some extent contradict each other. However, kabi ‘no’ must certainly refer to the Dulongbara, who, from all accounts were relatively recent interlopers into the southern third of Fraser Island. Tennant-Kelly (1932.2-3; 1934a) provides two additional negatives, < woi >, ‘from Witoomba (about the middle of the island) north to Sandy Cape’, and < wakka >, found ‘among [the] Badjela.’ Meston (c. 1895) provides three negatives: ‘wah’, ‘wacca’ and ‘cabbee.’ Although not conclusive, it seems likely that < woi > and < wah > might well be versions, dialectal or not, of the same word. Meston associates the negative with one group and one place only: ‘Toorobberra tribe at Hook Point = “Yoorerr”; spoke Wah.’ I attribute this self-identifying negative to the Batjala of the southern third of Fraser Island and the mainland opposite. This leaves only wakka, recorded on Fraser Island by both Meston and Tennant-Kelly. I think it is likely that this is the self-identifying negative of the Ngulungbara, the latter’s identification of the wakka with the Badjela notwithstanding; nor Meston’s documentation of the word at White Cliffs (i.e. the mission on Batjala country). If so, it raises the question of whether or not the Ngulungbara were Wakka speakers, the identity of their language obscured by centuries of borrowing from Kabi. This possibility places Ngulungbara in a similar position to Dappil, that is, that although the data allows no definite conclusion, that there may have been an initial wave of Wakka speakers who preceded the demic migration of Kabi speakers.
That the language distribution of Fraser Island resulted from three successive waves of migration can only be inferred. One of the fundamental relationships posited in demic migration theory is that linguo-ethnic populations displaced by the movement of other linguo-ethnicities seek refuge in less resourced, less desirable country (see Nichols 1992, 1997). This seems to have been the case with the Ngulungbara, who, like the Ngugi of Moreton Island, inhabited the least resourced, most maritime-dependent Fraser Island environment, furthermore a cul de sac at the northernmost tip of the island. This is consistent with a migratory history of being forced progressively north into that country. That the Kabi speakers who comprised the Dulungbara and Wundarbi can be independently shown to have been a demic late migration, one in fact still active and observed in post-colonial times, lends further probability to their incursion into the southern part of Fraser Island. There were then three distinct linguo-ethnicities on Fraser Island, all of whom seem to have possessed a degree of enmity with the others, particularly so between the posited older inhabitants and the latest arrivals, Kabi speakers, who were seen as interlopers. Evidence for this can be found in Tennant-Kelly (1934) who documents the antipathy between the Batjala and Dulungbara on Fraser Island and the mainland opposite. This seems to have carried over into European times with the establishment of two fringe camps at Hervey Bay, one at Pialba, at the northern end, and one at Urangan at the southern end. As exogamy was the rule on Fraser Island it is possible the former was composed of intermarried Batjala and Ngulungbara families and the latter Batjala and Dulungbara families. Certainly an on-going hostility between the two continued well into modern times, expressing itself in each denying the traditional connections of the other to Fraser Island. I would argue that the environmental distribution of the three groups supports the migratory hypothesis. The seemingly benign relationship of Ngulungbara and Batjala, the result of time having had the opportunity to heal wounds, and a long history of demographic interdependence is at odds with the much less friendly relationship between Batjala and Dulungbara. Lastly, the evidence from mainland language distribution, while ambiguous, offers the possibility that the Fraser Island distributions reflect broader Wakka-Kabic history, that is, that there were at least three successive waves of Wakka-Kabic migration. Ngulungbara is a relic of the first, and possibly a Wakka language, followed by Batjala, which at some time split away from Kabi, and lastly, Dulungbara, an undifferentiated Kabi dialect that represents the later and last Kabi expansion along the Pacific Ocean coast.

Nhulla

A reasonably clear example of Kabic demic migration and its contact with substrate language speaking populations is the Nhulla language of Bribie Island, which has only one source of data, the wordlist, collected by Meston in 1895 from Alma (Kalmakuta). Bribie Island is an island composed predominantly of sand separated from the adjacent mainland by a narrow, island and sandbar-filled passage. Opposite Bribie Island, stretching from Noosa Heads in the north, south along the mainland
coast, never extending more than fifteen kilometres inland, as far south as Breakfast Creek, a tributary of the Brisbane River, was the Kabi speaking group identified by Gaiarbau (Winterbotham 1962) as Undanbi or Oondumbi, presumably Wundambi (cf. Tennant-Kelly 1934). The Wundambi dialect was identified as Ngunda ('him'), although this seems to have been the third person accusative for Kabi at large (see McConvell 2006). It may, however, have served to distinguish Ngunda from the non-Kabi languages that were contiguous, including Nhulla, which appears also to be a third-person pronoun. Few characteristics distinguish the Ngunda dialect from Kabi as a whole. The tendency to lenition, which distinguishes Kabi dialects from Batjala and Fraser Island languages generally, is most pronounced in Ngunda, for example, gurbunda > gurwunda 'three'. Otherwise, there is pre-stopping of medial laterals, [dhadla] vs. [dhala] 'hair of the head', [nudla] vs. [nula] 'hole', [budla] vs. [bula] 'two', and a certain amount of syllable-initial elision: gari > [grii] 'spear'; ganilim > guwalim > [gwalim] 'one'. There are other minor variations, none of which appear to be consistent, for example, nganu vs. nganung 'breast', dhara vs. dharr 'camp'. A very few words appear to be distinctive to Ngunda, budji vs. gibirr 'young man', marun vs. winyirr 'old woman', ganamii vs. gamaranu 'father's mother'. Some of the distinguishing features of the dialect are not unique to Ngunda but shared with other Kabi dialects, particularly southern ones, and more particularly the Dulingbara dialect which extends from Noosa Heads to Mount Bauple, and includes the southern third of Fraser Island. Dulingbara (a term parallel to Wundambi in as much as it is a general time for a Kabi speaking population spread over a wide area) appears to be the immediate Kabi speaking population from which Wundambi originates, i.e. perhaps from an original common population with Dulingbara migrating north along the coast, Wundambi south.

Despite its limited differentiation from Kabi linguistically, Wundambi's distinct identity culturally among Kabi speakers is well-documented. While Kabi dialects, including Batjala, invariably have gani or [gunayi] 'spear', the sources we have for Ngunda (Meston c. 1895; Landsborough 1887; Westaway 1887; and Leichhardt's 1844 informant, Nicki) all have variations of gari [grii] [garayi] 'spear'. Both Petrie (1904:101-2) and Gaiarbau (Winterbotham 1956) comment on the distinctive three or four-pronged fishing spear that characterized the Wundambi, making it probable that this type of spear, the name of which appears in no other Kabi source, characterized them. Most distinctive in the Wundambi lexicon are words for various species of bird and fish, although these are sometimes not confined entirely to Ngunda; for example, ngiring 'black swan'; buluwalam 'pelican', guni-guivirr 'curlew', ngariya 'mullet'. The pelican in particular had significance as murang 'totem' for the Wundambi. Buluwalam was also one of the words for the bone ornament placed through a hole bored in the nasal septum that denoted a certain level of initiation among men (Eipper c. 1844). This refers to the fact that it was the wing bone of the pelican that was shaped and polished to manufacture the ritual artefact for this ceremony, with different groups employing the bones of different creatures for this purpose, depending on the murang with which their particular 'tribe' was associated (Petrie 1904:19-20):
Men always had their noses pierced (women never had) [...] This bone was generally taken from a swan’s wing, but it might be from a hawk’s wing, or a small bone from the kangaroo’s leg; and it was supposed to be about four inches long. It was only worn during corroborees or fights, and was called the buluwalam.

Of the two terms adduced by Ridgley for Dippil, one, kagarabacoin (gagara-bayanu), refers to the Kabi speakers whose murang was gagarn ‘kookaburra’, the wing-bone of which provided their sacred nose-piece; the second, murumburri ‘life-full of’, refers to the spiritual elation, the metaphorical ‘taking wings’ experienced by the initiate (Mathew 1910:168-78; Eliade 1973:139). Petrie (1904) is wrong insofar as the minburi gara-gara (sacred bone) was concerned; buluwalam referred not to the nose bone in general, but to that of the Kabi speaking group members that Petrie knew personally, namely the Wundambi, part of whose country included what are now the north-eastern suburbs of Brisbane. Gaiarbau (Winterbotham 1956:75) notes that ‘tribes that combined together used the same kind of nose piece. They would hold combined initiation ceremonies’. Gaiarbau (1956) refers to a number of other cultural features by which the Wundambi (and others) in this region differentiated themselves:

The Undumbi used to coat their shields with beeswax just to make them look nice, but this spoilt its further usefulness, as it would not then resume its original shape when soaked in water. Men of each tribe had distinctive markings on their weapons. These were tribal not totemic [...] The red ochre used by the Dungidau was a bright red; that used by the Undambu a dull red.

Finally, the Wundambi are frequently mentioned in connection with both initiation ceremonies and inter-tribal fights. In all cases, they are mentioned as a people that acted as a collective (Petrie 1904:55, 160-2), Winterbotham 1956).

The evidence, both linguistic and ethnographic, points to Wundambi having been a recent ethnolinguistic expansion. Firstly, the lack of variation in the Ngunda dialects, despite a 120 km+ north to south distribution; secondly, the environmental integrity of this distribution, that the Wundambi’s reliance on the littoral environment was close to complete; and lastly, the evidence for their sociocultural integrity, that many factors point to not only a sense of linguo-ethnic unity, but to a unity that also could find expression in collective action. This included the ongoing regularity of ‘battles’ with the Yagara speaking inhabitants of the Brisbane River documented in the early colonial literature. Given this sense of a linguo-ethnicity still in the throes of a very environmentally defined demic migration at the arrival of Europeans, the characteristics of the Nhulla language of Bribie Island, situated right in its midst, are all the more surprising. Whether Nhulla was actually a Wakka-Kabic language is debatable. The morphosyntactic data that might resolve the question satisfactorily doesn’t exist. However, from what does exist, Meston’s Nhulla list (about 200 words), it is apparent
that the significant portion of Kabi it contains is borrowing rather than genetic inheritance. This can be explained in two ways: Nhulla speakers’ reliance on the Wundambi demographically (i.e. to provide wives), particularly with the population balance almost certainly in the latter’s favour, makes considerable borrowing into Nhulla seem likely (see Harvey 2011:367, 373); secondly, given the possibility that Nhulla, if not Kabi, is possibly a descendant of Wakka-Kabic, some commonality of basic vocabulary is to be expected. What makes it less likely to be Kabi is the general homogeneity of Kabi: all dialects, wherever spoken, seem to have much the same vocabulary, particularly basic vocabulary. Nhulla, however, is full of words that have no cognates in Kabi. This seems to point to some other origin. There appears to be no direct genetic relationship either to Ngunda or to the Kabi language more generally. Table App. 2C illustrates this contrast:

<table>
<thead>
<tr>
<th>gloss</th>
<th>Nhulla</th>
<th>Ngunda</th>
</tr>
</thead>
<tbody>
<tr>
<td>man</td>
<td>yuli</td>
<td>dhan</td>
</tr>
<tr>
<td>woman</td>
<td>yinggaran</td>
<td>yanangayi ~ yirrgan</td>
</tr>
<tr>
<td>boy</td>
<td>wundjiny</td>
<td>nguwniny</td>
</tr>
<tr>
<td>father</td>
<td>biya</td>
<td>babung</td>
</tr>
<tr>
<td>mother</td>
<td>naamung</td>
<td>ngabang</td>
</tr>
<tr>
<td>mother’s brother</td>
<td>gandu</td>
<td>gami</td>
</tr>
<tr>
<td>elder brother</td>
<td>nyunil</td>
<td>nyuwan ~ nyuun</td>
</tr>
<tr>
<td>younger brother</td>
<td>walbil</td>
<td>wudjung</td>
</tr>
<tr>
<td>elder sister</td>
<td>dungal</td>
<td>yabwiny</td>
</tr>
<tr>
<td>younger sister</td>
<td>dungan</td>
<td>niburr</td>
</tr>
<tr>
<td>son</td>
<td>nugibara</td>
<td>gani</td>
</tr>
<tr>
<td>FZ’s children</td>
<td>wamugiri</td>
<td>yumu ~ yuman</td>
</tr>
<tr>
<td>husband</td>
<td>bunyarra</td>
<td>nugarbin</td>
</tr>
<tr>
<td>wife</td>
<td>nyubilbar</td>
<td>mulinman</td>
</tr>
<tr>
<td>spear</td>
<td>dulim</td>
<td>garayi ~ gari [gri:]</td>
</tr>
<tr>
<td>shield</td>
<td>bamanjgili</td>
<td>gundany</td>
</tr>
<tr>
<td>nulla nulla</td>
<td>dambara</td>
<td>gudjarr</td>
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<td>axe</td>
<td>waarr</td>
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<td>willi</td>
<td>dharra</td>
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<tr>
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<td>miit</td>
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<tr>
<td>nose</td>
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<td>mouth</td>
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<tr>
<td>stomach</td>
<td>munduru</td>
<td>dhunguny</td>
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<tr>
<td>foot</td>
<td>balbura</td>
<td>djinang</td>
</tr>
<tr>
<td>blood</td>
<td>giwuru</td>
<td>gagi</td>
</tr>
<tr>
<td>kangaroo</td>
<td>djing</td>
<td>mari</td>
</tr>
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</table>

Table App. 2C – Nhulla and Ngunda lexicon compared (continued opposite)
<table>
<thead>
<tr>
<th>gloss</th>
<th>Nhulla</th>
<th>Ngunda</th>
</tr>
</thead>
<tbody>
<tr>
<td>koala</td>
<td>budilim</td>
<td>gula</td>
</tr>
<tr>
<td>echidna</td>
<td>girwilambalam</td>
<td>gagarr</td>
</tr>
<tr>
<td>dingo</td>
<td>dubilam</td>
<td>wadja garum</td>
</tr>
<tr>
<td>egg</td>
<td>nguwa</td>
<td>baam</td>
</tr>
<tr>
<td>crow</td>
<td>waal</td>
<td>wuwa</td>
</tr>
<tr>
<td>mullet</td>
<td>gunundjal</td>
<td>ngariya</td>
</tr>
<tr>
<td>mosquito</td>
<td>buruburu</td>
<td>bumba</td>
</tr>
<tr>
<td>tree</td>
<td>gulul</td>
<td>dhuu</td>
</tr>
<tr>
<td>grass</td>
<td>buguwil</td>
<td>baan</td>
</tr>
<tr>
<td>fire</td>
<td>gaal</td>
<td>girra</td>
</tr>
<tr>
<td>sun</td>
<td>wilaarn</td>
<td>ngurun</td>
</tr>
<tr>
<td>moon</td>
<td>gunil</td>
<td>babuny</td>
</tr>
</tbody>
</table>

Table 2C - Nhulla and Ngunda lexicon compared (continued)

Several features of the Nhulla lexicon appear to point to a much longer history in this region than that of the Ngunda dialect of the Wundambi. Throughout the lexicon there are correspondent terms with neighbouring languages. Whether these are cognates or borrowings from a period deeper in regional history is at present impossible to determine. Examples are *wanngiri* 'father’s sister’s children’ and *marany* ‘old woman’, both of which derive from Yagarra and have undergone semantic shift, *wanngiri* from a broad Ø generation definition usually glossed as ‘cousin’ to the more specific ‘father’s sister’s children’, and *marany* ‘father’s sister’ to ‘old woman’. Wakka dialects also seem to have contributed words, such as *djing* ‘kangaroo’ and *nguwa* ‘egg’, otherwise found in the Wakka languages of the coastal ranges, because of their divergence from one another, the subgroup’s likely proto-homeland. While these may be borrowings, it is also possible they are retentions. Cognates are concentrated in the Wakka-Kabic languages at the northern extent of the Wakka-Kabic distribution, in particular the coastal dialects of Dappil. As mentioned (Chapter 6), Dappil represents the northernmost extent of the Wakka-Kabic distribution, situated on the lower reaches of the Boyne River and a narrow stretch of coastline between Barney Point on Port Curtis and the northern bank of Baffle Creek. Dappil comprises two groups, one called by the Commissioner of Police (in Curr 1887 V.3 (1) No. 161) the Toolooa, who occupied the watershed of the Boyne River’ and the Meerooni or Maroonee, who lived along the contiguous coastline between the points mentioned (Curr 1887: 3:124-5). Not helped by a slender corpus, Dappil’s identity is difficult to determine, containing as it does elements in common with Wakka, Kabi and Gurang, as well as the contiguous non-Wakka-Kabic language Bayilli. Whatever its relationship to specific Wakka-Kabic languages, however, its place in that subgroup seems very probable. Its geographic position on the margin of Wakka-Kabic distribution can be interpreted not, as in the case of Wakka languages such as Yi:man and Guwang, as evidence of recent demic migration, but as the result of an earlier episode of Wakka-Kabic expansion. In other words, like the Ngulungbara, it is hypothesized Dappil speakers were shunted
into a smaller distribution, probably by Gurang speakers moving down the Boyne River Valley and Kabi speakers migrating northward up the coast. If so, Nhulla, like Ngulungbara on Fraser Island, Dappil could have its origins in a very early Wakka-Kabic demic expansion that reached the sea. Bannister (1960) was the first to hypothesize that Nhulla represented an earlier strata of language distribution, although not one specifically related to the northernmost Wakka-Kabic languages:

Nhula agrees with Gabi in only 15% of cognates compared in a 220 word list, against 20% with Durubul [i.e. Yagara] and 40% with Gurai [i.e. a Wakka language located directly inland]. These affinities suggest that Nhula and Gurai may be the remnants of an old language strata which existed about Moreton Bay before the Durubul speakers reached the Bay from the south eastern interior over-running Stradbroke Island and isolating Guwar from the Bandjalang language with which it shares affinities.

While Bannister’s conclusions are insightful (see Jefferies 2012 for Guwar’s relationship to Bandjalang), the area of most fruitful comparison for Nhulla is with the northern Wakka-Kabic languages. The languages of Fraser Island and those Bajala languages occupying the coast as far north as Baffle Creek, as well as the lower reaches of the Burnett and Kolan Rivers, usually grouped under the ethonym Taribalang, produce a number of cognates, or, at least, terms held in common with Nhulla. Examples are: birumby ‘boy’; ngawat ‘milk’ < ‘mother’; gabu ‘[type of] boomerang’; galibara ~ galuna ‘rainbow’; guluru ‘canoe’; wanu ‘blue-tongued lizard’. However, the most significant of comparable lexicon, both in terms of their semantic importance, and their likelihood of representing true cognates, are those found in common with the Dappil languages:

<table>
<thead>
<tr>
<th>gloss</th>
<th>Nhulla</th>
<th>Dappil</th>
</tr>
</thead>
<tbody>
<tr>
<td>father</td>
<td>biya</td>
<td>biya</td>
</tr>
<tr>
<td>boomerang</td>
<td>bagan</td>
<td>hagan</td>
</tr>
<tr>
<td>camp</td>
<td>wiili</td>
<td>wii ‘fire’</td>
</tr>
<tr>
<td>language</td>
<td>dali</td>
<td>dali ‘mouth’</td>
</tr>
<tr>
<td>eye</td>
<td>miil</td>
<td>miil</td>
</tr>
<tr>
<td>nose</td>
<td>mudhu</td>
<td>mudhu</td>
</tr>
<tr>
<td>beard</td>
<td>yari</td>
<td>yari</td>
</tr>
<tr>
<td>blood</td>
<td>giwurr</td>
<td>grrwan</td>
</tr>
<tr>
<td>egg</td>
<td>nguwa</td>
<td>nguwa</td>
</tr>
<tr>
<td>emu</td>
<td>nguruyi</td>
<td>nguri</td>
</tr>
<tr>
<td>crow</td>
<td>waal</td>
<td>waarr</td>
</tr>
<tr>
<td>goanna sp.</td>
<td>wanggu</td>
<td>wanggula</td>
</tr>
<tr>
<td>grass</td>
<td>bugawil</td>
<td>bugalgu</td>
</tr>
<tr>
<td>sun</td>
<td>wiilara</td>
<td>wiidjarr &lt; wiiga cf. wii ‘fire’</td>
</tr>
<tr>
<td>day</td>
<td>wunydi</td>
<td>wunydid</td>
</tr>
</tbody>
</table>

Table App. 2D – Nhulla and Dappil lexicon compared

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Considering the distance that separates them, the connection of Nhulla to Dappil is tenuous but, I would say, nonetheless real. A factor pointing to a deep-seated common history is the difference both share from the basic vocabulary Wakka-Kabic (i.e. anatomy). Given their geographic position in relation to the Wakka-Kabic distribution, Nhulla on an island, Dappil at the northernmost extent of Wakka-Kabic distribution, almost of opposite ends of the Wakka-Kabic distribution and some two hundred and fifty kilometres apart, the likelihood is that their historical relationship belongs to an early period of Wakka-Kabic expansion. Whether Ngulungbara too is related to this hypothesized early period of Wakka-Kabic expansion is difficult to assess, any attempt to do so vitiated by limited data. Islands, the isolated tips of peninsulas, unprepossessing tablelands and mountains, are all frequently the haven of linguo-ethnic populations whose original, more benign and resource-rich territories have been taken up by later population expansions. If this holds for these distributions, Nhulla, judging from the good ethnographic evidence to indicate a very efficient adaptation to the littoral environment, were probably occupants of a larger coastal territory until overtaken by the demic migration of the Wundambi. Thus, they were forced back onto Bribie Island. The ethnography and language of the Wundambi themselves indicates a rapid and recent demic expansion, the colonial historical record indicating that they were impinging on Yagara territory in the lower Brisbane River during the initial decades of European settlement. As also well documented, Dulungbara, the northern extreme of the same Kabi expansion, were simultaneously pushing into the southern portion of Fraser Island. As both Dulungbara and Wundambi seem to have already been well adapted to a maritime culture and economy, this posited third wave of Kabic demic expansion probably began from country around the Noosa River, this being the dividing point of the two migrations.
Appendix 3

Warumungu

The Warumungu language of the central Northern Territory has the same combination of isolating factors as Kalkutungu; that is, it is language not closely related to the larger subgroups that surround it, Ngumpin-Yapa, Mirndi and Arandic, along with a distinctive physical distribution that also distinguishes it from its neighbours. Bowern and Atkinson (2013:832) have placed Warumungu in the Ngumpin-Yapa subgroup ('Ngumpin-Yapa is internally consistent and includes Warumungu'), with, however, reservations; Warumungu is, in addition, an 'isolate', ‘which split Ngumpin-Yapa’ (2013:832):

Eastern Ngumpin and Western Ngumpin do not form a single subgroup; rather, Eastern Ngumpin is split: the easternmost languages are a sister to Yapa and Warumungu, while the other Eastern Ngumpin languages are a sister to Western Ngumpin. In addition, Warumungu, usually considered an isolate within Pama-Nyungan, is placed within the Ngumpin-Yapa subgroup as a sister to Yapa (Warlpiri and Warlmanpa) (2013:834-5).

Bowern and Atkinson (2013:835-6), moreover, say of the cognate lexical items Warumungu shares with Ngumpin-Yapa that ‘[m]any are likely to be shared retentions from a shared ancestor beyond Ngumpin-Yapa’. Most historical linguists are happy to describe Warumungu as an isolate, unrelated to any phylogegetic relationship below Pama-Nyungan (e.g. Dixon 2002:xxxi). As Blake and Breen (2007) encountered with Kalkutungu and Yalarnnga, a significant problem for reconstruction is that above the subgroup there is only Pama-Nyungan; historical linguists have had trouble distinguishing protolanguages intermediary between Pama-Nyungan and modern subgroups. I think it is fair to say that the jury is out on Bowern and Atkinson’s placement of Warumungu within Ngumpin-Yapa; the general opinion among Australianist historical-linguists appears to be that Warumungu is, for the time being at least, a Pama-Nyungan isolate. Irrespective however of how that debate might eventually turn out, one of the more assured points that can be made about Warumungu is that, again like Kalkatungu and Yalarnnga, it is a ‘relic area’, possessor of lexicon and morphology which cognate with a number of widely dispersed Pama-Nyungan languages. It is, therefore, likely to have been separated from its closest Pama-Nyungan relatives for a considerable period of time.133

133 There are several interpretative possibilities, e.g. that Warumungu is the survivor of a larger subgroup, sister languages of which have disappeared, replaced by languages of the region’s broad language expansions such as Ngumpin-Yapa or Arandic; or, that it shares an early subfamilial history with one or more of these regional subgroups (McConvell pers. comm. 01-01-2016).
Irrespective of this putative past, Warumungu shows no close and apparent genetic relationship with its neighbours. Warumungu also shows little indication of internal dialectal diversity (Nash in Keen 1997:69; also Chakravarti 1967:32). Such variation as exists pertains to patrillects, that is the ‘patrilineally inherited folk speech qualities’ of ‘one’s father and his brothers and sisters’; these are not dialects of regional variation (Nash 1990:209). As with many Australian languages or small subgroups, this suggests little likelihood of a local origin; that is, as per Sapir’s Age-Area hypothesis, there is no evidence that the passage of time has produced the dialectal or eventually language diversification associated with long evolution (Sapir 1916[1949]:455). The likelihood is that Warumungu has either arrived in the area of its distribution as the result of an earlier language expansion, and subsequently been cut off by the demic migration of other linguo-ethnicities, or alternatively, it is the survivor of a once-larger and more varied subgroup distribution that, under pressure from its expansionary neighbours, has fallen back on a more circumscribed country. Like Kalkatungu, the topographical features of Warumungu country have favoured the preservation of a distinct and independent ethnolinguistic identity.

While Warumungu’s neighbouring subgroups occupy large territories, Warumungu country is relatively small and discrete, from the northern edge of the Davenport Range in the south to
‘approximately’ Renner Springs in the north (Spencer and Gillen 1904:5-7). Stanner’s (1934:4) account corroborates this distribution:

The Warramunga occupy the country roughly between Bonnee Well, 60 miles south of Tennant’s Creek, and at least as far north of Tennant’s Creek as Banka Banka (60 miles). Several natives told me that they thought the old northern boundary of the Warramunga was about Renner Springs, which is 90 miles north of Tennant’s Creek.

Chakravarti (1967:6-7) provides the following description:

The Warumungu country has an area of fifteen to seventeen thousand square miles. The Warumungus believe that Renner Springs and Devil’s Marbles are respectively on their northern and southern boundaries. The distance between these places is 170 miles. The eastern boundary falls on Allroy Station, and the western one, which runs parallel at twenty to thirty miles west of the Stuart Highway, separates them from the Walpiris. The distance between the east and west borders is roughly ninety to one hundred miles.

Geography gives some indication why Warumungu speakers may have occupied the country they did: it is well-watered by a succession of westerly or easterly flowing creeks in a region that, in all but a northerly direction, is arid. Spencer and Gillen (1904:5-7) regarded ‘the abundance of waterholes’ in and around the McDougall and Murchison Ranges as ‘the strongholds of the Warramunga tribe, or rather the southern division of this, the northern groups wandering around the Philips Creek, about the low ranges and broken country around Attack Creek, and as far north as Renner’s Springs’. As described in the Warumungu Land Claim (1988: Foreword), ‘there is a striking correspondence between topography and soil type on one hand, and patterns of human occupation on the other. The low ranges feed springs and concentrate rainfall into watercourses; better soils hold moisture and support more abundant plant growth and animal life.’ Well-watered and possessing range country from which it is difficult to be dislodged Warumungu country fulfils the requirements for an isolate linguo-ethnicity to remain anchored where others may be moved on or absorbed. These physical advantages go a good distance in explaining why this small and discrete language is wedged between the much broader Ngumbin-Yapa language distributions to the west and those of Arandic languages to the east and south.

The Warumungu language, unique in the context of the languages subgroups that surround it, and its dialectal uniformity, seem to suggest a population that over history maintained a strong and independent self-identity. This is certainly the impression conveyed in the Foreword to the Report on the Warumungu Land Claim (1988), which says of them:

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One only has to read the accounts and view the photographs and drawings of Spencer and Gillen to realise that in 1901 the Warumungu were a flourishing nation in the ordinary sense: a large number of people of mainly common descent, language and history, inhabiting a territory bounded by defined limits and forming a society under one government. They were reputed to be the most numerous, most intelligent and physically the best tribe in Central Australia.

Justice Maurice provides a picture of the Warumungu that few anthropologists would agree with wholeheartedly, the general view being one of a more diffuse, less organized society than that he describes (indeed, in the view of some, their only commonality being language). It is possible to argue from the Warumungu’s linguistic isolation, and the implication of a long and self-contained historical sociocultural evolution, that the Warumungu were self-contained demographically, that is, that they were endogamous, capable of demographic self-reproduction. If so, there must have been a sense of unity, social, cultural and political as well as linguistic. Modern estimates of Warumungu population, extrapolated back to estimates of pre-European times, makes any prospect of perfect endogamy uncertain however (see Denham 2013:3). Stanner (1934) estimated the Warumungu population in 1934 as ‘at the most’ one hundred and fifty; Chakravarti (1967:9) quotes the Welfare Department at Tennant Creek’s figures of ‘253 Warumungu souls in June 1966’ (see also Glasgow 1984:120). All accounts concur with Justice Maurice, that the Warumungu, when Europeans encountered them, were indeed ‘numerous and healthy’, and that their demographic demise over the last half of the 19th and first half of the 20th centuries, was vertiginous; nonetheless, estimates of their pre-European population can only be guessed. If, as I think probable, Stanner’s (1934) figure of a hundred and fifty represents a reduction to say 10% of the pre-European population, then the pre-European Warumungu population was likely in the order of one and half to two thousand people. This number is well in excess of the tribal ‘500’ traditional to Australian anthropology; but it does make the prospect of endogamy more feasible.

As regards endogamy, Denham (2013:14) concludes that although the majority of all ‘tribal’ marriages will be endogamous, a certain proportion also will be exogamous; Denham records that ‘[t]he subtotals show that 13.1% of 1244 marriages reported by Tindale and Birdsell were exogamous, and 86.9% were endogamous’. According to Tindale (1953:169, 186), ‘[a]bout 15% of marriages are intertribal […] In a series of large blocks of tribes the percentages of recorded intertribal marriages range from about 7% to 21%.’ The pattern of exogamy from people to people is variable: Tindale’s (1931/1953:174-178) Ngalia numerical data for 156 marriages includes 144 that are endogamous and 12 that are exogamous. The exogamous marriages are clustered very tightly among groups directly adjacent to the Ngalia’ (Denham 2013:14). Denham (2013:20) deduces from this:

Tight clustering among Ngalia and diffuse scattering among Walpiri and Alyawarra could reflect historical changes between 1931 and 1979, but a more plausible interpretation is that the
extent to which exogamous clustering occurred among Australian Aboriginal societies was quite variable.

As Denham's (2013:22) work also shows, perhaps unsurprisingly, inter-tribal unions tend to be concentrated among a group’s immediate neighbours. The 'Report on the Warumungu Land Claim' (1988:65-66) contains figures for marriage in the claimant groups, although these are reckoned not on marriage outside Warumungu as a whole, but within and without a particular claim group, which can be taken generally to represent a patrilineal descent group. Overall, of 1,282 individual cases analysed, 48 married within their local descent group and 194 married without, with no indication given of how many of these latter wed other Warumungu. Given factors such as the time period of these unions, in the mid-to late 20th century, and the likelihood, therefore, of wider unions, I think it is fair to suggest that in pre-European times there was a high degree of endogamy among Warumungu. However, almost certainly, Warumungu in pre-European times were to some extent exogamous, such marriages falling somewhere in the 7-21% range that Denham suggests, in my view, probably at the lower end of the scale. Warumungu mythology itself implies as much, the travels of the Pirrtangu (Flying-fox) Ancestor with his two Alyawarra wives being one example (Report of the Warumungu Land Claim 1988:70).

Spencer and Gillen (1904) offer a view of pre-European Warumungu marriage that strongly implies endogamy. They describe two moiety, Kingilli and Uluuru, associated respectively with northern and southern 'divisions' of Warumungu country. According to Spencer and Gillen (1904:28-9), these two geographically based moieties intermarry: ‘[I]n any southern camp […] all the males will be Uluuru men who have been born in this part of the country […] the wives of these men will be Kingilli’, and vice versa. At least as far as the distribution of moiety-affiliated sites go, Spencer and Gillen’s view finds no support from Stanner (1934), whose field notes describe a more varied and interspersed distribution of such sites, Kingili at Bonnee Well, Kelly Well and Banka Banka; Uluru moiety at McClaren Creek, Gilbert Creek and Tennant Creek (see also Keen 1997:69). According to Stanner (1934:7): ‘the Uluuru totems tend to bulk around and south of Tennant’s Creek, and Kingili totems north of Tennant’s Creek, but there are also Kingili totems in the south, east and south-east, and there are a few Uluuru mangai places in the north.’ Central to notions of land ownership and affiliation among the Warumungu was the mangai, essentially the estate, with which the patrclan was associated. These estates were further associated with local groups, inhabitants collectively of a larger districts. According to Stanner (1934:6), Warumungu consisted of five 'big mobs', by which can be taken to mean Warumungu local groups:

I recorded terms which I understood were the names of the 'big countries' in which these big mobs moved habitually. A number of smaller mangai places, or countries, are included in each of these 'big mobs'. The 'countries' marked off for me on a rough sketch map as belonging to
these ‘mobs’ contain in some cases totemic sites of species linked with both moieties, although one moiety predominates in each.

Stanner (1934:7-9) deduced that it was affinal relationship contracted between the patriclans associated with particular totemic sites that constituted the heart of Warumungu social organization this irrespective of their relationship to one or other of the five ‘big mobs’:

[I]t is more reasonable to suppose that a Warumungu horde, or cluster of hordes [i.e. a ‘big mob’], probably contained men of both moieties, and thus (ideally) of all sub-sections, although in any one horde there may have been, and almost certainly was, to judge from the map, a preponderance of people of one moiety, because of the clustering together of local totemic sites of that moiety within the horde (or whatever we are to call this local group) country. Thus, the most clearly defined local group among the Warramunga seems not to have been the horde, which was probably not exogamous, but the local patrilineal totemic clan which tended to be a semi-moiety [i.e. one of the four father-child pairs of subsections] and was exogamous, even if only derivatively so. Informants say that a man does not have to go to the northern Warramunga to get a wife, he can get one from his own ‘mob’, not from his own ‘country’. The local horde [were] non-exogamous, loose congeries of well defined local patrilineal totemic clans, strictly exogamous and in only rare cases not directly patrilineal.

I would disagree with Stanner only to the extent that the ‘big mob’ was unlikely to have been perfectly endogamous, even if statistically affinal relationships within it were favoured. There seems to be enough evidence to suggest that marriages could be contracted with any Warumungu, and also, on occasion, with speakers of other languages (provided, of course, kinship rules were observed). Warumungu seems to me to have been a society within which the ideal marriage was one with kin ‘distant […] but not too distant’, perhaps therefore preserving ‘the big mob’ but also allowing social alliance further afield. Warumungu’s affinal relationships – or, at least, one of them, to its contiguous neighbours, the Warlpiri – is documented by Meggitt (1968:38-9), who in 1945, along with Warumungu, were herded into Philip Creek ration depot:

The two groups have agreed that, whereas Phillip Creek Walbiri men may marry only Walbiri women, the Warramunga men are free to marry both their own and Walbiri women. Children of these marriages are Warramunga.

Apparently, this arrangement was arrived at because of the population imbalance at Manga-Manda (Philip Creek), some 343 Warlpiri to 45 Warumungu (Meggitt 1954 in Report on Warumungu Land Claim 1988:48). This discrepancy was offset by the fact that Philip Creek was on Warumungu

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country, which 'was the cause of some embarrassment to the Warlpiri'. According to Davison (1979 in Report on Warumungu Land Claim 1988:48):

Dominance in numbers was counterbalanced by territorial right. Aboriginal custom required that the Warlpiri recognise the Warumungu as their hosts. In addition, as a form of tribute, to validate their residence in the area, the Warlpiri agreed that the Warumungu men might marry Warlpiri women and the children of these unions would be Warumungu. By this arrangement conflict between the two groups was averted and a degree of cultural symbiosis and integration occurred. For example, Warlpiri customs absorbed Warumungu elements and Warumungu men played roles in Warlpiri rituals.

This accommodation seems to have lasted only as long as the two peoples were co-resident at Philip Creek. Certainly my own experience in Tennant Creek left me with the distinct impression there was little love lost between the Warumungu and Warlpiri. While Warumungu and Warlpiri has always cooperated on occasion in ceremony (see Spencer and Gillen 1904:576), Meggitt (1962:38) makes clear that, despite this on occasion mutual participation in ceremony, interrelationship between Warumungu and Warlpiri was generally antipathetic, and that intermarriage in post-European times, at least that of Warumungu men to Warlpiri women, was probably a response to exceptional circumstances rather than a norm:

The men’s descriptions made it clear that the Warramunga (and Waringari) trespasses were not merely hunting forays impelled by food shortages in the invaders’ own territory but rather were raids undertaken to combine hunting for sport and the abduction of women. As the kinship systems and marriage rules of the two tribes were similar, it was possible for a Walbiri raider to stand in the relationship of potential husband to the Warramunga woman he had abducted, in which case his tribesmen regarded her as his legal wife. Accounts such as this clearly indicate that, in the past, the relations of the Walbiri and the Warramunga were by no means friendly. It is also significant that, although most Walbiri men are bi- or multi-lingual, few of them could speak Warramunga when the drought of 1924 forced them to move into the Tennant Creek area.

While Warumungu relationships with their other neighbouring linguo-ethnicities were no doubt more harmonious than those with the Warlpiri, the extent of exogamous relationship to these in pre-European times should also not be over-estimated. The probability is that intermarriage between Warumungu and outsiders was regulated and targeted, that is, with neighbours seen as less of a threat than, say, the Warlpiri (see Denham 2013:22 in respect of ‘nations’). As described in Warumungu mythology, one such group would appear to be the Alyawarra. The insularity of the Warumungu, part of which is reflected in the endogamy of their marriage alliances, ought to reflect the history hypothesized for them, i.e. a long period of independent, self-contained development. In
other words, my argument is that the emergence of a separate and unrelated language is not merely a fact of linguistic history, it an indicator of a parallel sociocultural history. This applies not only to the Warumungu but is a generalization about ethnolinguistic groupings that fit the distributional profile I have characterized as the 'continental isolate'. Much recent discussion in Australian anthropology concerns the integrity of the linguo-ethnicity's distribution, whether the relationship of language to country has any sociopolitical significance at all (e.g. Rumsey 1993, 2010). In respect of the Warumungu, the crucial work on this topic is Keen's (1997) study of the McLaren Creek area at the southern extent of Warumungu distribution. According to Keen (1997:73-4):

In the McLaren Creek area language is mapped onto broad tracts of country. People do not merely speak certain languages, but claim identity with a certain language. However, they do not point out clear or unequivocal 'tribal' boundaries. Many who identify with one language speak another as their first language [...] many Warumungu people speak Alyawarre or, among younger people, Kriol. Some people identify with only one language, but others with one or more language varieties, such as Walpiri and Warlpiri, or Warlpiri and Kaytej (Sutton, Morel and Nash 1993). Claimants in the Warumungu and McLaren Creek land claims discriminated among those identified with a particular language and those with 'mixed' languages by the use of the name of the focal place, a word denoting the topographical character of country, or a name derived from an ancestor. Each more specific identity in relation to country and ancestors is generally associated with a particular language; but this association is not always unequivocal, so that it is incorrect to depict these identities as sub-groups of 'tribes', 'sub-tribes' or 'language groups'.

Keen (1997:66-7) suggests that the Western Desert model of 'individualistic, flexible and inclusive social organisation and relations to country' applies better to Warumungu sites around McLaren Creek, 'where country associated with the Warlpiri, Warumungu, Kaytej and Alyawarre languages comes together', than does the 'more exclusive patrilineal descent-groups in the semi-desert, Arnhem Land and Cape York Peninsula'. As a consequence, '[i]dentify constructs among people of these languages are rather diverse, although those whose country lies in close proximity tend to converge, and social practices are not clearly separated by linguistic boundaries' (Keen 1997:68). Earlier sources, however, do point to the patrilineal descent model applying to Warumungu. Stanner (1934:7-9) regarded 'the most clearly defined local group among the Warumungu' as 'the local patrilineal totemic clan which tended to be a semi-moity [i.e. one of the four father-child pairs of subsections] and was exogamous, even if only derivatively so'. Associated with the patriclan and their estate was the mangaya, the totemic species or natural phenomenon that was patrilineally inherited and which tied a man to his country and role he played in ceremony. Stanner (1934:7) found himself 'at a loss to explain how men living in one part of the territory can have their totem sites, of which they speak of as "my country", as much as 100 miles away, in distant parts of the tribal territory'. To Stanner, this
contradicted 'a number of principles' that were 'almost basic in Aboriginal society', namely that 'there cannot be the least doubt that the great majority of Warumungu lived and hunted customarily [...] on or near their own mangai country'. While this absence from the mangai may have had to do with the exigencies of survival under the post-colonial regime, it was a position Stanner was later to rethink, finding that the social requirements of economic life and spiritual life could be quite separate (Stanner 1965:2, 16). Although the Warumungu man spent time on his mangai country, and hoped to die there, social and economic considerations meant in practice that he could spend most of his life elsewhere in Warumungu country.

The model Keen (1997:66-7) suggests 'individualistic, flexible and inclusive social organisation and relations to country' is associated in particular with the Western Desert people (Berndt 1959; Myers 1986:135). There is, however, no reason to think this perspective is limited to Western Desert people. Various relationships other than inheritance can link an individual to country, among them birthplace, place of conception, burial place of parent, and others (see Sutton 2003:27; McConwell 1998:183-85). Birthplace and conception dreaming in particular exercise considerable weight in the assertion of relation to country in some cultures, but not in others; McConwell (1998:187), for example: 'The Warlpiri have a strong idea of conception dreaming whereas the Gurindji do not'. McConwell (1998:180, 182) entitled his paper on the land affiliation beliefs of the Gurindji 'Born is Nothing', after an expression of his informant 'N', 'a respected lawman', who 'emphatically rejected' the prospect of land inheritance other than through ties other than partifilial descent. As Sutton (2003:27) describes it: 'This is a matter of local tradition'. There is thus a dichotomy between those for whom the ideal of inheritance to land is through the patriline and those for whom inheritance is through a variety of means other than descent. Myer's (1986:135-6) describes for the basis for Pintubi claims to Yayayi. At the time of his fieldwork, this ownership was being disputed by Aranda speakers:

1. A lot of our old people died here (in the area);
2. We grew up around here;
3. Our children were born (born and conceived) here and it is their Dreaming;
4. It is a Pintupi country that comes through here from the west (referring to the Honey Ant Dreaming, whose travel route circles through Pintupi country and back through this area to Papunya);
5. We gave a lot of women (the Pintupi bestowed a lot of women as wives to Aranda and Luritja men who, consequently, have obligations to the Pintupi as affines).

Patrilineal descent is a notable omission. It is not hard to see in this dichotomy a parallel to the Late Holocene prehistory, extending into post-European times, namely, '[t]he distribution of conception dreaming systems linked to local group membership in Australia in terms of migration or expansion
in relatively recent times' (McConvell 1998:200). And there is the obverse: the retention of specific countries through patrilinial inheritance as a means of preserving one’s hold on country. The latter is certainly the Gurindji view: ‘People never talk about conception dreaming as a mode of attachment to land [in] marked contrast with what is found among people to the immediate west in the East Kimberleys’ (McConvell 1998:186). This is in contrast to the Warlpiri, for whom:

Conception dreaming confers “certain territorial rights over the [conception] site and ritual responsibilities in relation to the totem whether it is that of their clan or not” (Glowczewski 1991:38). Many Gurindji, however, are sceptical of claims that children born at Lajalmanu or Kalkaringi are ‘traditional owners’ or have any significant rights in the area. If anything, the idea that the Warlpiri have no land rights except in their grandparents’ country far to the south, and should if possible return there, seemed, in the early 1990s, to be gaining ground among Gurindji. (McConvell 1998:187)

It is not the case, as Keen (1997:66-7) suggests, that the ‘more exclusive patrilineal descent-groups’ are limited to ‘the semi-desert, Arnhem Land and Cape York Peninsula’ (if that means to the exclusion of Warumungu country), although it is certainly true that the southern extent of the Warumungu language distribution might indeed form a cultural boundary at which the conception and birthplace dreaming of the expansionary Warlpiri come face to face with the conservative land-holding practices of the Warumungu. There can be little doubt that Warumungu affiliation to land falls into the category of patrilineal descent. Stanner (1934:7) recorded that a Warumungu male’s affiliation to a country is the result of ‘[t]he impregnation of his mother by a pre-existent spirit which is associated with the mangai of the child’s father’s totem’. Furthermore, ‘[n]o matter where a child was born, it would be given its father’s totem. All informants agree that it is immaterial where a child is born. It is ‘put back’ to its father’s country or mangai place’ (Stanner 1934:20; see also Spencer and Gillen 1904).

The cosmological order whereby conception is enacted is identical over much of this region: ‘among the Warlpiri the travelling dreamings deposit life-essences at sites which re-emerge in the form of spirit-children to fecundate women who are near the sites (Glowczewski 1991:38-42), among the Arrente, the spirit of the ‘totemic ancestor’ enters the chosen woman when she passes close to the spirit centre’ (McConvell 1998:184). The same mechanism, however, can have different outcomes: in expansive populations such as the Warlpiri and Western Desert people, the conception site offers some latitude in the association of the individual with some portion of a ‘travelling dreaming’, although obviously one compatible with the father’s moiety (McConvell 1998:199); in societies for which patrilineal inheritance is more rigid the association with a particular place, namely that of the father’s totem, is specified. Further, as Sutton (2003:12-3) points out, site ownership need not necessarily imply land ownership on the broader scale.
A site within a country may be one over which certain people belonging to neighbouring
countries have rights, while they assert no similar rites over the country of that site as a whole,
or even over the ground on which the site itself is located. That is, pre-eminent rites to control
a site, and obligations to protect it, may belong to people who say it is not part of their country.
For example, there is a Two Euros (Marajj) site south of Tennant Creek, for whom the principal
ritual custodians are particular Kaytetye people of the Neutral Junction area who live far to the
south. The Dreaming links those distant people to local Warlpiri, Warlmanga and Warumungu
people of the Tennant Creek area, but it is the latter, not the former, who hold the ‘soil’ at the
site and are locally responsible for the site’s wellbeing.

Beyond the potentially ambiguous identification of individual places, there is a well-developed
consciousness of what constitutes Warumungu country as an entity whole and complete. As argued,
this identification is the product of occupation and ownership stretching back to the origins of the
language and its speakers’ subsequent long history in the country itself. When language is evoked it
is not the language per se that is recognized but the manifold implications of culture (which includes
language): ‘Language is among the symbolic material communities use to construct their identity, the
Warumungu had evolved as a distinct people, a great part of that identity being their continuous and
lengthy association with a discrete country. Evans (2010:289) retelling of David Nash’s examples of
‘motivation switches’ in Warumungu and Warlmanga – that is, when speakers change from one
language to another as they traverse the landscape – are instructive in this regard:

In the first, the character(s) begin to see Warumungu country from afar and begin talking in
Warumungu even though they are not yet there. Hence the site name Manuwangpu at the
place where this occurred, which is in Warumungu even though the country is Warlmanga.
The site record for Manuwangpu made by Peter Sutton (pers. comm.) says the following: ‘The
two Milwayi made this soakage as they journeyed south, heading for distant Jalylirra. The
limestone here is the same kind as at Jalylirra itself. The name of the place is in Warumungu
(manu ‘country’, wangu ‘bad’) and marks the beginning of associations with Warumungu
language, as one heads south. The country is nonetheless identified as principally Warlmanga
country, but here the Milwayi started using Warumungu language at least to refer to this
place.’

The complexity of modern life, when, for example, people no longer conduct raids to kidnap
prospective wives, and modern context, where ‘these relationships become bureaucratised or are
brought into play in competition for resources’, as Sutton (2003:12-3) puts it, might be thought to
provide a set of conditions far different to those imagined to apply before the advent of the
European. This, however, may be more apparent than real. No doubt, in Keen’s (1997) McLaren
Creek analysis, it is a case of two ideologies meeting. Both points of view, patrician inheritance and succession to ownership by means such as birthplace, are as authentically traditional as the other. I would argue however that both come from different mindsets, themselves the product of different histories; patrician inheritance is about the preservation of ownership, conception dreaming and other considerations are about linguo-ethnicities finding an ideological justification consistent with territorial acquisition. Also, the demographic necessity of having some exogamous relationship with neighbours probably accounts for (or, at least, is compatible with) the multiplicity of extralinguistic interest in sites and districts described by Keen (1997:67-8) for the southern periphery of Warumungu country. Dreaming tracks, particularly along watercourses that travel off into indeterminate distances well beyond Warumungu country, may have provided avenues for the maintenance of affinal connections, allowing the possibility of population replenishment to remain open (see Keen 1997:73-4). As McConvell (2010) describes for the Gurindji, long dreaming tracks that combine linguo-ethnic memberships are also more likely a cultural signature of expanding populations – as opposed to those whose orientation is more towards preservation of a long-held and discrete country.\footnote{McConvell (pers. comm. 01-01-2016) comments that ‘[t]he Gurindji assert that [land] ownership is in jaminan stretches of dreaming lines, and say that it is the Warlpiri who go for long lines having combined membership. This and ‘conception dreaming’ are signatures of an expansionist group.’} This contrasting relationship to land and sites could well constitute a typological variable between actively expanding linguo-ethnicities such as Warlpiri on one hand, and conservative territory-preserving linguo-ethnicities such as Warumungu on the other. Cases of contested ownership, particularly on the periphery of ethnolinguistic distributions, are, according to the theory offered here, an integral part of life in a world of expanding and contracting frontiers. While values may have a hierarchy, ultimately, in the pre-European world, they had to be defended. Certainly as many Warumungu see it in present times, it is the Warlpiri and others who are attempting to impinge on their country, not any necessity on their part to acquire or maintain relationships at a distance.

Historical factors are crucial to our perception of what Warumungu people and their relationship to country were; firstly, that the evolution of a distinctive Warumungu language and occupation of country is something that has taken place over a long period of time, many hundreds of years, if not in excess of a thousand years. This lengthy linguo-ethnic evolution, within boundaries that have probably undergone only minor adjustment, coterminal with the development of a distinctive language and culture, has to be reckoned a powerful factor in any appreciation of sociopolitical values and relationships. The outstanding feature of Warumungu history, as it is with isolates generally, is not that they have an active and sometimes seemingly compromised relationship with neighbouring linguo-ethnicities, but that they have been able to maintain their identity, most saliently expressed in language, and their territorial integrity, in the face of significant expansionary pressures from linguo-ethnic populations around them.