

LINGUISTIC COMMUNITIES AND SOCIAL NETWORKS ON CAPE YORK PENINSULA

Peter Sutton and Bruce Rigsby

Our major orientation in the study of linguistic communities and social networks in Cape York Peninsula is at present more ethnographic than theoretical. That is, given the paucity of relevant socio-linguistic theory and the problematic, empirical nature of its main issues, we are primarily concerned with obtaining an adequate database. Having said that, we nonetheless discuss below the kinds of data an adequate theory will need to account for, and the kinds of questions we expect such a theory to answer.

The immediate aim of our research is to elucidate the linguistic dimensions of a unique and disappearing type of human social and ecological adaptation, the Aboriginal hunter-gatherer societies of Australia, and in particular those of Cape York Peninsula (CYP).

Aboriginal people have lived on CYP (defined as mainland Queensland north of the 16th parallel) for at least 13,000 years (Rosenfeld 1975), and probably longer. For much of that time, what is now the Peninsula was merely the higher portion of a land-mass which was above sea level right across the present Gulf of Carpentaria to Arnhem Land and north across what are now the Torres Straits to New Guinea. The Torres Straits were formed by rising sea-levels about 6500-8000 BP (Jennings 1971). Linguistic and anthropological studies made in the area date from the late eighteenth century, but only in the last eighty years have they been made by specialists with extensive training and field experience. Most of what is known of the languages and cultures of CYP dates from field work between 1927 and 1935 - McConnel, Thomson and Sharp - and since 1969. Consequently, if we wish to understand the long-term dynamics of cultural and linguistic relationships and their development in the region, we have to rely on

archaeological reconstruction, historical reconstruction of linguistic divergence, convergence and parallel developments, plus what we can learn about traditional patterns of socioterritorial segmentation and communication networks (marriage and residence patterns, ritual alliances, totemic connections, warmaking groups, exchange cycles and so forth) from field ethnography with the traditionally-oriented Aborigines who live on the Peninsula. We are at present engaged with other workers (see below) in long-term studies of this type, concentrating on a transect across the middle Peninsula between Lockhart and Port Stewart on the east and Aurukun and Edward River on the west. We have also both worked in the Princess Charlotte Bay area.

CYP is characterised by high linguistic diversity in some areas (such as Princess Charlotte Bay, the far northern tip, and a narrow strip down the west coast), contrasting with low diversity in others (such as the Starcke River-Mossman area, or the even less diverse 250km stretch from Cape Grenville to Massey River, on the east coast). Cultural diversity is also higher in some areas than in others: the west coast between the Archer and Edward Rivers has prominent, discrete ritual groups, while much of the central Peninsula north of Laura appears to have lacked such segmentation.

Cultural and linguistic diversity are not always closely correlated. Princess Charlotte Bay and environs (between the Stewart and Starcke Rivers) was inhabited by speakers of perhaps ten languages, between some of which there are significant grammatical differences, and between all of which there are striking lexical and phonological differences. Yet at least the Flinders Islands and Barrow Point peoples regard all the people of that region as 'countrymen', among whom they traditionally found spouses, with whom they joined in ceremony, and with whom they shared distinctive cultural traits. By contrast, the western coastal region between the Archer and Edward Rivers exhibits less linguistic diversity (there are many dialects, which may be clustered into a handful of distinct languages), but far greater segmentation socially. It is generally known as 'the Wik-speaking area' by anthropologists and linguists. Like Princess Charlotte Bay, it could be described as a 'culture-area'. Such culture-areas, in spite of their diverse natures, clearly exist and will be treated by us as the widest meaningful social networks traditionally operating in CYP.

In the Wik-speaking area, regional segmentation is clear-cut along the coast, but becomes ill-defined 15-20km inland. The grossest segments are ritual groups, which are spoken of in English as 'tribes'.

One such group, Apelech, includes members of lineages with countries clustered about three rivers, the Love, the Kirke and the Knox. The three river-groupings constitute smaller segments within Apelech, each with a core of lineages sharing a major cult-totem. Even smaller segments consist of clusters of two or three lineages with contiguous estates known by a single 'nickname'. The smallest meaningful segment is the lineage, which is the land-holding unit. All segments greater than the individual lineage may be, and usually are, polylingual. That is, they consist of clusters of lineages affiliated to different dialects/languages. The countries of those lineages which speak the same language tend to be separated from each other by countries of lineages with different linguistic affiliations. Both territorially and politically, languages are 'discontinuously distributed'.

There is no significant dialectal or dialect-group endogamy. Seventy-six percent of marriages (excluding those of recent date which would not have been possible in pre-European times) have been between individuals affiliated to different dialects. Sixty percent have been between those affiliated to dialects of mutually unintelligible languages. Marriage clusters are bounded by two main features: geographical proximity within the coastal floodplain area, and - to a less clear extent - membership within the named ritual group. Eighty-seven percent of marriages by those with country on the floodplain have been contracted within the long, narrow coastal strip. About three-fourths of the lineages in the Apelech ritual group have contracted three-fourths of their marriages within that group. All residence-groups normally include speakers of several dialects. All people over about thirty years of age have multilingual competence, and younger people are at least bilingual in the lingua franca Wik-Mungkan and English. Many people who are affiliated to the same dialect belong to separate regional groups and may have little contact.

In the light of such facts, the 'dialectal tribe' model used in some Australian demographic and linguistic studies has no support whatever from the Wik-speaking area. This model (see Birdsell 1953, 1968, 1976 and Dixon 1970, 1972:330ff) posits a dialectally homogeneous speech community, predominantly endogamous, which constitutes a primary domain of social structure. It is a population isolate, a territorial unit, and a relatively bounded communications network. In the Wik-speaking area, such entities are *not* characterised by dialectal homogeneity.

The same is true of other parts of Cape York Peninsula. The distribution of lineage-countries in the eastern Princess Charlotte Bay area is much closer to the stereotype, in that lineages with a single language have adjacent countries. However, such linguistic communities are not recognised as individual segments of political or demographic importance, and neither they nor the languages they speak have names. Most individuals, if asked to name their language, will give the name of their patriline or, sometimes, the name of a well-known place (such as Flinders Island) in the relevant region. And they can do this in any one of several languages, since all lineages and most important locales may be referred to by different forms in each of the languages of the area. Multilingual competence and linguistic exogamy were again the norm.

An adequate model of Aboriginal sociolinguistics will have to explain these apparent 'exceptions' to what has been assumed to be the norm. Although we are not yet able to produce such an explanation, we would stress that Aboriginal belief-systems play the crucial role in determining linguistic affiliation and the role of this affiliation in demography. Much more information on what Aboriginal people believe about language is needed.

It should be clear from the sketches just given that we are not attempting to treat CYP *in toto* as a single culture-area, but as a geographical slice that has an ecological, cultural and linguistic diversity suited to our purposes as linguistic anthropologists. It is an eminently suitable area for comparative and historical study, both because of the wide diversity now to be seen, laid over a common underlying heritage, and because in certain subareas we have the chance to integrate linguistic with non-linguistic data. In this way, we hope to elucidate the dynamics of linguistic affiliation, linguistic change and regional dialect patterns in relation to the pressures of traditional social structure, belief systems, politics, demographic patterns, and the environmental constraints of natural resources, seasonality and topography.

Much comparative linguistics has already been done in CYP, largely on lexical and phonological reconstruction, and genetic subgrouping (see Sutton, ed., 1976 for recent examples). We know, for example, that there has been extensive phonological diffusion across large areas, and that this may have been associated with sociocultural influences (Alpher 1976). Detailed work on other types of diffusion has yet to be done. From a study of linguistic diffusion in Arnhem Land, Heath (1978) concluded that traditional Indo-Europeanist historical

linguistic models of diffusion were inadequate to explain the data he gathered and interpreted. It is unlikely that CYP will be any more amenable to Indo-Europeanist interpretations than Arnhem Land. A sociolinguistic theory that will generate a powerful explanatory model will have to account for the patterns that emerge from studies of linguistic prehistory, and it cannot simply be synchronic.

Sociolinguistic patterns on CYP have great implications for diachronic linguistic theory. We already know enough to state that *social networks and linguistic groupings on CYP are not isomorphic*. In other words, although it is more than likely that dialect and language differences and similarities *somehow* reflect social networks, this reflection is by no means instantaneous or simple. An adequate sociolinguistic theory must account for this discontinuity. To borrow some terminology from Silverstein (1972), but omitting some of his distinctions, *speech communities* may stand in relatively simple relationships to social networks, but *language communities* certainly do not. For the moment, we may define a speech community as a group of people who interact regularly by means of speech, and therefore belong to a communication network. A language community is a set of people who share a common grammar, as characterised by a (near-) identical knowledge of syntactic, lexical and phonological rules. We recognise the problems of drawing boundaries around communities and of delimiting networks, and also the problem of distinguishing 'different grammars' using mutual intelligibility or quantitative measures as criteria. But we find the language/speech community distinction useful, one which has so frequently been ignored in the discussion of language in the Australian Aboriginal context.

A speech community is essentially the same as a social network, but we use the former term to emphasise its linguistic aspect. The character and history of languages is clearly more closely related to the structure of social networks than to the spatial distribution of people in on-the-ground aggregates. Different speakers of the one language may reside separately with speakers of other languages, but maintain contact with each other through frequent contact. We also find the converse, at least in Cape York: different speakers of the one language may belong to geographically and politically distinct social networks, and have little contact. We also find that the territories of those people who speak a single language are not always contiguous, and that we must speak of regional multilingual repertoires rather than 'dialect areas'. Indeed, one of the main reflections of the boundedness of a social network is the range of multilingual competence of its members.

Other defining features, which in CYP are typically (but perhaps not necessarily) compresent, are: relatively bounded patterns of marriage; patterns of coming together to perform rituals; relative freedom of movement over each others' countries, at least during the dry season; and mutual aid in wider conflicts.

Thus, social networks are defined by patterns of countless small-scale interactions, rather than by the presence of single distributional traits such as 'sharing a common dialect' or 'possessing a common kinship system'. They may be named or un-named, but it is usually not too difficult to find a locution or two in local languages that recognise their existence; to find, for example, that they form the content of *us/them*-type pronominal references. Social networks are heavily political, hence labile and contractual, not fixed. 'Norms' of endogamy are constantly violated by families who seek political allies outside the network by 'marrying out' their girls. Lineages expand, contract, and die out. Our distinct impression is that 'countries' tend to be more stable entities than their personnel. When lineages become technically extinct, it is not uncommon for those who assume custodianship of their countries to be the children of their last female members. Because of a tendency for women to marry men who speak different dialects or languages from their own, and because the majority of children take their fathers' language as their own, the linguistic affiliation of a country's custodians is liable to switch slightly or even dramatically over time. And because of a tendency towards social network endogamy, such a change in 'dialect geography' would more often than not involve a switching to one of only a subset of the dialects/languages of a region. In an area of linguistic homogeneity, these changes would not be readily apparent to an outsider, and we would expect the resulting irregular or discontinuous distribution of dialects to be subject to fairly rapid regularisation or uniformising over time. However, where relatively heterogeneous dialects and languages are spoken by very small populations, multilingualism may be the crucial element which allows such varied speech-forms to survive. This survival would be precarious were it not for the strength of Aboriginal belief in the maintenance of differences, and the view that one's own patrilineage-dialect is the optimum linguistic form.

On western CYP we find grammatical and semantic unity, some phonological variation, and considerable lexical diversity. This suggests that the same factors that may lead to the extinction of minor sub-dialectal differences and to near-total linguistic convergence in

a case of relative homogeneity, may lead only to partial convergence in cases where there is linguistic heterogeneity within the same social network. On western CYP this means that we suggest convergence and parallelism in syntax and semantics have developed because of multilingualism in an area of very small language-communities. In other areas, such as from around the southern Northern Territory to the Adelaide region, one can demonstrate phonological convergence due to diffusion of common features over a recognised culture-area. In this latter region, not only phonology but the distribution of 'kinship-pronouns', birth-order names and trade routes, for example, can be shown to support the hypothesis of a culture-area (Hercus and White, 1973; Schebeck, 1973).

But trait-distributions do not define social networks. Social networks have to be established by more precise means, such as examining the statistics of marriages and adoptions, the composition of ritual-sharing groups, residential groups, etc. Trait-distributions merely establish the extent of sharing or transmission, and not (directly) the extent of regular communication. Thus we find languages in CYP which were spoken at great distances from each other, yet which share the diffused feature of initial consonant- or syllable-dropping (see Alpher 1976, Sutton 1976). We do not suggest that their speakers were part of a single social network, or in some cases even of a single culture-area, except in the nebulous and trivial sense that they belonged to a great chain of connected Aboriginal populations across which traits flowed. Our interest, in any case, is at a finer-grained scale. We suggest that it is the structure and history of social networks of the limited type outlined, which crucially determine linguistic divergence, convergence and parallel development. However, our interest is in their ability to shed light on the relationships between culture, social organisation and human ecology, rather than in what they can explain about linguistic change. Language is only one of the many features of a social network, no one of which is *necessarily* diagnostic.

The anthropologist J.R. von Sturmer (1973:21), writing of Aboriginal people from the Kendall-Holroyd Rivers on western CYP, makes it clear that we would be unreasonable to assume neat isomorphism of these features even at a native conceptual level:

... the modes of determining individual identity and group identification are related to at least five basic factors: kinship and marriage, territory, totemism, language, and ritual. There has been a strong tendency in the writings

of McConnel, Sharp and Thomson, the chief ethnographers of the region, to see these principal factors as 'layers' which neatly overlap and project without any discontinuity into each other. In short, the principal factors have been seen as reflections of a single system.

Von Sturmer notes that this view is rejected by older Aborigines, and that 'organisational principles do not simply overlap'.

Our findings elsewhere in CYP support von Sturmer's earlier conclusions. In view of this, we suggest that anthropologists cannot afford simply to select single conventional features of group identification as the basis for determining their fieldwork domain. We believe that fieldwork should be selective among *populations*, rather than among *categories of people*, in order to avoid prejudicing the conclusions that will be made about the relative salience of the different categories and their roles in reflecting and structuring social networks. The relative importance that Aborigines place on group labels, linguistic differences, etc. are part of the essential data, but they cannot be taken to be automatically a close reflection of demographic, political or other realities, except at the native conceptual level. Thus while the Berndts (1970:2) found that 'taking the label Gunwinggu as referring to a recognised tribal unit has a certain utility', and that 'it provides a convenient starting point, a *natural unit of study*, in the sense that it is a conceptual reality with some basis in empirical reality' (our italics), they also found that the reference of the label depended both on who was using it and in what context it was used (p. 10), that the salience of such labels has increased greatly since missionisation and the attendant need for grosser distinctions (pp. 7, 11, 208), and that 'socially the category of "Gunwinggu" is, to an appreciable extent, heterogeneous' (p. 211). Indeed, at least twelve of the twenty-seven land-holding patrilineal descent groups within the category 'Gunwinggu' also fall within the category of at least one other language, such as Maung or Gunbalang (pp. 237-9). This would lead us to question the usefulness of setting up 'Gunwinggu' or any other language-community label from this area as an empirically valid socioterritorial category, particularly one that defines the scope of an anthropological study of 'man, land and myth'.

Berndt (1959) presented the first well-documented counterargument against the use of the concept 'tribe' in Australia. In that paper he restricted his attack essentially to the Western Desert region, for which he provides a wealth of information of a sociolinguistic (albeit

mainly native conceptual-categorical) nature. This could have been the brilliant start to an ecologically-oriented study of language and territoriality in the Western Desert. Although Miller (1972) did some interesting work on isoglosses in the southwestern area, and ten Raa and Woenne (1974) have assembled a large amount of invaluable computerised cultural-linguistic data, we have yet to see the kind of detailed, thorough, on-the-ground mapping of the area that will make it possible to reconstruct pre-settlement demography. Combined with thorough dialect-survey, as Douglas (1972:82) says, 'such studies would reveal, if it is not too late, both the extent and also the restrictions in movement of specific dialect-forming bodies'. We would want to say, however, that such studies would first reveal the major demographic and environmental aspects of social networks; it would then have to be established *empirically* whether or not these networks were 'dialect-forming bodies', and to what extent they overlapped with them if they were not the same.

The notion that social networks and linguistic communities neatly overlap is a simplifying assumption that has strong appeal. Perhaps this explains why anthropologists have rejected the word 'tribe' in recent years, but have nevertheless continued in many cases to make use of its traditional meanings. Instead of saying 'the X tribe', they often now say 'the X', where 'X' is the name of a language. Even Berndt's own 'The Walmadjeri and Gugadja' (1972) speaks of 'the territorial range of a dialect unit' (182) and 'the dialectal territory' (137); and by stating that 'subsections categorise everyone within a given person's perspective, for example everyone within the "tribe" or language unit' (195) he suggests that a language unit is perhaps coextensive with a 'society' or social network. (Note that 'Walmadjeri' and 'Gugadja' are dialect names, the latter being one of the Western Desert dialects.) This suggestion is also explicit in expressions such as Stanner's 'Murinbata society' (1964:36), 'Murinbata opinion' (126), 'Murinbata tradition' (140), 'Murinbata history' (142), and we note that Stanner also talks of 'Murinbata territory' (82, 142). Similar examples can be easily drawn from the ethnographic literature. Hiatt (1965:1) likewise identifies named languages with social units, but acknowledges that his informants never referred to themselves as a social group by the name of their language: 'They referred to themselves collectively as "we" and never by any name. I shall call them the Gidjingali for the sake of convenience'. In an area where land-owning units may be of mixed linguistic affiliation, and where a third of a sample of people whose parents spoke different languages became

affiliated to their mothers' languages rather than to their fathers', we may ask just how often (outside discussions of language itself) the collective 'we' could indeed have referred to the Gidjingali-speaking language community as a social unit.

One of the 'conveniences' of abstracting single language communities from polylingual speech communities is that the linguist or anthropologist only has to study a selected sub-part of the linguistic competence of the society he works in. This means he or she can avoid the onerous task of trying to become multilingual, as are most of the people being studied. This simplifying device, used by virtually all field workers, is rarely made explicit in their writings.

Not only has the 'linguistic unit' (an ill-defined entity at best) been identified with 'society' or at least the 'unit of study', it has also been considered to be a territorial unit. This may be the result of Aboriginal practice in certain areas, where sites apparently are said to be affiliated to dialect units. Berndt (1972, 1976) states, for example, that in the Balgo region of the Western Desert, sites belong to dialectal units and some sites belong to two different dialectal units. 'Dual-dialectal areas ... could be taken as points at which a fair degree of intercommunication took place' (Berndt 1976:139). In CYP, however, although it is possible to elicit statements of linguistic affiliation of sites, such statements are rare in free discourse, and where made, it is clear that the affiliation is by no means of the same order as that between a site and the one or more descent groups that rightfully lay claim to it. The latter relationship is one of 'keeping' and 'looking after' (i.e., custodianship rather than ownership), and is often validated by the stories that connect members of descent groups with the history of the landscape in their countries. Most descent groups have well-defined country ('country' being the sum of named or recognised locales), and also well-defined linguistic affiliation, although some cases of possibly creole-like dialects, and of dual (primary and secondary) linguistic affiliation, are known. Since every descent group has both sites and a language, one can elicit a site/dialect relationship. But it is triadic, a by-product of the two elemental dyadic relationships of site/descent group and descent group/dialect, and so it is not primary.

We reject the notion of the primacy of linguistic groupings in structuring and ordering the Aboriginal social/geographical landscape. Tindale's 'tribal' map (1974) cannot therefore be a map of Aboriginal Australia at a fundamentally meaningful demographic or political-cultural level, even if it were accurate (which, at least in CYP, it is

not). We do not consider linguistic groupings (in the usual sense of populations that own and speak the same language, or believe they do) to be primary demographic or political units. Therefore they are not the units with which we are concerned in ecological or social-network studies. Nor are they prominent, in the CYP region, in the formation of alliances, whether as seen in the pattern of marriages, totemic links, ritual subgroupings or war-making groups. And although there is an indirect functional association between dialect, social network and seasonal range, we do not accept the view that dialect units (as language communities) are in any direct sense 'territorial'. Here we must keep separate the different 'ethnic' views and the 'scientific' view produced by an outsider's analysis of the evidence. (See Dixon (1976) for a clarifying discussion of this particular point.)

In the area of Aboriginal social organisation and behaviour, there has been a lack of close cooperation between linguists and social anthropologists. We believe that the role of language in Aboriginal society must be redefined on the basis of carefully integrated, substantial evidence from comparative-historical linguistics, statistics on marriage patterns, genealogies showing assignment of linguistic affiliations, precontact demography, precisely mapped estates and ranges and the politics and composition of alliances, named groupings, etc. The current field studies of Anderson, Chase, Rigsby, Sutton, Taylor and von Sturmer in CYP will hopefully provide quality information and allow us to develop fairly powerful explanatory sociolinguistic models for the area. Their studies are currently being made partly or wholly in conjunction with those of ecologists and biologists under the auspices of the Cape York Ecology Transect Project and the Australian Institute of Aboriginal Studies, although most of them have been active in CYP for some years. The ecological bent to our own sociolinguistic work arises from the probable high importance of environmental and economic factors in determining some of the characteristics of social networks and their territorial correlates. As we hope is by now clear, we believe that complex social networks form a level of Aboriginal social and spatial organisation that has been rather neglected in anthropological circles so far.

Discussion by social anthropologists has concentrated on two major levels, those of 'local organisation' and 'the tribe', with the intermediate category of 'community' receiving some attention (Meggitt 1962:51; Hiatt 1965:25; Peterson 1976:68; Berndt 1976:145; note that Berndt's sense of the term is different from that of the others), and wider groupings of quite diverse types have usually been lumped

together as 'ethnic blocs', 'nations', 'confederacies', 'alliances' and so on.

Ten years ago, local organisation was a major issue in Australian anthropology (see Hiatt 1962, 1966, 1968; Stanner 1965), and was concentrated on the distinction between *residence groups* ('hordes', 'bands', 'foraging units', 'ranging groups', etc., congeries of which may form 'seasonal ceremonial units' and the less ephemeral 'communities'), and *descent groups* (sometimes 'patrilineages', 'clans', and if landholding units, then 'estate groups'). The former are observable demographic aggregations, semi-nomadic within a definable *range*, while the latter are social categories defined by birthright and associated with a definable *estate*. There is an important difference between the levels of abstraction of the two classifications. The differences are not primarily those of membership, nor are the same personnel involved in both at any one time, since residence groups include only the living, while descent groups include all known members, living or dead, of a lineage. We say this, however, with the warning that when one steps beyond the simplest statements about Australian social/demographic structure, exceptions can usually be found for every generalisation.

Discussion of the wider construct of 'tribe' has recently been revived by the timely publication of Peterson's *Tribes and Boundaries in Australia* (Peterson, ed. 1976). Dixon was the only linguist to contribute a paper to this volume, in which he made a valuable distinction between the 'ethnic' or 'political' and the (scientific) 'linguistic' senses of the word *language*. At the same time, however, he did not make the necessary distinction between populations and social categories. His 'tribe', as defined for the rain forest area near Cairns, north Queensland, is a political structure with linguistic unity, and at the same time it is a *population* divided into local groups that come together in 'tribal gatherings for food procurement and recreation' (Dixon 1976:231). Dixon fails to distinguish between residence groups and descent groups, referring to an amalgam of both as 'local groups'. His 'tribe' is a highly endogamous ethnic-linguistic unit whose members can change 'local group' membership, and which only differs significantly from a European nation in the matter of population size. This description does not even faintly resemble what we know of the CYP region, for which we have detailed ethnographies to correlate with linguistic data.

To give one example well-known from the literature, viz. Sharp's work on 'the Yir Yoront' (1958, 1968). Sharp rejects the notions of

nation, tribe, horde, chief and gerontocratic council, established in the Australianist literature earlier this century, as being irrelevant to the political behaviour of the people he lived with. The only corporate identity among speakers of Yir Yoront is the named patrilineal totemic clan, which is the land-holding unit. There are thirty Yir Yoront-speaking clans. Each clan owns several separate tracts, and the tracts consist of from one to several score 'countries' (named locales). The Fresh Water Rainbow Serpent clan has, for example, over 150 countries in thirteen tracts, of which:

- 6 are amongst the 62 different clan tracts in the Yir Yoront 'speech zone',
- 4 are in the 'Koko Bera speech zone', and
- 3 are in the 'Kuk Taiori speech zone'.

A man's countries may be widely separated and up to fifty or more miles apart. Clan membership, not speech affiliation, determines geographical associations. People never camped in localised patrilineal patrilocal hordes. The clan was not a residence unit. Through the kinship system one has access to more than one's own clan territory. Sharp found during many months in bush camps that 'Kuk Taiori' speakers were *always* present in the residence groups of the northern Yir Yoront-speaking people.

Sharp (1968:159) also goes so far as to say:

In studying the Aboriginal population on Cape York Peninsula, I simply could not find a society; I would have to describe it in terms of an ego-centered *set* of societies; no one individual was the center of a system of networks which overlapped isotypically with anyone else's.

This statement coincides to a considerable extent with our own observations during fieldwork with populations still functioning socially, if not economically, in a traditional way. The existence of social groupings is mainly a matter of context, and (especially in the event of a crisis) an individual will 'choose' the alliance suited to the occasion or indeed he may choose none. However, the set of available or potential alliances and their realisations form a rough pattern in regional terms: it is this which we have been referring to as the 'social network'.

We have also referred to wider entities called 'culture areas'. Peterson's (1976) attempt to define culture areas for the Australian

continent pursues a worthwhile end. There are obvious culture areas such as the so-called 'Murngin', 'Wulamba' or 'Yuulngu' block of north-east Arnhem Land (see Schebeck 1968 for a brilliant socio-linguistic analysis of this bloc), the 'Dieri nation' of south-central Australia, the Wik-speaking and Princess Charlotte Bay areas of CYP, and the spatially vast Western Desert bloc. In certain cases these blocs can be shown to belong to ecologically or topographically unified zones. But the existence of particular culture areas has to be demonstrated individually and empirically. It cannot be inferred from the pattern of linguistic subgroupings, with or without a further correlation with drainage basins. Peterson's proposed culture areas for Queensland (1976:66), the area on which we are qualified to comment, bear no relationship whatever to either the known culture areas or to the language families in the region, with the possible exception of the rainforest zone, which has some cultural and linguistic homogeneity, but whose basins drain outwards radially in all directions.

We have no doubt that Peterson is right in stressing the fact that Aboriginal bands clustered together into larger networks with strong political dimensions, around which some sort of spatial penumbra can be drawn, and we would agree that their zonation in most cases was not clinal, but regionalised. We further accept the fact that degrees of similarity and difference between languages and their 'spatial distribution' (the spatial demography of their speakers) have been critically, though not wholly, determined by cultural-historical processes that result ultimately from social networks of different scales, the latter being related to the natural environment in a complex way. Such networks have been long neglected as sociocultural and demographic entities, and the understanding of them is most important to hunter-gatherer studies (for a detailed discussion of hunter-gatherer territoriality, see Peterson 1975). However, we must reject the assumption that social networks are primarily characterised by coincidences of linguistic type.

The integrity of 'linguistic units' is so frequently violated by the shape of social networks that we question the existence of the 'dialectal tribe' in Australia, even if it could be shown that in some areas linguistic affiliations were ostensibly isomorphic with such networks. It seems strange that 'dialectal tribes' can be assumed to exist in areas such as Princess Charlotte Bay, where many people simply have no names for their languages or language-communities. And in many other parts of Australia there are names for languages but

not for their speakers as such. 'Dialectal tribes' do not seem to have been very universal, yet the much neglected *speech communities*, of varying composition, clearly existed everywhere.

There is good reason to pursue the study of linguistic communities and to attempt to place them in their environmental contexts in those parts of Australia where this is still possible. We know of several apparent topographical correlates of the seasonal ranges of speech communities that had contrasting linguistic compositions; take, for example, the contrast between inland linguistic unity and coastal heterogeneity in western CYP. However, to frame these relationships in terms of 'topographical barriers' (Peterson 1976) seems to us rather forced, unless 'barrier' refers to huge water-bodies such as gulfs or seasonally-flooded plains, sheer escarpments, snowfields, or areas virtually lacking in surface water like much of the Nullarbor Plain. These are either rare or impermanent, and while it is clear from our field work that ecological and topographical factors are important to both demography and socio-territorial structure at descent group, band and band-aggregate (etc.) levels, it seems absurd to suggest that either these or wider culture area structures are typically marked by 'topographical barriers' *as obstacles to travel or communication*. The bounding factors for major culture areas must be sought in the rationale for the shape and distribution of their component subparts along the culture area periphery. We suggest that the upper limits on the size of a culture area are basically determined by population distribution and density, given the existence of enough cultural unity and communication networks (i.e., you can marry, join a ritual or go trading, *just so far*). The shape of the smaller communication-networks in a culture area will be determined partly by the pattern of annual range of the residence groups. It is at this level of *estate* and *range* that environmental factors become crucial and determinant for the grosser structures in which populations participate. There are also strong conceptual factors linking peoples who share similar environments and distinguishing them from *Ausländer*s.

The relative endogamy that characterises a social network in CYP is shaped by descent group exogamy, intergroup politics (ritual and other), previous marriages (i.e., alliances and 'payback') and the factor of physical distance. It is not, as Peterson suggests for culture areas (1976:67), the result of 'natural boundaries ... tending to restrict communication between them'. On western CYP, the smaller social networks and also the larger culture area *arch across* most of the 'natural barriers' of the area, such as rivers and salt plains. There

is a primary coastal vs. inland split, and only the lower reaches of rivers are included in the smaller coastal subgroupings. The people of the upper drainage basins have tenuous (or precious few) links with people lower down, but strong links among themselves. There are groups clustered about the lower reaches of rivers, but in this kind of country, where sand dunes run parallel to the coast, drainage basins are at a right angle to the courses of rivers.

We suggest, finally, that the size and shape of social networks, if defined as relatively bounded networks of interactions, will not necessarily coincide with those of culture areas that are defined by shared cultural traits or site-language affiliations. However, we cannot yet give detailed definitive accounts of such networks. We need to do further fine-grained work on both territoriality (detailed mapping of countries, reconstruction of band composition, etc.) and socio-linguistic phenomena (linguistic communities, linguistic affiliation and competence of individuals, social categories and groups, etc.). With better case studies at hand, we may then be able to raise the theoretical discussion of relationships between language, social networks and ecology above its present speculative level.

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