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Volume 21

The Language of Memory in a Crosslinguistic Perspective
Edited by Mengistu Amberber

The Language of Memory in a Crosslinguistic Perspective

Edited by

Mengistu Amberber
University of New South Wales

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Preface

The contributions to this volume are based mainly on papers presented at the Workshop on the Semantics of Memory in a Crosslinguistic Perspective, which was held at the University of New South Wales (Sydney, Australia) 22nd – 23rd November, 2003.

I wish to thank Ludmila Stern (the co-organiser of the Workshop) and all the contributors for their support in the project and making this volume possible. I would also like to thank the anonymous reviewers who assisted in reviewing the papers. I am indebted to the reviewer commissioned by John Benjamins for helpful suggestions and criticisms that have undoubtedly improved the quality of the volume, even though, due to time constraints, we haven't pursued all of these suggestions. Needless to say, the editor and the authors remain responsible for any remaining errors and shortcomings.

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Special thanks are due to my colleague Debra Aarons for her very useful editorial suggestions and advice, and James Young for his technical assistance in preparing the final manuscript for publication.

*Mengistu Amberber
Sydney, Australia
August, 2007*

About the contributors

Mengistu Amberber is Senior Lecturer in Linguistics in the School of Languages and Linguistics at the University of New South Wales (Sydney, Australia). His main research interests include lexical semantics, morphosyntactic theory, and the semantics-syntax interface. He is the co-editor of *Language Universals and Variation* (Praeger, 2002) and *Competition and Variation in Natural Languages: the Case for Case* (Elsevier, 2005).

Nicholas Evans is Professor of Linguistics in the Department of Linguistics and Applied Linguistics at the University of Melbourne (Melbourne, Australia). He is interested in morphology, language typology, the morphology-syntax interface, pragmatics, semantic change, Australian historical linguistics, Macassan-Australian linguistic contacts, and the linguistic prehistory of Australia. He is the author and editor of numerous books including: *A Grammar of Kayardild*. (Mouton de Gruyter, 1995), *Bininj Gun-wok: a pan-dialectal grammar of Mayali, Kunwinjku and Kune* (2 volumes). (Pacific Linguistics, 2003).

Cliff Goddard is Professor of Linguistics at the University of New England (Armidale, Australia). His main research interests are in semantic theory, lexical and grammatical semantics, language description and typology, and ethnopragmatics. He has published numerous articles in journals such as *Journal of Pragmatics*, *Language Sciences*, *Culture & Psychology*, *Studies in Language*, and *Anthropological Linguistics*. He is author of the textbooks *Semantic Analysis* (OUP, 1998) and *The Languages of East and Southeast Asia* (OUP, 2006). He is editor of *Ethnopragsmatics* (Mouton de Gruyter, 2006). With Anna Wierzbicka, he is co-editor of the two-volume collection *Meaning and Universal Grammar* (Benjamins, 2002).

Marie-Odile Junker is Professor of Linguistics in the School of Linguistics and Applied Language Studies, and in the Cognitive Science Institute, Carleton University (Ottawa, Canada). She is the editor-in chief of the East Cree-French Dictionary and co-created the East Cree language website <<http://www.eastcree.org>>. She is interested in cross-cultural communication, cognitive linguistics, the semantics and lexicology of aboriginal languages, and in how information technology can help the documentation and preservation of endangered languages.

Sandra Kuhn is a researcher in Psychology and Computational Linguistics at Saarland University (Germany). Her main research interest is in bilingual language processing.

She is currently investigating the emotional involvement of late bilinguals when speaking their dominant language.

Andrea Schalley is Australian Research Council Postdoctoral Fellow in the School of Languages, Cultures and Linguistics and Co-Director of the Language and Cognition Research Centre at the University of New England (Armidale, Australia). She works on natural language semantics and the relationship between language and cognition. She has developed the semantic representation framework 'Unified Eventity Representation' for verbal semantics. She is author of the monograph *Cognitive Modeling and Verbal Semantics – A Representational Framework Based on UML* (Mouton de Gruyter, 2004) and she co-edited the volume *Ontolinguistics – How Ontological Status Shapes the Linguistic Coding of Concepts* (Mouton de Gruyter, 2007).

John Sutton is Associate Professor of Philosophy and Head of the Department of Philosophy, Macquarie University (Sydney, Australia). Dr Sutton works in philosophy of psychology and in the history of science. His main current research is on the interdisciplinary study of memory; he is also working on dynamical and distributed cognition, and on dreaming. He is the author of *Philosophy and Memory Traces: Descartes to Connectionism* (Cambridge, 1998), and he co-edited *Descartes' Natural Philosophy* (Routledge, 2000). He has published recent articles on the development of autobiographical memory, and on cognitive science and media theory.

Anna Wierzbicka is Professor of Linguistics in the School of Language Studies at the Australian National University (Canberra, Australia). Her research areas include semantics, syntax, pragmatics and the interrelation between language and culture. She has published numerous books, including *Semantics: Primes and universals* (OUP 1996), *Understanding Cultures through their Key Words* (OUP 1997), *Emotions Across Languages and Cultures: Diversity and Universals* (CUP 1999), *What Did Jesus Mean? Explaining the Sermon on the Mount and the parables in simple and universal human concepts* (OUP 2001) and *English: Meaning and culture* (OUP 2006). Her latest book, co-edited with Mary Besemeres, is *Translating Lives: Living with two languages and cultures* (UQP 2007).

Zhengdao Ye obtained her PhD from the Australian National University, (Canberra, Australia) in 2007, where she is researching Chinese ethnopsychology from a semantic point of view. Her work on Chinese language, culture and cognition has appeared in refereed journals such as *The Australian Journal of Linguistics*, *Culture and Psychology*, *Intercultural Pragmatics*, *Isegoria*, and *Pragmatics and Cognition*, and in several edited books. Zhengdao also contributes to newspaper reviews and life writing. She has taught linguistics at the Australian National University, Monash University, the University of New England, and the Australian Linguistic Institute.

Kyung-Joo Yoon is a visiting fellow in the School of Language Studies at the Australian National University (Canberra, Australia) and a research fellow at the Hankuk University of Foreign Studies (Seoul, Korea). Her main research interests are in the areas of contrastive semantics, ethnopr pragmatics, language testing, and cultural issues in second language acquisition. She has worked on a number of research projects in these areas and published numerous articles and book chapters, including one on Korean cultural scripts as reflected through the use of honorification. She has taught courses in general linguistics, semantics, and cross-cultural communication at the Australian National University, University of New England, and Hankuk University of Foreign Studies.

Anna Zalizniak is Senior Research Fellow at the Moscow Institute of Linguistics of the Russian Academy of Sciences (Moscow, Russia). Her research interests include semantics, lexicography and grammatical description. Her publications include three books (one single-authored and two co-authored) and over 60 other publications (journal articles and book chapters).

CHAPTER 4

Standing up your mind

Remembering in Dalabon*

Nicholas Evans

Sans mémoire et sans project, il n'y a tout simplement de savoir
Auroux 1989:134

*Traditionally, cognitive psychology has contributed little to explaining
the difference between knowing, thinking and remembering.*
Perner 1991:3

This paper explores the vocabulary of mental states, knowing, thinking and remembering in Dalabon, an Australian Aboriginal language. Though Dalabon has a rich vocabulary for the overall semantic domain of attention, thought, memory and forgetting, there are no expressions specifically dedicated to remembering. Rather, the ontology of cognitive states and processes is categorized into short-term vs long-term mental states and events. Aspectual choices are used to express transitions into mental states and events ('remembering' is 'coming to have in mind', and 'forgetting' is 'coming to not have in mind'), without the entailments found in English, which distinguishes previously experienced mental states ('remember', 'remind') or mental states experienced for the first time ('get the idea that', 'realize').

1. Introduction

In this paper I discuss the semantics of expressions for remembering in Dalabon, a Gunwinyguan language of Central Arnhem Land, Australia, now spoken fluently by fewer than a dozen people.

* A version of this paper was presented at the *Workshop on the semantics of memory in cross-linguistic perspective* held at the School of Modern Language Studies, University of NSW, on 22–23 November, 2003. I thank Mengistu Amberber and Ludmila Stern for organizing that workshop, the workshop participants for the challenging discussion there, and two anonymous reviewers and Mengistu Amberber for their critical comments on a draft of this paper, some of which I have not followed, at my peril. My work on Dalabon over the years has been supported by a number of sources, gratefully acknowledged here, most importantly the Australian Research

Though the overall semantic domain of words for attention, thought, memory, and forgetting is a rich one in Dalabon, there are no expressions specifically dedicated to remembering. Rather, the ontology of mental states and processes is carved up on the basis of short-term vs long-term mental states and events, together with the use of tense/aspect to manage transitions into mental states, without entailments about whether the mental state has been previously experienced (as in the case of English 'remember', 'remind') or is now being experienced for the first time (as with 'get the idea that', 'realise', 'think of' etc.).

Verbs best translated as 'cause to have in mind now', 'have in mind now', and 'carry along in one's mind' can all mean 'remember' in some contexts, in which similar prior mental states are implicated. But they can also have non-memory meanings (know, realise, attend to, think, decide) in other contexts, where there is no evidence for the relevant mental state having previously been experienced.

Note that the references to 'mind' in the above characterisations, as we will show below, use 'mind' as a translation of the Dalabon root *beng*, to be discussed in §2.1, and are not to be taken as simple imports from the metalanguage of cognitive science as carried out largely in English. The implications of this for semantic analyses, such as the Natural Semantic Metalanguage tradition, that assume 'mind' to be a secondary concept ultimately derivable from 'think', are discussed separately in Appendix 1, where I argue that, in Dalabon, there is no evidence for a direct equivalent of 'think' but that instead *beng* is the relevant primitive, from which a range of cognitive expressions can then be built up.

The structure of the paper is as follows. In §2 we examine some basic parameters that must be understood before we can tackle the meaning of the Dalabon verbs we will be focussing on: in §2.1 we illustrate the structure of the Dalabon verb, in §2.2 we show how the interpretation of cognitive verbs interacts with aspect, and in §2.3 we look at some key entities in the Dalabon folk model of the mind. In §3 we look at the range of stimulus sources – both internally-generated and external – that appear in Dalabon discussions of memory, and find a range broadly comparable to English in the admissibility of internal and external stimuli, and differing degrees of control over the memory process; we also discuss some cultural mechanisms for 'managing' memory

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through a range of customs that control various types of external stimulus. In §4 we return in more detail to the question of how distinct Dalabon expressions of memory are from those for thought, attention and knowledge.

Before passing on to the main paper, it is worth commenting briefly on how the data for this paper was gathered. The fragile status of Dalabon, as a language with fewer than a dozen fluent speakers and rather limited documentation to date,¹ places limits on the size of our corpus which entails that our treatment here is necessarily provisional.

The material and examples discussed here have two main sources:

- a. general grammatical and lexicographic work (much in collaboration with Francesca Merlan) since June 91, with the eventual goal of producing a grammar, dictionary and text collection; an initial dictionary of some three and a half thousand entries, with exemplifying sentences, has recently appeared (Evans, Merlan & Tukumba 2004). This dictionary draws on material recorded by either Francesca Merlan or myself from around half a dozen speakers, many now deceased, most importantly Maggie Tukumba, †Jack Chadum, †David Karlbuma, Peter Mandeberru, †Alice Boehm, Lily Bennet, and †Daisy Borduk. Though the topic of memory was not specifically targetted by this general campaign of linguistic documentation, the general field setting, namely the recording of an endangered language and the quest to 'bring back out' forgotten language expressions, as well as the return of older materials (tapes, photographs) as stimuli to discussions, and the speakers' wish to maintain or revive old customs, naturally created a context where memory and forgetting arose spontaneously as topics.
- b. the material gathered under (a) was supplemented by targetted questions and translations in this semantic domain on a field trip by Evans in July 2003, working predominantly with Maggie Tukumba. Among other elicitation materials, I endeavoured to get the Dalabon equivalents of most of the examples in the important paper by Van Valin & Wilkins (1993).²

None of our Dalabon informants spoke fluent standard English. Material was gathered though a mixture of English (as used by Evans and Merlan), Kriol (the regional lingua franca) and Mayali/Kunwinjku (Bininj Gun-wok), the most widely spoken traditional

1. See the introduction to Evans, Merlan and Tukumba (2004) for a summary of previous research on the language.

2. The timing of the dictionary publication cycle meant that the material gathered on this field trip, and the definitions resulting from it, could not be incorporated in the Dalabon dictionary. Regarding the Arrernte sentences in Van Valin & Wilkins (1993), an important part of their paper is devoted to the syntax of expressions for remembering (e.g. the use of purpose clauses after 'remember to'), but we do not explore that issue systematically here, our focus being on other issues.

language of the area. So it has not been possible to check the finer nuances of meaning through translation, though textual context is often helpful. As the analysis proceeded, the crucial role of Dalabon aspect became more and more apparent, and although aspect was systematically varied in some examples it has not yet been possible to gather a full set of contextualised aspectual forms for every lexeme discussed here.

2. Memory and the Dalabon language: some basic parameters

2.1 A note on verb structure

Dalabon is a polysynthetic verb with a complex verb structure (see Evans, Brown & Corbett 2001, Evans & Merlan 2003), prefixed for subject and object, as well as for various applicative-type relations (benefactive and comitative being the most important), incorporating nominal roots, taking a range of adverbial prefixes, with optional derivational suffixation for reflexive/reciprocal, and obligatory inflectional suffixation for a range of Tense/Aspect/Mood categories, as shown in Figure 1. Most relevant to the present paper are the aspectual choices, available only in the past tense, which distinguish past perfective, past imperfective, and past customary.³

Figure 1. Tense / aspect / mood categories in verbal inflectional suffixes

3. I use the gloss 'past customary' rather than the more general 'past habitual' because the past customary is primarily used for reporting on customary, i.e. traditional, activities such as hunting or traditional crafts, rather than events that are merely habitual.

An important feature of the verb lexicon, shared with other languages of the Gunwinyguan family, is the make-up of verbal stems, which may be either simple or complex. Examples of simple stems⁴ are *wan*⁵ 'follow' and *bon* 'go'; there are fewer than twenty simple verbal stems in the language. Complex stems comprise a 'prepound' plus a 'thematic'. Some thematics also occur as simple roots: the root *wan* 'follow', for example, recurs as a thematic in the stem *warhwan* 'not know/be aware of, lack or lose consciousness of' (see below on this verb's semantics). Others only occur bound, in complex stems: the formative *-mû*, found in such stems as *dudjmû* 'return', is an example.

There is a further possibility of incorporating objects or intransitive subjects immediately before the verb stem (e.g. *kurnh-warhwan* [country/place-not.know] 'not know a place, be a stranger or newcomer to a place', *yolh-wehmûn* [feelings-become.bad] 'feel bad, upset, angry or unhappy'). Though in principle this is structurally distinguishable from noun-verb compounding by various tests,⁶ frequent phraseologisation makes it a fruitful source of new complex verbal expressions that leads, as in these cases, to the combination of a verbal root or thematic with what are historically two (or more) nominal or adjective roots – a closer 'prepound', such as *warh* or *weh* in the above examples, and a less close 'incorporated nominal', such as *kurnh* or *yolh* here.

Many preposits double as ideophones or nominal roots, and the compounding of nominal roots with verb stems is a productive source of verb lexemes, while other preposits only occur in verbal compounds. For roots that are used both as nominal roots and in compound verbs, the proportion of nominal to verbal uses may range widely, as may the availability for plain (uncompounded) as opposed to compounded nominal use. The root $\sqrt{\text{kodj}}$ 'head', for example, occurs either as a simple root (though suffixed for possessor, e.g. *kodjngan* 'my head', *kodjno* 'his/her/its head, head'⁷), in a wide range of nominal compounds (e.g. *kodjbulu* 'white haired person', *kodjmono* 'skull of head') and a number of compound verbs, e.g. *kodjdi* 'be tall' (lit. head-stand), *kodjrung* 'have a headache' (lit. head-burn). The root $\sqrt{\text{men}}$, by contrast, which refers to an individual's capacity for social responsibility and self-regulation (roughly 'social conscience, social

4. Strictly speaking, the stem in its citation form, which includes the present tense suffix. The stems here are *wa* and *bo*: the final *-n* in each case is the present tense suffix.

5. The Dalabon practical orthography is used here. Non-obvious symbols are *h* = glottal stop, *nj* = lamino-palatal nasal, *rd*, *rn*, *rl* = retroflex stop, nasal and lateral, *rr* = apico-alveolar trill/tap, *ngH* = voiceless velar nasal, doubled letters for consonant length. There is no voicing contrast; voiced symbols are used for all stops except the velar, represented by *k*. *û* represents a high central vowel, though some speakers have merged this with *u*, or do so sporadically, and in such cases the vowel is written here as heard.

6. Most importantly, the possibility of an agnate unincorporated construction in the case of incorporation, but not of compounding. See Evans (2003) for an elaboration of these tests for the closely related language Bininj Gun-wok.

7. The *-no* suffixed form is used as the citation form.

awareness, social intention'), has yet to be attested in a non-compounded form (one would expect a form *men-no* 'his/her social conscience'). But it occurs compounded or incorporated in a wide range of expressions: as the adjective *men-djabalarrk* 'obedient, well-behaved' (e.g. of a dog), in the adverb *menmungu* 'accidentally' (etymologically: 'with random/unordered self-regulation'), and in such compound verbs as *menbon* [~go] 'be smart, obedient, well-behaved', *menbun* [~hit] 'strike someone on the ear, to bring them back from imminent craziness', *menmennan* [~REDUP-see] 'protect through appropriate cultural behaviour, watch out for, watch over', *menwurdurdmû* [~child-VBLZR] 'be childish, immature, irresponsible' and *menni* [~sit] 'consider, think about; have aspirations for social status (e.g. as a ceremonial leader)'.

The prepond *√beng*, of central concern in this paper, hardly ever occurs outside verbal formations. The main use of this word as a free form is with the specialised meaning '(taboo on) (a man) swearing at, concerning or in presence of sister' (for some anthropological discussion of this custom, see Maddock 1970). A related example of it occurring as a nominal root (suffixed with the third singular possessor suffix *-no*, plus the comitative suffix *-dorrûng*), is the following:

- (1) *Yibung mahki mak dja-darnh-marnu-da-ngiyan,*
 3sg maybe NEG 3/2-close-BEN-stand-F
redj-ngu-kah beng-no-dorrung.
 side-2Poss-LOC mind-3Poss-COM
 'But he can't stand close to you, at your side, (the one) who knows.'

It occurs in so many verbal combinations, however, and not just in the prepond position but also in the incorporated nominal slot, that we can postulate a 'mind' meaning for it with some confidence; its semantics are discussed in detail in §2.3. The major expressions in which *√beng* occurs are shown in Figure 2.

Additionally, there are some devices for causativising verbs (e.g. *bengdi* > *bengdayhka* 'cause to *bengdi*?'), for forming causative / decausative pairs, e.g. *yibka* 'sink (tr.)' / *yibmû* 'sink (intr.)', and for forming inceptives by partial left-reduplication, with inceptive effect: *bengkan* 'keep in mind' > *benghbengkan* 'recognise, identify'.

An analytic point that must be mentioned here is the status of the past perfective form *bengdayhminj*. Formally this looks like a decausative form of *bengdayhka* 'remind, cause to *bengdi*?'. Paradigmatically, however, it appears to be a semi-suppletive past perfective form of *bengdi*. The three reasons for thinking this are:

- only the form *bengdayhminj* is attested, and formally this is a past perfective,
- for the verb *bengdi*, all TAM values are attested *except* for the past perfective.
- the 'stand' verb in Gunwinyguan languages (Alpher, Evans & Harvey 2003) tends to merge past perfective and past imperfective forms, to show suppletion or neutralisation, and then to recruit new forms to recreate the distinction.

Treating *bengdayhminj* as the past perfective form allows us to avoid the untidy situation of having two complementary defective paradigms: one for *bengdi*, with all TAM

Figure 2. Derivatives of *√beng* 'hearing, cognition' in Dalabon

values EXCEPT the past perfective, and another for *bengdayhmû*, with ONLY the past perfective. Historically, though, it appears that *bengdayhmû* derives from a distinct decausative form, primarily used with Past Perfective values, which then gravitated to fill the paradigmatic gap left in the *bengdi* paradigm.

2.2 Interaction of cognitive verbs and aspect

For most verbs in the Dalabon lexicon, English translation equivalents can be advanced that are independent of the Dalabon verb's aspectual value.⁸ *Bo* 'go/come', for example, means 'goes or comes' in the present form *bon*, 'went or came' in the past perfective form *bong*, 'was going or coming' in the past imperfective form *boninj*, '(customarily) used to go or come' in the past customary form *boninji*, and so forth: we do not need different English lexemes to translate the different aspectual forms. However, once one moves into verbs in the cognitive domain this ceases to be the case, and the best English translation equivalents depend on the tense and aspect inflection.⁹ We will argue below that the best way to deal with these verbs, definitionally, is to abstract away from states and transitions between them in the definition of the verb lexeme, with the relevant transition specifications supplied by inflectional aspect.

Meanwhile let us illustrate the phenomenon with the verb *warhwan* which, in the present and the past imperfective, means 'be ignorant, unaware of, not know' (i.e. be in a state of not knowing), but in the past perfective means 'forget' (i.e. come to be in a state of not knowing or non-awareness); we will abstract away from these aspect-specific translations by representing its meaning as 'not.have.in.mind'.¹⁰ (2) and (3) illustrate its stative use in the present and (3) its comparable stative use in the past

8. For the closely related Bininj Gun-wok, the effects of aspectual interaction are clear with the verb *wahwan* (cognate with Dalabon *warhwan*, discussed in this section) but also with *dowe* 'die' (in past perfective), 'be sick, suffer' (in past imperfective). See Evans (2003: 372), but this neglects to discuss the interaction of aspect with several other cognitive verbs in Bininj Gun-wok, especially *bengkan* 'know / think / remember', though I believe that this verb exhibits similar effects to those discussed here for Dalabon.

9. A similar phenomenon is well-known in some classical Indo-European languages. See, for example, Sweetser's (1990) discussion of the way the perfective of 'see' in Classical Greek translates as 'know'. An interesting difference, though, is that in the Classical Greek example the aspectual effect is between a sensory reading in one aspect ('see') and a cognitive reading ('know') in another, whereas in Dalabon and Bininj Gun-wok it is between two cognitive readings, with distinct verbs for the relevant sensory modalities (with hearing the most relevant modality here). It would be interesting to see what happens in varieties – such as the *kun-kurring* avoidance register of Bininj Gun-wok – that have the same lexical item (*marrngalahme*) for both 'hearing' and 'knowing/thinking' (Evans 2003:65).

10. Etymologically, this verb probably derives from the thematic *wan* 'follow' via a hypothesised original meaning something like 'lose the track, get off the track, leave the track behind'. One extension from this is the sense, used when talking of people who have passed away, 'leave this world, depart [from OBJ - the people left behind]', as in *nunh duwayno bukah-warhwan*, *duwayno kah-don* 'when his wife leaves him behind, when his wife dies'. The example in (6), where the onset of lack of awareness coincides with losing track of physical location, illustrates the sort of context in which extension from losing track of to forgetting about can occur. Implied in this

imperfective (in each case the most normal implication is 'not (yet) know about, (still) be ignorant of'). Note that *bomung*, though glossed here simply as 'be ignorant', would be more precisely rendered as 'not be familiar with, not be used to'.

- (2) *Ngah¹¹-bomung ngah-warhwa-n*,
1-be.ignorant 1/3-not.have.in.mind-PR
mak nunh nga-ne-y korrehkun kanunh korlomomo.
not DEM 1/3-see-IRR before DEM crocodile
'I don't know it, I'm ignorant, I've never seen a crocodile before.'
- (3) *Yibung biy kinikun, biy, mak bula-bengka-n*
3sg person other person NEG 3pl/3-keep.in.mind-PR
bula-monwo-n kanunh morlu, bulah-warhwa-n
3pl/3-make-PR DEM didgeridoo 3pl/3-not.have.in.mind-PR
'Other people don't know how to make didgeridoos, they're ignorant.'
- (4) *Yale-wurdurd-ninj-kûno yalah-manj-warhwa-ninj*.
1plSUB-child-PI-TEMP 1pl-taste-not.have.in.mind-PI
'When we were kids we didn't know the taste. (i.e. we were in a state of not (yet) knowing about it)'

Turning to past perfective uses, (5) and (6) illustrate its state-transition meaning in the past perfective (forget, lose track of); see also Example (16).

- (5) *Nekenda mak nga-yelung-ngu-n, ngah-manj-warhwa-nj*,
at.this.time NEG 1/3-then-eat-PR 1/3-taste-not.have.in.mind-PP
kardu ngah-manj-warhwa-nj, marruh kah-Ing-kodjmenyi-n.
maybe 1/3-taste-not.have.in.mind-PP how 3-SEQ-be.like-PR
'I'm not eating it these days; I might have forgotten the taste (i.e. entered a state of not knowing).'
- (6) *Nga-warhwa-nj bad-kûn kanihdja*,
1/3-not.have.in.mind-PP money-GEN there
kardû kah-marnu-yawa-n wangirrikah.
maybe 2/1-BEN-look-PR later
'I forgot / lost my money there (i.e. entered a state of not attending to and being aware of), maybe you'll look for it for me later.'

etymological scenario is that the state-transition meaning is more basic, with the stative meaning found in the present and past imperfective being back-formed through subtraction of the change of state meaning found in the past perfective.

11. Pronominal prefixes are followed by 'h-' when in assertative modality (as opposed to irrealis, apprehensive, purposive or subordinate forms). To save space, and since it is irrelevant to the arguments discussed here, this morpheme is not glossed throughout this paper.

(7) illustrates a further sense that it can have when serialised with a verb of action (and, in this example at least, used in an intransitive frame), namely 'do unknowingly, accidentally, without realising it'.

- (7) *Mak da-wol-ma-ng, wudji-warhwa-n*
 NEG 2/3-flame-touch-PR 2APPR-do.accidentally-PR
wudji-langu-yu-rru-n, widji-langu-ru-n.
 2APPR-hand-put-RR-PR 2APPR-hand-burn-PR
 'Don't touch the flames, you might accidentally put your hand in the fire and burn yourself.'

2.3 Some key entities in Dalabon folk models of the mind

The most important lexical root used in Dalabon expressions referring to the cognitive domain is the bound root $\sqrt{\text{beng}}$, which we have already encountered in the previous two sections, and for which a list of derivatives was given in Figure 2. This translates, rather precisely, as the English word 'mind', including both its conscious and unconscious aspects. It may derive from a widespread Australian root *binang*¹² 'ear; perhaps esp. inner ear';¹³ though the only synchronic use with an 'ear' meaning is *bengngay-awkmibun* 'whisper/speak in someone's ear' and the word for 'ear' is now *kanûm-no* (discussed below). See Evans & Wilkins 2000 on the regular development from 'ear' to 'mind, sense, cognition' in Australian languages.

Examination of the full range of expressions containing $\sqrt{\text{beng}}$ shows that it covers the whole realm of mind,¹⁴ including both conscious awareness and unconscious storage. In other words, $\sqrt{\text{beng}}$ itself doesn't distinguish the 'working mind' (attention, active memory) from 'mind as storage', to invoke D'Andrade's (1987, 1995) contrast between mind-container and mind-processor. Rather, metaphors of verticality and

12. This root is widespread in Pama-Nyungan languages, but not elsewhere; the scenario assumed here would require it to have been present in the common ancestor of the Gunwinyguan and Pama-Nyungan families. Taking the **binang* form as original, it would require vowel leveling (*binang* > *beneng*) followed by loss of intervocalic *n* and merger of the two vowels. At present we do not have example of etyma undergoing a parallel sound-change, so this etymology must be regarded as speculative at this point.

13. It is worth noting, incidentally, that the word for 'ear' (and its various extensions) in the local variety of Kriol is *irriwul*, from English 'ear-hole'. This usage is also recorded in Sandefur & Sandefur (1979).

14. Semanticists using the English word 'mind' as part of their definitions are not always explicit about which sense of 'mind' they intend. For example, the otherwise very insightful treatment of Arrernte expressions for remembering by Van Valin & Wilkins (1993): uses the semantic representation *be.in.mind*, on my understanding with the sense 'be in conscious mind'; in their explication of 'remember', but without specifying exactly what they mean by 'mind': (conscious) mind-processor, (unconscious) mind-container, or both.

openness/hiddenness are used to modulate the perspective on the mind and its contents, as one brings them out, up or standing (in western terms, into consciousness), in expressions like *bengdi* 'think about, have thoughts or attention focussed on', lit. 'beng-stand', as opposed to having them 'down', i.e. buried sealed off or hidden, as in *bengmukmû* 'have forgotten, not be able to recall, have inaccessible to attention', lit. *beng-be.hidden/buried*. Other combinations, such as *bengkan* 'carry in mind – know, think about, remember', embrace the whole range from 'working mind' to 'contents of memory'. These different selections are illustrated in Figure 3.

Figure 3. Levels of mind/ $\sqrt{\text{beng}}$ in Dalabon verbal expressions

Aspectual inflections, as we sketched for *warhwan* in §2.2 and will examine more thoroughly in §3, are used to signal the transition from one region of focus to another, as when, in recall, a representation is raised or 'stood' from the 'lower' part of the mind to the 'upper' part in one sense of the verb *bengdi* 'recall, bring into consciousness or to one's attention'.

Three other terms for entities in the broad cognitive domain deserve briefer discussion.

Firstly, *kodj-no*, whose basic meaning is 'head', can also be used in the sense of 'mind, thoughts'. This extension is not common – most expressions based on *kodj* refer to the physical head or metaphorical extensions based on physical similarity, such as 'thundercloud, stormcloud'. However, there are four expressions where it extends to cover cognition: *kodjdhumdhumkarrûn* 'think about all the time, be obsessed with, do all the time', *kodj-mayahmû* 'be confused, be lost, mixed up', *kodjngandarrkyi* 'counsel given to one's family, in case of dispute' and *kodj-wokarrûn* 'reckon to oneself'. An example of the nominal root being used to denote 'mind, thoughts' (and in which the trope is directly translatable into English) is (8); see also (13; 22–24) for further examples with incorporated *kodj*.

- (8) *Mumunjengu-walung ngah-dokka-ng ngah-lng-bengda-nginj,*
 sleep-ABL 1-get.up-PP 1-SEQ-have.in.mind-PI
mumunjengu-walung kanunh nga-ye-dokkang,
 sleep-ABL DEM 1-SUB-get.up-PP
ngah-njengu-yu-kuno, bah dulu-no kanunh
 1-sleep-lie-TEMP but song-3Poss that

ngah-lng-yidnja-n kodj-ngan-kah,
 1-SEQ-have-PR head-1sgPoss-LOC
bulah-marnû-wayirninj wahdu kah-ngabbo-ng
 3pl/1-BEN-sing-PI spirit 3/1-give-PP
ba ngahlng-karru-yidnjan.
 so.that 1-SEQ-song-hold-PR

'I woke from sleep last night, I was suddenly experiencing¹⁵ a song as I woke from sleep, now I'll keep it in my head, they sang it to me and gave it to me in my dream, the spirits, and now I'll hold the song.'

Secondly, *kanûmno* 'ear', though again used primarily to denote the physical organ without cognitive implications, is used in a few expressions with the sense of 'memory, mind' that appears to be synonymous with *beng*: derivatives of *beng* are much more common among verbs, but the use of *kanûmno* is favoured in nominal expressions¹⁶. Where necessary I shall refer to this as *kanûmno*. An indication that the extensions of *kanûmno* have reached the cognitive level, to the point of being freed from particular assumptions regarding sensory modality, comes from the fact that the recollections in these expressions don't need to be oral/acoustic, but can be in other modalities as well. Two examples are (9) and (10); see also (13), which includes both *kodjno* and *kanûmno* in addition to expressions based on $\sqrt{beng}$. In the appendix, where I propose a Dalabon definition of *bengdi*, I shall use *kanûmno* in the definition in contexts where $\sqrt{beng}$ is combinatorially disallowed.

- (9) *Ngah-dja-yidnja-n bulu-ngan dje-no kanûm-ngan-kah.*
 1-just-have-PR father-1sgPoss face-3sgPoss ear-1sgPoss-LOC
 'I still have my father's face in my memory / in my mind.' (Lit. 'I still hold my father's face in my ear.')

- (10) *Nunh ngah-dja-bengka-n, mak nga-bengmukm-ian,*
 DEM 1-just-keep.in.mind-PR NEG 1-forget-F

15. Note that, in the Dalabon view of how new songs come into existence: akin to how Tartini is supposed to have had the 'Devil's Trill Sonata' revealed to him, the song comes to someone in their dream; if they listen carefully, they can then hold it in their memory.

16. It is likely that there is a semantic recapitulation in process here: if *beng* originally meant 'ear', but has now become restricted entirely to the cognitive domain, *kanûmno* presumably replaced it at some point in its basic physical and sensory senses, and is now recapitulating the same process of extension into the cognitive domain. Note also that there are other parallels in Gunwinyguan languages where there has been a restriction of original nominal roots to the incorporated noun position (and possibly additionally in N-Adj compounds), with a distinct root used in other nominal-type constructions: this frequently happens with roots for 'water, liquid', e.g. Dalabon *kolh*- 'water, liquid' (incorporated noun form), *bo*- 'water, liquid' (unincorporated, uncompounded form).

mak nga-bengmukm-û, ngah-dja-yidnja-n kanum-ngan-kah
 NEG 1-forget-PR 1/3-just-have-PR ear-1sgPoss-LOC
 'I still know that, I haven't forgotten, I still hold it in my memory / in my mind.'
 (lit. 'in my ear').

Thirdly, *menno* primarily denotes 'mind, judgment, social conscience, ambition, attitude' – a range of mental states and attributes having to do with self-regulation through social conscience. A list of verbs containing this formative was given in §2.1. So far we have no examples of this root denoting any physical organ or sensory faculty, though, in addition to the verbs of social (self-)regulation given in §2.1, there are two verbs describing states of feeling bad or good: *menmenwehmû* [~REDUP-become. bad] 'feel bad, feel sick' and *menmonmû* 'get better, feel better'.

3. Memory and stimulus source

The range of usage for Dalabon expressions of memory takes both internally-generated and externally-prompted stimuli, with different degrees of conscious control over the memory process. In most expressions for memory resulting from internal stimuli the rememberer is the subject of the verb – transitive for memory maintained over a long period, intransitive for memories held in attention for a shorter period – though there is one construction (comparable to English 'it'll come back to me') in which the memory is the subject and the rememberer the (derived) indirect object. All expressions in which the stimulus is externally prompted have the stimulus as subject and the rememberer as object.

To begin with memories that are maintained internally over a long period: the verb *bengkan* [beng-carry], which can refer to stably-maintained knowledge and skills (see Examples (10), (33) and (38–47)), can also be used of what might be called 'maintained memory':

- (11) *Mak nga-bengmukm-i yabok-ngan-kun ngah-dja-bengka-ng,*
 NEG 1-forget-IRR sister-1sgPoss-DAT 1/3-just-keep.in.mind-PP
kah-burlhm-inj, kah-marnu-burlhm-inj wadda-kah.
 3-appear-PP 3/1-BEN-appear-PP place-LOC
 'I didn't forget about my sister, I remembered [i.e. I held/kept it in my thoughts] that she was coming, that she was coming to my place.'

For such long-term maintenance of memory the verb *bengkan* [beng-carry] is used; as we will see in §4, this is best translated as 'to have continually in one's mind', and can variously be used of maintained knowledge, sustained thought, or lasting memory.

A different verb, *bengdi* [beng-stand], is used for memories that are internally-maintained for a shorter period, through being held in short-term memory, for example (12), or where the focus is on bringing them up from one's unconscious memory into immediate attention (13) – successfully or otherwise. As we will show in

§4.2, this verb is best translated as 'have temporarily in mind, have at the top of one's mind' with contextual translations that include 'attend to', 'direct one's thoughts to', in addition to 'remember'.¹⁷

- (12) *Manj ngah-dja-bengdi, ...*
 wait 1-just-have.in.mindPR
bah kenbo kodj-ngan-kah ngah-yung,
 Conj then head-1sgPoss-LOC 1/3-putPR
kodj-ngan-kah nunh kodj-ngan,
 head-1sgPoss-LOC DEM head-1sgPoss
kanum-ngan-kah kenbo ngah-yu-ng manj kanum-ngan-kah,
 ear-1sgPoss-LOC then 1/3-put-PR wait ear-1sgPoss-LOC
ngah-dja-bengdi nunh kanh ngey-no kanh
 1-just-have.in.mindPR DEM DEM name-3Poss DEM
nga-ye-ngalk-iyen nunh ngah-lng-ngiy-m-iyen
 1-SUB-find-F DEM 1-SEQ-name-get-F
kodj-ngan-kah, kanum-ngan-kah.
 head-1sgPoss-LOC ear-1sgPoss-LOC
 'Hang on, I'll keep that (telephone number) in my mind and then I'll put it into my head, into my "ear" (memory), it'll still be in my "ear", I'll just hold that number in my mind, which I'll then be able to find, I'll be able to get the name, in my head, in my ear.'
- (13) *Manj ngah-mumu-mukmu ngah-bengdi*
 wait 1-eye-be.buriedPR 1/3-have.in.mindPR
kanunh kirdikird dje-no.
 that woman face-3Poss
 'Hang on, I can't remember her face, I'm trying to remember/trying to think of that girl's face.'

The same verb, in the past perfective, may also be used of events where a memory is internally resuscitated, but without being the result of conscious monitoring. In the past perfective the verb may denote either consciously-driven or unintentional recall,

17. Most verbs in Dalabon are unambiguously either intransitive or transitive, and require the addition of valence-changing morphology to alter their transitivity (i.e. applicatives to increase it, or reflexive/reciprocal to decrease it). The verb *bengdi*, however, appears to be undergoing reanalysis from an original intransitive verb to one where it is also able to take as object the thing attended to, thought about or remembered. Owing to the fact that some prefixes are non-committal about transitivity (such as *nga-*, which can either be '1sg intransitive subject' or '1sg transitive subject acting on third singular object'), establishing transitivity in given cases is not always straightforward (combinations with second singular subjects or plural subjects reliably distinguish the two). In what follows, my glosses reflect the most likely analysis in my view, but some need further checking by permuting the person and/or number of the subject.

with only the context making it clear which is meant; in many cases either reading is possible.

- (14) *Ngah-bengdayhm-inj nahda ngah-bo-ng bubalayh-walung*
 1-have.in.mind-PP there 1-go-PP somewhere-ABL
ngah-bengdayhm-inj, djenj-ngan ngah-warhwa-nj karndinj.
 1-have.in.mind-PP fish-1sgPoss 1/3-not.have.in.mind-PP barramundi
 'I had been meaning (to pick up frozen fish) for the journey; I only remembered when I was already halfway along the road, I had forgotten my barramundi / left it behind.'¹⁸
- (15) *Ngah-bengdayhm-inj kardu*
 1-have.in.mind-PP maybe
yabok-ngan kah-burlhm-iyen derrhno
 sister-1sgPoss 3-arrive-F tomorrow
 'I just remembered that my sister is supposed to be coming tomorrow.'
- (16) *Bulu-ngan kah-bengdayhm-inj,*
 father-1sgPoss 3-have.in.mind-PP
ngarrHngarr ngah-warhwa-nj mimal-kah,
 long.yam 1/3-not.have.in.mind-PP fire-LOC
kenbo kah-yawoyh-bengdayhm-inj
 then 3-again-have.in.mind-PP
wurra mey ngah-wahwa-nj ngarrHngarr!
 hey veg.food 1/3-forget-PP long.yam
 'My dad remembered, I had forgotten the yam on the fire, then he suddenly remembered, hey!, I'd forgotten to take the yam out of the fire.'
- (17) *Wurdurdurd djehteng bukah-wehkunhdu-nyi yabok-no,*
 child CONTRFAC 3/3h-swear.at-IRR sister-3Poss
bah korre kah-bengdayhm-inj
 but quickly 3-have.in.mind-PP
mak bukah-lng-wehkunhdu-nyi.
 NEG 3/3h-SEQ-swear.at-IRR
 'That kid was about to swear at his sister, but just in time he remembered not to swear.'

So far all expressions have involved the rememberer as subject. We now pass to constructions in which the stimulus is subject, and the rememberer is either indirect object or object.

18. Ironically, almost the first thing said to me on turning up for the fieldtrip on which I was to focus on verbs of memory was a reminder that I had forgotten a gift of barramundi that Maggie Tukumba had wanted to send with me on my previous trip; sentence (14) was what I was told I should say in the context.

For internally-generated stimuli over which the speaker has no conscious control at all – and where this lack of control is being emphasised – a derived semi-transitive construction is employed, in which the stimulus is subject, and the rememberer the (derived) indirect object (added to an intransitive verb by the use of the benefactive applicative). Note that, as part of a general pattern found with derived semi-transitive diatheses, the subject nominal may incorporate, as with the nominal root *ngey* in this example, based on the intransitive verb *dudjmu* ‘return’.¹⁹

- (18) *Kenbo kah-marnû-ngey-dudjmu kodj-ngan-kah.*
 later 3-BEN-name-returnPR head-1sgPoss-LOC
 ‘The name’ll come back to me in a while.’

For external stimuli, a transitive construction is employed, with the stimulus as subject and the rememberer as object. Examples are *kodj-dokkeyhwan* ‘[SUBJ: stimulus] awaken [OBJ’s] memories’, lit. ‘wake up OBJ’s head’ (19) and *bengdayhka* ‘[SUBJ: stimulus] remind [OBJ] (e.g. that it is time to carry out a seasonal activity)’ (20).

- (19) *Ngah-balan-bengmukmu bah ngah-na-n,*
 1-almost-forgetPR but 1/3-see-PR
ngah-yawoyh-beng-brimu kah-yawoyh-kodj-dokkeyhwa-n.
 1-again-mind-?:PR 3/1-again-head-awaken-PR
 ‘I had nearly forgotten about it, but when I see the place I remember it again, it awakens my memories.’²⁰
- (20) *Dewdew nunh kanh wah kah-wudjmu*
 rainbird DEM DEM rain 3-finishPR
yilah-na-n kah-worrbo-n nunh kanh
 1pl/3-see-PR 3-go.around-PR DEM DEM
njel kah-bengdayhka kanunh wah kah-lng-wudjmu
 1plO 3-cause.to.have.in.mindPR DEM rain 3-SEQ-finishPR
mak ka-yaka kanunh kanh dewdew.
 NEG 3-fallPR DEM DEM rainbird
 ‘The rainbird, we see the rain is finishing, when we see the rainbird going around it reminds us / lets us know the rain is finished, it won’t rain, that rainbird.’

A somewhat more involved use of the latter verb, augmented by the benefactive prefix, is the following example concerning the loss of memory for a long-dead ancestor: the

19. To get something like the transitive meaning of ‘return’, it is necessary to use the comitative applicative: *ye-dudjmu* [COM-return] ‘return with’, ‘come back with’.

20. A couple of elements in this example need further checking: the verb *brimû ~ birmû* is not otherwise attested (though it may be a variant form of the *bûrhmû* ‘breathe’, and the verb *dokkeyhwan* may in fact be *dokkeyhwon*, which would be the expected causative form of *dokkan* ‘get up, arise’ (incorporated into *won* ‘give’, which then functions as a causative).

final clause is to be understood as ‘there is noone [OBJ] (left) whom (anything: SUBJ) can remind of him [I.OBJ]’, i.e. there is no-one left who remembers him.

- (21) *Babino kah-moyh-yo kah-bengmukm-inj, biy-dih,*
 long.ago 3-sick-liePP 3-forget-PP person-PRIV
mak nabikeninj bûkah-marne-bengdayhke-y.
 NEG someone 3/3h-BEN-cause.to.have.in.mind-IRR
 ‘He died and passed away from our memories long ago, he has been forgotten, there’s noone, there’s no one left who remembers him.’

In the above Examples (19–21), the whole event sequence, from external stimulus to mental process, is represented by a single verb. However, it is also possible to represent similar scenarios with a biclausal structure, with the prompting event represented by a verb of perception like ‘see’ (22), or of olfactory stimulation like *bobmû* ‘(emit/there be a) smell’ (23), followed by an intransitive verb representing the resultant change in mental state, such as *kodj-yurdmû* ‘have one’s thoughts run to’ (22) or *kodj-lorrHmû* ‘feel nostalgic’ (23).

- (22) *Kanunh bulu-no da-ye-bim-n-ian,*
 DEM father-3Poss 2/3-SUB-picture-see-F
nunh djah-lng-kodj-yurdm-ian, djah-kodj-yurdm-ian nidjarra
 DEM 2-SEQ-head-run-F 2-head-run-F this.way
kanunh wurdurd kanh nga-ye-yaw-yidjnja-n.
 DEM child DEM 1/3-SUB-child-have-PR
 ‘When you see a picture of her father, your thoughts will immediately run to her (i.e. you’ll immediately be reminded of her), that daughter of his who I have been bringing up (after he died).’
- (23) *Karddulungh-no kah-karddulungh-bobmu, ngah-kodj-lorrHm-inj.*
 smell.of.rain-3Poss 3-smell.of.rain-smellPR 1-head-be.nostalgic-PP
 ‘There’s a smell of rain coming up; I’ve started feeling nostalgic.’

It is also possible just to have the intransitive mental-state verb, leaving the imputation of causal stimulus to context, as in (24).

- (24) [After listening to a tape of old people singing:]
Ngah-kodj-lorrHmu, nunh kanunh nayungHyunki
 1-head-be.nostalgicPR DEM DEM old.people
bal-e-wayirni-njyi.
 3pl-SUB-sing-PCUST
 ‘I’m feeling nostalgic for that time when the old people used to sing.’

To close this section, it is worth noting that Dalabon culture gives wide recognition and systematisation to the role of ‘external memory’ in maintaining behaviour that is appropriate to the cycles of the seasons, on the one hand, and the cycles of life and death on the other. There is a complex system of ‘calendar metonymies’ (Evans 1997:146), which use clues such as the flowering of plants or the calling out of certain birds or

insects to keep track of when particular seasonal activities of hunting, gathering and burning should take place. The verb *bengdayhka* – exemplified above in Example (20) – is normally used to report such connections, with the external stimulus as subject and the human rememberer as object.

In the social realm, the posting and rescinding of name taboos after death remove and restore verbal stimuli prompting the memory of the departed. There are also physical reminders of bereavement periods, such as ceremonial necklaces (*madjadj* or *manguyadj*) worn by the bereaved spouse for some time after the death of their wife or husband, and whose ceremonial removal at a designated time signals their reintegration from mourning into normal life. The traditional customs of moving camp following a death, and of ‘smoking’ objects associated with a dead person (partly to remove any ‘smell’ of the dead person) also function to remove external stimuli to painful memories. The role of smell in prompting memories is particularly recognised by the central role assigned to the rains of the wet season which, by washing away any smells or detritus associated with the departed person, form a recognised watershed, as it were, for the passage from bereavement to the resumption of normal life.

4. How distinct are expressions of memory from those for other cognitive activity?

Now that we have investigated the conditions of use for expressions of memory in some detail, it is time to return to the question of what these verbs really mean: are they specialised for talking about memory, or do translations with English verbs for expressing memory emerge as particular contextual readings, especially through interaction with the aspectual system?

The two verbs that most often get translated by English ‘remember’ – most commonly *bengdi* (with its semi-suppletive past perfective form *bengdayhminj*) but also *bengkan* (e.g. (10,11)) – are each used with a broad range of translation equivalents in particular contexts, that for *bengdi* includes ‘think’, ‘remember’, ‘attend to’ and ‘put one’s mind to, decide’ and for *bengkan* includes ‘know’, ‘think’ and ‘remember’. One analytic option would be to treat each as polysemous, with a chained set of senses spanning the above meanings. A more parsimonious alternative, which I will now argue for, is to try and capture a single meaning for each, from which the various contextual readings emerge from interactions with other grammatical elements in the verb (particularly the tense, aspect and mood inflections) and from other aspects of context.²¹

21. A more complete version of my argument would address the issue of factivity, one of the key semantic parameters distinguishing ‘think’ or ‘believe’ from ‘know’. On the basis of our data so far, it appears that the Dalabon verbs both implicate rather than entail factivity, with the implicature cancellable by counterfactual particles or other modal devices in complement clauses, but the issue requires further investigation.

(Of course there are other intermediate positions, recognising a small number of senses plus contextual variants). We now consider each of these verbs in detail, after which we will look at the related causative verb *bengdayhka* (§4.3).

4.1 *bengdi*

The verb *bengdi*, etymologically, means ‘mind-stand’ as we saw in §2. This is used for a range of situations all characterised by conscious attention, of having a thought or experience temporarily in one’s conscious mind, or ‘at the top of one’s mind’.

Used in the aspects that do not emphasise state transitions, such as the present or the past imperfective, this covers situations where the subject is attending or directing their thoughts to a goal over a short period (e.g. listening on the phone for an interlocutor in (25)) or placing a thought or a preoccupation at the centre of their thoughts or preoccupations, as in (26) where the subject is ‘standing by’ for news of a death. Other examples that we have seen above include (8), where the subject wakes up with a new song in their head – experiencing it for the first time – and (11), where they are holding a telephone number in their mind while memorising it.

- (25) *Djah-bengda-nginj.*
2-have.in.mind-PI
‘You were listening out (on the phone, but nobody talked on the other end).’
- (26) *Ngah-marnu-bengdi*
1/3-BEN-have.in.mindPR
nah-ngan kah-moyh-boyenj, kardu dawo
mother-1sgPoss 3-sick-big maybe news
kah-marnu-dudjm-iyen kardu kah-wahwiyan ngorng.
3/1-BEN-return-F maybe 3-depart.from-F 12pl
‘I’m *thinking about* my mother, she’s really sick, word might come back to us any time that she has passed away from us.’

In non-transition aspects, this verb can also be used to denote situations of ‘deciding, putting one’s mind to’, as in:

- (27) *Ngah-bengda-nginj kinikin-kah kah-bo-ng*
1-have.in.mind-PI other-LOC 3-go-PP
ngey-karn ngah-dudjm-inj.
1sg-EMPH 1-return-PP
‘I decided (had it in mind) to go to another place, where he had gone, but I came back.’

In addition to the above uses, none of which pertain to memory, this verb can be used for ‘remember’ in the sense of ‘return (thought, representation etc.) to conscious

awareness'. In aspects not representing a state-transition, such as the present or future, it suggests 'recall' (28) or 'try to remember' (12):

- (28) *Bad kardu mak nga-bengka-n, manjyelek,*
 money maybe NEG 1/3-keep.in.mind-PR wait.now
ngah-dja-bengda-ngiyan, ngah-kodj-da-ngiyan,
 1/3-just-have.in.mind-F 1-head-stand-F
wohkardu marruh nga-yu-nj,
 or.maybe somewhere 1/3-put-PP
kardu bu kenbo ngah-dja-ngalk-iyen.
 maybe SUB later 1/3-just-find-F
 'I can't think right now where the money is, but in a while I'll remember/recall where it is, it'll come back to me, where I put it, and then maybe I'll find it.'

This verb is often used in its past perfective form, which focusses on the transition from one mental state (not having in mind) to another (having in mind), to mean 'remember', in the sense of remembered information becoming accessible again.²² Many examples of this have already been given (see Examples 14–17 above); two further ones are:

- (29) *Ngah-bengdayhm-inj ngey-no manjh.*
 1/3-have.in.mind-PP name-3Poss animal
 'I remembered the animal's name.'
- (30) *Ngah-bengdayhm-inj ngah-yerrkk-iyen yilk-no-walung.*
 1-have.in.mind-PP 1/3-take.out-F fire-3Poss-ABL
 'I remembered to take it out of the fire.'

4.2 *bengkan*

This verb, etymologically 'mind-carry', emphasises the persistence of thoughts, knowledge and memories through time: perhaps the closest we can come to a single invariant meaning is 'have continually in one's mind'.

In many contexts the best English translation is 'know' which, as a stative verb, naturally aligns with constancy of representation.²³ Among the many examples of such uses are:

- (31) *Ngurrah-yawoyh-dulu-djerrngu-hm-iyen,*
 12pl/3-Ass-again-song-new-FAC-F
ngurrah-karru-djerrngu-hm-iyen,
 12pl/3-Ass-again-song-new-FAC-F

22. So far the past perfective form of this verb is only attested with 'remember' meanings – not for example, with other state-transition meanings like 'come to think of X', 'begin to think of X', 'begin to pay attention to X (which one hadn't been paying attention to before)'. The analysis advanced here predicts that such meanings should be possible; more research is needed to check this.

23. So far we do not have examples of the inceptive use of 'know', as in 'at that moment I knew she was going to leave', paraphrasable by 'realise'. One would expect *bengdayhminj*, the past perfective form of the verb *bengdi*, to be used in these contexts, but this needs checking.

ba wurdurd bulah-dulu-won-iyen, bulah-Ing-bengk-iyen.
 so child 3pl/3-language-hear-F 3pl/3-Ass-Seq-keep.in.mind-F
 'We're going to renew that song/word/culture, so they'll hear that language again, so they'll know it.'

- (32) *Law ngey-kun law ngah-dja-bengka-n,*
 law 1sg-GEN law 1/3-Ass-just-keep.in.mind-PR
Mardayin Yaburdurrwa and whiteman law ngah-dja-bengka-n.
 [ceremony] [ceremony] 1/3-just-keep.in.mind-PR
Warhdû-kun ngah-bengka-n rowk.
 white.person-GEN 1/3-Ass-keep.in.mind-PR all
 'I know my law, I know Mardayin, Yaburdurrwa and whiteman's law, I know all that whitefeller stuff.'
- (33) *Korrehkun kurnh-no ngah-bengka-n.*
 long.time country-3Poss 1/3-Ass-keep.in.mind-PR
 'I've known the country for a long time (lit. I know the country since a long time).'
- (34) *Kanihdja-kah nga-ye-bo-ng,*
 there-LOC 1-SUB-go-PP
kanihdja ngah-kurnh-na-ng, ngah-kurnh-bengka-n.
 there 1/3-country-see-PP 1/3-country-keep.in.mind-PR
 'That's where I went, I know that country now.'
- (35) *Biy ngorr kah-marnû-burilm-inj*
 man 12 3/1-BEN-appear-PP
kardu nulah-bengka-n korrehkun,
 maybe 2pl-keep.in.mind-PR before
wohkardu Balang kardu bukah-bengka-n.
 or.else Balang maybe 3/3h-keep.in.mind-PR
 'The man who has come to us, maybe you know him from before, or maybe Balang knows him.'
- (36) *Barrah-bomung mak nunh keninh burra-bengka-n*
 3du-be.ignorant NEG DEM what 3du/3-keep.in.mind-PR
barrah-bomung, burrah-karrû-warhwa-n.
 3du-be.ignorant 3du/3-culture-not.have.in.mind-PR
 'They're ignorant, they don't know anything, they are forgetting their culture.'

In certain contexts this verb can be used to represent situations translatable by 'remember' in English.

Firstly, it can be used in negative contexts where the lack of memory persists through time; English allows either 'don't remember' or 'don't know' to be used virtually interchangeably here:

- (37) *Kardu mak nga-bengka-n kanunh kirdikird dje-no*
 maybe NEG 1/3-keep.in.mind-PR that girl face-3Poss
 'I can't remember what that girl looks like (anymore). / I don't know what that girl looks like (anymore).'

Secondly, it may be used in contexts where persistence of memory is emphasised (often against a negated 'forget' (38, 39, 40)), or with a span established by a phrase like 'from before', as in (41), or where memories keep recurring (here allowing either 'keep remembering' or 'keep thinking about' in English) (42).

- (38) *Nidjarra bulu-ngan ngah-yo bukorrahkun*
like.this father-1sgPoss 1-sleepPP long.time.ago
bah ngah-dje-wara-waral-na-n, ngah-dja-bengka-n, mak nga-bengmuk.
but 1/3-face-ITER-spirit-see-PR 1/3-just-keep.in.mind-PR NEG 1-forgetPR
Dorrung-no ngah-bengka-n, dje-no ngah-bengkan.
body-3sgPoss 1/3-keep.in.mind-PR face-3sgPoss 1/3-keep.in.mind-PR
'I saw my father's ghost from long before while I was asleep, I can still remember his face, I haven't forgotten, I can still remember his body, and his face.'
- (39) *Nidjarra biyi kah-burilm-inj ngah-dorrung-bengka-n*
this.way man 3-arrive-PP 1/3-body-keep.in.mind-PR
korrehkun ngah-dorrung-na-ninj.
from.before 1/3-body-see-PI
'The man who arrived, I recognise him, I know/remember him from having seen him before.'
- (40) *Mak yala-bengmuk, yilah-dja-bengka-n walu-no*
NEG 1pl-forget 1pl/3-just-keep.in.mind-PR law-3Poss
daworro-bulng yilah-dja-bengka-n.
clan-3plPoss 1pl/3-just-keep.in.mind-PR
'We don't forget, we still know/remember the law, we still know/remember the clans.'
- (41) *Nunh ngah-dja-bengka-n, mak nga-bengmukm-iyen,*
DEM 1/3-just-keep.in.mind-PR NEG 1/3-forget-F
mak nga-bengmukm-û.
NEG 1/3-forget-PR
'I still remember his face, I'll never forget it.'
- (42) *Ngah-dje-bukirribo-ng bah kodj-ngan-kah*
1/3-face-dream-P but head-1sgPoss-LOC
ngah-dja-bengka-n mak nga-kodj-mukmu.
1/3-just-keep.in.mind-PR NEG 1-head-be.buriedNP
'I saw a face when I woke up and I keep thinking about it / I keep remembering it, I can't forget the face.'

In some examples, *bengkan* is used of unfolding memories where one would expect *bengdi* to be used; it is likely that this emphasises the on-going nature of the memory-derived sensation. The only two examples of this so far are:

- (43) *Nga-balan-bo-ng bulu-ngan dje-no ngah-bengka-ng*
1-almost-go-PP father-1sgPoss face-3Poss 1/3-keep.in.mind-PR

- medmu-no-dorrung kah-marnu-dje-buyhwo-rr-inj,*
face.to.face-3Poss-COM 3/1-BEN-face-show-RR-PP
ngah-dje-waral-na-ng.
1/3-face-spirit-see-PP
'I was walking around and suddenly I saw my father's remembered face (in front of me), I saw the face of his spirit.'
- (44) *Kah-yawoyh-marnû-dudjm-inj kanûm-ngan-kah,*
3-again-BEN-return-PP ear-1sgPoss-LOC
ngah-dje-bengka-n dorrng-no-dorrûngh ka-ye-bobo-n.
1/3-face-keep.in.mind-PR body-3Poss-COM 3-SUB-walk-PR
'It's starting to come back to me again, I'm remembering her face, and her body, how she walked.'

4.3 *bengdayhka*

Though this verb is formally the causative of *bengdi*, the verb *bengkan* lacks a corresponding causative, and in terms of its semantics *bengdayhka* is best seen as the causative form of both of these verbs, with a neutralisation of the 'have in mind' vs 'keep in mind' distinction made in the non-causative forms. In many cases the best translation is 'remind' – i.e. 'cause to have (temporarily, or currently in conscious) mind'; Examples are (45) and (46) as well as (20) above, with (21) above an example where it means 'cause to (continue to) have in mind'. In each of these cases the corresponding non-causative verb would be *bengdi*. But it can also mean 'make understand, teach, put into a state where one knows about something' (47), in which case the corresponding non-causative verb would be *bengkan*. This is not the normal word for 'teach', however, which is *buyhwon* 'show; teach'.

- (45) *Nunh kanh tape ngah-wona-ng, yang-walûng,*
DEM DEM 1/3-Ass-listen-PP language-ABL
kah-lng-bengdayhka-ng kah-dulu-wona-ng,
3/1-Ass-SEQ-cause.to.have.in.mind-PP 3/3-song-listen-PP
kanh Dalabon ka-ye-yenjdju-ng Dalabon-walûng.
DEM Dalabon 3-SUB-speak-PR Dalabon-ABL
'That tape I listened to, in language, it reminded me, as she listened to the song, how she speaks Dalabon.'
- (46) *Djah-bengdayhk-iyen, k(an)unh kah-marnu-bawo-yan tape,*
1/2-cause.to.have.in.mind-PP DEM 2/1-BEN-leave-F tape
kuhdu wudji-kodj-muk, mak wuda-lng-bengka-n,
thus 2APPR-head-be.buried NEG 2/3APPR-SEQ-keep.in.mind-PR
kanunh korre dja-bengdayhka ngey-yih.
DEM before 1/2-cause.to.have.in.mindPR 1sg-ERG
'I'll remind you to leave me the tape, in case you forget, in case you don't manage to remember, I'll remind you beforehand.'

- (47) *Bulah-bengdayhka-nj* *ngorr wurrhwurrungu-yih*.
 3pl/1-Ass-cause.to.have.in.mind-PP 12pl old.people-ERG
 'The old people made us understand / taught us.'

5. Conclusion

Dalabon is an interesting example of a language that offers a number of distinct ways of talking about remembering – and which appears to conceptualise the dimensions of memory in a way that is reassuringly familiar and unexotic to English speakers – but without having any lexicalised verb for 'remember'. Expressions exist that distinguish whether the stimulus is internal or external, whether the recall process is under conscious control or not, whether the memory is only promoted for a short time into consciousness or is held there longer, and whether the memory is additionally tinged with feeling and regret (*kodj-lorrhmu* 'feel nostalgic'), but only in the last case is there a dedicated lexical item. Everywhere else, the verbs used to describe memory have a range of other cognitive meanings – predominantly 'think', 'know', and 'attend' – that interact with the aspectual system to give memory senses in contexts where the aspect – particularly the past perfective – signals a state transition (i.e. begin to attend to, begin to think about). But where continuous or persistent memory is at issue, memory readings are also available with other aspectual values (e.g. 'I still remember his face').

Though the main focus of this paper has been on memory rather than forgetting, it is worth pointing out that one of the two main Dalabon verbs for 'forgetting' – *warhwan* (§2.1) exhibits a similar interaction between a broader cognitive meaning (roughly: 'not have in mind') and aspect, yielding the 'forget' meaning primarily in the aspect most amenable to memory readings – the past perfective – and elsewhere meaning 'be ignorant of, not know about'. The other forget verb, *bengmukmu*, however, is so far only attested with the 'forget' meaning, perhaps because its focus is on the unconscious 'mind as container' being covered over or blocked.²⁴

The conclusions in this paper are necessarily tentative and restricted, because of our limited knowledge of Dalabon, but nonetheless show the interest of cross-linguistic studies of lexemes in the cognitive domain (Fortescue 2001, Goddard 2003). This domain has received less than its due attention in semantic typology, and is not simple to investigate because of its non-ostensible denotations, and because – as we have seen here for Dalabon – it can exhibit subtle interactions with aspect²⁵ and other inflectional categories.²⁶ Given that the fragile languages many linguists work with only

24. Conceivably it could also be used in situations where the subject is unable to come up with e.g. a solution or some other novel thought not dependent on memory, but based on the contents of the mind in some sense.

25. Cf Bulygina & Shmelev (1989) for related problems in Russian.

26. Volitionality/intentionality would presumably also interact in a major way in languages that grammaticalise this.

continue to exist thanks to the exceptional memories of their teachers, who have succeeded in holding them in their minds despite years of neglect and mainstream cultural encroachment, the question of how they conceptualise the memory that permits their survival deserves more of our attention.

Appendix: on definition constructions and primitives

In the very lively discussion with Anna Wierzbicka and Cliff Goddard that followed the original presentation of this talk, where they disagreed with my use of *beng*/mind without definition, and my position that neither 'think' nor 'know' should be treated as semantic primitives in Dalabon, some differences of analysis emerged which it may be useful to recapitulate briefly here. My overall position – which reflects a skepticism that exact exponents for all putative 'semantic primitives' can be found in all languages – is that different languages may use different basic building blocks to construct (semantically) more complex expressions which may then be intertranslatable, cross-linguistically, at a higher level. In other words, I think one should be careful to keep distinct the two fundamental assumptions of the NSM school of semantics, namely that:

- (a) each language can be used as its own metalanguage, eventually leading (if one enforces non-circular definitions) to an undefinable basic set of 'semantic primitives' when one carries out far-reaching and rigorous definitional research in a given language
- (b) the set of 'semantic primitives' yielded by (a) in each language is isomorphic and directly intertranslatable, reflecting what Leibniz called 'the alphabet of human thought', a metaphor frequently cited in the writings of Wierzbicka, Goddard and others working within this tradition.

Given that different languages represent different sociohistorical solutions to the problem of constructing a way of talking about the world, one can hold (a) to be true (though perhaps only after a certain amount of metalinguistic cultivation has taken place) without necessarily holding (b): there are different pathways to the same overall goal. Particularly in the case of mental predicates, I would hold, where the shared ostension between speakers is far from obvious due to the non-inspectability of mental states, and where it is not clear that the different types of mental phenomenon illustrate criterion-clustering in the way that, say, natural species do, one can expect a good deal of cross-linguistic variation.

I will now illustrate this issue with a definition of *bengdi* that treats it as non-primitive, constructed from other elements.¹

Now from the English angle, one could certainly define *√beng* in terms of 'know' and 'think', in much the same way that Goddard & Wierzbicka (2003:1100) define

1. I should emphasise that this definition is constructed by the author and that I have not yet had an opportunity to check it with speakers.

English 'mind' as 'one of two parts of a person . . . because of this part, a person can think; because of this part, a person can know'. $\sqrt{\text{beng}}$ / $\sqrt{\text{kanûm}_2}$ could be defined in the following way (with a couple of slight changes – localising it in the ear, where Dalabon speakers believe it to be, and being non-committal about the number of parts altogether):

$\sqrt{\text{beng}}$ / $\sqrt{\text{kanûm}_2}$
 one of the parts of a person
 people cannot see this part
 this part is inside a person's ear
 because of this part (having this part?), a person can think and know
 because of this part, a person can say:
 this thing happened to me

But though this definition works for English, thanks to the existence of 'think' and 'know' as primitives,³ it will not work in Dalabon if, as I have argued in this paper, there are no verbs that exactly represent 'think' or 'know'. In Dalabon, I argue, the chain of definition proceeds in the other direction: if we take $\sqrt{\text{beng}}$ as a primitive, we can then use it to define *bengdi* (and also *bengkan*, though I do not focus on this here).⁴

Here is a possible definition of *bengdi* along these lines. Note that, to avoid the artificiality of defining a bound stem in isolation (at this stage of metalinguistic discussion in Dalabon) I furnish the definition for a verb in the first person singular (present assertive form), with the bracketed *ngey ngah-* indicating 'I, 1st singular assertive-'. Note also that, because of the apparent combinatorial restrictions on *beng*, I use the second, cognitive sense of *kanûm* 'ear' as an 'allex' of *beng* in the definition to give greater combinatorial flexibility, allowing combination with nominal possessives etc..

2. The $\sqrt{\text{ }}$ indicates that this lexeme only occurs as a bound morpheme.

3. This it not to say I accept theirs as the only analysis for English. The philosophical tradition that treats knowing as 'properly caused true belief' (cf Perner 1991:266) suggests a fruitful line for explicating 'know' in languages like English.

4. A possible definition of *bengkan* might be the following:

Ngahdjayidjnjan manjkerninj kanûmngankah munguyh
Kanunhyih ngahwernhbengdi
Kanunhyih, bu ngayedjare, ngahwernhwonawonan wohkardu ngahwernhyin menmunguhd-jam
 I keep something in my *kanûm* (=beng) for a long time
 Because of this I can "*bengdi*" properly
 Because of this, when I want to, I can experience things properly or I can do all sorts of things properly

Definition of *bengdi* [Dalabon]

(*ngey ngah-*)*bengdi*

1. *Dubmi-yah manjh-kerninjh kah-burlhmû kanûm-ngan-kah*
2. *Wohkardû kahnûnda ngah-burlhka, wohkardû kah-dja-marnû-burlhmû*
3. *Ngah-wonan manjhkeninjh (kodj-ngan-kah) kanunhyih.*

[Free English translation]

(*ngey ngah-*)*bengdi*

At this time something is happening in my *beng/kanûm*

(I can make this something happen, or it can just happen to me)

I am seeing or hearing or feeling something (in my head) because of that

Interlinear version of Dalabon definition⁵

1. *Dubmi-yah manjh-kerninjh kah-burlhmû kanûm-ngan-kah*
 now-just something 3-Ass-come.upPRES ear/mind-1sgPoss-LOC

5. Notes on Dalabon definition

Line 1. In our dictionary (Evans, Merlan & Tukumba 2004) we don't list a word for 'happen', but in fact *burlhmû* 'come up, arrive, appear' appears a reasonable candidate, though I need to check this out. It's hard to get a perfect translation for 'something', but *manjh-kerninjh* looks like the best at this stage. A related word, *kerninjhbi*, which I've translated as 'whatsitsname' in the dictionary, may in fact work better.

Line 2. There is no synthetic causative, but many verbs have intransitive / transitive pairs, with the final portion taking the form *-mû* in the intransitive and *-ka* in the transitive, which has a causal sense. Hence *burlhka*, lit. 'bring up, cause to emerge' for 'make happen'. The *dja-* prefix and the benefactive applicative on *burlhmû* in the last line, convey the sense of 'just happen to me' (without my volition).

Line 3.

- (a) I'm not sure whether it would be better to give a disjunctive list of verbs (*ngahnan, ngahwonan*) to include seeing, hearing and feeling. However, in line with what David Wilkins and I talk about in our Mind's Ear paper (Evans & Wilkins 2000), you can use *wonan*, literally 'hear', for 'feel' as well, and since we wrote that paper I've also recorded an example where it is extended to 'noticing of a visual cue' (seeing a green ant nest in a tree for the first time), so the single verb *wonan* can cover all three of these senses, with a range closer to the English verb 'sense'.
- (b) the instrumental suffix can be used with the sense 'because of, owing to', hence its combination with *kanunh* 'this' here.

The bracketed phrase 'inside my head' may be unnecessary, but see Examples 8, 12 and 22–24 for illustrations of it being used in the relevant sense.

2. *Kardû kahnúnda ngah-burlhka*,
 maybe this 1/3-bring.uppr
kardû kah-dja-marnû-burlhmû
 maybe 3sg-just-BEN-come.uppr
3. *Ngah-wonan manjhkeninjh*
 (1/3-sense-PRES something
 (kodj-ngan-kah) kanunh-yih.
 (head-1sgPoss-LOC) this-INSTR

Abbreviations in glosses

ABL	ablative
APPR	apprehensive
As	assertative
BEN	benefactive (applicative)
COM	comitative
CONTRFAC	counterfactual
DEM	demonstrative
EMPH	emphatic
ERG	ergative
F	future
FAC	factive
GEN	genitive (also covers purposive uses)
h	higher animate (object, only with 3sg subject)
INSTR	instrumental
ITER	iterative
LOC	locative
NEG	negative
PCUST	past customary
PI	past imperfective
Poss	possessed noun, e.g. 1sg Poss 'noun possessed by first person singular'
PP	past perfective
PR	present
PURP	purposive
RR	reflexive/reciprocal
SEQ	sequential
sg	singular
SUB	subordinate
TEMP	temporal
1/3, etc.	1 st person singular subject acting on third person singular object, etc.
3/3h	3 rd person singular subject acting on third person higher animate
12	1 st person inclusive (first plus second person)

References

- Alpher, B., Evans, N. and Harvey, M. 2003. Proto-Gunwinyguan verb suffixes. In *The Non-Pama-Nyungan Languages of Northern Australia: Comparative Studies of the Continent's Most Linguistically Complex Region*, N. Evans (ed), 305–352. Canberra: Pacific Linguistics.
- Auroux, S. 1989. *Histoire des idées linguistiques. I. La naissance des metalangages en Orient et en Occident*. Liège & Sprimont: Mordage.
- Bulygina, T.V. and Shmelev, A.L. 1989. *Mental'nye predikaty v aspekte aspektologii. Logicheskij analiz jazyka. Problemy intensional'nyx i pragmaticheskix kontekstov*. Moscow.
- D'Andrade, R. 1987. The folk model of the mind. In *Cultural Models in Language and Thought*, D. Holland and N. Quinn (eds). Cambridge: Cambridge University Press.
- D'Andrade, R. 1995. *The Development of Cognitive Anthropology*. Cambridge: Cambridge University Press.
- Evans, N. 1997. Sign metonymies and the problem of flora-fauna polysemy in Australian linguistics. In *Boundary Rider. Essays in Honour of Geoffrey O'Grady*, D. Tryon and M. Walsh (eds). Canberra: Pacific Linguistics. C-136.
- Evans, N. 2003. *Bininj Gun-wok: a Pan-dialectal Grammar of Mayali, Kunwinjku and Kune* (2 vols). Canberra: Pacific Linguistics.
- Evans, N., Brown, D. and Corbett, G. 2001. Dalabon pronominal prefixes and the typology of syncretism: a Network Morphology analysis. *Yearbook of Morphology* 2000, 187–231.
- Evans, N., Merlan, F. and Tukumba, M. 2004. *A First Dictionary of Dalabon*. Maningrida: Bawinanga Aboriginal Corporation.
- Evans, N. and Merlan, F. 2003. Dalabon verb conjugations. In *The Non-Pama-Nyungan Languages of Northern Australia: Comparative Studies of the Continent's most Linguistically Complex Region*, N. Evans (ed), 269–283. Canberra: Pacific Linguistics.
- Evans, N. and Wilkins, D. 2000. In the mind's ear: the semantic extension of perception verbs in Australian languages. *Language* 76: 546–592.
- Fortescue, M. 2001. Thoughts about thought. *Cognitive Linguistics* 12 (1): 15–46.
- Goddard, C. 2003. Thinking across languages and cultures: six dimensions of variation. *Cognitive Linguistics* 14 (2–3): 109–140.
- Goddard, C. and Wierzbicka, A. 2003. Semantics and cognition. In *Encyclopaedia of Cognitive Science*. Basingstoke, England: Macmillan. 1096–1102.
- Maddock, K. 1970. A structural interpretation of the Mirriri. *Oceania* 40: 165–76.
- Perner, J. 1991. *Understanding the Representational Mind*. Cambridge, Mass: MIT Press.
- Sandefur, J.R. and J.L. 1979. *Beginnings of a Ngukurr-Bamyili Creole Dictionary*. Darwin: SIL-AAB, Work Papers of SIL-AAB, Series B, Volume 4.
- Sweetser, E. 1990. *From Etymology to Pragmatics*. Cambridge: Cambridge University Press.
- Van Valin, R.D. and Wilkins, D. 1993. Predicting syntactic structure from semantic representations: *Remember* in English and its equivalents in Mparntwe Arrernte. In *Studies in Role and Reference Grammar*, R.D. Van Valin (ed). Amsterdam: John Benjamins.