

# 6 *Common sense: continuing in the comparative tradition*

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There are many reasons why lexicographic work is important. Comparative linguistics, for example, depends very heavily upon accurate documentation of the vocabularies of individual languages and dialects, and the task of those of us who are involved in the effort to reconstruct the linguistic history of Aboriginal Australia will be greatly eased when larger amounts of reliable lexical resource materials become available. (Hale 1983:98)

## 1. Introduction<sup>1</sup>

When Ken Hale embarked on his project of eliciting language data for Central Australian languages he anticipated that the ‘dictionary of Arandic’ would be ‘explicitly comparative, since it deals with a language-dialect complex’ (1983:78).<sup>2</sup> Hale mastered Arandic languages with his characteristic and legendary speed, and perhaps with this comparative goal in mind, he used one Arandic language to elicit other related languages. The extract below, taken from a field recording made on his first trip to Alice Springs in

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<sup>1</sup> This paper draws upon lexicographic work in progress at the Central Australian Dictionaries Program at the Institute for Aboriginal Development (IAD) in Alice Springs. We would like to thank the many language speakers who have worked on dictionary projects over the years, as well as ATSIC and AIATSIS for their on-going support for the Dictionaries Program. In particular we thank Veronica Dobson, and Hilda Pwerl, Weetji Mpetyan, Gracie Mpetyan, Janie Ampetyane, Jacob Peltharr and others at Stirling community. Thanks also go to Rita Peltharr, Rita Ngal, Lena Ngal, Mary Ngal, Rosy Ngal and others at Laramba community. For providing helpful comments on drafts of this paper we thank Robert Hoogenraad, Harold Koch, David Wilkins, Gavan Breen, John Henderson, David Nash, Jane Simpson and Mary Laughren.

<sup>2</sup> The Arandic language family includes the following languages: Eastern and Central Arrernte (ECAR), Western Arrernte (WAr), Alyawarr (Aly), Eastern Anmatyerr (EAnm), Western Anmatyerr (WAnm) and Kaytetye (Kay).

1959, is an example of his methodology. In this instance an Alyawarr speaker and a Kaytetye speaker were paired together to elicit parallel grammatical sequences.<sup>3</sup>

- (1)a. *Nhanyem-an mpwel-ew-ak-enh.* (Aly)  
 b. *Nyarte-pe mpwe-w-ake-yenge.* (Kay)  
 this-FOC<sup>4</sup> 2du-DAT-SMOG-POSS  
 'This is yours.' (e.g. father and child)
- (2)a. *Ilek-ew-arl nga apeyalh-ew?* (Aly)  
 what-DAT-REL 2sgNOM come-P  
 b. *Wante-w-arre nge ape-nhe-ngerne?* (Kay)  
 what-DAT-REL 2sgNOM go-P-HITH  
 'Why did you come?'
- (3)a. *Artwa atha aw-ew angk-entyewarl.* (Aly)  
 b. *Artweye atye elpathe-nhe angke-ngewarle.* (Kay)  
 man 1sgERG hear-P talk-D/S  
 'I heard a man talking.' (AIATSIIS tape 4566)

Forty years after Hale's initial recordings were made, work is in progress on dictionaries of both the Anmatyerr and Kaytetye languages in Central Australia. These dictionary projects are proceeding simultaneously, and in some communities a pattern has been established of working with teams of people who are bilingual (or multilingual) in Kaytetye and Anmatyerr, and often in other Arandic languages as well. This approach, while presupposing that the researchers have some ability in the languages they are working on, builds upon previous linguistic research on the relevant languages, and makes maximal use of a multilingual environment.

This paper examines the numerous advantages of eliciting language data using a comparative lexicographic methodology. In §2 we discuss how the relationships between cognate forms in Arandic languages can be made explicit in order to blend language data files to produce an Arandic 'megafile'. This maximises the benefit of pre-existing language data for current language research. In §3 we discuss issues arising in a multilingual group situation, and make preliminary comments about the relevance of speakers' metalinguistic knowledge in lexicographic research. In §4 we discuss how a comparison of data from a number of Arandic languages enhances our understanding of semantic relations, and in §5 we conclude by suggesting future directions for lexicography.

<sup>3</sup> Hale worked in 10 localities within the Arandic speaking area eliciting from a wordlist of 400 items. This document became known as the *Arandic Word List* (Hale n.d.), and in its entirety remains still unpublished (Hale 1962; Koch and Turpin 1997:234).

<sup>4</sup> Morpheme breaks in the various Arandic language examples in this paper reflect different orthographic conventions which are based on varying analyses of the underlying morphological structure of these languages. See Breen and Green (1995). Abbreviations used in glosses are as follows: ABL – ablative; ABS – absolutive; D/S – different subject; DAT – dative; du – dual; EMPH – emphasis; ERG – ergative; FOC – focus; HITH – hither; INST – instrumental; INCH – inchoative; LIG – ligative; LOC – locative; NEG – negative; NOM – nominative; NMZ – nominalizer; OM – opposite patrimoiety; P – past; pl – plural; POSS – possessive; PRIV – privative; PROP – proprietive; PRS – non-past; PRS:CONT – present continuous; PURP – purposive; REC – reciprocal; RED – reduplicated form; REF – reflexive; REL – relativiser; SEMB – semblative; SEQ – sequential; sg – singular; SMOG – same patrimoiety, opposite generation moiety; S/S – same subject; STAT – stationary.

## 1.1 Linguistic relationship between Anmatyerr and Kaytetye

Anmatyerr and Kaytetye are both Arandic languages belonging to the Pama-Nyungan family. Estimates of the total number of Arandic language-speaking people range from 4,500 to 6,000.<sup>5</sup> Hale recognised early on that Kaytetye was distinct enough from the other Arandic languages to warrant a division within the Arandic language group. On the basis of comparative lexical data he identified the Artuya sub-group, which has only Kaytetye, and the Urtwa sub-group, which includes all other dialects except Lower Arrernte (Hale 1962 and 1983:96).<sup>6</sup> Two varieties of Anmatyerr are now distinguished—Eastern Anmatyerr, which is spoken to the east of the Stuart Highway in communities such as Utopia and Stirling, and Western Anmatyerr, sometimes referred to as *Kalenthelkwer*,<sup>7</sup> which is spoken to the west of the Stuart Highway in communities such as Napperby and Mt Allan. In some communities such as Stirling, where much of our comparative lexicographic work is taking place, both Kaytetye and Eastern Anmatyerr are spoken and many adults are fluent in both (see map).

## 2. Creating the megafiles

The dictionaries program at the Institute for Aboriginal Development (IAD) in Alice Springs was first established in 1984. Many dictionaries and other publications have resulted from these years of work, and these have relied on compilations of data from many sources, including the work of Ken Hale. The method of dictionary making at IAD is essentially one of using word processors to manipulate structured text files, rather than using relational database management packages.<sup>8</sup> The term ‘database’ in this paper refers to the compilation of these text files.

The existence of these large computer databases has enabled much more efficient use of previous material, and to take full advantage of this, all the Arandic language data files were compiled into one large file.<sup>9</sup> Following a suggestion from David Nash, we inserted a ‘sort key’—in effect a surrogate headword for each headword.<sup>10</sup> This ‘sort key’ differs from

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<sup>5</sup> See Hoogenraad (1993), Green (1994:2), and Henderson and Dobson (1994:8). In this paper we are using the term ‘language’ to refer to locally named varieties of the Arandic group, regardless of the linguistic closeness or otherwise of their relationship to each other.

<sup>6</sup> See papers by Breen and Koch (this volume) for a discussion of the Arandic language family. Artuya and Urtwa are the words for ‘man’ in the respective subgroups—*artweye* (Kay), and *artwa* (Aly, EAnm) or *artwe* (ECAr). See Evans and Wilkins, this volume, for further discussion of the history of this language naming practice.

<sup>7</sup> Various pronunciations of this language name include Ntheyelkwer, Kalenthelkwer and Nthelkwer.

<sup>8</sup> See Goddard and Thieberger (1997) for a discussion of various approaches to dictionary data management.

<sup>9</sup> The datafiles, wordlists and dictionaries used to construct the megafile included the Alywarr dictionary database, the Eastern and Central Arrernte database, Breen 1988, 1996a, 1996b, and 2000; Purle, Green and Heffernan 1981; and the Anmatyerr dictionary database.

<sup>10</sup> The use of the sort key to make the Arandic megafile was developed by Robert Hoogenraad and Jenny Green in 1997, with substantial phonological advice from Gavan Breen. The sort key words were not intended to be proto-Arandic forms. In the late 1980s John Henderson developed a Nisus computer macro, with similar functions to the sort key, to generate pan-dialectal Arandic forms in order to facilitate comparisons across dialects. In 1981, at Hale’s suggestion, David Nash constructed a list of Arandic words sorted alphabetically by first consonant (David Nash, pers. comm.). Dixon (1983:148) describes his use of what he calls the ‘phonicon’—where words are ordered by phonetic similarity rather than alphabetic order—to elicit Dyirbal vocabulary.

the headword in that it neutralises some of the phonological and orthographic variation across Arandic languages, in order to facilitate comparisons between them by placing cognate words together.

Arandic languages are interesting because of the phonological changes they have undergone (Hale 1983:97; Koch 1997; Breen and Pensalfini 1999:8; and Breen, this volume). There is also significant phonological variation between speakers who identify as belonging to the one communalect (for example, within the Anmatyerr group), with regard to the absence of initial vowels, pre-stopping, the location of rounding in the word, and the alternation between lamino-alveolar and prepalatalised apical-alveolar consonants. This surface phonological diversity raises significant challenges for the lexicographer, especially in terms of working out practical ways of representing this variation in dictionaries. For the dictionary user these problems are heightened when variability occurs near the beginning of words. Table 1 shows the phonological and orthographic variations that were taken into account when designing the sort key.

**Table 1:** Phonological and orthographic variations neutralised in the sort key

phonological variations neutralised		
1	initial vowel ~ no initial vowel	#VC → #C
2	prepalatalised apical ~ lamino-alveolar	j <sub>C</sub> → C <sup>j</sup>
3	prestopped nasal ~ nasal	c <sub>N</sub> → N

  

orthographic variations neutralised		
1	final vowel 'e' ~ 'a' ~ Ø	CV# → C#
2	'u' ~ 'w' to represent rounding	#u <sub>C</sub> → C <sub>w</sub>
3	retroflex ~ apical alveolar <sup>11</sup>	r <sub>C</sub> → C

Example (4),<sup>12</sup> an edited excerpt from the megafile after the sort key has been applied, shows how the sort key reduces language specific spelling differences, such as differing orthographic conventions with regard to word-initial vowels. For example, *iltye*, *eltye* and *iltya* represent the phonemically identical words for 'hand' in various Arandic languages. The reduction of orthographic and phonological variation to group cognates together also reduces some contrastive phonological differences within a language, which in practice means that cognates may be interspersed with minimal pairs, as in (4) below. However this grouping of contrastive words, such as *altya* 'kin', *iltya* 'hand', and *ltya* 'juice', is also an advantage as it enables on the spot verification of phonological differences.

(4) \sk lty  
 \h **altya** \l Aly \df close relation, close family, kin  
 \h **eltye** \l ECAR \df a relative, family member  
 \h **elty** \l WAnm \df 1. hand \df 2. finger

<sup>11</sup> Word-initial retroflexion of non-rounded consonants is noncontrastive. Predictable retroflexion of apicals occurs after a schwa vowel following an apical. There is variation between the Arandic languages as to the orthographic treatment of retroflexion in these positions.

<sup>12</sup> The codes in these examples are as follows: \sk sort key, \h headword, \l language, \df definition.

\h **iltye** \l WAR \df hand; front foot of animal  
 \h **iltya** \l Aly \df hand, finger  
 \h **iltye** \l ECAR \df 1a. the hand \df 1b. finger, fingers, thumb  
 \df 2. the similar parts of animals, insects, etc.; the front feet,  
 claws, etc. \df 3. needle on a meter, speedometer, weighing machine,  
 etc., hands of a clock  
 \h **ltya** \l Aly \df juice of meat, blood from meat  
 \h **ltye** \l ECAR \df juice, sap, nectar, meat juice, liquid fat  
 \h **eltye** \l Kay \df hand

Examples (5) and (6) illustrate how the sort key neutralises two of the phonological variations found in Arandic languages. The variability of pre-stopping in Arandic languages is shown in (5).

- (5) \sk mer  
 \h **amer**; **mer** \l WANm \df 1. camp \df 2. home \df 3. place \df 4.  
 country  
 \h **mer** \l EANm \df camp  
 \h **pmere** \l WAR \df camp, home, house, place, surroundings  
 \h **apmer** \l Aly \df 1. country, home, place, camp, house, area,  
 land \df 2. used before the name of a particular country or place  
 \df 3. placenta  
 \h **apmere** \l ECAR \df 1a. country, land, region  
 \df 1b. an area of land and the things on it (trees, etc.);  
 countryside \df 2. home, house \df 3a. place, location, site \df  
 3b. direction, place \df 4a. A general word for places and areas  
 which can go before the word for a place or type of place \df 4b.  
 Goes before words of which one of the meanings refers to a (type  
 of) place or area and makes it clear that it is this place meaning  
 rather than another meaning of this word \df 5. Occurs in some  
 phrases describing times  
 \h **apmere** \l Kay \df camp

The phonological distinction between lamino-alveolar and prepalatalised apical-alveolar consonants made in some Arandic languages is shown in (6). Kaytetye and Alyawarr tend to prepalatalise alveolars, especially non-nasals, where Western Anmatyerr and Arrernte have palatalised alveolar consonants.<sup>13</sup>

- (6) \sk tyanken  
 \h **atyankerne** \l ECAR \df 1. a type of mistletoe plant \df 2. the  
 edible fruit of this plant  
 \h **tyankern** \l WANm \df mistletoe  
 \h **tyankerne** \l WAR \df mistletoe fruits, all kinds  
 \h **aytankern** \l Aly \df 1. type of mistletoe \df 2. mistletoe  
 berries

A number of phonological correspondences not originally factored into the sort key have become apparent during fieldwork (see Koch 1997 and Breen, this volume, for a diachronic account of these correspondences). For example the presence of rounding in cognate terms varies across Arandic languages, as in Table 2 below.

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<sup>13</sup> See Breen, this volume, for an analysis of prepalatalisation as a suprasegmental feature which affects the consonant position rather than the consonant phoneme.

Table 2: Some examples of rounding variation in Arandic languages

Gloss	ECAr	EAnm	Aly	Kay	WANm	WAr
<i>Acacia victoriae</i>	<i>arlepe</i>	<i>arlep</i>	<i>arlep</i>	<i>arlepe</i>	<i>arlwep</i>	<i>urlepe,</i> <i>lwepe</i>
shade	<i>ulye</i>	<i>ulya</i>	<i>lywa</i>	<i>elye</i>	<i>lyw(ang)</i>	<i>lywentye</i>
number 7 boomerang	<i>irlkwe</i>	<i>iykwa</i>	<i>iykka</i>	<i>eylke</i>	<i>rlkw(ang)</i>	—

Kaytetye lexemes sometimes have initial peripheral consonants which are absent in the cognate forms in other Arandic languages, for example *kalyeyampe* (Kay) and *alyeyamp* (Anm) ‘frog sp. (*Limnodynastes spenceri?*)’. There is also an alternation between the consonants ‘h’ [ʉ], ‘w’ [w] and ‘k’ [k], both within an Arandic language and between Arandic languages—for example compare *awelengkwe* (Kay) with *ahelengkw* (Anm) ‘dangerous’.<sup>14</sup>

Regular phonological variations are highlighted through the multilingual elicitation methodology. These variations are apparent between the languages, but there is also significant speaker variation within the languages (see §4.2 below for speaker variation in the pronunciation of the word for ‘eye’). Data on this synchronic speaker variation and on borrowing provide important information for establishing patterns of phonological change.

While the use of the sort key is by no means a fail-safe method of placing cognates together, it has many advantages. The juxtaposition of headwords from different dialects or languages enables a quick assessment to be made of the differences in definitions or glosses for words that already appear in various dictionaries or wordlists. It reveals how lexicographers adopt different strategies to order and define word senses. For example, the Eastern and Central Arrernte Dictionary attempts to consistently separate English polysemy from Arrernte polysemy by using letters for multiple English senses, and numbers for multiple Arrernte senses, as can be seen in the Eastern and Central Arrernte examples in (4) and (5) above (Turpin 1998:221). This methodology suggests semantic hypotheses to be tested in the field, and highlights both the cross-linguistic similarities and differences in form–sense associations. It also reveals gaps in the documentation of the lexicon.<sup>15</sup>

## 2.1 Working through the megafiles

The megafile (with certain fields, such as the numerous example sentences, deleted from the original dictionary databases) is in effect the fieldwork text from which Kaytetye and Anmatyerr language material is elicited. This tool has been shown to be effective in the

<sup>14</sup> The voiced uvular approximant [ʉ] occurs infrequently, and both [w] (through derounding) or [k] (through lenition) have been proposed as the origin of this phoneme (Koch 1997:278).

<sup>15</sup> Although comparing languages, or dictionaries, on the basis of the number of words is problematic, the following gives an idea of the scale of these dictionaries, and perhaps an indication of potential ‘lexical gaps’ in these to date. The Alyawarr Dictionary has 2506 headwords, the Eastern and Central Arrernte Dictionary 2685 headwords, and the Introductory Dictionary of Western Arrernte 1694. However, the derived forms, secondary senses and phrasal constructions account for the real differences between these dictionaries. The Eastern and Central Arrernte Dictionary has 7101 definitions or glosses, the Alyawarr 3802, and the Western Arrernte 3426.

group fieldwork situation, such as at Stirling, where both of these languages are elicited in parallel. Alphabetical elicitation highlights minimal pairs and semantic extensions of lexemes which would otherwise be obscured by eliciting through semantic domains. The change of topic due to alphabetical ordering provides interest and creates a 'quiz' or 'sale of the century' type atmosphere—nobody can guess what the next prompt word will be, or even what language it might be in.

This approach by no means precludes divergence from the alphabetical ordering. There may be considerable discussion in the first instance about the word in question, and this in itself is extremely valuable, leading to new data. The conversations stimulated by this process follow many phonological, grammatical, and semantic tangents and result in a rich collection of taped text material. The transcripts of these field tapes contain both Kaytetye and Anmatyerr language material in sequence and thus provide valuable comparative data.

### **3. Issues arising in a multilingual group situation**

Working on dictionaries with a multilingual group has many obvious advantages. In the first instance, this approach recognises that the *lingua franca* in these communities is not English. Participants in the group working situation are usually bilingual, and at Stirling many adults in conversation swap with ease between Kaytetye and Anmatyerr.<sup>16</sup> It is easier for language workers to think of what a particular word is if the prompt is a Kaytetye or an Alyawarr word rather than an English word. Nevertheless, there is often heated discussion as to the language identity of particular lexical items—individuals vary as to what is, in their opinion, 'proper Anmatyerr' or 'proper Kaytetye'.

This dynamic clearly demonstrates that these languages share inherited vocabulary as well as borrowings from neighbouring languages. The extent of the overlap in vocabulary, whether shared or borrowed, is less apparent when the languages being documented are not contiguous geographically—for example Alyawarr and Arrernte. In the border regions, where there is a high level of multilingualism in adjacent languages, the issues of lexical identity are highlighted. The difficulty in identifying discrete languages and dialects for dictionary publications is in quantifying the effects of temporal, regional and speaker variation.

While it remains to be seen to what extent these dictionaries play a role in language standardisation, for the lexicographer a practical issue arising from the question of language identity is which words to include in which dictionary. On the one hand the dictionaries attempt to reflect the reality of spoken language, which often includes borrowings from neighbouring languages, yet on the other there is an attempt to recognise the identity of lexemes as properly 'belonging' to a particular language, according to the perceptions of language speakers.

A number of factors need to be taken into consideration when working with a multilingual group. There may be either exaggeration of lexical, phonological and semantic similarities between languages, or exaggeration of their differences depending on the group dynamic. In a group situation there is recognition that certain individuals are the appropriate people to talk about particular plants or animals, as the rights to talk about certain words are embedded in the relationships of speakers to country and Dreamings. Working in a group

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<sup>16</sup> The group situation plays an important role in language maintenance, as it provides a forum for language learning and the transmission of cultural knowledge.

also reveals that even the most common words exist in the context of pragmatic rules which include restrictions on their utterance. For example, words which are the personal names of the deceased, or words which are similar phonologically to these names, are not spoken freely and the replacement word *kwementyay(e)* is used instead.<sup>17</sup> Speakers may request that some senses of words be removed from dictionaries because of the potency of their pragmatic content, and some lexemes are excluded from dictionaries altogether. Whilst in private some speakers may dissent from comments made in the group situation, the group provides a legitimate forum to develop strategies to deal with words which are sensitive or taboo and takes the onus off individuals.

### 3.1 Tapping metalinguistic knowledge

Hale (1972:394) has called for “an *exchange* of competencies between linguists and persons interested in the study of their own languages” (Hale’s emphasis). A mutual understanding of linguistic concerns and culturally appropriate methodology is being built up through long-term regular teamwork using the megafile as a basis for cross-linguistic research. One outcome of this is the exploration of the ‘vernacular metalanguage’ employed by native speakers to describe linguistic phenomena. This is not a new idea, as the following extract from one of Ken Hale’s Alyawarr recordings, made in 1959, demonstrates.

- (7) *Alyawarr althalth ngath, altwerl-ampeny.*  
 Alyawarr light this.side west-area  
*Akngerrakw rlterrk-arl Rntewerrk-areny.*  
 east strong-REL Rntewerrk-denizen.of  
 ‘The Alyawarr on this side is *althalth* [light]—in the western area. To the east in the Rntewerrk area it is *rltterr* [strong, heavy].’<sup>18</sup> (AIATSIS tape 4570)

Terms such as *rltterr* ‘strong, hard, difficult’, *althalth* ‘soft, light’, *arregker* ‘fast’, *arrerlker* ‘clear, transparent, light’, and *ulthenty* ‘heavy’ are used in various Arandic languages to describe attributes of speech styles or dialects, as in the following example where a speaker of Eastern Anmatyerr reflects on the ‘sound’ of Western Anmatyerr.<sup>19</sup>

- (8) *Ntheyelkwer map arregker, kern-antey,*  
 (WAnm) group fast high-as.well  
*Anmatyerr little bit ulthenty-arl, heavy one.*  
 [ourselves] little.bit heavy-REL heavy.one

<sup>17</sup> Another example is the restriction on saying the names of certain relatives. Whilst working on the megafile Turpin asked one of the Kaytetye team members for the Kaytetye equivalent of the Alyawarr word *arraylp* ‘sharp’. The woman was silent and looked at Turpin awkwardly. It was then explained to Turpin that this was the name of the woman’s son-in-law, and that she was the only one in the group for whom this word was restricted.

<sup>18</sup> Rntewerrk is the name of a country to the east of Utopia (Moyle 1986:109). The term *rntewerrk* also refers to the seeds of the *ahakey* plant (*Canthium latifolium*), an associated Dreaming. This country name appears in Hale’s list of Alyawarr place names, which were provided by people from Macdonald Downs in 1959 (Hale 1959).

<sup>19</sup> Some Anmatyerr speakers use the terms *rltterr* and *althalthw* to describe the opposition between ‘heavy’ and ‘light’ with regard to style of speech. The absence of rounding on the lexeme *althalth* as recorded by Hale is noted.



*Itna akenh angk-em arrerlker light one.*  
 3plNOM whereas talk-PRS light  
 ‘The Western Anmatyerr people talk fast—high as well. Anmatyerr  
 [ourselves] sounds a bit heavy, whereas they talk in a light way.’

At times, the descriptions ‘heavy’ and ‘light’ when applied to individual words seem to indicate the distinction between retroflex and non-retroflex consonants, although further work is needed to establish the precise phonetic correlates of these descriptions.

- (9) “Urlemp *ayeng an-ep-an-em*” *heavy-apyeny,*  
 on.own 1sgNOM sit-LIG-RED-PRS heavy-SEMB  
  
*ulemp little bit light.* (EAnm)  
 ghost.gum  
 ‘Urlemp [‘on my own’], [as in] “I am sitting on my own”, is a  
 bit heavy—*ulemp* [‘ghost gum’] is a little bit light.’

The Stirling team is now adept at contrasting words which are phonologically similar (termed *arrer ant atherr* ‘two close ones’ or *arrerrek-arrer(e)* ‘close to each other’).

- (10) *Kwaty urnt-em an unt-em, arrer-ek-arrer.* (EAnm)  
 water rain-PRS and run-PRS close-DAT-close  
 ‘Urntem [‘raining’] and untem [‘running’]—both [sound] close to each other.’

The following example is of a spontaneously volunteered pair of ‘close words’:

- (11) *Alwerrng an atnwerrng.*  
 sinew and mush  
  
*Mern-arl atnwerrng-an.* “Atnwerrng *tha arlkw-em-aw.*”  
 food-REL mush-FOC mush 1sgERG eat-PRS-EMPH  
  
*Alwerrng, alwerrng string weth-arl.* (EAnm)  
 sinew string string that.one-REL  
*Alwerrng* [‘sinew’] and *atnwerrng* [‘mush’]. The food is *atnwerrng*. [As in]  
 ‘I’ll eat some mushy stuff’. *Alwerrng* is that string.’

In (11) the speaker is showing that the contrast between /l/ and /tn/ is the only phonological difference between the Eastern Anmatyerr words for ‘sinew’ and ‘mush’. This is part of the evidence that language speakers perceive the relationship between lateral alveolars and nasal alveolars (including prestopped nasals) as phonologically closer than that between lateral alveolars, lateral post alveolars and lateral interdentals.<sup>20</sup>

A metalinguistic viewpoint is evident in the above examples (9)–(11). These comments are by an Anmatyerr speaker who has been involved in language work for over two decades.<sup>21</sup> Discussions about language analysis are an integral part of the fieldwork process, and working with the same group over a period of time develops metalinguistic awareness.

<sup>20</sup> Evidence for this comes from variation in pronunciation of some words within a language, for example *rlterlte* ~ *rlternte* ‘new born’ (Kay).

<sup>21</sup> Hilda Pwerl, who began working with Jenny Green on language research in 1977.

#### 4. Comparative semantics

Working in a cross-linguistic group enables fruitful exploration of comparative semantic issues. Hale (1983:97) recognised this by working cross-linguistically, comparing the semantics of Warlpiri and Arandic languages. Evans (1997:140) has called for “comparative studies of as many languages as possible” because “one dictionary may record information another neglects, one group may remember what another group forgot, and one group may talk publicly about connections that are esoteric for another”. The compilation and comparison of data from across the Arandic group reveals crucial links in polysemy chains. These patterns of systematic polysemy across different languages with different forms indicate the salience of the semantic connections in various domains (see for example Wilkins 1996; Evans and Wilkins 1998, and this volume).

In the bilingual group, members of one team often adopt a ‘good’ example sentence that the other team has provided. This can produce precise equivalents between the two languages, offering comparative grammatical, phonological and semantic data. The examples below, elicited sequentially, highlight the difference between the reflexive construction in Kaytetye and Eastern Anmatyerr.

- (12)a. *Mantarr ayeng iylw-elh-etyek.* (EAnm)  
 clothes 1sgNOM take.off-REF-PURP
- b. *Mantarre atyewenhe alheyne-wethe.* (Kay)  
 clothes 1sgREF take.off-PURP  
 ‘I’m going to take my clothes off.’

The process of discussion is cumulative, and speakers of one language build upon the other language team’s sentence, adding further valuable semantic and cultural data which helps to explicate subtleties of semantic difference. For example, the verbs in examples (13) and (14) below, *arrngertewem* (EAnm) and *arrngeyenneke* (Kay), were previously glossed as ‘to block’. After considering further semantic evidence, they may be better glossed as ‘to block off, block the way, or restrict access or action’.

- (13) *Kwaty-el rwew-el arrngertew-em, ilpay.*  
 water-ERG flood-ERG block-PRS creek  
*Tyerry nthakenh alhe-tyakenh.*  
 person how go-NEG  
*Arn-el-an arrngertew-em road-ant-arl.*  
 tree-ERG-FOC block-PRS road-just-REL  
 ‘The flood water is blocking (the way across) the creek.  
 People can’t get through. A tree just blocks the road.’ (EAnm)
- (14) *Arrngeyne-nyerre arntwe alenye-le, elpaye,*  
 block-P water flood-ERG creek  
*eytey-apeke arrngeyne-nye arwel-apek-arre arnte-nhe-le.*  
 road-might block-P tree-might-REL break-P-ERG  
 ‘The flood water blocked (the way across) the creek, or a fallen tree  
 might have blocked off the road.’ (Kay)

The cross-language methodology produces consensus as to a word's meaning in other related languages, even when there is no standardised English equivalent. For example Kaytetye and other Central Australian languages distinguish two separately named varieties of a plant with edible fruit, *Solanum chippendalei*.<sup>22</sup>

(15)	(EAnm)	<i>unemangkerr</i>	<i>anakety</i>
	(Aly)	<i>anemangkerr</i>	<i>anakety, kanakety</i>
	(Kay)	<i>kwenemangkerre</i>	<i>kanaketye</i>
	(Warlpiri)	<i>ngayaki</i>	<i>wanakiji</i>

#### 4.1 Parallel semantic evidence from related languages

The megafile listings juxtapose lexemes whose semantic relationship would not necessarily become apparent simply by working through semantic domains. The arguments for semantic connection are greatly enhanced by 'independent parallel evidence' from other languages which exhibit similar polysemous extensions of non-cognate forms (O'Grady 1990:14; Evans 1992; Evans 1997; Wilkins 1996). Working in a cross linguistic group provides such data. Even where the basis for a metaphoric relationship between lexical items remains unknown to the lexicographer, observing this parallelism is of assistance in identifying the equivalence of terms (see Nash 1997).

Five types of semantic extension are identified below. These types are distinguished on the basis of the phonological and semantic relationships between the source words in the languages under consideration. In (16) below the source words (which are skin names) are either cognate or borrowed.

(16)	<b>Language</b>	<b>Source word</b>	<b><i>Nicotiana velutina</i></b>
	EAnm	<i>(K)ngwarray</i>	<i>(k)ngwarray-(k)ngwarray</i>
	Aly	<i>Kngwarrey</i>	<i>kngwarrey-kngwarrey</i>
	Kay	<i>Kngwarraye</i>	<i>kngwarraye-kngwarraye</i>
	Warlpiri	<i>Jungarrayi</i>	<i>jungarrayi-jungarrayi</i>

In examples (17) and (18) the source words are phonologically unrelated, yet have the same denotation (See Evans 1997). Whilst the semantic relationship between 'aunties' and a particular plant with a round prickly burr or that between the skin name *Kngwarray* and the plant (*Nicotiana velutina*) remains obscure to an English speaker, there is clearly a connection for speakers of central Australian languages, as unrelated forms in different languages show the same polysemy.

(17)	<b>Language</b>	<b>Source word ('auntie')</b>	<b><i>Sida platycalyx</i><sup>23</sup></b>
	EAr	<i>awenheye</i>	<i>awenheye-awenheye</i>
	EAnm, Aly	<i>awenhey</i>	<i>akeley-akeley</i>
	Kay	<i>akeleye</i>	<i>akeley-akeleye</i>
	Warlpiri	<i>pimirdi</i>	<i>pimirdi-pimirdi</i>

<sup>22</sup> George Chippendale, after whom this species was named, was the botanist who identified plants collected by Hale in 1959.

<sup>23</sup> 'Auntie' is father's sister; *Sida platycalyx* is a plant with a doughnut-shaped burr.

(18)	<b>Language</b>	<b>Source word ('moon')</b>	<b>'larva of a Christmas beetle'</b>
	ECAr	<i>atnyentye</i>	<i>atnyentye-atnyentye</i>
	EAnm	<i>atnyenty</i>	<i>atnyenty-atnyenty</i>
	Aly	<i>alkent</i>	<i>alkent-alkent</i>
	Kay	<i>arelp</i>	<i>arelp-arelp</i>

Example (18) shows that the metonymic relationship between the word for 'moon' and 'Christmas beetle larva' in a wide range of Arandic languages is based on shape as "it looks like a crescent moon" (Henderson and Dobson 1994:320).

In (19) the source words are phonologically unrelated, yet they belong to the same semantic domain (Macropods), albeit with different meanings. Evans (1997:136) uses the term 'sign metonymies' to describe such semantic relationships between the names for biological entities from different classes and kingdoms. While the semantic link between 'kangaroo' and 'native lemon grass' is not clear, the connection between 'euros' and this grass may in this case be habitat—the grass grows on rocky hillsides which are inhabited by euros. Although the Warlpiri terms for this grass are not based on the word for either 'kangaroo' or 'euro', it is reported that 'a Warlpiri legend tells of a special type of wallaby, with a human form, which lives on this grass and is immortal' (Latz 1995:156).

(19)	ECAr, EAnm, Aly, Kay	<i>aherr(e)</i>	'kangaroo'
	ECAr, EAnm, Aly	<i>aherr(e)-aherr(e)</i>	'native lemon grass' <sup>24</sup>
	Aly, Kay	<i>areyneng(e)</i>	'euro'
	Kay	<i>areyneng-areynenge</i>	'native lemon grass'

Example (20) below shows where the basis for the polysemy differs between some of these languages.

(20)	<i>arnture</i> (ECAr) 1. hot rocks in a fireplace 2. gun
	<i>urltaty</i> (EAnm) 1. a premonition in the form of a twitch in the nose, eye or ear, 2. gun
	<i>iylpwer</i> (Aly) 1. hollow branch or log 2. gun
	<i>ware</i> (Kay) 1. fire 2. gun
	<i>arntte</i> (Kay) 1. stone 2. gun

Some patterns of polysemy are only apparent when data from all Arandic languages are taken into account and the Arandic languages are viewed as a 'language-dialect' complex (Hale 1983:78). Elements of a semantic complex may be retained in some languages and absent from others. For example, lexemes no longer present as free forms in a particular language may remain fossilised in compound forms. An example is the Kaytetye verb *eympeympe-kwathenke* 'sip, suck', based on the word *inpinp(e)* 'marrow' which is found only in other Arandic languages. In a parallel fashion, the Eastern Anmatyerr verb *ltyantywem* 'sip, suck' is based on *ltya*, found only in Alyawarr and in Eastern and Central Arrente. Table 3 shows this cross-linguistic polysemy.

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<sup>24</sup> *Cymbopogon ambiguus*.

**Table 3:** The 'marrow', 'nectar', 'meat blood' and 'sip, suck' complex in Arandic languages

Language	'marrow'	'meat blood'	'soupy substances'	'nectar', 'sap'	'sip, suck'
ECAr	<i>inpinpe</i>	<i>awerrpe</i>	<i>kere urrknge</i>	<i>ltye, akarrwe</i>	<i>ltyantyweme</i>
EAnm	<i>inpinp</i>	<i>awerrp</i>	<i>arlkwerrng</i>	<i>akarr</i>	<i>ltyantywem</i>
Aly	<i>inpinp</i>	<i>ltya</i>	<i>arlkwerrng</i>	<i>akarr</i>	<i>ltyantyweyel</i>
Kay	<i>pwetyarre</i>	<i>karlkwerrnge</i>	<i>arlkwerrnge</i>	<i>elwe, akarre</i>	<i>eympeympe-kwathenke</i>

Metonymical extensions of nominals which are the prototypical referents (or collocates) of an action, to form verbs which describe the action, are commonplace. Bone marrow, nectar from flowers, and meat juices are all consumed in a particular way which is not adequately described by the semantic range of the simple verb meaning 'drink' in Arandic languages. Kaytetye, for example, derives *eympeympe-kwathenke* 'to sip, suck' (as in Table 3) from the simple verb *kwathenke* 'to drink':

- (21) *Pwetyarre atye eympeympekwahe-rrantye.*  
 bone.marrow 1sgERG suck-PRS.CONT  
 'I'm sucking bone marrow.' (Kay)

The propensity of collocates to become compounded is not surprising, and further examples occur in Arandic languages. Alternatively, the compound lexeme may have been simply borrowed into the language without the phonological source word ever having been present.

#### 4.2 Exploring semantic networks: 'eye' in Arandic languages

As has been shown elsewhere, polysemous extensions of lexical items are particularly productive in the domain of body parts (see for example Wilkins 1996; Chappell and McGregor 1996; Turpin 1997). Working through the megafile reveals meaning extension and polysemy proper, as can be seen in the partial analyses of the semantic extensions of 'eye' in Arandic languages. It enables the conceptual mapping of language to be explored, thus reflecting the subtle shades of meaning of lexical items, and the semantic connections upon which figurative language is based.

The polysemy of the word for 'eye' evident in some Arandic languages and its semantic extension to include meanings such as 'flame', 'jealousy', 'seed', and 'being "found" [conceived]' is a phenomenon frequently noted in other Aboriginal languages (see for example Austin, Ellis, and Hercus 1976). These patterns of systematic polysemy across different languages with noncognate forms indicate the salience of the semantic connections in this domain.<sup>25</sup>

<sup>25</sup> For example 'eye'/'seed' polysemy is widespread in Australian languages, including Warluwarra (Breen, pers. comm.), Kalkutungu (Blake 1969:102) and Lardil (Ngakulumungan Kangka Leman 1997:175, 176). For further discussion of the semantic relationship between 'eye', 'seed' and 'being 'found' or conceived' see Green (1999).

Table 4 shows two distinct forms for the word ‘eye’—*erlwe* (Kay) and *alknge* (ECAr). The form of the latter varies substantially across the other Arandic languages, for example, Eastern Anmatyerr speakers pronounce this word alternatively as *alknga* ~ *alnga* ~ *atnnga* ~ *annga*. Koch (1997) postulates two proto-Arandic forms, \**urle* ‘forehead’ and \**elknge* ‘eye’, and a historical relationship is posited between *erlwe* ‘eye’ in Kaytetye and *urla* ‘forehead’ in other Arandic languages (Koch 1997:294).<sup>26</sup> Reflexes from both proto Arandic forms are found in all the Arandic languages, despite the fact that *erlwe* ‘eye’ is found only in Kaytetye, and *alknge* ‘eye’ and its phonological variants only in the other Arandic languages. The semantic extensions of ‘eye’ as shown in Table 4 are divided into three sections based on the productivity of these two protoforms.

The ‘elicitation pathway’ which led to discussion of the word *atnngwannng-ilem* ‘distract someone’ (EAnm) as shown in Table 4 is a good illustration of the methodology. In this case the Western Arrernte equivalent *alkngurlkngileme*, glossed as ‘to comfort’, was the starting point for discussion (Breen 2000:2). Neither the Kaytetye nor the Anmatyerr equivalents of this word existed in the previous database records, and so Anmatyerr speakers (with some knowledge of Western Arrernte) gave the phonologically related equivalent term. Although it is tempting at first glance to disregard the rounding in the word *alkngwe* and its equivalents (*alkngwe* ~ *atnngw*) and assume that these compounds are yet another instance of ‘eye’ polysemy in some Arandic dialects, the Eastern and Central Arrernte term *alkngwe-alkngwe-ileme* is clearly derived from the word *alkngwe* ‘unaware, not paying attention’ rather than from *alknge* ‘eye’ (Henderson and Dobson 1994:97). However, the Kaytetye semantic equivalent, *erlwapereyenke* (lit. ‘take the eye’), which is based on *erlwe* ‘eye’, revealed further language specific ‘eye’ polysemy.

### 4.3 Distinguishing polysemy from homophony

The theoretical issue of defining and testing for homonymy and polysemy is fraught with difficulties even in a monolingual situation. Further problems arise in the context of bilingual dictionaries, where the division of meanings into distinct senses and the ordering of these senses may reflect polysemy found in either the source language or the target language. Geeraerts (1993:264) concludes that “there is methodological uncertainty surrounding the concept of polysemy” and suggests that the “methodological status of lexical semantics is in urgent need of further analyses” (see also Tuggy 1993; van der Eijk et al. 1995; Goddard and Thieberger 1997; and Evans 1997).

A comparison of dictionaries of related Arandic languages shows different strategies for dealing with these issues. There are inconsistencies in the treatment of polysemy and homophony in the dictionaries, as well as gaps in the data and real semantic differences between the Arandic languages. For example, there are two distinct entries *alyelk*, by implication homophones, in the Alyawarr Dictionary.

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<sup>26</sup> The word *ngurlu* ‘edible seed’ in Warlpiri and other languages to the north of the Arandic area is possibly a cognate of \**urle*.

**Table 4:** Some semantic extensions from the proto-Arandic forms *\*urle* and *\*elkngɛ*<sup>27</sup>

proto-form	gloss	Eastern and Central Arrernte	Eastern Anmatyerr	Alyawarr	Kaytetye	Western Arrernte	Western Anmatyerr
<i>*elkngɛ</i> , <i>*urle</i>	eye	<i>alkngɛ</i>	<i>alknga, alnga, annga, atnnga</i>	<i>alnga, annga, atnnga</i>	<i>erlwe</i>	<i>alkngɛ</i>	<i>anngang</i>
	tear	<i>alkngultye</i>	<i>alkngwely</i>	<i>arrngwely, anngwely</i>	<i>erlwelye</i>	<i>alkngultye, alknguntye</i>	<i>anngwenty</i>
	forehead	<i>urle, ule</i>	<i>urla, ula</i>	<i>alkngayt, annngayt, rlwemper, rlwa, lwa</i>	<i>rlwetnperre, rletnperre</i>	<i>urle</i>	<i>rlwang</i>
	flame	<i>alkngenthe</i>	<i>annngenth</i>	<i>lherrm</i>	<i>rlwenthe</i>	<i>alkngenthe</i>	<i>annngenth</i>
	warn	<i>alkngarre-ileme</i>	<i>annngarilem</i>	?	<i>erlwarreyenke</i>	<i>†lhelareme</i>	<i>annngarilem</i>
<i>*elkngɛ</i>	openly, in front of eyes	<i>alkngetherre</i>	<i>alkngetherr</i>	<i>anngetherr</i>	<i>atnngetherre</i>	<i>alkngetherre</i>	<i>anngetherr</i>
	eyelash	<i>alkngarlpehe</i>	<i>annngaympelh</i>	<i>annngaympelh, alkngaympelh, alngaympelh</i>	<i>atnngaympelhe</i>	<i>alkngirlpehe</i>	<i>annngarlpeh</i>
	eyebrow; ridge above the eyes	<i>alkngarnte</i>	<i>alkngarnt, alkngayt ntat</i>	<i>alknga ntat, annngaympelh, alkngaympelh, alngaympelh</i>	<i>annngayte</i>	<i>alkngarnte</i>	<i>annngarnt, annngayt</i>
	jealous	<i>alkngwetnheme, ingkerte</i>	<i>alkngwetnhem, annngwenhem</i>	<i>arwelth</i>	<i>etwengkarenke</i>	<i>ingkerte</i>	<i>annngwenhem</i>
	be “found”, conceived	<i>alkngirreme</i>	<i>annngirrem, angwerrm-irrem</i>	<i>alkngirrem</i>	<i>angwerrmarrenke</i>	<i>alkngirreme</i>	<i>annngirrem, angwerrm-irrem</i>
	seed	<i>annge</i>	<i>annnga, alknga, atnnga</i>	<i>annnga, alknga</i>	—	<i>annge</i>	<i>ngang, annngang</i>
<i>*urle</i>	facing towards	<i>ularre</i>	<i>urlenger, ulenger, urlarr, ularr</i>	<i>urlaneng, rlwaneng</i>	<i>erlwengere</i>	<i>twarre, ularre</i>	<i>rlwarr</i>
	recognise	<i>†alhengkareme</i>	<i>†alhengkarem</i>	<i>†alhengk-areyel</i>	<i>erlwengkarenke</i>	<i>†alhengkareme</i>	<i>†alhengkarem</i>
	comfort or distract someone	<i>alkngwe-alkngwe-ileme</i>	<i>atnngwannng-ilem, alkngwannng-ilem</i>	?	<i>erlwapereyenke</i>	<i>alkngurlkng-ileme</i>	?

<sup>27</sup> Where there appears to be no equivalent term this is marked with a dash; a question mark indicates that the equivalent term is unknown. Some equivalent terms seem to be based on the proto-Arandic form *\*ulhe* (*\*elhe?*) ‘nose’ (Koch 1997:294). These are marked with a dagger.

- (22) **alyelk**<sup>1</sup> 1. smooth 2. slippery  
**alyelkelheyel** slip over  
**alyelkerreyel** slide or slip over
- alyelk**<sup>2</sup> 1. unsettled, queasy, nauseous (of stomach)  
**atnert alyelk** nauseous stomach  
**alyelkerreyel** become nauseous and unsettled (stomach) (Green 1992:32)

Compare the Eastern and Central Arrernte Dictionary entry for the cognate form *alyelke*, and the separate entry for the lexeme *alyelke-irreme* 'be affectionate to someone'. In contrast to Alyawarr, in Eastern and Central Arrernte *atnerte alyelke* refers to a 'trim and taut' stomach rather than the feeling of nausea, showing a real semantic difference between the languages (Veronica Dobson, pers. comm.):

- (23) **alyelke** 1. smooth. 2a clean and tidy. 2b smooth, clean and new-looking.  
 3. healed up (the skin having become smooth again). 4. a newborn baby  
**alyelkelheme** 1. slide, slip over, skid. 2. slither, writhe, wriggle  
**alyelke-irreme** be affectionate to someone, especially a child (Henderson and Dobson 1994:109).

As in Alyawarr, in Eastern Anmatyerr the term *alyelk* means both 'smooth, slippery and 'unsettled or nauseous'. The following example shows *alyelk* used in the sense of 'feeling nauseous'.

- (24) *Atnert alyelk-irr-em ayeng,*  
 stomach nauseous-INCH-PRS 1sgNOM
- might ayeng antew apek irr-em, atherrk-eng.*  
 might 1sgNOM vomit might INCH-PRS grass-ABL
- Atherrkeny akweteth antew irr-enh-irr-enh.*  
 green.time always vomit INCH-NMZ-INCH-NMZ  
 'I am feeling nauseous—I might vomit from the green grass. The green  
 time always makes you vomit.' (EAnm)

A further meaning extension of the term *alyelk* is shown by the following examples, where the term is perhaps best translated as 'tasteless', 'bland', or 'without identity'. This meaning extension is also evident in Eastern and Central Arrernte (Veronica Dobson, pers. comm.).<sup>28</sup>

- (25) *Ker iynteng-arl iynt-em akeng ikwa an-etyekenh-arl irr-ek alyelk.*  
 meat rotten-REL smell-PRS bad taste be-NEG-REL become-P tasteless
- Ker salt-penh-kweny alyelk inngart.* (EAnm)  
 meat salt-SEQ-PRIV tasteless really  
 'Meat that smells rotten and has become tasteless is *alyelk*. Meat without salt is really tasteless.'

<sup>28</sup> Yet another meaning extension of *alyelke* is attested in Eastern and Central Arrernte (old form), where it means 'nothing' or 'without'. Thus *merneke alyelke* (food-DAT *alyelke*) means 'without food' (Veronica Dobson, pers. comm.)



- (26) *Ikw-ek arrangkw ikwa anpern-err-enty an-etyakenh,*  
 'skin'-DAT nothing 'skin' be.related-REC-NMZ be-NEG

*ikw-ek arrangkw alyelk.*  
 skin-DAT nothing without identity

*Alhernter map-an ikw-ek arrangkw, alyelk.* (EAnm)

white.people group-FOC 'skin'-DAT nothing without.identity

'Not having a skin name is like not being related—not having a skin name is *alyelk*.

Non-Aboriginal people don't have skin names—they are *alyelk* ['without identity'].'

The proposition that the various meanings of the word *alyelk(e)*, and in particular the 'smooth' and 'queasy' meanings, are polysemous rather than an instance of homophony is strengthened by the existence of the lexeme *urlkere*, with a similar semantic range, in Eastern and Central Arrente.

- (27) **urlkere** 1. smooth 2. slippery 3. slimy 4. newborn baby

**atnerte urlkere** a queasy feeling in the stomach (Henderson and Dobson 1994:598)

Additional Arrente data show derived verbal forms *urlkere-irreme* 'feel nauseous' and *urlkere-ileme* 'make nauseous', as in the example below (Veronica Dobson, pers. comm.).

- (28) *Kwatye alkarle-le ayenge atnerte urlkere-ile-me.* (ECAr)

water bad.taste-ERG 1sgABS stomach nauseous-CAUS-PRS

'Bad tasting water is making me feel sick in the stomach'

Comparative data from a number of related languages where noncognate forms show parallel semantic ranges suggest that the relationship between the various meanings of *alyelk* is a case of polysemy rather than homophony. The above examples show how an understanding of the range of semantic associations of terms is deepened through a comparative approach, which not only furthers our knowledge of language-specific polysemies but provides evidence for the relatedness of forms previously assumed to be separate.

#### 4.4 Cultural knowledge and polysemy

While the basis for some polysemies is seemingly transparent, the connections between others are more esoteric, and cultural or background knowledge is necessary to understand their meaning. "The problem for lexicographers" is "how to articulate and represent such cultural knowledge" (Evans 1997:150). Keesing (1979:14) suggests that semantic readings are dependent on symbolic structures—"assumptions about ancestors and causality, magic and mana, infuse and motivate semantic systems and pragmatic rules". Verification of linguistic connections involves a process of mapping such cultural knowledge onto semantic phenomena. Wilkins (1997:441) refers to the "crucial role which detailed ethnography plays both in establishing plausible semantic associations and in fleshing out the unique local cultural understanding of known universal or areally widespread associations". However, Moyle (1986:125) has warned against the "temptation towards selective interpretation based perhaps on a moment of inspiration" or on an "over-enthusiastic etymological

reconstruction”.<sup>29</sup> Working in a multilingual group and utilising relevant available data can provide crucial evidence for what would otherwise be mere speculation.

Although such conclusions need to be treated with caution, an example of explicating a ‘missing semantic link’ by using a comparative approach is the case of *rlwaylp(e)*, glossed in Alyawarr as “1. kurdaitcha, featherfoot, ritual avenger 2. unregistered (motor car)” (Green 1992:219).<sup>30</sup>

- (29) *Artwa rlwaylp atw-enh-atw-enh, travel-alh-eyel,*  
 man kurdaitcha hit-NMZ-hit-NMZ travel-go-PRS:CONT  
*atey ingwer apek atw-etyek,*  
 man different perhaps hit-PURP  
*or arelh ingwer apek rlwaylp-el atw-etyek. (Aly)*  
 or woman different perhaps kurdaitcha-ERG hit-PURP  
 ‘The kurdaitcha are killers, they travel around to punish another man,  
 or maybe a woman.’ (Green 1992:219)

Further Eastern Anmatyerr and Kaytetye data show yet another meaning extension of *rlwaylpe* (Kay) and *urlaylp* (EAnm)—in this instance in the domain of grubs, which undergo metamorphosis in underground roots, then emerge in a transformed state as moths or butterflies.

- (30) *Kel ra an-erl-an-em int-erl-an-em,*  
 then 3sgNOM be-CONT-STAT-PRS lie-CONT-STAT-PRS  
*irrarl-irr-etyakenh anyemayt antey.*  
 cocoon-INCH-NEG witchetty still  
*Ikwer-they anem ra alh-em urlaylp anem,*  
 3sgDAT-ABL now 3sgNOM go-PRS chrysalis now  
*irrarl anen irr-em... he go away now. (EAnm)*  
 cocoon now INCH-PRS  
 ‘Then it stays there, lying there. It has not yet turned into a cocoon and is still a  
 witchetty grub. Then it becomes an *urlaylp* then—it turns into a chrysalis—it goes  
 away now.’
- (31) *Rlwaylpe-lk-arre-nk-arre eylwekere errpwele-rtame eylwekere,*  
 chrysalis-now-INCH-PRS-REL poor.thing black-EMPH poor.thing  
*ayne-nke-rtame kwere. Ekarle-pe alheyle-ngele. (Kay)*  
 eat-PRS-EMPH 3sgACC shell-FOC take.off-S/S  
 ‘The one that turns into a chrysalis is black, the poor thing, we eat it. It sheds  
 its skin.’

<sup>29</sup> It goes without saying that this process of ‘etymological reconstruction’ is not simply a concern of historical linguists. For example, an Arrernte speaker once postulated that the word ‘anthropologist’ is related to the word ‘apologise’. Similarly, it is believed by some that the name ‘Strehlow’ is based on the phrase ‘Three Law’, because “they thought he had three laws—Church Law, White Law and Blackfella Law” (Jeannie Devitt, pers. comm.). See Green, this volume.

<sup>30</sup> Carl Strehlow referred to the word *kurdaitcha* as an ‘English word introduced’ (Dixon et al 1990:156). See also Spencer and Gillen (1899:476–96). Although the word is used widely in the Central region, it is not recognised as Arandic by some speakers of these languages.

Table 5 shows comparative data illustrating semantic extensions of words for 'kurdaitcha' in some Arandic languages.<sup>31</sup>

**Table 5:** Some semantic extensions of words for 'kurdaitcha'

Language	'kurdaitcha'	'chrysalis'	'turn into chrysalis'	'unregistered car'
ECAr	<i>inentye, arliltye, artwe mwake</i>	<i>irrarle, ularlpe</i> (old language)	<i>irrarle-irreme</i>	<i>mwetekaye inentye</i>
EAnm	<i>urlaylp</i>	<i>urlaylp, irrarl</i>	<i>urlaylp-irrem, irrarl-irrem</i>	<i>mwetek rlwaylp</i>
Aly	<i>rlwaylp</i>	<i>arlely</i>	<i>arlelyerreyel</i>	<i>mwetek rlwaylp</i>
Kay	<i>rlwaylpe</i>	<i>rlwaylpe</i>	<i>rlwaylpelk-arrenke</i>	<i>mweteker rlwaylpe</i>
WAnm	<i>ngkekern</i>	<i>irrar, ngkekern</i>	<i>irrarl-irrem, ngkekern-irrem</i>	<i>ngkekern-ngkekern</i>

The following Kaytetye example illustrates the metaphoric link between 'kurdaitcha' and 'unregistered cars', which, like the 'kurdaitcha', sneak about avoiding detection.

- (32) *Mweteke nharte rlwaylpe, paper-waneny,*  
 car that kurdaitcha paper-NEG  
*bush-le-p-aperte ape-rrane-nke back way-p-aperte bush-le,*  
 bush-LOC-FOC-only go-PRS:CONT-PRS back.way-FOC-only bush-LOC  
*rlwaylpe-rtame re. (Kay)*  
 kurdaitcha-EMPH 3sgNOM  
 'That car is unregistered, it has no registration paper, it only goes in the bush on back roads, it's unregistered.'

That the cognate forms *rlwaylpe* (Kay) and *urlaylp* (EAnm) show parallel polysemy is one kind of linguistic evidence for a postulated semantic link between domains which previously appeared to be unconnected. In Warlpiri there is a clear semantic link between *jarnpa* 'kurdaitcha', *jarnpa-jarnpa* 'thieving in a sneaky manner' and *jarnpa-jarnpa* 'moth stage of an edible grub' (Warlpiri Dictionary database).<sup>32</sup> In Warumungu the unrelated form *yungkurnu* is glossed as 'the dark brown-black stage of the witchetty grub immediately before it emerges' and 'devil man, kurdaitcha' (Simpson 1999).

The salience of the ability of the *rlwaylp(e)* to 'change himself' is a unifying attribute in these domains of 'kurdaitcha' and 'grubs'. Kurdaitchas transform themselves from their everyday identity and disguise traces of their movements by wearing emu-feather foot

<sup>31</sup> The term *rlwaylp(e)/urlaylp* itself may be based on the proto-Arandic form \**urle* 'eye, forehead', although the meaning of *-aylp* is at this stage unclear. The Warlpiri word *milpa* 'eye' also refers to entities such as seeds which are 'eye-like' with respect to shape or size. This includes the holes from which grubs emerge (Mary Laughren, pers. comm.) For some speakers of Eastern and Central Arrernte, *alknginere* (based on *alknge* 'eye') refers to the larval stage of cicadas (Henderson and Dobson 1994:96), a clear semantic parallel to EAnm *urlaylp* 'chrysalis'.

<sup>32</sup> In the database the two meanings of *jarnpa-jarnpa* are presented as distinct entries.

coverings—grubs undergo a transformation from a larval state into moths or butterflies. At the symbolic level the concept of metamorphosis itself may be the ‘bridging context’<sup>33</sup> between the various meanings of *rlwaylp* and *urlaylp*.

Having established the pervasiveness of the semantic range of *rlwaylp(e)* and its equivalent terms in several central Australian languages, we now extend this discussion to several other lexemes which demonstrate partial synonymy with *rlwaylp(e)*. In Eastern and Central Arrernte *arliltye* is another term for ‘kurdaitcha’ or ‘traditional executioner’. The cognate term *arlety* in Alyawarr is glossed as ‘cocoon’ or ‘chrysalis’. In examples (33a and b) below it can be seen that in each of these languages a second lexeme, respectively *arliltye*<sup>2</sup> or *arlety*<sup>2</sup>, is presented as a homophone of *arliltye*<sup>1</sup> or *arlety*<sup>1</sup>:

- (33)a **arliltye**<sup>1</sup> traditional executioner (ECAr)  
*synonyms* kwertatye, inentye, artwe mwake  
**arliltye**<sup>2</sup> stiff, hard to move  
**arliltye-irreme** 1. get stiff. 2. have the kind of fit where a person stiffens up then collapses, especially when a baby holds its breath (Henderson and Dobson 1994:208)
- (33)b **arlety**<sup>1</sup> cocoon, chrysalis (Aly)  
**arletyerreyel** turn into a cocoon or chrysalis (?)  
**arlety**<sup>2</sup> ignoring everything around, fixated, oblivious, won’t move  
**arletyerreyel** cry (Green 1992:74)

A comparison of the Alyawarr example (34) containing *arletyerrem* ‘turns into a chrysalis’ (lit. ‘chrysalis-INCH-PRS’) and the Eastern Anmatyerr example (35) containing *urlaylp-irrek* ‘turned into a chrysalis’ (lit. ‘chrysalis-INCH-P’) shows the partial synonymy, in the domain of grubs, of the words *arlety* (Aly) and *urlaylp* (EAnm).

- (34) Arlety-err-em *arrpem ahekwenayt, alh-em ntelyapelyap-apeny,*  
cocoon-INCH-PRS also river.red.gum.grub go-PRS butterfly-SEMB  
*ahern-they tyerr-elh-ey-aynt-emel.* (Aly)  
ground-ABL emerge-REF-LIG-CONT-S/S  
‘The grub from the base of the river red gum tree also turns into a chrysalis, and then goes about like a butterfly, after emerging from the ground.’
- (35) *Tyap ra tyerr-elh-ek urlaylp anem.*  
grub 3sgNOM emerge-REF-P chrysalis then  
*Aympelh-akert ra alh-em ntelyapelyap anem.*  
wings-PROP 3sgNOM go-PRS butterfly then  
*Urlaylp-art int-ek-penh. Urlaylp-irr-ek, urrperl-irr-ek.* (EAnm)  
chrysalis-REL lie-P-SEQ chrysalis-INCH-P black-INCH-P  
‘Then the grub emerged as *urlaylp*. It had wings and flew off as a moth then —after lying there as *urlaylp*. It darkened and transformed into a chrysalis.’

It may be that the state of immobility (or pupal stage) which is integral to the transformation from grub to moth provides a semantic clue which links the previously postulated homophones *arliltye*<sup>1</sup> and *arliltye*<sup>2</sup> (*arlety*<sup>1</sup> and *arlety*<sup>2</sup>). Although more evidence

<sup>33</sup> ‘Bridging context’ is discussed in Evans (1997:135), and in Evans and Wilkins, this volume.

is needed to resolve this issue, the above examples illustrate the effectiveness of a comparative methodology. Semantic similarities and differences between Arandic languages are both highlighted in order to fully explicate and provide the rationale for attested links between differing senses of words.

## 5. Conclusion

The development of the sort key and group fieldwork methodology provides comparative phonological data which lays the groundwork for more sophisticated understandings of phonological change within the Arandic language family and beyond. In effect this builds on Ken Hale's early and insightful intuitions (Green, this volume):

I used to try to make up Arrernte words from Warlpiri. The first time I did that, and did it right, I was so proud. There is a plant called *wakati* in Warlpiri. I think it's some kind of flat creeper.<sup>34</sup>..Anyway it should come out as *akat* in an Arandic language you know. I could never find one that did that. Then finally I found Anmatyerr has that word and it comes out as *akat*—exactly as it should. Oh. Beautiful.

This approach provides essential data for both etymological research and for identifying types of semantic extension in Australian languages (Koch 1983; Austin 1983; Wilkins 1997). It has been suggested by some that the relationships between various senses of words in dictionaries, as well as those between derived forms, need to be made explicit (Evans 1997; van der Meer 1999). The approach discussed in this paper provides one way of making progress towards this goal by revealing the nature of semantic links in Central Australian languages.

The comparative approach employed in these dictionary projects not only makes maximal use of both previous research and the multilingual skills of language speakers, but it opens up the possibility of a different kind of dictionary, in which the target language is not English—for example a Kaytetye–Anmatyerr dictionary or an Alyawarr–Kaytetye dictionary, or indeed the comparative 'dictionary of Arandic' that Hale envisaged.

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<sup>34</sup> The plant Hale is referring to is *Portulaca oleracea* (munyeroo, pigweed). Western Anmatyerr speakers call this plant *akat*, and the Warlpiri and Pitjantjatjara call it *wakati*.

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