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## **Talking about our bodies and their parts in Warlpiri**

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Linguists generally assume that all languages have some words for parts of the human body such as ‘head’, ‘hands’, ‘mouth’ and ‘legs’, but it is not so widely agreed that speakers of all languages can speak—or even consciously think—of the designata of such words as ‘parts of the body’. In particular, it has been claimed that the Australian language Warlpiri lacks any suitable lexical equivalent of ‘part(s)’. Using data from the *Warlpiri English Encyclopedic Dictionary*, this study contests this claim, arguing that the relevant sense of ‘part’ exists in Warlpiri as one sense of the polysemous closed-class item *yangka* (whose main meaning can be stated, roughly, as ‘that one, you know the one’). Our argument is framed within the Natural Semantic Metalanguage (NSM) approach to meaning analysis, according to which meanings are stated as substitutable, cross-translatable paraphrases. NSM researchers have long maintained that PART(S) is a universal semantic prime, i.e. an indefinable meaning expressible by words or phrases in all human languages. The study also considers broader issues to do with semantic theory, polysemy and translation.

Keywords: Semantics of Body Parts; Vernacular Definitions; Natural Semantic Metalanguage (NSM); Semantic Universals; Australian Languages; Warlpiri; Language Documentation

### **1. Talking and thinking about human bodies**

Linguists generally assume that all languages have some words for parts of the human body – words such as ‘head’, ‘hands’, ‘legs’, ‘eyes’, ‘ears’, ‘mouth’, and so on (Brown 1976; Andersen 1978; Majid *et al.* 2006), but it is not so widely agreed that speakers of all languages can speak of the designata of such words as ‘parts of the body’ or even that they can *think of* them as ‘parts of the body’. Linguists who work in the Natural Semantic Metalanguage (NSM) framework, such as the present authors, have hypothesized for many years that speakers of all languages can indeed talk about human bodies in this way, because all languages provide their speakers with words which make such talk possible, i.e. words that can express meanings like ‘part of someone’s body’ (Goddard & Wierzbicka 1994; Goddard 2008; Wierzbicka 1996, 2007). But the issue is contested, with some linguists claiming that in certain languages such meanings cannot be expressed at all, because the languages lack words for ‘body’ or for ‘part’, and, consequently, expressions like ‘part of someone’s body’ cannot be formed. As we see it, this problem is of great inherent interest, and not just for linguists. After all, the body is our anchor in the world [Note 1] and our understanding of what human

bodies are like is, or may be, one of the most fundamental aspects of what we, humans, share (cf. Wierzbicka 2014a).

In this paper we focus chiefly on the Warlpiri language of Central Australia, which according to Nash (2014) is one of several Australian languages which lacks a lexical equivalent of the proposed NSM semantic prime *PART*. Extensive lexicographic documentation of Warlpiri is available in the *Warlpiri English Encyclopedic Dictionary* (Laughren, Hale & Warlpiri Lexicography Group 2006; henceforth: Warlpiri Dictionary). We seek to interrogate the material included in the Warlpiri Dictionary (both Warlpiri sentences and their English translations) to make the case that Warlpiri speakers can and do talk about “parts of the body”. Later in the paper we broaden the discussion in order to position our findings in cross-linguistic perspective and to consider the implications for language documentation and for translation practice.

We begin by briefly reporting on earlier debates about the universality of the concept of ‘part’ or ‘parts’ and about the NSM framework.

## **2. The NSM framework and the claimed universality of ‘part’**

We will be approaching the Warlpiri data about the body from the standpoint of NSM semantics (Wierzbicka 1996; Goddard 2011; Goddard & Wierzbicka 2014a, 2014b). Briefly, the NSM framework assumes that in all languages one can identify a set of irreducibly simple lexical meanings, termed semantic primes. On the basis of a decades-long program of cross-linguistic investigation, 65 semantic primes have been identified, which are believed to exist in all or most languages. The primes and their grammar of combination constitute a mini-language in terms of which the myriad complex lexical meanings of the world’s languages can be paraphrased. This shared lexical and grammatical core is termed the Natural Semantic Metalanguage (NSM). It has as many versions as there are languages, so there is English NSM, Spanish NSM, Chinese NSM, and so on; see e.g. Goddard & Wierzbicka (eds. 2002); Peeters (ed. 2006), Goddard (ed. 2008). For practical purposes, English NSM is often used as the lingua franca of semantic interpretations, but other NSMs are also used in various NSM publications.

The full set of semantic primes is given in its English version in Table 1. Comparable tables exist for about 25 languages (a provisional Warlpiri version is given in Appendix 1). Because the same inventory is in evidence in widely diverse languages, and because the meanings are so simple and basic that they are known to all speakers of a language, including children, NSM researchers believe it is reasonable to regard semantic primes not merely as

linguistic but equally as conceptual in nature. As can be seen, the inventory of semantic primes includes BODY and PART, which are at the heart of the present investigation. The hypothesis that the human body can be conceptualized, universally, in terms of ‘parts’, depends of course on the assumption that the concept of PART itself is universal. Equally, of course, it depends on the universality of the concept BODY, but this is a point which we regard as settled (Wierzbicka 2007), and we are not going to reopen that debate here: our focus is entirely on PART.

**Table 1: Semantic primes, English exponents (after Goddard & Wierzbicka 2014a)**

I, YOU, SOMEONE, SOMETHING~THING, PEOPLE, BODY	substantives
KINDS, PART~HAVE PARTS	relational substantives
THIS, THE SAME, OTHER~ELSE	determiners
ONE, TWO, SOME, ALL, MUCH~MANY, LITTLE~FEW	quantifiers
GOOD, BAD	evaluators
BIG, SMALL	descriptors
KNOW, THINK, WANT, DON'T WANT, FEEL, SEE, HEAR	mental predicates
SAY, WORDS, TRUE	speech
DO, HAPPEN, MOVE	actions, events, movement
BE (SOMEWHERE), THERE IS, BE (SOMEONE/SOMETHING)	location, existence, specification
(IS) MINE	possession
LIVE, DIE	life and death
TIME~WHEN, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT	time
PLACE~WHERE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE, TOUCH	place
NOT, MAYBE, CAN, BECAUSE, IF	logical concepts
VERY, MORE	augmentor, intensifier
LIKE	similarity

**Notes:** • Exponents of primes can be polysemous, i.e. they can have other, additional meanings  
 • Exponents of primes may be words, bound morphemes, or phrasemes  
 • They can be formally complex  
 • They can have language-specific combinatorial variants (allolexes, indicated with ~)  
 • Each prime has well-specified syntactic (combinatorial) properties.

In NSM work, the assumption that PART (or, PARTS) is a semantic and conceptual prime was adopted as a working hypothesis from the outset, in Wierzbicka’s (1972) book *Semantic Primitives*. The hypothesis was re-affirmed a decade later in *Lingua Mentalis* (Wierzbicka 1980), which included several dozen tentative explications of body-part words. The matter was presented as open in Goddard (1989), who pointed to the need for further empirical and theoretical investigations, but, after some further investigations, the hypothesis was reaffirmed in *Semantics: Primes and universals* (Wierzbicka 1996). By that time (the mid-1990s), however, the universality of ‘part’ had become a controversial issue, partly because the earlier NSM claims on the subject were often misunderstood. In response to various dissenting comments, one of the present authors wrote:

PART is a controversial primitive, partly [...] because many languages don't have a word with a range of similar use to that of the English noun *part*, and partly because some languages don't seem to have a word for *part* at all. In proposing PART as a universal semantic primitive, therefore, it is important, first of all, to clarify which uses of the English *part* are meant to illustrate the postulated primitive; and second, to examine how the meaning in question is expressed in a language which doesn't seem to have a word corresponding to the English *part* at all. (Wierzbicka 1996: 60; see also pp. 142-3)

Trying to clarify the issue, Wierzbicka (1996: 61) observed, inter alia, that cultures differ in the amount of interest they show in the concept of PARTS: "As argued in Goddard 1989, modern Western culture places a great emphasis on viewing various aspects of reality in terms of complexes analysable into 'parts', whereas, for example, Australian Aboriginal culture does not". But she insisted that even in cultures "whose speakers are less inclined to talk about 'parts' in the abstract (in contrast to heads, feet, handles, and other specific kinds of 'parts')", the concept of PART can nonetheless be expressed.

The issue of the universality of PART was discussed again, at some length, in Goddard's (2002) paper 'The search for the shared semantic core of all languages' in *Meaning and Universal Grammar*, where he wrote:

Linguists seem to agree that the part-whole relationship is fundamental to the vocabulary structure of all languages, but there are certainly languages which do not have a unique lexical form for the postulated semantic prime PART (OF). This does not necessarily mean, however, that these languages lack a lexical unit with the meaning PART. In three unrelated languages in which such an apparent gap has been investigated (Acehnese, Mangaaba-Mbula, Yankunytjatjara) it appears that PART exists as the meaning of a lexical unit of the same lexeme which can also mean SOMETHING, THING, or WHAT.

In these languages the meaning PART is expressed when the relevant lexical form is used in a grammatical construction associated with possession. (It is as if instead of saying, for example, 'the nose is a part of the face' one says 'the nose is a thing of the face'.) (Goddard 2002: 30)

These statements were illustrated with the following examples from three unrelated languages, using data from an earlier collective volume (Goddard and Wierzbicka eds. 1994):

Yankunytjatjara

– *Puntu kutju, palu kutjupa-kutjupa tjuṯa-tjara.*  
 body one but something-RDP many-having  
 '(It is) one body, but with many parts.' (from Goddard 1994b: 256)

Acehnese

- *Bak geuritan angèn na lè peue.*  
at vehicle wind there.is many what/something  
'A bicycle (lit. wind-vehicle) has many parts.' (adapted from Durie *et al.* 1994: 195)

Mangaaba-Mbula

- *Iti tomtom na koron-ŋa-nda boozo kumbu-ndu, nama-nda...*  
we person GIV thing-NMZ-our many leg-our head-our  
'We people, our parts are many: our legs, our heads, ...' (adapted from Bugenhagen 1994: 103)

Thus, according to NSM research, in some lexicogrammatical contexts PART can have an unambiguous exponent in a word which in other contexts means 'thing' or 'something'. Nonetheless, in a major edited collection (Majid *et al.* 2006) on body-parts, several contributors contended that in the languages they studied there is no word for PART and they saw this as contrary to the NSM position. For example, Gaby (2006: 207) reported "the apparent lack of an expression corresponding to *part of*" in the Australian language Kuuk Thaayorre" and commented that "this runs counter to Wierzbicka's (1994, p.489) proposition that the relational concept *part of* is a (universally lexicalized) semantic primitive". These claims were countered with new data and analyses in Wierzbicka's (2007) paper 'Bodies and their parts: an NSM approach to semantic typology', which strongly reasserted the universality of the concept PART.

As mentioned, David Nash (2014: 84) has stated: "the proposed semantic prime PART is not readily translated in a number of Australian languages (Dalabon and Warlpiri included)". Contra Nash, we hope to show that, at least in certain key contexts to do with parts of the body, the notion of PART does have a lexical and semantic match in Warlpiri, namely, the word *yangka*, in one of its senses and grammatical frames. We acknowledge, however, that this match comes from an unexpected direction, since *yangka* is a closed-class word, analogous in some ways to English 'that' or 'that one'. For this reason, it is perhaps understandable that Nash (like other Australianists who have seemed confident that there is no word for 'part' in their language of study) has not noticed this possibility. If we examine Nash's discussion in more detail, however, it emerges that he was, apparently, not particularly alert to the possibility that a potential exponent could be polysemous, but was focused, rather, on the idea of a 'dedicated' exponent. He writes that the translatability of PART:

... has long been a point of contention with NSM: in the inventories of 'primes' compiled by Goddard & Wierzbicka (1994), Evans (1994: 222-3) found it difficult to identify the exponent of PART in Kayardild, as did Harkins & Wilkins (1994: 303-4, 309) for Arrernte [...] Dalabon is another such language: no lexical unit corresponding

to PART is recorded in the sizeable dictionary (Evans et al. 2004); ‘Dalabon does not have a dedicated expression meaning “part of”.’ (Ponsonnet 2012: 359) (Nash 2014: 84)

Presumably the phrase ‘a dedicated expression’ means an expression which has no meaning other than PART. Yet, as we are emphasising here, NSM researchers have never posited the existence of any such ‘dedicated expressions’ (indeed, they have never even used the phrase ‘dedicated expression’), but on the contrary have repeatedly stressed that they were not positing a one-to-one correspondence between primes and words. For example, when Goddard (1994a: 13) formulated the ‘Strong Lexicalisation Hypothesis’: “Every semantically primitive meaning can be expressed through a distinct word, morpheme or fixed phrase in a given language”, he immediately went on to stress that no one-to-one correspondence between primes and forms was meant:

This does not entail that there should be a single unique form for each primitive. Some languages have several forms (allexes or allomorphs of the same item) functioning as contextual variants expressing the same primitive meaning. Conversely, it sometimes happens that the same form serves as an exponent of different primitives, although their distinct syntactic frames make it appropriate to recognise polysemy. (Goddard 1994a: 13)

We will return to the issue of the polysemy and allexy of semantic primes in typological perspective toward the end of this paper. At this point, however, we are ready to commence our examination of material from the Warlpiri Dictionary.

### **3. The Warlpiri Dictionary Project**

The Warlpiri Dictionary is impressive in its scope and quality. Corris *et al.* (2004) describe the data files in the following way:

*The Warlpiri dictionary* [...] data files comprise about 10,000 headwords, including sub-entries, organized as Warlpiri-English, with fine sense distinctions and lengthy definitions in English and often in Warlpiri, and extensive exemplification. Printed in full on A4 pages in a 10 point font, it would comprise over 2,000 pages. (Corris *et al.* 2004: 38)

As explained by the Project’s founder, Ken Hale, the purpose from the outset was to compile lexicographic resource material going far beyond the scope of most conventional dictionaries (Laughren & Nash 1983). As Hale emphasized, the primary interest was in exploring the lexical resources of the language, in part by tapping into the knowledge of Warlpiri consultants. This was in accordance with a theme developed earlier in Casagrande

and Hale's (1967) article 'Semantic relationships in Papago folk-definitions', in which they wrote:

Every language must thus in some degree serve as its own metalanguage to explicate semantic usage. Here then is a universal linguistic need. In Western and other literate cultures we have recourse to dictionaries, laboriously compiled by learned men, but speakers of unwritten languages must necessarily be their own lexicographers. (Casagrande & Hale 1967: 165)

Casagrande & Hale (1967: 165-66) quoted Uriel Weinreich (1962) on the value of letting "speakers of a language...themselves (to) suggest the proper types of conditions for the meanings of the various terms in their language", adding that this was "a position which we heartily endorse".

Evidently the same conviction inspired Hale's approach to his work with Warlpiri consultants, of which he wrote:

In the course of this work, several gifted speakers of Warlpiri were asked to compose oral essays (on tape) on the meanings and onomasiology of individual lexical items appears in *IWDS* [Introduction to Wailbry (sic.) Domains and Selection]. This resulted in a sizable increase in lexical inventory, because the essays themselves introduced many new items. Most important, however, it provided an extensive body of textual material containing not only extremely valuable commentary on the meanings of words and their uses, but also much contextual information of great relevance to our concerns in this project. (Hale 1983: 80)

As a result of this work, and much subsequent work done along similar lines, the Warlpiri Dictionary (now available through the computer dictionary interface Kirrkirr; see Manning *et al.* 2001) became a unique resource for studying the meaning of Warlpiri words and for understanding Warlpiri ways of thinking and Warlpiri culture in general.

NSM researchers have sometimes expressed reservations about the technical style of some Warlpiri Dictionary's definitions (Wierzbicka 1983; cf. also Goddard & Thieberger (1997)), but have always emphasized their admiration for the wealth of linguistic detail and insight contained in it, including the folk definitions and commentary by Warlpiri consultants; see e.g. Wierzbicka (1983, 1990, 2008, 2009, 2014, 2015, in press), Goddard & Wierzbicka (2014a: Chapter 4).

#### **4. References to 'parts' in Warlpiri Dictionary translations in the 'body domain'**

In exploring the material in the Warlpiri Dictionary pertaining to body parts, we used several approaches. We began by studying an early draft by Ken Hale and Mary Laughren (1982),

titled ‘Warlpiri Dictionary Project: Body part Domain: Preliminary remarks on the range of meanings and types of semantic relations in the body part domain in Warlpiri’. After this, we used the Advanced Search function of the Kirrkirr dictionary interface to look for English translations which included the word ‘part’, and studied the relevant Warlpiri sentences. We also located other entries on Warlpiri body-part terms in whose English translations the word ‘part’ did not appear. Using these methods, we compiled a collection consisting of 64 body-part headwords. The entries of 35 of them contained one, or sometimes two, Warlpiri vernacular definitions or examples whose English translations include the word ‘part’.

The source codes in the Dictionary indicate that almost all these vernacular definitions are the work of a single indigenous Warlpiri lexicographer, the late Paddy Patrick Jangala (henceforth: PPJ), who has been described by Nicholls (2013) as the “first professional Warlpiri linguist”. PPJ worked on Warlpiri lexicography at Lajamanu in the mid-1980s, funded by the then Australian Institute of Aboriginal studies and other sources, and with the support of the Lajamanu-based SIL linguist Steve Swartz. PPJ was literate in Warlpiri and most of his definitions were composed in writing. PPJ’s original intention was to produce a monolingual Lajamanu Warlpiri dictionary (Patrick 1984; Nash & Patrick 1985; Simpson 1991: 438-439).

Having analyzed all the vernacular body-part definitions as best we could, we excluded from further consideration definitions where the concept ‘part’ appeared to be linked with a suffix rather than with a word, leaving this as a topic for future investigation. In choosing sentences to cite in the present paper, we were guided by the pragmatic criteria of clarity and brevity.

In the Warlpiri Dictionary material from the ‘body domain’, one sees numerous examples both in relation to human bodies and the bodies of animals. Notably, the word ‘part’ often appears in the translations of PPJ’s vernacular definitions for words comparable to *head*, *forehead*, *hip*, *buttocks*, *neck*, *midriff*, and *belly*. To illustrate this, we start with just two examples (without interlinear glosses; bolding added).

- (1) *lintirrupa* (midriff)  
*Lintirrupa ngulaji yangka kuyu ngurlju, manu kuyu ramarra. Manu palka yapa ngakulykarla kanunju.*  
 ‘*Lintirrupa* is the flank of an animal or the rib-cage. And that **part** of a person’s body beneath the armpit.’
  
- (2) *ngarnturlurru* (chest)  
*Ngarnturlurru ngulaji yangka rdukurduku kamparrujarra manu lampurnujarrawana, manu mangarli.*  
 ‘*Ngarnturlurru* is the front **part** of the chest in the area of the breasts, and the heart.’



On the face of it, such definitions would seem to suggest that Warlpiri speakers do talk about human bodies in terms of parts, but we would not want to assume that such English translations necessarily represent authentic Warlpiri meanings. If a lexicographer’s goal, in this or any other bilingual dictionary, is simply to provide the closest “free translation”, then idiomaticity in English will often override conceptual authenticity. To give an example from another domain of the Warlpiri Dictionary, one of the present authors has contended, in the context of discussion about visual semantics (Wierzbicka 2015, in press), that the presence of the word ‘colour’ in many English translations is a conceptual intrusion from English. For instance, consider the following Warlpiri text and its English translation.

The Warlpiri text

*Kurdujungujungu, ngulaju ka nyina nyanjurrngu-rlangurla, yangka kujaka nyanjurrngu karri. [...] Walya nyanjurrngu-piya ka karrimi palka kurdujungujungu. Karlangu-parnta-piya-kurlangu kajikanpa-jana nyanyi. Yangka ngulyangka-juku kajinpa nyanyi. Rurrpangka ka nyina kurdujungujungu.*

The English translation

‘*Kurdujungujungu* lives in the wet mud, like where there is muddy water. [...] It is the same colour as the earth and the mud. If you see it in its hole it looks like a scorpion. It lives in a hole’.

The English translation in the Warlpiri Dictionary uses two interpretative phrases, ‘the same colour as ...’ and ‘looks like ...’, but as the interlinear glosses given in (3a) and (3b) below (kindly provided by David Nash) make clear, only the second of these phrases has a counterpart in the Warlpiri original, i.e. there is no word corresponding to ‘colour’ in the original Warlpiri sentence (3a).

(3a) *Walya nyanjurrngu-piya ka karri-mi palka kurdujungujungu.*  
 earth mud-like Pres stand- NonPast body freshwater.crab  
 ‘It is the same colour as the earth and the mud.’

(3b) *Karlanguparnta-piya-kurlangu kajika-mpa-jana nya-nyi*  
 scorpion-like-Possessive if-2sgSub-3PlObj see-NonPast  
 ‘If you see it in its hole it looks like a scorpion.’

We are going to argue, however, that (unlike the use of the word *colour*), the use of the word ‘part’ in many translations in the Warlpiri Dictionary is entirely justified. Why? Consider, for example, sentence (1) cited earlier with the translation: ‘*Lintirpa* is ... that part of a person’s body beneath the armpit.’ If we suppose for a moment that this gloss is Anglocentric, how else could one portray the Warlpiri meaning through English words? There

hardly seems an alternative to ‘part’. But more to the point: is there a word in the Warlpiri text itself that could correspond, lexically, with ‘part’? We think that there is, and to show what we mean, consider also the following, similar Warlpiri sentence. In (4), the free translation comes from the Dictionary while the interlinear glosses come from the present authors. [Note 2]

- (4) *mimi* (forehead)  
*Mimi, ngalya, ngula-ji yangka jurru-ngka kamparru*  
 forehead forehead that-TOP part head-LOC front  
*milpirimpiri-rla kankarlu...*  
 eyebrow-LOC above  
 ‘*Mimi* is that part of the head which is above the eyebrows...’

Two words which are central to our discussion are *ngulaji* (*ngula-ji*) and *yangka*, both bolded in the example above. Hale’s (1974) *Warlpiri-English Vocabulary* describes them both as ‘demonstratives’. The Warlpiri Dictionary entries for both provide a string of English counterparts, starting in each case with the word ‘that’. As for *-ji/-ju*, it is glossed by the Dictionary as a ‘topic enclitic’ [Note 3]. In our interlinear glosses we will gloss *ngulaji* (or *ngulaju*) consistently as ‘that-TOP’, following Riemer (2005).

We argue below, however, that the word *yangka* has different meanings in different contexts, i.e. that it is polysemous, and that in a sentence like (4) it means ‘part’ (hence the interlinear gloss we have assigned it in this context). This proposal, we understand, may strike those familiar with linguistic descriptions of Warlpiri and related languages as unexpected, even jarring at first, because *yangka* is a closed-class item which is normally described as an “anaphoric demonstrative nominal” (as in the Warlpiri Dictionary itself) with an “evocative” effect (Hale 1974). To anticipate a little, we do not dispute that these are apposite linguistic descriptions for many contexts and uses of *yangka*, which is an extremely high-frequency word. Our case, however, is that a monosemy analysis for *yangka* is not viable and that in specific grammatical contexts it can also express two additional, distinct meanings.

### 5. The three meanings of *yangka*: ‘that, the one’, ‘like’, ‘part’

Having studied numerous sentences with *yangka* in the Warlpiri Dictionary, and in other linguistic publications on Warlpiri, we have concluded that *yangka* can express three different meanings. In its first, and textually most frequent, meaning, descriptions such as “anaphoric nominal” and “evocative” are actually quite helpful. From a translational point of view *yangka* in this function can often be glossed as ‘that’ or as ‘the one’. Following Simpson (1991) and

Riemer (2005), we will use the interlinear glosses ‘the.one’ or ‘that’. This use of *yangka* is illustrated below. [Note 4]

(5a) *Pintapinta ngula-ji yangka paarr-pardi wita*  
 butterfly that-TOP the.one fly.NPST small  
*pinkirpa-wita-wangu-kurlu ...*  
 wing-small-not-with  
 ‘Pintapinta is that small creature with big wings that flies...’

(5b) *Warlu yangka-kurra-rlipa ya-ni!*  
 fire that-to-1PL.INCL.SBJ go-NPST  
 ‘Let’s go back to that (same) fire.’

In (5a), the phrase *yangka paarr-pardi wita* is translated as ‘that small creature’, and the interpretation of *yangka* as ‘that’ or ‘the one’ evidently makes sense. In (5b) too *yangka* is obviously best rendered into English as ‘that’: *warlu yangka* ‘that fire’.

Careful examination of Warlpiri sentences has convinced us, however, that in particular contexts *yangka* can also express two additional meanings, namely, ‘like (when)’ and ‘part’. These two additional meanings are illustrated in sentences (6) and (7), respectively (additional examples will follow).

(6) *Luwarni ngula-ju yangka kuja-ka wati-ngki marda*  
 ‘luwarni’ that-TOP like AUX.REL-NPST man-ERG maybe  
*luwa-rni marlu karli-kirli-rli manu ka luwa-rni*  
 shoot-NPST roo boomerang-PROP-ERG or AUX shoot-NPST  
*wardapi watiya-kurlu-lu.*  
 goanna stick-PROP-ERG  
 ‘Luwarni is like when a man maybe hits a kangaroo with a boomerang or hits a goanna with a stick.’

(7) *kantumi* (hip)  
*Kantumi, ngula kuyu yangka marlu. Kantumi manu*  
 hip that animal part kangaroo hip or  
*yardipi yi-ka-rlipa ngarri-rni*  
 hip AUX.COMP-PRS-1PL.INCL.SBJ call-NPST  
 ‘*Kantumi* is what we call that part of the kangaroo which is its hip.’

In (6) the meaning of the verb *luwarni* is explained by likening it to familiar situations of someone striking or killing a kangaroo or a goanna, and, in this context, the Dictionary’s translation of *yangka* as ‘like (when)’ makes perfect sense. In (7) the phrase *yangka marlu* is rendered in translation as ‘part of the kangaroo’, and this interpretation too makes sense. Interpreting *yangka* in (7) as either ‘that one’ or as ‘like (when)’ would not work. Clearly, this

vernacular definition does not refer to ‘that kangaroo’ but to ‘part of a kangaroo’ (i.e. the hip), and nothing is being likened to anything else.

Each of the three senses of *yangka* that we have distinguished has its own combinatorial properties. *Yangka*<sub>1</sub> as a demonstrative nominal is usually combined with some description, e.g. size, shape, or behaviour; *yangka*<sub>2</sub> which means ‘like (when)’ is a clausal linker; and *yangka*<sub>3</sub> which means ‘part’ normally combines with a locus or locational expression that identifies the relevant whole and/or with the verb *mardarni* ‘to have’. In sections 6 and 7, we will focus closely on *yangka*<sub>3</sub> ‘part’, before returning to *yangka*<sub>2</sub>, the clausal linker ‘like (when)’, in section 8.

## 6. Combinatorial properties of *yangka* ‘part’

Consider another sentence in which the combination *yangka yapa* is translated in the Dictionary as ‘part of a person’. Once again, the interlinear glosses are our own.

(8) *muju* (tailbone)

<i>Muju,</i>	<b><i>yangka</i></b>	<b><i>yapa</i></b>	<i>purturlu-ngurlu</i>	<i>kaninjarra-ngurlu</i>
tailbone	part	person	spine-from	down-from
<i>jaka-pirdi-ngirli</i>		<i>ngula</i>	<i>muju-ju</i>	<i>mirntilyi-rla kanunju.</i>
buttocks-near-from		that	tailbone-TOP	anus-LOC under

‘*Muju* is that **part of a person** which is down at the end of the spine towards the anus.’

The combination *yangka yapa* suggests that *yangka* in the sense ‘part’ can be juxtaposed to a noun indicating the ‘whole’ of which something (in this case, the tailbone) is a part. Expressions of this kind include the following ones (the glosses come from the Dictionary):

*yangka yapa* ‘part of a person’

*yangka marlu* ‘part of a kangaroo’

*yangka kuyu* ‘part of an animal’

*yangka milpa* ‘part of the eye’

*yangka palka* ‘part of the body’

In example (9) the entry for *yukuyuku* ‘shin, *yangka* ‘part’ appears in combination with, and adjacent to, *palka* ‘body’, though neither ‘part’ nor ‘body’ occur in the Dictionary’s free translation. Our own translation of (9) would be: ‘*yukuyuku*, that is the part Aboriginal people and white people have, the part of the body, from the knee down to above the foot’. In example (10) the entry for *pawiyi* ‘spine’, the two words *yangka* ‘part’ and *palka* ‘body’ again appear together, though not adjacent. [Note 5]

- (9) *yukuyuku* (shin)  
*Yukuyuku, ngula-ji yangka kuja-ka-rlipa yapa-ngku*  
 shin that-TOP part AUX.REL-PRS-1PL.INCL.SBJ person-ERG  
*manu kardiya-rlu marda-rni yangka palka mirdi-ngirli*  
 or white.person-ERG have-NPST part body knee-from  
*kaninjarrakari (...)* *wirliya-rla kankarlu, ...*  
 downwards foot-LOC above  
 ‘*Yukuyuku* is what both Aboriginal people and White people have from the knee down to above the feet ...’

- (10) *pawiyi* (spine)  
*Pawiyi ngula-ji yangka kuja-ka-rlipa marda-rni,*  
 spine that-TOP part AUX.REL-PRS-1PL.INCL.SBJ have-NPST  
*kakarda-rla purdangirli palka, manu yangka*  
 back.of.the.neck-LOC down.below body or part  
*kuja-ka-rlipa marda-rni jimanta-jarra-rla palka.*  
 AUX.REL-PRS-1PL.INCL.SBJ have-NPST shoulder-two-LOC body  
 ‘*Pawiyi* is the **part of our body** that is down below the back of the neck and between both our shoulders.’

Very occasionally, a combination of all three (*yangka* ‘part’, *palka* ‘body’ and *yapa* ‘person, human’) occurs, as in the following example (cited earlier without interlinear glossing).

- (11) *lintirrupa* (midriff)  
*Lintirrupa ngula-ji yangka kuyu ngurlju, manu kuyu*  
 midriff that-TOP part animal midriff or animal  
*ramarra. Manu palka yapa ngakulyka-rla kanunju.*  
 rib or body person armpit-LOC under  
 ‘*Lintirrupa* is the flank of an animal or the rib-cage. And that **part of a person’s body** beneath the armpit.’

Our “literal” gloss for (11) would be: ‘*lintirrupa*, that is part of an animal, the midriff or animal’s rib-cage; and [part] of a human body beneath the armpit’.

In many cases, admittedly, *palka* ‘body’ does not appear explicitly, especially in vernacular definitions which include a locational phrase identifying the position of the body-part being defined with respect to another part, but in our view, there is nothing disturbing about this, and, indeed, it is only to be expected. When a Warlpiri lexicographer is undertaking the task of defining a number of body-part terms one after another (as PPJ reportedly did), it would be natural for him to omit the word *palka* ‘body’ most of the time, and keep only *yangka* ‘part’ and a word or expression specifying the location of that part within the body. Example (4) above, for *mimi* (‘forehead’), is one such example. Example (12) below, for *ngurlju* (midriff) is another, and the same pattern appears in many subsequent examples. (Incidentally, it is worth noting that Wierzbicka (2007) argued that “location on the

body” is to be expected as component body-part concepts across languages – part of the semantic template, in NSM parlance, for all or most body-part concepts.)

(12) *Ngurlju* (midriff)

*Ngurlju ngula-ji yangka waku-jarra-rla kanunju, manu yangka*  
 midriff that-TOP part arm-two-LOC under or part  
*ngakulyka-jarra-rla kanunju, manu yardipi-jarra-rla kankarlu*  
 armpit-two-LOC under or hip-two-LOC above  
*ngurlju-ju, yangka kuja-ka-lu nguna-mi*  
 midriff-TOP part AUX.REL-PRS-3PL.SBJ lie.be-NPST  
*ramarra-jarra ngurlju-ngka-ju.*  
 rib-two midriff-LOC-TOP

‘*Ngurlju* is that **part** (of the body) under the upper-arm, and below the armpits, and above the hips, where the ribs lie.’

Summing up so far, one characteristic aspect of these Warlpiri body-part definitions is that they combine the word *yangka*, in its ‘part’ sense, with a locational expression specifying where in the body that part is located. Now we will turn to a second salient characteristic of these vernacular definitions. More often than not, the body-parts are not simply said to *be there* in the body; rather, people (and often animals) are said to *have* those parts (somewhere in the body).

### 7. A key combination: *yangka* and *mardarni* (‘part’ and ‘have’)

In PPJ’s vernacular definitions, *yangka* in the sense of ‘part’ is often combined with the verb *mardarni* ‘have’ [*marda-rni* have-NPST]. We have already seen an example in the definition of *pawiyi* ‘spine’ in (10), although in this case the Dictionary translation did not reflect the presence of *mardarni* in the Warlpiri sentence, i.e. there is no ‘have’ in the translation. In many other cases, however, *mardarni* is faithfully rendered as ‘have’ – usually, as ‘we have’ or as ‘people have’. Here are two examples with ‘part that we have’ *yangka kujakarlipa mardarni* (in this expression, the ‘we’ meaning is conveyed by the 1pl.inclusive pronominal clitic *-rlipa* on the auxiliary).

(13) *luku* (heel)

*Luku ngulaji yangka kujakarlipa mardarni purdangirli wapanja-marnararla.*  
*Ngulanya luku, manu tarihi.*

‘*Luku* is what **we have** behind to walk with. It is called *luku* and *tari*.’

(14) *miyalu* (abdomen, belly, stomach)

*Miyalu, ngulaji yangka kujakarlipa mardarni nyampu rdukurdukurla kanunju, yangka mijilijilirla kulkurrirni yangka kujakarlipa ngula-kurraji ...*

‘*Miyalu* is what **we have** here under the chest with the navel in the middle of it ...’

In our interpretation, (15) and (16) below both use the phrasing: ‘parts that we have [yangka...mardarni], Aboriginal people and white people’. Example (17) shows the expressions ‘parts that women have [yangka...mardarni]’ and ‘that men have’.

(15) *mirriji* (shin)

*Mirriji, ngulaji yangka kujakarlipa mardarni yapangku manu kardiyarlu wapanjakurlangu ...*

‘*Mirriji* is what both **Aboriginal and European people** have for walking with, ... .’

(16) *ngarli* (tendon above heel)

*Ngarli, ngulaji yangka kujakarlipa yapangku manu kardiyarlu mardarni wirliyarla wapanjamarnarrarla, yangka lukungka kankarlu pulyku. Ngulanya ngarliji.*

‘*Ngarli* is what both **Aboriginal people and European people** have on the foot, the part that we walk with, it is the tendon above the ankle. That is the Achilles tendon.’

(17) *ngapurlu* (breast)

*Ngapurlu ngulaji yangka kujakalu mardarni karntangku wirijarra jirrama kamparrujarra rdukurdukurla. Manu kujakalu mardarni watingki witajarra rdukurdukurla lampunujarraji.*

‘*Ngapurlu* are the two big things that **women** have on the front of their chests. And the two small breasts that **men** have on their chests.’

Finally, here are two examples with ‘parts that birds (or cockatoos) have’.

(18) *pinkirrpa* (wing)

*Pinkirrpa ngulaji yangka kujakalu mardarni jurlpungku waku-jarrarla, wita-witarlu manu wiri-wirirli, jurlpungku.*

‘*Pinkirrpa* are what **birds** have on both upper arms - small ones and big ones.’

(19) *kakarda* (nape)

*Jirtawarnu, jirtawarnu ngulaji yangka kujaka mardarni kakardarla kakalyalyarlu.*

‘A crest, a crest is what the **Major Mitchell cockatoo** has at the base of its head.’

Overall, the most common form that the definitions of body-part terms take in the Warlpiri Dictionary includes five elements, as follows: (i) body-part word, (ii) the demonstrative word *ngula* with the topic suffix *-ji*, i.e. *ngulaji*, (iii) *yangka*, which we gloss as ‘part’, (iv) followed by the verb *mardarni*, (v) followed by a locative expression referring to an area in the body. For example:

*tongue*: that one, [it is] a part [of the body] we have in the mouth.

The word *palka* ‘body’ occurs in some definitions, but it is mostly omitted since the indigenous lexicographer is, presumably, composing several definitions one after another so it

is understood that the context is about parts of the body. The verb *mardarni* ‘have’ is also not always present, but it frequently is and this is one of the formal features which can help distinguish *yangka* ‘part’ from *yangka* ‘that, the one’.

Finally, it should be noted that the *mardarni* ‘have’ construction with *yangka* (e.g. ‘those parts that we have’) is usually not used when defining ‘parts of parts’. Vernacular definitions for “sub-part” words, such as *mimi* ‘forehead’ (8), and *kurlu* ‘pupil’ (20) and *jiwirnpa* ‘lower arm’ (21) below, normally do not occur with the *mardarni* construction, but rather use the “*yangka* plus locational expression” construction described in section 6. [Note 6]

(20) *kurlu* (pupil)

*Kurlu, kurlu ngula milpa. Kanunju. Palka kuja-ka-rlipa*  
 pupil pupil that eye under visible.thing AUX.REL-PRS-1PL.INCL.SBJ  
*milpa kanunju nyina-mi - kuja-ka-rlipa ngula-ngku nya-nyi*  
 eye inside be.sit-NPST AUX.REL-PRS-1PL.INCL.SBJ that-ERG see

- *ngula-mipa kurlu-ju yangka kanjunju. Milpa-juku-jala.*  
 that-only pupil-TOP part under eye-still-actually

‘The pupil, the pupil is the eye. Inside. What we have there inside the eye - that with which we see - it is only that part which is inside which is the pupil. But it is still the eye.’

(21) *jiwirnpa* (lower arm)

*Jiwirnpa, jiwirnpa-ju yangka – waku-rlangu-rla nyampu*  
 lower.arm lower.arm-TOP part arm-for.example-LOC this  
*kuja-ka waku nguna-mi-rra rdaka-kirra.*  
 AUX.REL-PRS arm be.lie-NPST-away hand-towards

‘The forearm is that **part** of the arm which goes down to the hand.’

### 8. *Yangka* ‘like (when)’ as a clausal linker

One of the many English words and phrases given in the Warlpiri Dictionary’s entry for *yangka* is ‘like (when)’. As mentioned, we believe that ‘like (when)’ is not only a possible translation equivalent (in some contexts), but is indeed one of *yangka*’s possible meanings. This sense of *yangka* does not compete with the phrasal “LIKE suffix” *-piya*, but is rather an element that links with a following clause, like ‘as’ or ‘like when’ in English. For example:

(22) *Yalyu, palkangka, ngulaju yangka yalyuju yapa-piyayi-jala ka karli. Yangka kurlarda-jangkarlanguju.*

‘Blood, in the body, that blood there flows as from humans. **Like when** it (i.e. kangaroo) has been speared for instance.’

Strictly speaking, this meaning of *yangka* is outside the scope of the present study, but it is necessary to pay some attention to it so that the polysemy of *yangka* does not prevent us from seeing its sense of ‘part’ clearly. Consider, for example, the following Warlpiri Dictionary



definition for the verb *pakarni* ‘hit’, taken from Riemer’s (2005) book on Warlpiri “‘impact and percussion” verbs. His interlinear gloss has *yangka* glossed as ‘that’, but the free translation uses ‘like’.

- (23) *Paka-rni*        *ngula-ji*    *yangka*    *kuja-ka*                    *karnta-ngku*    *marda*,  
 hit-NPST        **that-TOP**    **that**        AUX.REL-NPST    woman-ERG    maybe  
*wati-ngki*        *marda*, *kurdu-ngku*    *marda*, *paka-rni*    *nyiya-rlangu*  
 man-ERG        maybe    child-ERG        maybe    hit-NPST    something-for example  
*watiya-kurlurlu-rlu*,    *jarntu marda*, *wardapi marda*, *manu yapa-kari*  
 stick-PROP-ERG        dog    maybe    goanna    maybe    or    person-other  
*marda*,    *kulu-ngku*.    *Manu yangka*    *kuja-ka*                    *paka-rni*  
 maybe    fight-ERG    or        that        AUX.REL-NPST    hit-NPST  
*warlkurru-rlu* -    *wati-ngki*    *marda*, *karnta-ngku*    *marda*, *watiya* -  
 axe-ERG            man-ERG    maybe    woman-ERG    maybe    tree  
*warlu-ku*.  
 firewood-DAT

‘*Pakarni* is **like when** a woman, or a man or a child, hits something with a stick – a dog, or a goanna or another person in a fight. And it is also when a man or a woman chops a tree for firewood.’ (Riemer 2005: 327)

Superficially, the sequence *ngulaji yangka* (or *ngulaju yangka*) in this and other verb definitions may seem identical to what we commonly see in the body-part definitions, and thus to undermine our interpretation of *yangka* as ‘part’. A sceptic might suggest that this sequence is simply a definitional formula commonly used by indigenous Warlpiri lexicographers, and that since they use this formula for verbs as well as nouns, it has nothing to do with concept of ‘part’. Closer inspection shows, however, that this hypothesis cannot be sustained. It is no accident that *yangka* corresponds to ‘like’ in the Dictionary’s translation of the definition for a verb like *pakarni* ‘hit’, whereas it corresponds to ‘part’ in the translation of the definition of a noun like *mimi* ‘forehead’. It seems to us that this is simply common sense: the translations wouldn’t make sense the other way around.

We have examined a large number of the vernacular definitions cited in Riemer’s (2005) book on Warlpiri verbs, and, as far as we can see, in verb definitions the sequence *ngulaji yangka* (or *ngulaju yangka*) typically introduces a prototypical situation (‘that’s like when...’ or ‘that one, it’s like when...’). Another example was presented as (6). It is repeated below for convenience. This time we have reproduced Riemer’s (2005) interlinear glosses, to be consistent with example (23), but we contend that in both these sentences ‘like (when)’ is a more accurate gloss for *yangka* than ‘that’.

- (24) *Luwarni*        *ngula-ju*        *yangka*        *kuja-ka*  
 ‘luwarni’        **that-TOP**        **that**                    AUX.REL-NPST

<i>wati-ngki</i>	<i>marda</i>	<i>luwa-rni</i>	<i>marlu</i>
man-ERG	maybe	shoot-NPST	roo
<i>karli-kirli-rli</i>		<i>manu ka</i>	<i>luwa-rni</i>
boomerang-PROP-ERG		or AUX	shoot-NPST
<i>wardapi</i>	<i>watiya-kurlu-lu.</i>		
goanna	stick-PROP-ERG		

‘Luwarni is **like when** a man maybe hits a kangaroo with a boomerang or hits a goanna with a stick.’

Furthermore, it is important to note that the sequence *ngulaji yangka* is not widely used in the definitions of nouns of all kinds. When we inspected fifty randomly selected entries in the Warlpiri Dictionary’s ‘fauna domain’ we found that only two of them used *ngulaji yangka*. Of these, one was clearly used in the sense of ‘like’ and the other in the sense of ‘that, the one’. By contrast, in our collection of 64 body-part entries as many as 19 include the sequence *ngulaji yangka*, with *yangka* almost always indicating a particular part of the body. A similar sampling exercise with words from the ‘manufacture domain’ produced parallel results, i.e. in most of these definitions an opening *yangka* had the sense either of ‘like (when)’ or ‘that, the one’.

In short, while the sequence *ngulaji yangka* can indeed be found in many parts of the Warlpiri Dictionary, its use in the definitions of body-parts is *sui generis*, and supports the hypothesis of ‘part’ as a distinct meaning of *yangka*.

## 9. Discussion: paraphrase, polysemy and allolexy

In sections 9-12, we would like to widen the discussion to clarify the general NSM position on polysemy and its relationship to paraphrasability and then to consider some data from other languages. It is of course a crucial aspect of our case that the Warlpiri exponent of PART is polysemous. Lest it be thought we are indulging in some special pleading, we would point out that the French exponent is also polysemous (because French *partie*, as in *parties du corps* ‘parts of the body’, has also other meanings, such as ‘party’ as in ‘political party’), and so indeed is the English word *part*, as we will discuss more fully in section 11.

The hallmark of the NSM approach to semantics is paraphrase: to state the meaning of a word is to say the same thing in other words. In this, NSM semantics follows the lexicographic tradition, while at the same time following what we see as the “common sense” approach. Paraphrase can be used as a test to establish the equivalence or non-equivalence of meanings of words. The key criterion is not simply paraphrasability, however, but more precisely, paraphrasability without circularity. In this respect, NSM semantics makes a radical break with traditional lexicography.

To make this more concrete, consider how the *Collins Cobuild English Language Dictionary* (1991) defines *part* via *piece*, *piece* via *part* and *bit*, and *bit* via *piece* and *part*, as follows:

*part* – a part of something is one of the pieces that make up an object.

*piece* – a piece is a bit or part of something that has been broken off, or cut off.

*bit* – in informal English, a bit of something is also a small piece of it

*bit* – in fairly informal English, you can refer to a particular part of something [...] as a particular *bit* of it.

At first sight it may seem that the meanings of all three words—*part*, *piece*, and *bit*—can be paraphrased. In effect, however, the dictionary implicitly admits that they cannot all be paraphrased, because its attempts to paraphrase them all lead to circularity.

It is not always obvious whether two words or phrases mean exactly the same or not. NSM semantics has developed techniques for establishing it in any given case. Using these techniques one can show, for example, that *body* in the phrase ‘mind and body’ means the same as *body* in the phrase ‘body and soul’, but not the same as *body* in the phrase ‘head and body’. In a nutshell, it can be shown through paraphrases which do not lead to circularity (cf. Goddard 2000; Goddard & Wierzbicka 2014b: 94-106).

The same approach applies to establishing the sameness of meaning between two different words which can both be exponents of the same prime, i.e. allolexes. For example, it can be shown that the Latin words *bonum* and *bona* mean exactly the same, despite the former being grammatically ‘neuter’, and the latter, ‘feminine’. Likewise, *bonum* and *bona* (as well as *bonus*, ‘masculine’) can be shown to mean exactly the same as the morphologically invariable English word *good*: we cannot find any paraphrasable differences between these words and so we must accept that they mean exactly the same.

## 10. A Papuan perspective: polysemy and allolexy of PART in Koromu

Both polysemy and allolexy are common in natural languages—and normally, they do not seem to create any serious problems for interpersonal understanding. We quote below Carol Priestley’s (in press) reflections on polysemy and allolexy in the Papuan language Koromu, where, as in many Papuan languages, the same form can mean either ‘body’ or ‘skin’.

Many linguists probably find, as I have done, that when speaking a language polysemy is not an issue until one has to represent it or discuss it as a linguist. [...]

Just as English speakers identify the sense of *body* that is intended or tolerate the imprecision, Koromu speakers tolerate the ambiguity of *mete* ‘body/skin’ or identify the particular sense from the context and other semantic clues.

Thus, the polysemy of *mete* (1. body, 2. skin) does not prevent Koromu speakers from discerning the prime sense (BODY) in contexts like ‘parts of the body’; and neither does the allolexy of the Koromu exponents of PART prevent them from discerning its sense as a prime. As Priestley explains:

Depending on context, a prime can also have multiple exponents, or allolexes, for one meaning. For example, English has the allolexes OTHER and ELSE as in *other things* and in *something else*, while Koromu has multiple exponents of PART, namely, *MO*, *ASAO* and *-NE*. [...] As the head of a noun phrase in a verbal possessive clause PART is realized as *MO*.

- (3) *Mete mo nupu nupu men-a.*  
 body **part** many many have-3SG  
 ‘The body has many parts.’

In an expression like ‘part of the body’ PART is realized as *asao*, a term that can be used elsewhere with the sense ‘some’.

- (4) *Ami mete asao.*  
 eyes body part  
 ‘The eyes are part of the body.’ (Priestley In press)

As Priestley’s (in press) data and analysis show convincingly, neither polysemy nor allolexy prevent clear rendering of the concept identifiable in English as *part*: both *mo* and *asao* are valid exponents of this concept in Koromu. True, both are polysemous (*mo*: 1. THIS, 2. PART; *asao*: 1. SOME, 2. PART), but in particular contexts each of them can do its job clearly and effectively as an exponent of PART.

What is particularly interesting in the present context is that one of the main exponents of PART in Koromu is a demonstrative, somewhat like the situation in Warlpiri. Speaking somewhat fancifully, it is as if to convey the thought ‘the body has many parts’ Koromu speakers were saying ‘the body has many this-es’. For English speakers, the only way to make sense of the Koromu sentence is to assume that “has many this-es” means the same as ‘has many parts’. To assume otherwise would be to exoticize Koromu speakers and to posit an unbridgeable gulf between them and speakers of English, without any necessity (cf. Keesing 1994). The same applies to comparisons between English and Warlpiri.

So the point is not that there is a “dedicated expression” for PART in every language, but that in every language people can conceptualise the body as having parts and have some equivalent expressions for talking about it in terms of parts. Evidently, from this point of view, Warlpiri *yangka* (*yangka*<sub>3</sub>) is as serviceable as English *part* (*part*<sub>1</sub>). At this point, it will be useful to consider more carefully the polysemy of the English word *part*.

## 11. Polysemy of English *part*: distinguishing PARTS and SOME

The English word *part* is multiply polysemous. Somewhat improbably, the *Collins Cobuild Dictionary* distinguishes 32 numbered meanings (28 of them nominal). Careful semantic analysis would presumably lead to a radical reduction in this number, but there is no doubt that *part* is indeed polysemous. Above all, we want to highlight here the fact that English *part* can be an exponent of two different semantic primes: PART and SOME. For example, in a phrase like ‘a small part of the money’ or ‘part of the grain (went bad)’, *part* doesn’t stand for PART (as in ‘one of the parts’) but for SOME (as in ‘some of it, not much’).

The two primes in question, i.e. PARTS and SOME, have a certain affinity, and the pattern of polysemy evident in the phrases ‘two long parts’ and ‘two equal parts’ appears to recur in many languages – not only European (e.g. French, German, Polish, Russian), but also, as we have seen, in totally unrelated ones such as Koromu. It is not, however, a pattern shared by Warlpiri, where the concept SOME (OF) is expressed, above all, with the word *ngalyakari*, as in the following examples:

- (25) *Wurlkumanu-wurlkumanulpalu yanurra ngalyakari yakajirriki, yarlaku.*  
‘Some of the old women went off to get Bush Onions and yams.’
- (26) *Ngalyakari-jikilparnalulu pita-ngarnu - panungkuja ngarra yapangkuju - nganimparluju.*  
‘We only ate some of them, as there were really so many of us people.’
- (27) *Pirda-manulu-nganpa pirdijirri. Pajirninjarla, pajirninjarla kalalu-nganpa yungu. Rdilyki-pungu, rdilyki-pungu. Bread-piya. Ngalyakari kalalu-jana yukanti-yukantiki yirrarnu - kurduku. Miyalu-juntulku-parra. Watiki kalalu-jana yirrarnu ngalyakari. Manu karntaku ...*  
‘They would fill us up with seedcake. They would break it up into pieces and give it to us. (They would) break it up like bread. They would put **one lot** for the small children to fill their tummies. They would set out **another pile** for the men, and a separate one for the women ...’
- (28) *Kurlarda-jana yangka yali ngalyakari manurra, murlarrily-murlarrilyparra rdipija.*  
‘He picked up some of the spears and set off with them in a bundle swinging to and fro in his hand.’

The lack of correspondence in the patterns of polysemy between English (and other European languages), on the one hand, and Warlpiri (and other Australian languages), on the other hand, may have contributed to the impression that Warlpiri lacks expressions for semantic prime PART.

Before leaving the subject of PART vs. SOME, we would like to acknowledge that the boundary between the two has not always been drawn clearly in NSM literature. For example, in Wierzbicka’s (2002) chapter on Polish in *Meaning and Universal Grammar*, the section

entitled ‘Taxonomy and partonomy’ included two sentences, (246a) and (246b), only one of which (246a) would be regarded today as including the prime PART. Wierzbicka (2002: 145) wrote as follows:

The Polish word for KIND is *rodzaj*, and the word for PART is *część*. While *rodzaj* seems unproblematic, *część* raises the question of the relation between phrases such as (246a) and (246b) below:

- (246) (a) *Śledziona to jest część ciała.*  
 spleen.NOM COP be.3SG.PRES part.NOM body.GEN  
 ‘The spleen is a part of the body.’
- (b) *Część wody się wylała.*  
 part.NOM water.GEN REFL spill.3SG.PAST.PERF  
 ‘Part of the water spilled.’

Wierzbicka’s discussion of these two sentences was inconclusive:

In English, one can also say *Some of the water spilled* but in Polish, no such option is available. Is *część* polysemous or does it carry the same meaning in (a) and (b) above? The question, which bears on our understanding of the prime PART, requires further investigation. (Wierzbicka 2002: vol. 2, p. 145)

Fifteen years on, much more is known about the primes PART (or YANGKA) and SOME (or NGALYAKARI) and it can be confidently affirmed that only sentence (246a) includes the former (whereas (246b) includes the latter). It must be admitted, however, that the lack of clarity about this point and a measure of confusion between PART and SOME in some NSM publications (e.g. Wierzbicka 2009; Goddard 2011: Chapter 9) may have contributed to the misunderstandings surrounding the universal status of PART.

## 12. Patterns of polysemy in the exponents of semantic primes

As noted earlier, the Warlpiri ‘part/that’ polysemy is analogous to what we have seen in Koromu. This leads us to the hypothesis that ‘part’ and ‘this/that’ (so to speak) may be a second polysemic pattern involving PART which recurs in many languages, in addition to the ‘part of’/‘thing (of)’ pattern identified in earlier NSM literature and discussed in section 2. As Wierzbicka (2007: 27) observed in her paper ‘Bodies and their parts’:

This particular NSM finding – that in many languages the word for ‘thing’ or ‘something’ can function as an exponent of part – is in fact utilized (though not sourced) in the Special Issue’s [Majid *et al.* eds. 2006] “Elicitation Guide”, where the contributors are told that, e.g., a meaning expressed in English as *the arms are parts of the body* may be expressed in some languages by an idiomatic construction along the following lines: “The arm is the thing of the person” (p. 156).

The current finding that in some languages a word like ‘this’ or ‘that’, or similar, can be an exponent of PART could be also utilized as a hint for fieldworkers investigating the vocabulary structure of their field languages: “if ‘the arm is the thing of the body (or: of the person)’ doesn’t work, you may try ‘the arm is this (or: that) of the body (or: of the person)’”.

Such recurrent polysemies, linking PART with THIS, or with THING, or with SOME, are of course very interesting in themselves and raise the question: “Why is it so?” This is indeed an thought-provoking question, but it needs to be seen within a wider context. It is well established in the cross-linguistic NSM literature (e.g. Goddard & Wierzbicka 1994, 2002; Goddard 2008, Goddard 2011) that primes often share lexical exponents in ways which are not entirely unpredictable, without being fully predictable either. For example, in a number of languages DO and HAPPEN share the same lexical exponents (in different grammatical frames); and the same applies DO and SAY, FEEL and HEAR, HEAR and THINK, SOMEONE and PEOPLE, BODY and SOMEONE, HERE and NOW, CAN and MAYBE, among other examples. Partial morphological overlaps between certain primes are also common, both for the examples just mentioned, and also for other pairs such as SAY and WORDS. In each case, one senses that the members of the pair have “something in common”, so to speak. On the other hand, we have not come across similar patterns of polysemy or morphological overlap which involve primes which are intuitively completely unrelated to one another, for example, KNOW and LIVE, WORDS and BODY, HERE and BEFORE, SAY and DIE, or PEOPLE and FAR.

But to say that primes which often share lexical exponents usually have “something in common” does not mean that they share a semantic component which can be identified through a paraphrase. On the contrary, semantic primes cannot be paraphrased so this possibility does not arise; hence the term used in the NSM literature to designate this phenomenon: non-compositional polysemy (Goddard & Wierzbicka 1994). For example, two properties that DO and HAPPEN have in common is that both require an (explicit or implicit) reference to time (‘when did it happen?’, ‘when did he do it?’) and that both allow a description of “manner” (e.g. ‘it happened like this: ...’, ‘he/she did it like this: ...’). KNOW and LIVE, by contrast, do not have such properties. To give another example, one thing that SOMEONE and PEOPLE have in common that both can combine with WANT, KNOW and THINK, as “personal subjects”, so to speak. HERE, NOW and THIS all have a special link with I (ME) (for example, one can say, in any language, ‘I am here now’). All such recurring patterns of polysemy between exponents of primes are worth investigating [Note 7], and they all suggest some conceptual links, but not links that can be shown through paraphrases. The recurring

patterns of polysemy involving PART are certainly interesting, but perhaps no more so than recurring patterns of polysemy involving exponents of other primes. In any case, it is outside the scope of this paper to pursue this problem further here.

### 13. Back to Warlpiri: can Warlpiri be its own metalanguage?

The material in the Warlpiri Dictionary bearing on the question of body-parts is rich and complex and in this paper we have only touched on it selectively. Two things, however, seem clear to us: first, Warlpiri speakers *can* speak and think about human bodies as having parts and they do have a word for PART (as well as a word for BODY) at their disposal; and second, Warlpiri is consistent with the conclusion reached in Wierzbicka (2007: 53): “semantic explorations undertaken in the NSM framework confirm the fundamental role of the notion ‘part of the body’ as a universal organizing principle in all ethnoanatomies”. The latter conclusion applies not only to describing the lexicon of body-part meanings, *stricto sensu*, but also to their patterns of extension.

In her article ‘Remarks on the semantics of body part terminology in Warlpiri’, Laughren (1984) states a number of generalizations about extended uses of Warlpiri body-part terms, formulating her generalisations in terms of ‘part’. For example, she writes:

Our investigations have led us to posit the human body as the primary domain for body part terminology. (...) By analogy, the “equivalent” part of a non-human body is designated by the same term that refers to a “human” body part. Similarly, a part of a non-animate entity, can be designated by a term which in its stereotypical meaning designates a part of a human body. Thus the semantic relation of analogy involves a change of domain: from human to non-human, from being to non-being. (Laughren 1984: 2)

Laughren illustrates these generalizations, *inter alia*, with the following examples:

JURRU head of being → rounded end part of entity: rounded end of spear-thrower  
JURRU head of being → uppermost part of non-being: upper section of boomerang (short end not held in hand), top section of native bee hive  
MULYU nose, snout, beak of beings → foremost part of entity: “front” of car (...)  
JAKA buttocks of human → hindmost part of some non-being: “back” or rear end of vehicle, pointed “ends” of a coolimon, shield, etc. (...)  
MILPA eye of being → small round parts of entity: seeds inside pod, drops of rain water, head-lights of vehicle (1984: 2-3)

This description is clearly predicated on the assumption that in their primary meanings, the words *jurru* ‘head’, *mulyu* ‘nose’, *jaka* ‘buttocks’ and *milpa* ‘eye’, all include the semantic



element ‘part’. (Cf. Hale (1981) for arguments that the concept of ‘part’ plays an important role in Warlpiri grammar, in various ‘part-whole’ constructions.) According to Laughren, such generalizations about semantic relations in Warlpiri are part of the native speakers’ linguistic competence:

It is our belief that the nature of the semantic relations between the different meanings of a given lexical item, the natural classes into which those meanings fall, as well as the semantic relation which exists between items with common meanings, [...] should be clearly derivable from the dictionary entries of the terms themselves. Such knowledge is surely borne out not only by an internal analysis of the lexicon such as we have presented here, but by the way in which speakers extend body part terms to designate new referents. For example, parts of a new domain, e.g. motorcars [...], are and will be spontaneously named according to the principles described here. (Laughren 1984: 8-9)

All this is entirely convincing. The question that arises, however, is: can such knowledge be stated in Warlpiri itself? Or can it only be stated in languages like English? We earlier quoted Casagrande & Hale’s (1967) remark that “every language must thus serve in some degree as its own metalanguage”. Generally speaking, to say that a word used for a part of the body of a person can be also used for a part of the body of an animal or for a part of a car (if it is in the same place in the car), one needs a word for ‘part’. As we see it, there is no reason to assume that such generalizations cannot not be made in Warlpiri.

For example, one could state the rationale for extending the word for ‘head’ to animals, as follows. (The Warlpiri version would use the *yangka* + *mardarni* “have parts” locution discussed in section 7.)

people can think about many animals like this:

“this animal’s body has many parts like parts of a person’s body  
one is like a person’s head”

Similarly, considering the use of various body-part words in relation to cars (*milpa* ‘eyes’ for headlights, *mulyu* ‘nose, snout’ for the front of a car, *jaka* ‘buttocks’ for the rear end), one could posit that from a Warlpiri point of view ‘people can think about cars like this: ‘they have many parts like parts of a person’s body’. Or possibly, ‘they have many parts like parts of an animal’s body’: the exact basis of the extension is not clear to us at this point.

In any case, our main point is that the Warlpiri language has all the necessary words and phrases to articulate the principles underlying Warlpiri semantic competence in this area, i.e. words for ‘person’ (*yapa*), ‘part’ (*yangka*), ‘body’ (*palka*), ‘animal/creature’ (*kuyu*, in one its

meanings), and phrases like ‘have parts’, ‘like a person’s head’, and so on. Speaking more generally, we would like to express confidence in the capacity of Warlpiri to function as its own semantic metalanguage in all domains of cultural knowledge, and indeed to extend this confidence to other indigenous languages of the world.

#### **14. Broader perspectives**

We would like to close with two final remarks on broader issues of translation and language documentation. First, it is heartening to note that there are signs of growing interest in Australia in indigenous stories, indigenous perspectives, indigenous voices. Yet, as we see it, it is important that English renditions of Aboriginal stories are formulated in cross-translatable English in order to preserve authentic indigenous meanings, as far as possible, and to minimise intrusions from Anglo, or European, ways of thinking. For example, Aboriginal words that mean ‘see’, ‘do’ and ‘say’ should be translated as such, and not, for example, as ‘witness’, ‘perform’, or ‘declare’. Highly English-specific words such as ‘actually’, ‘reason’ and ‘fact’ should be avoided. As we see it, this Anglicising style of translation poses a much greater threat to conceptual authenticity than translating a polysemous word like *yangka* as ‘part’, e.g. when speaking about parts of the body.

Second, in relation to language documentation, we see it as important to pay particular attention to capturing culture-specific concepts, especially the meanings of cultural key words, in Australian languages and in other indigenous languages around the world. This is a difficult task and it requires careful attention to the metalanguage of the description (Goddard & Wierzbicka 2014b). In particular, it requires us to avoid using highly English-specific words to gloss indigenous meanings, and to strive instead to portray them using cross-translatable words and phrasings, i.e. words and phrasings which have equivalents in the indigenous language itself.

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## Notes

- 1) To quote Annabelle Mooney's (2014) recent book *Human Rights and the Body: Hidden in full sight*: "The body is our base, our mode of being in the world, it places us in space, it is the origin of meaning and experience. It is our zero institution." (pp. 89-90)
- 2) For reasons of space and clarity it would be counter-productive to provide interlinear glosses for every Warlpiri sentence cited, but we have provided them wherever we thought they were really needed. The following is a list of the abbreviations used (note, though, that in quoted examples the interlinear glosses follow the original text):

1PL.INCL.SBJ first person plural inclusive subject clitic; 2sgSubj second person singular subject clitic; 3 third person; 3PIObj third person plural object clitic; 3PL.SBJ third person plural subject clitic; AUX.REL auxiliary relative; COP copula; DAT dative; ERG ergative; GEN genitive; GIV given; IMP imperative; INF infinitive; LOC locative; NOM nominative; NMZ nominalization; NPST nonpast; PRS present; PROP proprietive; PURP purposive; RDP reduplication; REFL reflexive; SG singular; TOP topic.

The glossing was carried out by looking up Warlpiri words and morphemes in the Warlpiri Dictionary itself and in other sources including Hale (1974), Laughren & Hoogenraad (1996), Nash (1986a, Nash 1986b), Riemer (2005), Simpson (1991), and Swartz (n.d.). For some suffixes and enclitics, we have chosen to use an English label rather than a Latinate one (e.g. *-ngurlu* 'from' rather than EL, for relative), while for others, we have used the conventional label (e.g. *-rlal-ngka* LOC, locative). For the auxiliary cluster, we have followed Riemer (2005) for elements such as the auxiliary relative *kuja* (AUX.REL), but we have followed David Nash in glossing *ka* as marking present tense (as opposed to Riemer 2005 who glosses it as nonpast). In the interests of clarity, we have not used the clusters of numbers (e.g. 1, 2, 3, 12, 11, 22) in glossing Warlpiri pronominal clitics but more transparent glosses such as 1PL.INCL.SBJ.

Interlinear glossing can be an invidious exercise in that one is forced to commit to morphological, syntactic and semantic interpretations in a highly constrained space, sometimes when one is focussed on one particular aspect of a language, and is less concerned with others. As stated in the 'The Leipzig Glossing Rules', "glossing is rarely a complete morphological description, and it should be kept in mind that its purpose is not to state an analysis, but to give some further possibly relevant information on the structure of a text or an example, beyond the idiomatic translation" (Comrie *et al.* 2008). Given that interlinear glosses should be consistent (Lehmann 2004: 11), variation in glossing has been kept to a minimum, though occasionally polysemous words are glossed according to the relevant sense in the given context.

- 3) The ‘topic enclitic’ *-ji* has the basic form *-ji* in the Hansen River, Lajamanu, and Willowra varieties of Warlpiri, and *-ju* in the Yuendumu variety. Additionally, the vowel in the enclitic is subject to vowel harmony, with slightly different rules in different dialects (Laughren, Hale & Warlpiri Lexicography Group 2006; Nash 1986a: 56). Some sources also state that this enclitic is used “to lengthen a word for stylistic euphony” (Hale 1973: 15; see also Nash 1986a: 56; Simpson 1991: 436).
- 4) Although we sometimes use ‘that’ as a translation equivalent or short gloss for *yangka*, it is important to bear in mind that its meaning is not exactly the same as the English word *that*, because the latter does not encode any “assumed to be obvious or known” aspect. The Warlpiri Dictionary gives *yangka* a series of glosses, as follows: “*yangka* **English:** that, those, that same, the one, the one in question, the aforementioned, like, you know the one. **Definition:** anaphoric demonstrative nominal which refers to the established topic of the utterance including *yangka*”. PPJ’s vernacular definition (evidently for the “evocative” *yangka*) is as follows: *Yangka, ngulaji yangka kujaka yapa jintajuku jurrku-juku yanirni warrarda ngurra-kurra jintajuku kujakarla warrarda yanirni jurrku-juku karntaku waninja-warnuku - wati. Yangka jintajuku - yapakariwangu. [Source: PPJ 10/87] ‘Yangka is like when the same person, the very same one always comes to the same camp, as a man comes all the time to see his girlfriend. It is the same one, not another one.’ Hale’s (1974) dictionary describes *yangka* as follows ‘the, that evocative (i.e., the one you know about)’.*
- It is not necessary for the purpose of this paper to propose an NSM analysis for the “evocative” meaning (or meanings) of *yangka*. We would like to remark though, that although descriptive labels like ‘evocative’ (and, for that matter, ‘demonstrative’) may be useful at some stage of linguistic analysis, they cannot be regarded as statements of meaning, in the NSM sense, because they are not cross-translatable paraphrases, substitutable in context.
- 5) A reviewer suggests that in (10) the word *palka* does not mean ‘body’, but instead carries a second meaning, for which the Dictionary gives the definition “physical presence of something” (and lists English equivalents: presence, present, in person, actually, really, something). PPJ’s definition of this second sense of *palka* was: “*Palka* is anything that is visible out in the open, not in thick grass. It is when somebody can see it visible, not in the undergrowth or hidden down in the bushes.” Two sentences illustrating *palka* in this sense are translated as ‘The water from the recent rains lying there in the open country is visible [*palka*] in the distance’ and ‘He points out to someone else a kangaroo which is there in the distance which he can actually see [*ngulaka nyanyi palkalku*]’. It seems clear to us, however, this is not how *palka* is used in Warlpiri sentence defining the word *pawiyi* ‘shoulder’, which refers to a constant, not transient, part of the human body. Perhaps recognising this, the reviewer also proposes that “in combination with the verb *mardarni* ‘have, hold’, *palka* could be glossed as “actually” – ‘what we have (present)/what we actually have’ ”. We see no real evidence in support of this apparently ad hoc suggestion. (We would also object in principle to the assumption that a highly English-specific word, such as ‘actually’, is likely to be a suitable gloss for a Warlpiri meaning, cf. section 14).
- 6) Since so many of the vernacular definitions originate with PPJ, it is possible that other Warlpiri speakers may have alternative definitional strategies, or different preferences so far as the balance between the two *yangka* constructions described in sections 6 and 7 are concerned. Nevertheless, the scope and volume of PPJ’s contribution as the

founding father of indigenous Warlpiri lexicography surely militate against any impulse to dismiss his oeuvre as the product of only one man.

- 7) Non-compositional affinities also exist between primes which are in antonymic relationships. For example, no one can doubt that GOOD has a conceptual affinity with BAD, as does BIG with SMALL, yet none of these words can be decomposed. In particular, BAD cannot be equated with ‘not good’, or SMALL with ‘not big’. Such affinities can also be reflected in recurring polysemies; for example, in some languages, e.g. Cantonese, the exponent of BAD may look like a combination of ‘not’ and ‘good’ [not.good]. Evidence indicates, however, that in all such languages one can also convey the meaning ‘very bad’, different from ‘not very good’. Ultimately, semantic analysis must rely on *semantic* evidence (which includes evidence from combinability). If meaning and form point in different directions, it is the meaning that decides, not the form.

## APPENDIX 1

The provisional table below was informed by searches of the Warlpiri Dictionary, and by consulting sources such as Bittner & Hale (1995), Evans & Wilkins (2000), Hale (1974) and Laughren (1992). Verbs are given in present tense form. The authors are aware that Warlpiri is composed of a number of different dialects, and that some exponents in different dialects may vary. The provisional table may include some inconsistencies in this regard.

Provisional Table of Warlpiri Semantic Primes, with English equivalents.

<b>NGAJU, NYUNTU, NGANA, NYIYA, YAPA, PALKA</b> I, YOU, SOMEONE, SOMETHING~THING, PEOPLE, BODY	substantives
<b>NYIYAKARI-NYIYAKARI, YANGKA~YANGKA MARDARNI</b> KINDS, PART~HAVE PARTS	relational substantives
<b>NYAMPU, -MIRNIMIRNI, -KARI</b> THIS, THE SAME, OTHER~ELSE	determiners
<b>JINTA, JIRRAMA, NGALYAKARI, MUKU, PANU, NGUKARA-WANGU</b> ONE, TWO, SOME, ALL, MUCH~MANY, LITTLE~FEW	quantifiers
<b>NGURRJU, MAJU</b> GOOD, BAD	evaluators
<b>WIRI, WITA</b> BIG, SMALL	descriptors
<b>PINA, MIYALU WANGKAMI, NGAMPURRPA, NGAMPURRPA-WANGU, PURDA-NYANYI NYANU, NYANYI, PURDA-NYANYI</b> KNOW, THINK, WANT, DON'T WANT, FEEL, SEE, HEAR	mental predicates
<b>WANGKAMI, YIMI, JUNGA</b> SAY, WORDS, TRUE	speech
<b>JARRIMI, JARRIMI, YIRIRIMI</b> DO, HAPPEN, MOVE	actions, events, movement
<b>NYINAMI, NYINAMI, NYIYA</b> BE (SOMEWHERE), THERE IS, BE (SOMEONE/SOMETHING)	location, existence, specification
<b>NGAJUNYANGU</b> (IS) MINE	possession
<b>JIPI-PARDIMI, PALIMI</b> LIVE, DIE	life and death
<b>JAPAKU-(?), JALANGU, -WIYI, -LKU, TARNNGA, JALANGU-PARNTA, ??, MAJUNGURLU</b> TIME~WHEN, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT	time
<b>NGURRA(?), NYAMPU, KANKARLU, KANINJARNI, WURNTURU, WARRIRI, -NGINTI, NGAWIRA, WILILIKI</b> PLACE~WHERE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE, TOUCH	place
<b>KULA, MARDA, KALA-KA, YINGA~-JANGKA, KAJI-LPA</b> NOT, MAYBE, CAN, BECAUSE, IF	logical concepts
<b>-NYAYIRNI, YARDA</b> VERY, MORE	intensifier, augmentor
<b>-PIYA~YANGKA</b> LIKE~AS	similarity

- Exponents of primes may be words, bound morphemes, or phrasemes. For example, Warlpiri -PIYA (LIKE) is a suffix and English A SHORT TIME is a phraseme.
- Exponents of primes may be formally complex. For example, in Warlpiri PURDA-NYANYI (HEAR) and NYANYI (SEE) share some morphological elements, as do SOMEONE and SOMETHING in English.
- Two primes can share the same lexical exponent, with different syntactic properties, e.g. in Warlpiri, with NYAMPU (THIS) and NYAMPU (HERE), PURDA-NYANYI (HEAR) and PURDA-NYANYI NYANU (FEEL)
- A prime may have more than one exponent. For example, in English I and ME are two different variants (allomorphs) of the same prime, and so are OTHER and ELSE.
- Each prime has well-specified syntactic (combinatorial) properties.

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