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# Cross-Linguistic Semantics

*Edited by*  
Cliff Goddard

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## Cross-Linguistic Semantics

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### **Volume 102**

Cross-Linguistic Semantics  
Edited by Cliff Goddard

# Cross-Linguistic Semantics

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Cliff Goddard

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## CHAPTER 1

# **Natural Semantic Metalanguage: The state of the art**

Cliff Goddard

This chapter gives an overview of the Natural Semantic Metalanguage approach to semantic analysis, originated by Anna Wierzbicka. It enumerates the main theoretical and methodological arguments underpinning the approach, and reviews the 35 year program of conceptual analysis and cross-linguistic testing which has led to the current model of 63 semantic primes and their associated syntax. Identification issues concerning polysemy, allolexy, portmanteau exponents and apparent lexical gaps are discussed with reference to specific examples from a variety of languages. The chapter then turns to the methodology and practice of semantic description, discussing and illustrating how NSM techniques can be applied to different areas of the lexicon. The relatively new concepts of semantic molecules and semantic templates are discussed in some detail. The chapter concludes with a brief review of the contents of the volume.

### **1. The NSM system**

The Natural Semantic Metalanguage (NSM) is a compositional system of meaning representation based on empirically established universal semantic primes, i.e., simple indefinable meanings which appear to be present as identifiable word-meanings in all languages (Wierzbicka 1996; Goddard and Wierzbicka eds 2002). The words and grammar of the metalanguage can be thought of as a highly disciplined and standardised subset of natural language: a small subset of word-meanings (63 in number, see Appendix 1), together with a subset of their associated grammatical properties. Originating with Wierzbicka (1972), the system has been developed and refined over some 35 years.

The NSM approach remains controversial: many linguists have either a “love it” or “hate it” attitude towards it. Nonetheless, on objective criteria (longevity, range, publication outputs) it is indisputable that NSM is one of the most well developed, productive, and comprehensive systems of semantic analysis in contemporary linguistics. The approach has been experiencing a notable upswing over the past decade or so, beginning with the publication of the

collective volume *Semantic and Lexical Universals* (Goddard and Wierzbicka eds 1994). Since then there have been 12 books, including a textbook (Goddard 1998) and several collective volumes or special issues (Goddard ed. 1997, 2006; Harkins and Wierzbicka eds 2001; Enfield and Wierzbicka eds 2002; Durst ed. 2003; Peeters ed. 2006), and over 200 refereed journal publications. In addition to Anna Wierzbicka, Cliff Goddard, Jean Harkins, Bert Peeters, Felix Ameka and other “old hands”, there is a raft of new generation NSM researchers, such as (among others): Catherine Travis, Rie Hasada, Marie-Odile Junker, Uwe Durst, Kyung-Joo Yoon, Zhengdao Ye, Ian Langford, Jock Wong, Anna Gladkova, Yuko Asano, Adrian Tien, Helen Bromhead, Anna Brotherson and Sophie Nicholls. Some of these are represented in the present volume.

Within linguistics, increasing interest in and acceptance of the NSM approach has been aided by the tide slowly turning against the narrow English-based “syntactocentrism” (cf. Jackendoff 2001) which predominated for most of last century, in favour of semantic and typological studies.<sup>1</sup> At the same time, the NSM approach has increasingly attracted favourable attention in adjacent disciplines such as anthropology (D’Andrade 2001), cultural psychology (Shweder 2004), evolutionary psychology (Jones 1999), and semiotics (Eco 1999: 150–153).

A strong point of NSM work over three decades has been the consistency or stability of its notation, in particular, the use of reductive paraphrases. This stands in sharp contrast to the situation in linguistics at large (especially in syntax), where, as Croft (2001: i) has observed “a continuing kaleidoscope of notations [has] ... made even five-year old journal articles—and many reference grammars—difficult to decipher”. This is not to say, of course, that the program has been static over the years. On the contrary, it is possible to discern several periods in which research activity was focused on different goals. Briefly, the 1970s to mid-1980s can be termed the “early development” period of the semantic primitives approach. The key publications (Wierzbicka 1972, 1980a, 1980b) worked with a very austere set of 13 or 14 semantic primes. Even so, valuable analytical work was done on emotion terms, body parts, stage of life terms, speech acts, cases, and a number of other areas. Wierzbicka (1985) was an unprecedented investigation into the semantics of “concrete” vocabulary. The mid-1980 to late 1990s has been dubbed the “expanding set” phase. Over this period the inventory of semantic primes was expanded almost five-fold, and a new research emphasis on cross-translatability and lexical universals entered the program. From the mid-1990s onwards, the emphasis shifted to the grammar of the metalanguage and to “whole metalanguage” studies, embracing both lexicon and grammar. The publication of the two volume *Meaning and Universal Grammar* (Goddard and Wierzbicka eds 2002) marked a new highpoint of empirical detail and theoretical explicitness. More recently one can discern a trend towards increased systematisation and formalisation. Nonetheless, over this whole span of three and half decades work, the fundamental conviction behind the NSM program has remained the same.

This fundamental conviction is the conviction that ordinary natural languages are adequate to represent their own semantics via language-internal paraphrase; that is, belief in the “meta-semantic adequacy” of natural languages. This entails the view that every language has an irreducible semantic core with a language-like structure, with a mini-lexicon of indefinable expressions (semantic primes) and associated syntax.

Logicians and formal semanticists usually adopt the opposite assumption, essentially because they regard natural language as too unsystematic, vague and grammatically idiosyncratic to be relied upon as a precise and unambiguous mode of expression. In a classic essay, Tarski (1935) expressed the view that to pursue the semantics of colloquial language using “exact methods” would necessitate the “thankless task of a reform of this language ... to define its structure, to overcome the ambiguity of the terms which occur in it”; and in the end it may be doubted “whether the language of everyday life, after being ‘rationalised’ in this way, would still preserve its naturalness and whether it would not rather take on the characteristic features of the formalised languages” (p. 267). Now that the NSM metalanguage exists as a practical reality, we are in a position to reassess Tarski’s view. We can now see that the tiny vocabulary and narrow range of grammatical patterns in the NSM indeed compromise its “naturalness” in certain ways, but—crucially—not to the point that it cannot be understood via ordinary natural language. Equally, we can now see that in this disciplined, constrained and “rationalised” version of natural language, it is possible to formulate testable hypotheses about a multitude of domains in lexical, grammatical and illocutionary semantics.

To step away from natural language as the language of semantic representation, on the other hand, is not only unnecessary, it is ultimately futile. This is because even a technical or artificial semantic language of description (composed of features, logical symbols, and what-not) still has to be interpretable by the users of the representation. Even if these users are trained experts, such as professional semanticists, they necessarily rely on their native natural languages as they are learning to use their “expert system”, and they necessarily fall back on their native natural languages when they communicate between themselves about the intended meaning or interpretation of the technical analyses (as when logicians and formal semanticists routinely introduce and discuss the “intuitions” behind their formalisms in ordinary language paraphrases). On this basis Keith Allan (1986: 268) has argued that any artificial semantic formalism is really “a degenerate form of a natural language”, because in order to read and interpret an artificial metalanguage what one effectively does is to mentally translate it back into one’s native language. A standardised and regularised version of a natural language is preferable to an artificial creation which is in a covertly parasitic relationship with ordinary language.<sup>2</sup>

There are also methodological reasons for preferring a metalanguage of semantic description based as transparently as possible on natural language.

As pointed out by Ruth Kempson (1977), among others, to test and revise hypotheses about meanings depends on our being able to generate predictions about ordinary language use on the basis of the semantic description. The more transparent the relationship between the two, the clearer and more testable the descriptions become. Conversely, as the relationship between the semantic description and the “real” language being described becomes more and more tenuous, the prospect of any real empirical testing evaporates. For example, take the perennial analysis of *x kills y* as [CAUSE *x* (DIE *y*)]. One obvious empirical objection to this analysis is that the range of use of *X caused Y to die* does not match that of *X killed Y*, because the version with *kill* demands a more “direct” connection between the agent’s action and the fatal outcome. The proper reaction to such evidence is to revise the analysis, but all too frequently the response has been to claim that the semantic component CAUSE is not identical in meaning to the English verb *cause* (e.g., McCawley 1972). Allowing a disconnect between the language of description and the language being described makes the analysis immune from empirical disconfirmation.

A third reason for rejecting technical terms in the metalanguage relates to the goal of achieving a description which is conceptually realistic, in the sense of capturing the indigenous or “native” conceptualisation. A description framed in indigenous categories can have a *prima facie* case for conceptual reality, because it is framed in terms which are used by speakers themselves on a daily basis, which are recognisable to them, and which are directly accessible to their intuitions. In contrast, a description framed in “exotic” terms, unrecognisable to the people concerned, at the very least requires some kind of special pleading before it can be accepted as modelling the conceptualisation of these people. Yet such special pleading is seldom provided by advocates of exotic, technical analyses. Note that I am not saying that abstract technical analyses are necessarily wrong or that they have no place in semantics—only that they require special justification. Other things being equal, a simpler representation framed in natural language is always preferable to a technical one.

The principle that semantic hypotheses about indigenous ways of thinking ought to be framed in indigenous terms (Wierzbicka’s (1992: 331) “principle of indigenisation”) disqualifies the analyst from using even ordinary language words if these words have no equivalents in the language being described. For example, it would violate the principle of indigenisation to describe the causatives of Yankunytjatjara using a putative semantic component CAUSE, because, like most languages of the world, Yankunytjatjara has no verb corresponding to *cause* (though it has an equivalent to the semantic prime BECAUSE Goddard (1991)). Violating the principle of indigenisation can legitimately be described as “terminological ethnocentrism”, because like ethnocentrism in general it involves imposing alien cultural categories upon people of other languages and cultures, with an inevitably distorting effect.

On the basis of the discussion to this point, we can draw the following conclusion for cross-linguistic semantics: an optimal semantic metalanguage must be based as transparently as possible on ordinary natural languages, and it must consist only of elements whose meanings are present in all natural languages, i.e., of universally lexicalised meanings. In short, it ought to be based on “the intersection of all languages”.

1.1 Identifying semantic primes within and across languages

As mentioned, semantic primes are, by definition, those meanings in any language which cannot be paraphrased in simpler terms; but the linguistic status of the exponents of semantic primes is sometimes misunderstood. It is critical to recognise that exponents of primes are not lexemes in a given language, but rather “lexical units” (Cruse 1986; Mel’čuk 1989), i.e., pairings of a single specifiable sense with a lexical form. Matching semantic primes across languages means aligning lexical units (across languages) which share a given primitive meaning. When exponents of a given prime have different polysemic extensions (as they frequently do), there is a match-up between lexical units, but not between whole lexemes.

Just as a single lexical form sometimes serves to express two or more meanings (polysemy or homonymy), so a single meaning is sometimes expressed by two or more forms. Applied to semantic primes, this means that we can expect that a single prime will sometimes have two or more allolexes, i.e., alternative lexical realisations.

2. Polysemy and allolexy of semantic primes

After some fifteen years of research into how semantic primes manifest themselves across languages, NSM researchers have accumulated a lot of data about common patterns of polysemy. Some widely attested patterns are summarised in Table 1. Language-specific evidence is always required to support claims for semantic primes which depend on a polysemy analysis.

**Table 1.** Some common polysemies involving exponents of semantic primes (data from studies in Goddard and Wierzbicka eds 1994, 2002, and this volume Ch 2)

SAY	‘speak’, ‘make sounds’	Thai, Mandarin, Yankunyjtajara, Kalam
	‘do’	Bunuba, Kalam
THINK	‘worry’, ‘long for’, ‘intend’	Amharic, Mandarin, Swedish
WANT	‘like’, ‘love’, ‘seek’	Spanish, Ewe, Ulwa
HAPPEN	‘arrive’, ‘appear’	French, Ewe, Mangaaba-Mbula
DO	‘make’	Malay, Arrernte, Samoan, Kalam
BEFORE	‘first’, ‘go ahead’, ‘front’	Lao, Samoan, Kayardild, Ewe
FEEL	‘taste’, ‘smell’, ‘hold an opinion’	Acehnese, Ewe, French, Mandarin
BECAUSE	‘from’	Yankunyjtajara, Arrernte

The converse of polysemy is allolexy, i.e., a situation in which there are multiple lexical realisations of a single prime. Consider, for example, the alternation between indefinite substantives (*something*, *someone*, *somewhere*, *sometime*), generic (or “light”) nouns (*person*, *thing*, *place*, *time*),<sup>3</sup> and interrogative pronouns (*what*, *who*, *where*, *when*) used as embedded complements of KNOW. In normal idiomatic English, indefinites are used when they are not combined with a modifier (except for postnominal *else*: see below); generic nouns are used with modifiers; and the interrogative pronouns are used as embedded complements:

- (1) a. something happened.  
b. the same thing happened again.  
c. I don't know what happened.
- (2) a. she said something about him.  
b. she said two things about him.  
c. I don't know what she said about him.

Intuitively, the meaning expressed by the items *something*, *thing*, and *what* is the same across the examples in (1) and (2) above, and it seems impossible to state any difference between the three sets of expression classes in the form of a substitutable paraphrase. Furthermore, there is a systematic pattern of mutual entailments between the three expression sets. On this basis, we can regard SOMETHING, WHAT, and THING as allolexes. Likewise, semantic prime OTHER has a postnominal allolex ELSE, which can be used as the sole modifier of an indefinite or interrogative/ignorative; for example, *something/what else*, *someone/who else*, *somewhere/where else*, *sometime/when else*.

Like all patterns of allolexic variation, these patterns are language-specific. They are part of the English-specific realisation of the natural semantic metalanguage, but they are not essential or integral to the natural semantic metalanguage as such. It is possible to violate these particular “allolexical rules” of English without losing intelligibility, and with only partial loss of acceptability: expressions such as *this someone*, *the same someone*, *one other someone*, and the like, are quite intelligible and are even attested, albeit rarely, in corpora of English usage. In the interests of consistency and simplicity, there is a case to be made for using them in semantic explications. Other allolexical rules are stricter, in the sense that violating them results in outright ungrammaticality or unintelligibility. For example, the English realisation of the first-person pronoun exhibits “case allolexy”; i.e., there are two allolexical forms *I* and *me*, with *I* appearing preverbally and *me* elsewhere (Goddard and Wierzbicka 2002). Swapping these forms creates a bizarre effect which would be hardly tolerable in explications. In heavily inflectional languages, such as the Slavic

languages, case allomorphy is extensive, and usually near obligatory. In isolating languages, on the other hand, it can be completely non-existent.

In some languages, certain combinations of semantic primes are normally expressed via portmanteau forms; for example, Cantonese has a portmanteau *móuh* of NOT and THERE IS, Polish has the portmanteau *dawno* (*temu*) of A LONG TIME and BEFORE. Occasionally the portmanteau may be identical with the exponent of one of the primes involved (Roberts 2005); for example, in Russian the combination ‘two someones’ is expressed by the word for TWO, e.g., *ëtix dvoe* [these two] ‘these two (someones)’.

Allomorphy often seems to serve a “structure-indexing” function. That is to say, the formal patterns of variation show—in an iconic-indexical fashion—something about the combinatorial context in which the element occurs (cf. Goddard 2002). Nevertheless, there is no paraphrasable meaning difference; nor can language-specific allomorphic effects be preserved under translation.

The twin and complementary phenomena of polysemy and allomorphy have troubled some observers, either because (with Tarski, and Leibniz for that matter) they crave for an ideal “one form, one meaning” metalanguage, or because they are suspicious that polysemy and allomorphy allow NSM researchers too much room to wriggle out of difficult situations. Be that as it may, there is no denying the reality of these phenomena.

As far as we know, there is no human language in which exponents of semantic primes are unaffected by polysemy and allomorphy, i.e., in no human language is there a transparent one-to-one mapping between universal primitive meanings and surface lexical forms. Rather than regretting or fretting about this, I suggest that we try to think about the situation a little differently, and in particular I would like to suggest an analogy with the human body. The human body is clothed and decorated differently in different cultures and societies around the world. To the naked eye, people’s physical forms look different in different parts of the world—so much so that we can often guess where someone comes from by how they look. But beneath the clothing, headgear, jewellery, tattoos, scarification, and other superficial alternations, the essential human body is the same all around the world, and nobody is much troubled by this.

It is interesting and important to study and to understand different forms of clothing and body decoration, which are frequently linked with history and with culture, and the same goes for the study of language-specific patterns of polysemy and allomorphy. They constitute an essential part of the “individuality” of each human language, and are worthy of study in their own right. But at the same time, it would be absurd to put aside the study of human physiology and anatomy on account of surface variations, and, indeed, to deny the universality of the human body would be to deny the physiological and anatomical unity of humankind. To deny *a priori* the shared common conceptual core of languages is to deny the “psychic unity” of humankind.



## 2.1 “Missing” exponents

The hypothesis that “every semantically primitive meaning can be expressed through a distinct word, morpheme or fixed phrase in every language” has been termed the Strong Lexicalisation Hypothesis (Goddard 1994: 13). After more than a decade’s subsequent work, NSM researchers continue to affirm and defend this hypothesis. Yet how often does one hear NSM theory dismissed with the casual assertion that “there’s no word for semantic prime X in such-and-such language”? Such assertions can have quite an impact when they come from apparently authoritative sources, such as fieldworkers, and when they concern languages and cultures from distant places. It is always easier to believe that culturally distant peoples have “fundamentally” different ways of thinking (and the word “fundamentally” always seems to turn up in these contexts) than to believe the same about one’s friends and neighbours (cf. Keesing 1994). But when examined closely, these claims have not (so far) stood up. Let us run quickly through some examples.

### *No exponent of TIME in Hopi?*

The classic example is Benjamin Lee Whorf’s (1956) claim that Hopi is a “timeless language”. Yet as shown in Malotki’s (1983) monumental study, the Hopi language has an interrogative/indefinite word for WHEN (namely, *hisat*), and expressions such as ‘at this time’ and ‘at the same time’ are readily expressible in Hopi via an allolex *-sat/saq* TIME (cf. Goddard 2003b for more details). The following examples are taken from Malotki (1983: 305, 146, 144):

- (3) *Pam hisat nima?*  
that when go.home  
‘When did he go home?’
- (4) *Taavok yàa-sat=haqam ay nu’ tsöng-moki.*  
yesterday this-time=APPROX ASSR I hunger-die  
‘Yesterday at about this time I got really hungry.’
- (5) *Pam sú-’inüu-saq nakwsu.*  
that the.same-me-time start.out  
‘He started out at the same time as me.’

### *No exponent of FEEL in Nepali?*

In his idiosyncratic “review” of *Meaning and Universal Grammar*, van Driem (2004) preferred not to comment on the detailed studies documenting exponents of semantic primes in Lao, Chinese, Malay, Polish, Mbula and Spanish.

He chose instead to bring forward language data of his own, which readers would presumably find hard to challenge.

Yet what does NSM make of the ubiquitous inconveniences of life such as the fact that Nepali has no word or expression that means the same thing as English *feel*? ... The mental sense of the English-inspired prime FEEL finds functional translational equivalents in Nepali through impersonal constructions with the verb *laagnu* ‘impinge upon, begin to, appear to be, make itself felt’. Yet this does not change the fact that there is no Nepali equivalent for English *feel* and no English meaning equivalent to *laagnu*. (van Driem 2004: 163–164)

The final sentence of this quotation makes it clear that van Driem does not acknowledge any difference between lexemes and lexical units. In reality, the Nepali verb he mentions—*laagnu*—is a perfectly good exponent of semantic prime FEEL when it is used in an impersonal construction, i.e., with an accusative subject and without subject verb-agreement, as in the examples below.

- (6) *Ma-laai khushi/dukha/bhog laago.*  
 1SG-ACC happiness/sadness/hunger feel.PAST.3SG  
 ‘I feel happy/sad/hungry.’

To be sure, *laagnu* is a polysemous verb, and in other grammatical constructions, it can convey different meanings, but the meaning it expresses in the impersonal construction appears to match semantic prime FEEL perfectly.

#### *No exponent of ALL in Pirahã?*

Everett (2005) insists that Pirahã, spoken in the Brazilian rainforests, lacks any expressions equivalent to quantifier primes such as ALL, ONE, TWO, MUCH/MANY, and SOME. An overriding cultural principle is supposedly responsible: “Pirahã culture avoids talking about knowledge that ranges beyond personal, usually immediate experience, or is transmitted via such experience. ... Abstract entities are not bound by immediate personal experience and therefore Pirahã people do not discuss them” (pp. 622–623).<sup>4</sup> We will only look into the claim that “there is no word for ‘all’ in Pirahã”. The “closest expressions Pirahã can muster”, according to Everett, are examples such as the following (his examples (10) and (12)), where the word *’ogi* ‘big’ (or a nominalised version *’ogiáagaó* ‘bigness’) appear to convey something similar to ALL.

- (7) *Hiaitíhi hi ’ogi-’áaga-ó*  
 pirahã.people he big-be(permanence)-direction  
*pi-ókaobíi.*  
 water-direction entered  
 ‘All the people went to swim/went swimming/are swimming/  
 bathing, etc.’

- (8) 'igihí hi 'ogiáagaó 'oga hápií ...  
 man he bigness field went  
 'The men all went to the field.'

Crucial to Everett's analysis is a refusal to recognise polysemy. According to him, because the word 'ogi means 'big' in some contexts, it means 'big' in all contexts. Though an NP like *hiáitíhi hi 'ogi* [lit. people 3p big] appears to express the same meaning as English 'all the people', for Everett its true meaning is something like "people's bigness"; and though an NP like first-person pronoun *ti* followed by 'ogi appears to express the same meaning as English 'we', again this is a distortion of the true Pirahã meaning, which Everett glosses as "my bigness".<sup>5</sup> To take the edge off these bizarre-sounding glosses, Everett asserts that: "much of Pirahã is largely incommensurate with English and therefore translation is simply a poor approximation of Pirahã intentions and meaning" (p. 624, Note 5).

When challenged by Wierzbicka (2005: 641) on the issue of polysemy, and with the counter-claim that the Pirahã expression *hi 'ogi* means ALL, Everett (2005) declined to say anything on the subject.<sup>6</sup> In my view, there are clear indications in Everett's materials that 'ogi is a polysemous item, and that it ought to be possible to contrast the meanings expressed by phrases such as 'igihí 'ogi 'big men' and 'igihí hi 'ogi 'all (the) men'.<sup>7</sup>

#### *No exponent of BODY in Tidore, Kuuk Thaayorre and Tiriyo?*

In the Introduction to a recent collection of cross-linguistic studies of body-parts, Enfield, Majid and van Staden (2006: 145) assert that "Several languages do not have a general term meaning 'body'". Upon examining the papers on which such a claim could be based, however, the editors' definitive pronouncement hardly seems justified (cf. Wierzbicka 2007a). In one of the languages, the Indonesian language Tidore, the author (van Staden 2006: 332) states clearly that there is a word for BODY (namely, *badan*), albeit that this word is a loan word from Malay.<sup>8</sup>

As for Kuuk Thaayorre, when Gaby (2006: 206) reports that the word *pam-minj*, literally 'true man', "may be used to refer to the specifically physical presence of a human (including that purely physical human entity, the corpse)", she seems to provide evidence that *pam-minj* indeed has 'body' as one of its meanings.<sup>9</sup>

In the same volume, Meira (2006: 277) claims that the Amazonian language Tiriyo "has no word for 'body'", because although the word *punu* is the main word in the hierarchy (i.e., the apparent superordinate term for individual body-part words), it also means 'flesh, meat', and in Meira's opinion "there seem to always be 'fleshy' overtones ... [it] seems to be a case of semantic generality". But a fieldworker's impressions are no substitute for a thorough semantic investigation; for example, checking whether contrastive readings are possible, whether

any derivational processes select one putative meaning over another, whether any morphosyntactic properties attach to one meaning or the other, whether they have different antonyms (e.g., ‘body’ – ‘spirit’, ‘flesh’ – ‘bones’), whether expressions such as the following could be expressed in Tiriyó: ‘the body of a man is not like the body of a woman’, and so on. The author did none such (or at least, he reported nothing of the sort). Also relevant would be whether hard body-parts such as bones and teeth are regarded as “parts of the *punu*”; if so, one could hardly maintain the notion that *punu* has “fleshy overtones”.

### *Final comments on identification issues*

For other discussions about apparent “missing” semantic primes in various languages, see Bohnemeyer (1998, 2003) and Goddard (2001) on BEFORE and AFTER in Yucatec Maya, van Brakel (2002: 151) and Wierzbicka (2007b) on SEE, Shi-xu (2000) and Chappell (2002: 270–271) on FEEL in Chinese, and Myhill (1996) and Durst (1999) on BAD in Biblical Hebrew. The chapters in this volume by Marie-Odile Junker on East Cree, Mengistu Amberber on Amharic, Kyung-Joo Yoon on Korean, and Emily Knight on Bunuba are also notable contributions to the literature on cross-linguistic manifestations of primes.

The robustness of the NSM primes is dramatised when they are compared with various non-prime meanings which have been proposed as universals of human experience or cognition. As demonstrated in Goddard (2001), most non-prime terms—including impressionistically “basic” items of English vocabulary such as ‘go’, ‘eat’, ‘sit’, ‘hit’, ‘hot’, ‘tree’, and ‘rock’—collapse on even a small sample of languages. On the current evidence, however, semantic primes do appear to “show themselves” in all human languages.

This is not to say that the issue has been settled beyond doubt. Though in my estimation, no convincing counter-evidence against the Strong Lexicalisation Hypothesis has yet been forthcoming, each proposed counter-example deserves to be examined and considered on a case-by-case basis. It is not theoretically inconceivable that some languages could have one or more “lexical gaps” in their inventory of semantic primes. Junker (this volume Ch 6) reports an apparent lexical gap for the prime PART in East Cree. In my view, Junker’s treatment, careful though it is, still leaves some open questions,<sup>10</sup> but it is worth pondering what the consequences would be if such a result were to be established beyond doubt. It would bring into question the “meta-semantic adequacy” of the language concerned, i.e., whether the language provides the resources for explicating its own meanings in language-internal terms. The expressive power of the language would be redeemed, of course, if it could be shown to possess one or more language-specific semantic primes which covered the same territory as the missing primes; but this in turn would raise issues of cross-linguistic incommensurability. We cannot pursue these matters further here, but it will be clear that the theoretical stakes are high.

### 3. The universal grammar of semantic primes

Universal semantic primes have an inherent grammar—a “conceptual grammar”—which is the same in all languages; that is, each semantic prime has certain combinatorial properties (Goddard and Wierzbicka 2002: 41–85) by virtue of the particular concept it represents. The formal realisations (marking patterns, word order, constituent structure, etc.) may differ from language to language without these underlying combinatorial properties being disturbed. Because their inherent syntactic properties are manifested in all languages, semantic primes bring with them a substantial slab of universal syntax: the syntactic properties of semantic primes are literally universals of syntax. Although groups of primes do share particular properties and can be regarded as falling into natural classes (Goddard this volume Ch 3), it is equally true that virtually every prime has some idiosyncratic properties, giving each prime a distinctive syntactic signature.

The syntactic properties of semantic primes include the following: (i) basic combinatorics, e.g., the fact that substantives and relational substantives can combine with specifiers—THIS THING, THE SAME SOMEONE, SOMEWHERE ELSE, ONE PART, MANY KINDS; (ii) basic and extended valencies, e.g., the fact that the prime DO can occur not only in its basic SOMEONE DID SOMETHING frame, but also in extended frames such as SOMEONE DID SOMETHING TO SOMETHING (or TO SOMEONE), SOMEONE DID SOMETHING TO SOMETHING WITH SOMETHING; (iii) propositional complement possibilities of primes like KNOW, THINK, and WANT, e.g., the fact that KNOW and WANT can occur in frames like I KNOW THAT SOMETHING HAPPENED or I WANT SOMETHING TO HAPPEN NOW.

The cross-linguistic viability of the current model of NSM grammar has been checked in considerable depth and detail across a range of typologically divergent languages, and this process is continued in the present volume. At the same time, however, it is important to stress that this model is not presented as a “just so” story, complete in itself and immune to empirical disconfirmation. For example, Goddard and Karlsson (this volume Ch 8, 2004; cf. Goddard 2003a) argue on the basis of facts from Swedish and other Scandinavian languages, that earlier NSM proposals about the complementation syntax of THINK need to be constrained.

In the following subsections I will run quickly through some of the main aspects of the NSM grammar. Fuller treatment is given in Goddard and Wierzbicka (eds 2002); and in Chapter 3 of this volume. In the interests of brevity, I will employ some minimal “common coin” grammatical terminology, such as predicate, argument, complement, and adjunct. For an account of how these terms can be characterised within NSM itself, using an exemplars and lexical prototypes approach, see Goddard and Wierzbicka (2002); for cautionary remarks, see Lehrman (2006).

### 3.1 Predicates, complements and valency options

We can think of a simple NSM clause as consisting of a predicate, such as HAPPEN, DO, SAY, THINK, or WANT, together with one or more substantive phrases whose nature is constrained by the identity of the predicate. By substantive phrases is meant either a simple substantive, such as SOMETHING, SOMEONE, SOMEWHERE, or a more elaborated phrase based on a substantive (see next section). In addition, the simple NSM clause may contain adjunct phrases of time or place.

The substantive phrases occurring with particular predicates can be regarded either as arguments or as complements, depending on whether or not they can be referring expressions (detectable in formal terms by whether they can be specified by the determiner THIS). In the following arrays for HAPPEN and DO, the predicates appear in small caps, the argument substantives are underlined, and the complement substantives are unmarked. In addition to their minimal frame, predicates typically also allow extended frames in which additional arguments identify or fill out the aspects of the situation implied by the nature of the predicate. These optional extras are termed “valency options”. For example, the predicate HAPPEN allows us to speak not only of ‘something happening’, but also of ‘something happening to someone’ or ‘something happening to something’. Borrowing from the usual set of semantic role labels, this additional argument can be labelled an “undergoer” valency option.

- (9) a. something HAPPENS  
 b. something HAPPENS to someone/something [undergoer]

Likewise, with predicate DO it is possible to add an additional argument and speak of ‘doing something to someone’ or ‘doing something to something’, and the additional argument in this case is conveniently referred to as a “patient” valency option.<sup>11</sup> This frame can be further extended to speak of ‘doing something to something with something’, and the additional argument can be labelled as “instrument”. Another option for DO is the “comitative” option, as when we speak of ‘doing something with someone’.

- (10) a. someone DOES something  
 b. someone DOES something to someone/something [patient]  
 c. someone DOES something to someone/something  
     with something [instrument]  
 d. someone DOES something with someone [comitative]

So far there will have been few surprises in terms of content, as many linguists accept some notions of “undergoer”, “patient” and “instrument”. Typically, however, they are thought of as independent entities of some kind (semantic

roles, thematic roles), rather than as argument slots of basic semantic predicates such as HAPPEN and DO. From an NSM point of view, the idea of an instrument, for example, exists only insofar as one can think about DOING something: it is a conceptual possibility that is “opened up” by the nature of DOING itself, and which is implicitly tied to the concept of DOING. (One linguist who has explicitly identified semantic roles as the argument slots of basic semantic predicates is Ray Jackendoff (1990: 127). Compared with his position, the distinctive aspect of the NSM proposal is the claim that the basic predicates are universally lexicalised meanings like semantic prime DO, rather than abstract conceptual functions, such as Jackendoff’s predicate AFF “affect”).

Every NSM predicate has a set of valency options, ranging from the very simple (as with DIE—one option only: ‘someone dies’) to the highly elaborate, as with SAY. In some cases, NSM researchers propose valency options which are seldom recognised in mainstream grammars and which may have no standard labels. For example, it is claimed that semantic prime THINK universally allows a “cognitive topic” valency option, such that one can say, in all languages, the semantic equivalent of a sentence like ‘I was thinking about this someone (person) (this thing, this place, etc.)’. The full valency array for THINK is shown below. Notice that the third and fourth frames show sentential complement options: ways in which an expression analogous to a full sentence can be embedded inside the scope of THINK. Cross-linguistic studies have shown that in many languages the propositional frame is rather restricted in its distribution and range of application, compared with the “quasi-quotational” frame; see Chapter 8 for more detail.

- (11) a. someone THINKS about someone/something [topic of cognition]  
 b. someone THINKS something (good/bad) about  
     someone/something [topic + complement]  
 c. someone THINKS like this: “ – – ” [quasi-quotational thought]  
 d. (at this time) someone THINKS that [ — ]<sub>s</sub> [propositional complement]

Perhaps the most complex array of syntactic frames is possessed by semantic prime SAY. In addition to its minimal frame with a complement, these include an addressee option, a topic option, and an option for specifying the “verbal means”. There is also a direct speech frame. Other frames for SAY are discussed in Chapter 3.

- (12) a. someone SAYS something  
 b. someone SAYS something to someone [addressee]  
 c. someone SAYS something about something [locutionary topic]  
 d. someone SAYS something in some (other) words [verbal means]  
 e. someone SAYS: “ – – ” [direct speech]

More details about the syntax of predicate primes can be found in Chapter 3. It can be mentioned here, though, that all predicates can combine with the “meta-predicates” or “predicate operators” NOT and CAN.<sup>12</sup>

### 3.2 Substantives and substantive phrases

The substantive primes include the categorical elements SOMEONE/WHO, SOMETHING/WHAT, PLACE/WHERE, and TIME/WHEN, along with more specific items such as PEOPLE, BODY, and WORDS, the relational substantives PART and KIND, and the deictics I and YOU. Except for the deictics, which are syntactically inert, the substantives can combine with a variety of other elements to form what can be termed “substantive phrases”. Generally speaking, substantive phrases can occur in any position in which a simple substantive would make sense.

The elements which combine directly with substantives include: (a) determiners, e.g., ‘this someone (person)’, ‘the same thing’, ‘somewhere else’, (b) quantifiers, e.g., ‘two things’, ‘many people’, (c) evaluators, e.g., ‘something good’, ‘something bad’, and (d) descriptors, e.g., ‘something small’. They can also be modified by *like*-phrases, e.g., ‘people like this’, ‘someone like me’.

There is much more to the grammar of substantive phrases than can be covered in this brief sketch. For example, the relational substantives KIND and PART each can head phrases *sui generis*, which can be termed “classifier phrases” and “part-hood phrases”, respectively, such as ‘one thing of this kind’ and ‘one part of this thing’. Some of the quantifier primes—ONE, TWO, and SOME—have a partitive or “subset” valency option, such that one can say, in all languages, equivalents of phrases such as: ‘one of these people/things’, ‘two of these people/things’, ‘some of these people/things’.

### 3.3 Complex sentences

There are several ways in which multiple clauses can be included within single sentences in the NSM grammar. Most obviously, there is an inherently bi-clausal construction connected with the semantic prime IF, exemplified in sentences such as: ‘If you do this, people can think something bad about you’.

As mentioned, semantic primes KNOW and THINK both have the capacity to take propositional complements (in English-based terminology, *that*-complements). For example, ‘I know that something bad happened to this someone (person)’. The semantic prime WANT is also complement-taking, but it has special characteristics that set it apart from the other complement-taking predicates (Harkins 1995). Although WANT can also take something akin to a full sentential complement (in constructions such as ‘I want you to do something’ and ‘I don’t want this to happen’), there is a special construction type for when the subject of a person’s ‘want’ is the wanter him or herself, as in ‘I want to do something’, ‘I want to know something’, and so on. In the traditional generative



terminology the construction was termed an “EQUI-clause”; in a more recent terminology it is a “control” structure involving “little PRO”. Behind both terms is the idea that the apparently missing subject of the complement clause is actually present in some sense (either in deep structure, or in a form with a null phonological realisation). The NSM view, on the other hand, is that “what you see is what you get”, i.e., that what might seem by analogy with a different construction to be incomplete is actually a complete but compact structure.

There are several other complex sentence structures found in the natural semantic metalanguage. There are “quasi-relative clauses” headed by PLACE or TIME; for example, ‘I am far from the place where I live’. There are adverbial clauses of time and reason, e.g., ‘when something like this happens, ...’, ‘it happened like this because someone wanted it’. There are “analogy clauses” with LIKE as a linking element, e.g., ‘I want to do something bad to this someone (person), like this someone (person) did something bad to me’.

### 3.4 Formal variations between NSMs

Obviously the natural semantic metalanguage manifests itself differently in different individual languages. We have already seen examples of language-specific variation at the lexical level—different patterns of polysemy, allomorphy and the possibility of portmanteau realisations of combinations of primes. Similar formal variations are to be found in the language-specific realisation of the grammar of the natural semantic metalanguage, in particular in morphology and morphosyntax. Some differences in marking are clearly superficial. For example, in English the subset valency of the quantifier primes involves a prepositional phrase introduced by *of* (e.g., *two of them*), whereas in Malay the comparable preposition is *daripada* ‘from’ (e.g., *dua orang daripada mereka* [two people from them]). Likewise, it is no surprise that the addressee valency option of SAY can be marked by an allative marker in one language (e.g., English *to*), a locative marker in another (e.g., Yankunytjatjara *-ngka/-la*), a dative marker in yet another, and so on. In such cases, the relevant expressions can be matched up both formally and, more importantly, semantically: there is no specifiable semantic difference between them.

Perhaps more challenging is the finding that there can be constituent structure differences between semantically identical expressions. For example, the subset valency of quantifiers in Lao involves a “fronted” noun-phrase denoting the larger set: *Khon<sup>2</sup> nui<sup>4</sup>, sòdng<sup>3</sup> khon<sup>2</sup>* [people this, two people] ‘two of these people’ (Enfield 2002). Or to take another example, in Spanish an “equi” complement of WANT appears in an infinitival clause, e.g., *Quiero ir* [I-WANT go:INF] ‘I want to go’, whereas a full clausal complement of WANT is introduced by complementiser *que* and takes a subjunctive verb, e.g., *Quiero que tu vayas* [I-WANT that you go:SUBJ] (Travis 2003). Despite the formal differences, however, it is not possible to state any paraphrasable difference between the meanings expressed

by the relevant constructions, and one can always transpose a sentence in a Lao-based NSM, for example, into an English-based NSM, or into a Spanish-based NSM, and so on. In this sense, the various language-specific versions of the natural semantic metalanguage are isomorphic. Anything that can be said in one NSM, can be said in any NSM.

To say this is not to minimise the importance or interest of the language-specific formal features of those individual languages. On the contrary, as we identify the language-specific aspects of how the natural semantic metalanguage is realised in a particular local language, we are identifying the essential morphosyntax of that local language; and this can be an important part of an overall grammatical description of that language. But from the point of view of cross-linguistic semantics, the crucial thing is that natural semantic metalanguages are expressively equivalent and isomorphic.

### 3.5 Using the full NSM in explications

In a short sketch like this, it is hard to give an impression of how the different aspects of the semantic metalanguage work together to allow complex semantic explications to be composed inside the small vocabulary of semantic primes. Perhaps the best way to approach it is by way of one or two examples. The explication in [A] below has been advanced to capture the meaning of the English verb *to miss* (*someone*) (Goddard and Wierzbicka in press b).

[A] *Someone X misses someone else Y:*

- a. when this someone X thinks about someone else Y, this someone feels something bad like people feel when they think like this about someone:
- b. "I was with this someone before,  
when I was with this someone, I felt some good things  
I know that I can't be with this someone now"

Let us track through this explication, one line at a time. Section (a) begins with a when-clause involving THINK ('when this someone X thinks about this someone'), followed by a main clause based on FEEL. Many explications for emotion concepts begin in this fashion. Then comes an analogy clause introduced by LIKE: it echoes the structure of the first line, introducing a prototypical element: a reference to how 'people feel when they think like this about someone'. The occurrence of THINK in its quasi-quotational frame allows the presentation of a set of "subjective" components in first-person format, labelled as section (b) of the explication. First comes 'I was with this someone before', which utilises locational BE with its comitative option ('being with someone'). Then comes a when-clause and a main clause with FEEL; but in this case, the complement of FEEL appears as 'some good things' (the contrast between feeling 'something good' and feeling 'some good things' is subtle but available in

the NSM). Finally, a clause with KNOW and a propositional complement: ‘I know that I can’t be with this someone now’.

For a second example, we will take not a semantic explication, but a cultural script written in the natural semantic metalanguage. Cultural scripts are the main mode of representation in the theory of ethnopragsmatics, which is the pragmatic sister theory of the NSM approach to semantics (Wierzbicka 2003 [1991]; Goddard and Wierzbicka eds 2004; Goddard ed. 2006). Essentially, cultural scripts represent hypotheses about shared understandings of widely held social attitudes pertaining to ways of speaking, and the like. The script presented in [B] below is intended to capture a characteristically Anglo speech strategy, whereby one may go about getting someone to do something by way of making a “suggestion” to them; that is, by putting to the other person that they may want to think about doing something, and may then decide for themselves that they want to do it (Wierzbicka 2006a). This is one Anglo strategy among many which allows one to avoid seeming to “impose” one’s will on someone else. For present purposes, we are not so much interested in the content or validity of this script, as in the way it utilises different aspects of the natural semantic metalanguage.

[B] *An Anglo cultural script for a “suggestive” approach to influencing others*

- a. people think like this:
- b. when I want someone to do something,  
it can be good if I say something like this to this someone:
- c. “maybe you will want to think about it  
maybe if you think about it, you will want to do it”

To begin with, the explication as a whole is introduced by a quasi-quotational complement of THINK: ‘people think like this’. The when-clause in component (b) presents WANT with a complement clause (‘when I want someone to do something’), followed by GOOD as a main predicate, in combination with CAN (‘it can be good ...’). The presence of the CAN nuances the proposition, presenting it as an option or possibility (in contrast to the simpler ‘it is good ...’). Used as a main predicate in this way, semantic prime GOOD can take a clausal complement (Goddard and Wierzbicka 2002: 65–66), introduced (in English) by ‘if’: ‘it can be good if I say something like this to this someone’. The complement clause has SAY as its main predicate, with its addressee valency option. The complement of SAY appears as SOMETHING LIKE THIS, thereby opening the way for a set of first-person “message” components, presented in (c). Both these messages begin with the prime MAYBE. They offer the addressee the idea of thinking about something, with a conditional if-sentence as part of that possibility: ‘maybe if you think about it, you will want to do it’.

Working through explications and scripts like those in [A] and [B] for the first time, newcomers to NSM often remark: “so it’s not as simple as it seems”.

And indeed it isn't. Despite its small lexicon, the natural semantic meta-language has a surprisingly rich "texture", especially in comparison with the austere function-argument structure of predicate calculus and other logical systems. As mentioned, virtually every semantic prime has its own "mini-grammar"—its own conceptual grammar—and the possibilities for mixing and matching the allowable combinations enable a great deal of textual complexity in explications. Is this a good thing or a bad thing? In my view, this is not really an appropriate question to ask about an empirical finding. It appears to be an empirical fact that the structure of human concepts has this kind of intricate structure. Does it not make the NSM harder to learn and to use than one would expect? Perhaps so. But again, this appears to be a fact of life.

Moreover, the structure of many words and concepts in the "concrete" lexicon is rendered yet more complex by the fact that their explications involve not only semantic primes, but also semantic molecules.

#### 4. Semantic molecules

Despite the central theoretical role of semantic primes in the NSM theory, not all meanings can be resolved simply or directly into semantic primes. Words from the concrete lexicon, in particular, cannot normally be decomposed directly into primes. For example, plausible explications for words like *cat*, *mouse* and *horse* must begin with the component 'animals [M] of one kind', and plausible explications for *oak*, *elm*, and *pine* must begin with the component 'trees [M] of one kind' (molecules are marked with [M] in explications). The concepts of 'animals' and 'trees' are themselves complex and further decomposable into semantic primes, but they function as units in the explications of many other concepts. By the term semantic molecule, then, we understand a complex lexical meaning which functions as a semantic unit (or "chunk") in the structure of other, more complex concepts.<sup>13</sup>

##### 4.1 Semantic molecules in the English lexicon

To develop an idea of the role, range and nature of semantic molecules in the English lexicon, it is useful to consider several explications which have been developed independently of these questions. In this, we are following the normal NSM practice of trying to induce generalisations about semantic structure from empirical work. For reasons of space, we will have to confine ourselves to partial explications. Explication [C] below is a partial explication for a natural kind term—*cats* (based on Wierzbicka 1985 and Goddard 1998). It follows the semantic template<sup>14</sup> for natural kind terms: (a) category within the taxonomic hierarchy, (b) habitat, (c) size, (d) appearance, (e) behaviour, (f) relation with people (the last two sections of the template are omitted in explication [C]).

[C] A partial explication for *cats*

a.	animals [M] of one kind	CATEGORY
b.	animals [M] of this kind can live in places where people live, because people want this sometimes they live near places where people live	HABITAT
c.	they are not big a person can pick up [M] one with two hands [M]	SIZE
d.	they have soft [M] fur [M] they have a round [M] head [M] they have pointed [M] ears [M] their ears [M] are on two sides of the top [M] part of the head [M] their eyes [M] are not like people's eyes [M] they have some long [M] hairs [M] near the mouth [M], they stick out [M] on two sides of the mouth [M] they have a long [M] tail [M] they have soft [M] feet [M] they have small sharp [M] claws [M]	APPEARANCE

Running through the four sections presented in [C], we see that section (a) includes a taxonomic “life form” category, ‘animals [M]’, as a semantic molecule. Section (b) gets by without any additional semantic molecules: it is phrased almost exclusively in semantic primes.<sup>15</sup> Regarding section (c), the “size” section, Wierzbicka (1985) has argued that anthropocentrism pervades human construal of the physical world, and, in particular, that the human body furnishes a reference point for judgements of relative size. In the case of *cats*, this component depends on the potential to pick up a cat with two hands, with both ‘pick up [M]’ (a physical action verb) and ‘hands [M]’ (a body-part word) functioning as semantic molecules. The subsequent “appearance” section contains numerous molecules: yet more body-part terms (‘head’, ‘ears’, ‘eyes’, ‘mouth’, ‘tail’, ‘feet’), and terms of two additional kinds: shape descriptors (‘round’, ‘long’, ‘pointed’), and physical qualities (‘soft’, ‘sharp’).

Just as explication [C] can serve as an exemplar of natural kind terms, so explication [D] for *chairs* can stand as a (partial) exemplar of artefact terms. After the top-level “category” component, the semantic template continues with a “purpose” section specifying people’s motivation for making such things. In the case of *chairs*, this obviously involves ‘sitting’; roughly speaking, *chairs* are things of the kind people make so as to be able to sit comfortably while doing various things. To capture this notion, it is not necessary to employ ‘comfortably’ as a semantic molecule, because the required meaning can be rendered directly in semantic primes, as shown in the final line of [D]. What is necessary, however, is to employ ‘sit [M]’ as a semantic molecule, because the explication of ‘sit’ is much too complex (cf. Wierzbicka 2006b) to be substitutable directly into [D].

[D] A partial explication for *chairs*:

- a. something of one kind CATEGORY  
there are things of this kind because people want this
- b. people want this because they want these things to be in places where people live PURPOSE  
people want them to be in these places because they want people to be able to sit [M] on them  
when they want to do something in these places for some time  
people want people to be able to sit [M] on them at times like these  
because they don't want them to feel something bad in their bodies at these times

Other bodily activity verbs such as 'eat' and 'drink' are also known to be prolific semantic molecules. They are needed in words for artefacts such as *spoon*, *plate*, *cup* and *bottle*, for food and drink words such as *meat*, *bread*, *tea* and *coffee*, and in many other contexts. It is not possible for reasons of space to discuss the structure of bodily activity verbs in any detail, but it is obvious that they call for the use of body-part terms as semantic molecules; for example, to explicate *eat* and *drink* one must include the molecule 'mouth'.

Explication [E] below is a partial explication for a complex physical activity verb: English *cutting* (Goddard and Wierzbicka in press a). Verbs of this kind follow the semantic template: (a) lexico-syntactic frame; (b) prototypical motivational scenario; (c) instrument; (d) how the person uses the instrument; (e) what is happening to the object; (f) potential outcome.

[E] A partial explication for *cutting*:

*Someone X was cutting something Y (e.g., some paper, a cake)  
with something Z*

- a. someone X was doing something to thing Y with thing Z for some time LEXICO-SYNTACTIC FRAME  
because of this, something was happening at the same time to thing Y  
as this someone wanted
- b. people do something like this when they do something to something PROTOTYPICAL MOTIVATIONAL SCENARIO  
because a short time before they thought about this something like this:  
"I want this something not to be one thing anymore  
I want this something to be two things  
I want these two things to have straight [M] edges [M]"
- c. when someone does something like this, they do it with something INSTRUMENT  
this something is not a part of this someone's body  
this something has a sharp [M] edge [M]

The shared top-level component, the lexico-syntactic frame, can be phrased without recourse to semantic molecules. It characterises such verbs as activities by which a person produces some effect upon an object in a controlled fashion by means of an instrument. The next component, the prototypical motivational

scenario, begins with a certain intention (shared by *cut* and other “verbs of separation”): ‘I want this something not be one thing anymore’. In the case of *cutting*, it continues: ‘I want this something to be two things, I want these two things to have straight [M] edges [M]’. The word ‘straight’ is another example of a shape descriptor, but ‘edges’ represents a different kind of molecule from those we have previously observed. It can be termed an “ethnogeometrical concept” (Brotherson this volume Ch 10). The same molecule is found later in section (c): *cutting* requires an instrument with a ‘sharp [M] edge [M]’.

The point of this exposition has been to illustrate the role of semantic molecules in different kinds of explications, and to establish that certain particular kinds of molecules appear to be common: body-parts, shape descriptors, physical qualities, ethnogeometrical terms, and bodily actions. Before moving to other issues about semantic molecules, a matter of clarification should be attended to.

There are many recurrent components across the lexicon which are not semantic molecules, in the sense under discussion here, because they are not encapsulated as the meanings of surface lexical items. For example, many nouns begin with top-level categorical components such as: ‘one part of someone’s body’ (for body-part terms), ‘living things of one kind’ (for natural kind terms), ‘a place of one kind where people live’ (for words like *town*, *city*, *village*, etc). Likewise, many verbs contain high-level components related to semantic role or argument structure; for example: ‘someone did something’, ‘someone did something to something/someone else’, ‘someone did something to something with something’, ‘something happened to something else because of it’, and so on. Many verbs also contain a component like ‘this someone did this because this someone wanted to do it’, corresponding to the technical notion of volitional action. To take one further example, from a smaller segment of the lexicon, emotion adjectives such as *sad*, *annoyed* and *homesick*, conform to a semantic template which begins: ‘someone feels something (good/bad), as people feel when they think like this: – – ’ (followed by a prototypical cognitive scenario setting out certain characteristic thoughts and wants).

Such recurrent but “non-molecular” components can be extremely significant for the interface between lexical and grammatical semantics, and for the creation of lexical classes. They are simple enough in their internal semantic structure, however, to be spelt out in relatively short strings composed purely of semantic primes. They are not semantic molecules, because they are not the meanings of surface lexical items.

How many productive semantic molecules are there? At this formative stage of research, the answer is not very clear. Wierzbicka (in press) has hazarded an estimate (for English and Polish) of 100–200. It is known that productive molecules are drawn from at least nine categories. The first six have already been briefly exemplified: (i) parts of the body, such as ‘hands’, ‘mouth’, ‘legs’;

(ii) physical activities, such as ‘eat’, ‘drink’, ‘sit’; (iii) shape descriptors, such as ‘long’, ‘round’, ‘flat’; (iv) physical qualities, such as ‘hard’, ‘sharp’ and ‘straight’; (v) ethnogeometrical terms, such as ‘edges’ and ‘ends’; and (vi) taxonomic concepts, such as ‘animal’, ‘bird’ and ‘tree’. To this list one can add at least three further categories, which will not be justified here (cf. Wong, Goddard and Wierzbicka to appear; Wierzbicka 2006a; Goddard and Wierzbicka to appear): (vii) macro-terms from the natural environment, such as ‘ground’, ‘sky’ and ‘sun’; (viii) “elemental” concepts (for want of a better term), such as ‘water’ and ‘fire’; and (ix) basic social categories, i.e., kinds of people, such as ‘men’, ‘women’ and ‘children’.

## 4.2 Levels of semantic nesting

We have already seen that there can be molecules within molecules. How many levels of nesting are there? A useful starting point is with parts of the body (Wierzbicka 2007a). Consider the word *head* (in the sense of a person’s *head*).<sup>16</sup> As explicated in [F], it requires in its explication not only semantic primes establishing its parthood relationship with the body (‘one part of someone’s body’, etc.) and position (‘above all the other parts of this someone’s body’), but also an indication of its shape—in the form of the semantic molecule ‘round’. The meaning ‘head’ in turn functions as a molecule in certain other body-part meanings, such as *eyes*, *ears* and *hair*, among others.

[F] *head*<sub>1</sub> (*someone’s head*)

- a. one part of someone’s body
- b. this part is above all the other parts of this someone’s body
- c. this part is round [M]

Shape descriptors are needed in many other body-part concepts too. For example, the concept of *legs* requires the descriptor ‘long’, as shown in [G]. ‘Legs’ in turn is a molecule in verbs like *walk* and *run*, among others.

[G] *legs* (*someone’s legs*)

- a. two parts of someone’s body
- b. these two parts are below all the other parts of this someone’s body
- c. these two parts are long [M]
- d. these two parts of someone’s body can move as this someone wants
- e. because people’s bodies have these parts, people can move in many places as they want

Already we can discern several levels of semantic nesting: shape descriptors (like ‘long’ and ‘round’) are molecules inside body-part concepts (like ‘legs’ and ‘head’); and body-part concepts in turn are molecules inside bodily



action verbs (like ‘run’ and ‘eat’). But what about the semantics of shape descriptors?

Wierzbicka (2003, 2006a, 2007a) has investigated these in depth, and has drawn a remarkable conclusion: that shape concepts depend in part on the concept of ‘hands’.<sup>17</sup> The nub of the argument is that shape concepts designate properties which can be detected not only visually, but also by touch—i.e., by the touch of our hands. This aspect is crucial to capturing the tangibility and physicality of shape concepts (as compared with colour concepts, for example, which depend purely on seeing). A sample explication—for one meaning of the word *long*—is given in [H].<sup>18</sup>

[H] *something long (e.g., a tail, a stick, a cucumber)*

- a. when someone sees this thing, this someone can think about it like this:
- b.     “two parts of this thing are not like any other parts,  
       because one of these two parts is very far from the other”
- c. if someone’s hands [M] touch this thing everywhere on all sides,  
       this someone can think about it in the same way

It might seem at this point that we are facing a fatal circularity. How can shape descriptors depend on a body-part concept, namely ‘hands’, while at the same time body-part concepts depend on shape descriptors? In fact, there is no circularity on account of another remarkable result (Wierzbicka 2003, 2006a, 2007a). Of all the body-part concepts, it seems that ‘hands’ alone can be explicated purely in terms of semantic primes, without recourse to any shape (or other) semantic molecules. The explication for ‘hands’ is shown in [I].

[I] *hands (someone’s hands)*

- a. two parts of someone’s body
- b. they are on two sides of this someone’s body
- c. these two parts of someone’s body can move as this someone wants
- d. these two parts of someone’s body have many parts
- e. if this someone wants it, all the parts on one side of one of these two parts can touch  
       all the parts on one side of the other one at the same time
- f. because people’s bodies have these two parts, people can do many things with many  
       things as they want
- g. because people’s bodies have these two parts, people can touch many things as they want

Wierzbicka (2003) argues that the foundational status of the concept of ‘hands’ makes sense from the point of view of an embodied concept of cognition. “[H]uman hands”, she argues, “mediate, to a large extent, between the world and the human mind”, because of the crucial role played by “handling” things and by touching things in an exploratory way with the hands. Equally, the hands are our principal “bodily instruments” for making things, for using

things, and for doing things of many other kinds. It makes a lot of sense, therefore, that the concept of ‘hands’ is a foundational semantic molecule in so many human concepts.

We can conclude that there are up to four levels of semantic nesting within highly complex concepts, such as those for natural kinds and artefacts. In the explication for *cats* or *chairs*, for example, the most complex molecules are bodily action verbs like ‘eat [M]’ or ‘sit [M]’. They contain body-part molecules such as ‘mouth [M]’ and ‘legs [M]’. These in turn contain shape descriptors, such as ‘long [M]’, ‘round [M]’ and ‘flat [M]’, and they in turn harbour the molecule ‘hands [M]’, composed purely of semantic primes. A further level of nesting occurs when natural kind terms themselves function as semantic molecules at a shallow level of semantic structure. For example, words for unfamiliar species such as *tigers* and *zebras* contain a “likeness” reference to familiar natural kinds, such as ‘cats’ and ‘horses’, respectively; endonymic terms like *purr* and *saddle* also contain references to ‘cats’ and ‘horses’, respectively (Goddard 1998: 241–242).

### 4.3 Universal vs. language-specific semantic molecules

It seems likely on current evidence that some semantic molecules are universal. This applies to concepts which are foundational for many other concepts and/or for large lexical classes. The molecule ‘hands’ is a prime candidate, and cross-linguistic surveys appear to support this position, once sufficient attention is focused on questions of language-specific polysemy (Goddard 2001; Wierzbicka 2007a). Other candidates for universal semantic molecules are certain other body-parts such as ‘eyes’ and ‘ears’ (Wierzbicka 2007a), basic social categories like ‘men’ and ‘women’ (Goddard and Wierzbicka to appear), and perhaps also the sociobiological concept ‘mother’, given the foundational status of the mother-child relationship in kinship systems (Wierzbicka 1992; Foley 1997: 133).

It is also clear that some semantic molecules are language-specific. This is only to be expected for high-level molecules such as taxonomic categories, since it is well established that there are languages which lack exact equivalents for words like ‘animal’, ‘bird’ and ‘tree’ (Goddard 2001). Likewise, it is not too surprising that some languages employ particular concepts as semantic molecules while others do not. For example, in Polish the word *grzyb* ‘mushroom’ functions as a semantic molecule: there are many common Polish words for kinds of *grzyby* ‘mushrooms’, and various other endonymic words which also include ‘grzyb [M]’ in their meanings.

Perhaps more surprising is the claim that lower-level molecules such as shape descriptors and ethnogeometrical terms can also vary somewhat from language to language. But as mentioned in Note 18, Wierzbicka (2006c, in press) argues that English ‘long [M]’ does not exactly match the comparable Polish molecule ‘podłużny [M]’ ‘elongated, oblong’; and Brotherson (this volume

Ch 10) argues that English ‘ends [M]’ differs from its nearest counterpart ‘tapu [M]’ in Makasai (East Timor). Wierzbicka (2004, 2006b, 2007b) has argued that in English ‘colour [M]’ functions as a semantic molecule in words like *red*, *blue*, *green*, etc., whereas many other languages lack “colour words” in the true sense, because their visual descriptor words do not involve any comparable molecule.

It should be clear that the concept of semantic molecules is an extremely fertile one, with multiple ramifications for our understanding of the overall structuring of the lexicon, for lexical typology, for language acquisition, and for language and cognition studies. In coming decades we can expect semantic molecules to be one of the most vibrant research fronts in semantics.

## 5. The present volume

Though the focus of this chapter, and of this volume as a whole, is on the linguistic aspects of the natural semantic metalanguage, it is important not to lose sight of the fact that the NSM approach has far-reaching applications in a whole range of practical endeavours, such as intercultural communication, lexicography, language teaching, and language therapy. Because the NSM metalanguage has such broad applications and implications, it is important to get it “just right”.

The present volume presents original contributions to the NSM program across a range of research fronts. Part One is about the theory of the metalanguage. Chapter 1 overviews the current state of the NSM system. Chapter 2, by Goddard and Wierzbicka, is the first full exposition of a “new” semantic prime—specificational BE—and of a new syntactic frame for the prime THIS/IT. Goddard’s Chapter 3 is an inquiry into the deep syntactic patterning of the natural semantic metalanguage.

The three studies in Part Two of the volume are original contributions to the growing documentation of “whole metalanguage” studies, i.e., studies of how semantic primes and their associated grammar manifest themselves differently in the languages of the world. The three languages—Amharic, Korean and East Cree—are of different language families and come from very different geographical and cultural zones. As well as raising certain theoretical questions for our model of the NSM itself, each chapter can be read as a portrait in miniature of the language concerned. Amberber’s chapter is the first full-scale application of NSM to a Semitic language. Yoon’s chapter is a condensed version of a book-length treatment of Korean NSM (Yoon 2006). Junker’s description of East Cree NSM is the first full description of an NSM based on a polysynthetic language of any language family.

Part Three consists of three studies which target problematic issues about particular semantic primes. In a sense they are problem-solving exercises. Knight’s chapter on the Australian language Bunuba is a meticulous language-

internal study of an exponent of a semantic prime which exhibits five-way polysemy. Goddard and Karlsson's study of THINK in Swedish, and Elouazizi and Trnavac's chapter on MOMENT in Tarifyt Berber both propose significant revisions of our understanding of the primes they are concerned with.

Part Four contains descriptive-analytical studies of lexical and grammatical semantics in four more languages—Makasai (East Timor), Koromu (Papua New Guinea), Russian and Japanese. In their introductory sections, each author reports on the exponents of semantic primes in their language, before turning to their particular case study, be it ethnogeometrical terms (Brotherson), inalienable possession (Priestley), or value terminology (Gladkova, Hasada).

Taken together, the volume presents an impressive profile of the diverse research fronts in a flourishing semantic paradigm.

## Abbreviations

1SG	first person singular	APPROX	approximation	p/PL	plural
2SG	second person singular	ASSR	assertive	S	sentential complement
3SG	third person singular	INF	infinitive	SUBJ	subject
ACC	accusative case	PAST	past tense		

## Notes

1. For an insightful recent review of NSM, see Lehrman (2006). NSM semantics has also been ignored, marginalised and condemned. A few examples will suffice. In the 600 odd pages of the supposedly comprehensive *Handbook of Contemporary Semantic Theory* (Lappin ed. 1996) there is only one, single-line mention of Anna Wierzbicka (in a short paragraph on cognitive linguistics), and no reference to the NSM theory as such. As for condemnations, it is hard to go past Bart Geurts' (2003) proclamations about the futility of reductive paraphrase as a technique of semantic analysis. He finds it particularly galling that anyone would question the use of technical terminology and expert theories to represent ordinary people's cognition: "Frankly, *qua* semanticist, I just don't care that my mother-in-law fails to grasp my theories, and it does not prevent me from testing my predictions against her intuitions as a native speaker". Like many critics, Geurts has not done his homework. He sums up the NSM position as believing "that less than 20 words will suffice for a full-blown semantics of any language" (p. 226).
2. Astonishingly, many mainstream semanticists still miss the fundamental point that any symbols used in a semantic representation can only be understood by virtue of their relationship with some other, previously known, symbols. They seem to think that presenting their units of semantic representation in capital letters and enclosing them in square brackets "detaches" them from natural language, and thereby frees the analyst from any danger of implicit circularity.
3. On the other hand, it is known that English *person* has language-specific peculiarities which can be problematical in some contexts, cf. Wierzbicka (2002: 70–73).
4. On Everett's account, Pirahã also lacks exponents of THINK (since it uses the same verb as SAY to express such meanings; p. 629), and, no doubt, other primes as well.
5. Pirahã plural pronouns are formed by addition of 'ogi to the singular (or unspecified) form, the same pattern as found in Mandarin Chinese [*wǒ-men* 1SG-PL, *nǐ-men* 2SG-PL, *tā-men* 3SG-PL],

and in many creoles. Given that there is evidence that Pirahã pronominal roots have been borrowed from a nearby Tupi-Guarani language, and that forms such as ‘I-all’ for ‘we’, ‘you-all’ for ‘you-PL’, and ‘he-all’ for ‘they’ are common in creoles, this is additional indirect evidence that *’ogi* is an exponent of ALL (as well as BIG). The prospect of wholesale borrowing of pronouns also suggests, as noted by Levinson (2005: 638), the possibility that Pirahã has undergone creolisation.

6. All Everett (2005) had to say about semantic methodology was that: “All semanticists know that the quantificational properties of a word are revealed by its truth conditions. I have pointed out that Pirahã has no word with the truth conditions of universal quantification” (p. 643). Though I could find no statements about the truth conditions of *hi ’ogi* in Everett’s article, he does make some analogous claims about another possible expression of “universal quantification”, namely, *báaiso* ‘whole’. His point is that this word does not imply absolute exhaustiveness, as one would expect of a true equivalent of universal quantification. But ‘all’ in natural language is not the same as universal quantification in logic: in ordinary English ‘all’ does not entail absolute exhaustiveness either.

7. Likewise, it is hard to buy Everett’s assertion that Pirahã *hói* is monosemous, so that *’tíi’isi hói* is vague between ‘a small fish’ and ‘one fish’, and *tiobáhai hói* is vague between ‘a small child’ and ‘one child’ (2005: 623).

8. Especially in the case of basic concepts like ‘body’, ‘think’, ‘feel’ or ‘want’, it seems that languages often borrow a new word in order to disambiguate an earlier term which was polysemous. For example, as discussed by Hale (1994: 269), in some Misumalpan languages of Central America the English word for ‘want’ has been borrowed to replace a polysemous word meaning either ‘want’ or ‘seek’.

9. It is true that in Kuuk Thaayorre, the words for a person’s shadow, footprints, voice, and name can occur in certain “inalienable possession” constructions that are largely reserved for body-parts. But this property, which is common in many languages (cf. Chappell and McGregor eds 1996; Priestley this volume Ch 11), does not necessarily mean that the word for BODY doesn’t really mean BODY.

10. For example, Junker does not indicate how East Cree speakers could go about constructing Cree-internal explications for words like ‘head’ and ‘hands’, i.e., how they could tackle components such as ‘one part of someone’s body’ (for ‘head’) or ‘two parts of someone’s body’ (for ‘hands’), cf. Wierzbicka (2007a). Yet body-part terminology is arguably the canonical lexical domain for “part-hood” relations.

11. On closer examination, it is actually necessary (and theoretically fruitful) to distinguish the two “patient” frames: ‘someone did something to someone else’ vs. ‘someone did something to something’.

12. To forestall misunderstanding, the universal semantic prime CAN does not respect the supposed distinction between “can of ability” and “can of possibility” which is taken for granted by many linguists under the influence of the logical tradition.

13. The Moscow School of semantics (Igor Mel’čuk and colleagues) has long championed the need for intermediate-level components, but without the constraint that they be lexical meanings in the language concerned.

14. A “semantic template” is a structured set of component types shared by words of a particular semantic class. The concept was first employed in explications for artefact and natural kind terms (Wierzbicka 1985), but it has since been elaborated and applied to words of many other kinds. While template structure appears to be fairly constant across languages (Goddard and Wierzbicka in press a), the details of each individual word meaning can differ considerably from those of its closest counterparts in other languages. Each encapsulates a specific cognitive scenario, and these scenarios are often culture-specific and reflect common local cultural practices.

15. *Cats* being domestic animals, the habitat component makes reference to them living with people or near where people live; and PEOPLE is a semantic prime. The comparable component

for some other natural kinds may well require semantic molecules; for example, *whales* and *tuna* presumably ‘live in the sea [M]’.

16. Body-parts of other kinds of living things require distinct but related explications, i.e., words like *head*, *legs*, and so on, are polysemous between a primary sense based on the human body, and a secondary sense applying to other species by analogy with the human body. For example, the *head*<sub>2</sub> of a dog or a snake can be explicated as follows: ‘one part of the body of a living thing of one kind (e.g., dog, snake); this part is like one part of people’s bodies; this part of people’s bodies is the head<sub>1</sub>’.

17. Some physical quality concepts (Goddard and Wierzbicka 2007) also depend on the concept of ‘hands’. For example, the concept of physical ‘hardness’ depends on the idea that if someone wants to “make an impact” on something hard (e.g., to break, deform, or scratch it), they cannot do this with the hands alone: they have to use some kind of instrument.

18. Wierzbicka (2006c) argues that the nearest Polish word *podłużny* ‘elongated, oblong’ differs slightly but discernibly from English *long* in component (b): *podłużny* requires only that two parts can be construed as ‘far’ apart (not necessarily as ‘very far’ apart). The difference accounts for differences in the range of use of the two words; a paperback book or a child’s pencil-case, for example, can be described as *podłużny*, but hardly as *long*.

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## Appendices

### Appendix 1. Semantic primes: English

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Substantives:	I, YOU, SOMEONE, SOMETHING/THING, PEOPLE, BODY
Relational substantives:	KIND, PART
Determiners:	THIS, THE SAME, OTHER/ELSE
Quantifiers:	ONE, TWO, MUCH/MANY, SOME, ALL
Evaluators:	GOOD, BAD
Descriptors:	BIG, SMALL
Mental predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY, WORDS, TRUE
Actions, events, movement, contact:	DO, HAPPEN, MOVE, TOUCH
Location, existence, possession, specification:	BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)
Life and death:	LIVE, DIE
Time:	WHEN/TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT
Space:	WHERE/PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE
Logical concepts:	NOT, MAYBE, CAN, BECAUSE, IF
Intensifier, augmentor:	VERY, MORE
Similarity:	LIKE

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**Notes:** • Primes exist as the meanings of lexical units (not at the level of lexemes) • Exponents of primes may be words, bound morphemes, or phrasemes • They can be formally complex • They can have different morphosyntactic properties, including word-class, in different languages • They can have combinatorial variants (allollexes) • Each prime has well-specified syntactic (combinatorial) properties.

Appendix 2. Semantic primes: Japanese and Spanish

WATASHI <i>I</i> , ANATA <i>you</i> , DAREKA <i>someone</i> , NANIKA/MONO/KOTO <i>something/thing</i> , HITO/HITOBITO <i>people</i> , KARADA <i>body</i>	YO <i>I</i> , TU <i>you</i> , ALGUIEN <i>someone</i> , ALGO/COSA <i>something/thing</i> , GENTE <i>people</i> , CUERPO <i>body</i>
SHURUI <i>kind</i> , BUBUN <i>part</i>	TIPO <i>kind</i> , PARTE <i>part</i>
KORE <i>this</i> , ONAJI <i>the same</i> , HOKA <i>other</i>	ESTO <i>this</i> , LO MISMO <i>the same</i> , OTRO <i>other</i>
HITO-/ICHI- <i>one</i> , FUTA-/NI- <i>two</i> , TAKUSAN <i>many/much</i> , IKUTSUKA <i>some</i> , MINNA <i>all</i>	UNO <i>one</i> , DOS <i>two</i> , MUCHO <i>much/many</i> , ALGUNOS <i>some</i> , TODO <i>all</i>
II <i>good</i> , WARUI <i>bad</i>	BUENO <i>good</i> , MALO <i>bad</i>
OOKII <i>big</i> , CHIISAI <i>small</i>	GRANDE <i>big</i> , PEQUEÑO <i>small</i>
OMOU <i>think</i> , SHIRU <i>know</i> , HOSHII/ -TAI/NOZOMU <i>want</i> , KANJIRU <i>feel</i> , MIRU <i>see</i> , KIKU <i>hear</i>	PENSAR <i>think</i> , SABER <i>know</i> , QUERER <i>want</i> , SENTIR <i>feel</i> , VER <i>see</i> , OÍR <i>hear</i>
IU <i>say</i> , KOTOBA <i>words</i> , HONTOO <i>true</i>	DECIR <i>say</i> , PALABRAS <i>words</i> , VERDAD <i>true</i>
SURU <i>do</i> , OKORU/OKIRU <i>happen</i> , UGOKU <i>move</i> , FURERU <i>touch</i>	HACER <i>do</i> , PASAR <i>happen</i> , MOVERSE <i>move</i> , TOCAR <i>touch</i>
(DOKOKA) NI IRU/ARU <i>be (somewhere)</i> , IRU/ARU <i>there is</i> , MOTSU <i>have</i> , (DAREKA/NANIKA) DE ARU <i>be (someone/ something)</i>	ESTAR <i>be (somewhere)</i> , HAY <i>there is</i> , TENER <i>have</i> , SER <i>be (someone/something)</i>
IKIRU <i>live</i> , SHINU <i>die</i>	VIVIR <i>live</i> , MORIR <i>die</i>
ITSU/TOKI <i>when/time</i> , IMA <i>now</i> , MAE <i>before</i> , ATO <i>after</i> , NAGAI AIDA <i>a long time</i> , MIJIKAI AIDA <i>a short time</i> , SHIBARAKU NO AIDA <i>for some time</i> , SUGUNI <i>moment/in one moment</i>	CUÁNDO/TIEMPO <i>when/time</i> , AHORA <i>now</i> , ANTES <i>before</i> , DESPUÉS <i>after</i> , MUCHO TIEMPO <i>a long time</i> , POCO TIEMPO <i>a short time</i> , POR UN TIEMPO <i>for some time</i> , MOMENTO <i>moment</i>
DOKO/TOKORO <i>where/place</i> , KOKO <i>here</i> , UE <i>above</i> , SHITA <i>below</i> , CHIKAI <i>near</i> , TOOI <i>far</i> , MEN <i>side</i> , NAKA <i>inside</i>	DÓNDE/SITIO <i>where/place</i> , AQUÍ <i>here</i> , ARRIBA <i>above</i> , DEBAJO <i>below</i> , CERCA <i>far</i> , LEJOS <i>near</i> , LADO <i>side</i> , DENTRO <i>inside</i>
-NAI <i>not</i> , TABUN <i>maybe</i> , DEKIRU <i>can</i> , -KARA <i>because</i> , MOSHI (BA) <i>if</i>	NO <i>not</i> , TAL VEZ <i>maybe</i> , PODER <i>can</i> , PORQUE <i>because</i> , SI <i>if</i>
SUGOKU <i>very</i> , MOTTO <i>more</i>	MUY <i>very</i> , MÁS <i>more</i>
YOO/DOO/YOO NI <i>like/how/as</i>	COMO <i>like</i>

## CHAPTER 2

# **New semantic primes and new syntactic frames: “Specificational BE” and “abstract THIS/IT”**

Cliff Goddard and Anna Wierzbicka

In this chapter we first propose a new semantic prime: *specificational BE*, i.e. *BE (SOMEONE/SOMETHING)*. We then show how the new prime can be used to analyse some classic problems in the semantics of naming and reference, and make some initial observations about its cross-linguistic realisations. In the second part of the chapter, we explore a newly recognised syntactic option of the prime *THIS*, here termed “*abstract THIS/IT*”, which is of particular importance to discourse anaphora. The third and final part of the chapter shows how using these new possibilities together enables improved analyses of certain English grammatical constructions, such as presentational “*it*-constructions”, clefts, and *specificational* sentences.

### **1. Specificational BE**

There is a long tradition in philosophy and linguistics of distinguishing between *predicational* statements, on the one hand, and *specificational* statements (sometimes termed *identificational* or *identity* statements), on the other (cf. Stassen 1997; Mikkelsen 2005).<sup>1</sup> By positing *specificational BE*, NSM researchers are recognising that the *BE* of a *specificational* statement has a unique semantic content, and cannot be regarded as an empty grammatical reflex or index (as the *predicative copula be* can be regarded).

*Specificational BE* joins two other primes which are often discussed, in the European philosophical tradition, as different ‘*be*’s: *locational BE* (i.e., *being somewhere or being with someone*) and *existential BE*, i.e., *THERE IS/EXIST*.

#### **1.1 Initial exposition**

The most straightforward examples of ordinary sentences with *specificational BE* involve names, like the examples below. Actually they are not quite as simple as they look, because the semantics of names and naming is left inexplicit (see next section). One of the distinctive properties of *specificational* constructions

like these is reversibility, i.e., the examples can be swapped around and still make sense. (This does not mean that the meaning is unchanged; clearly there is a difference of emphasis or focus.)

- (1) a. *The capital of Australia IS Canberra.*
- b. *My favourite dog IS Fido.*

In “pure” NSM, two frames exhibiting the proposed specificational BE are as follows:

- (2) a. this someone IS (not) someone like me
- b. this IS (not) something big/small

In positing specificational BE as a semantic prime, part of what we are saying is that substantives like SOMEONE, SOMETHING, etc. (and substantive phrases based on these) cannot function as bare predicates.

The same applies, presumably, to the relational substantives KIND and PART. That is, in order for expressions based on these primes to function predicatively, they too need the support of specificational BE. The following examples of “ostensive-identificational” sentences should give the general idea.

[A] *This is a pencil:*

this IS something of one kind  
people can say what kind with the word *pencil*

[B] *This is my head:*

this IS one part of my body  
people can say what part with the word *head*

Frames like these mean that we are proposing a much broader range of use for specificational BE than envisaged for the traditional logical “*be* of identity”. The latter is not normally supposed to extend to statements of “class membership”, for example (though Langacker (1991: 67–71), for one, has contested this assumption).

An important and distinctive property of specificational BE is that its minimal syntactic frame is “a-temporal”, i.e., it does not necessarily include any slot for temporal qualifiers or adjuncts.

## 1.2 Semantics of names and naming

Needless to say, the semantics of proper names is a huge topic which it would be impossible to treat adequately here; but clearly specificational BE must be a

central part of the story. The purpose of this section is to explore how and to make some initial suggestions.

A good place to start is with the meaning of the word *name* itself, and of related words and expressions such as *to be called*, *to call*, etc. Clearly they involve the semantic prime WORDS, in addition to BE. Explication [C] depicts *names* as ‘words of one kind’, using which people can identify someone, i.e., using which people can say ‘who someone is’. Of course, many words other than names can serve an identifying function—any common noun which happens to be descriptive enough in context to single out a particular individual in that context, e.g., *the woman*, *the driver*, *the teacher* (admittedly, the definite article makes an important contribution here, but suppose we set this aside on the grounds that many languages lack definite articles). Ordinary common nouns like *woman*, *driver*, or *teacher* (or definite descriptions based on them) will not qualify as *names* according to explication [C], however, because they do not meet the description of ‘words of one kind’ usable for this purpose. Taking this into account, the first two lines of explication [C] might seem to be enough. But there are some words, such as *Daddy* and *The President*, which might still be wrongly predicted to be names without the third component (‘a word of this kind can be like a part of someone’). This component establishes the possibility of a deep and non-arbitrary “bond” between a person and their name.<sup>2</sup>

[C] *names*:

- a. words of one kind
- b. there are many words of this kind
- c. people can say who someone IS with a word of this kind
- d. a word of this kind can be like a part of someone

The word *name* is of course used for the names of all sorts of things aside from people: for places (*Sydney*, *Mt. Kosciuszko*, *the Murray*), buildings (*the Colosseum*, *the Statue of Liberty*), countries and languages (*Japan*, *Japanese*), books (*the Bible*, *War and Peace*), cars and other product types (*Landcruiser*, etc.), cf. Lehrer (1992). The implicit claim in explication [C] is that personal names, i.e., the names of ‘someones’, are a distinct and prototypical category, and that the other uses of *name* (for place names, book titles, brand names, etc.) are polysemic extensions. In support of this notion is the fact that when asked to think of some ‘names’, most people list out a string of people’s names, usually personal names (*John*, *Mary*, *Susan*, *Peter*, and the like). Some languages distinguish different types of ‘name’. Polish, for example, has several words corresponding to English ‘name’. There is *imię* ‘(someone’s) name, first name’, *nazwisko* ‘surname’, and *nazwa* ‘place-name, names for things, etc.’. Russian has an additional word for a patronymic “name”.

As an explication for the category ‘place-name’, we would suggest the explication in [D1]. For the use of *name* in reference to what linguists call

“common nouns” (as when schoolchildren are told that ‘a noun is the name of a person, place or thing’), we suggest [D2]. In both cases, the explications are about a class of words (‘words of one kind’) which people can use with an identifying function (saying ‘what place’ somewhere is, or saying ‘what kind of thing’ something is); and in both cases an analogy is drawn with personal names; that is, ‘names [M]’, as explicated in [C], functions as a semantic molecule in [D1] and [D2].

[D1] *place names*:

- a. words of one kind
- b. people can say what place a place IS with a word of this kind
- c. like they can say who someone IS with a name [M]

[D2] *‘names’ for things*:

- a. words of one kind
- b. people can say what kind of thing something IS with a word of this kind
- c. like they can say who someone IS with a name [M]

Many languages have a verbal or quasi-verbal expression corresponding loosely to ‘to be called’; e.g., the Polish reflexive verb *nazywać się*, German *heissen*. For the English expression *to be called*, we propose the explication in [E]. Comparing this with explication [C] for personal *names*, the similarities will be obvious. Both explications are about the possibility of saying ‘who someone is’ by means of a special word (special in the sense that the word is, or can be, like a part of the person in question). The main difference between the two explications is that [E] does not refer to the existence of any particular class of such words.

[E] *This person (i.e., this someone) is called Jock*:

- a. when someone wants to say who this someone IS,  
they can say it with the word *Jock*
- b. this word is like a part of this someone

Now let us turn to a more general, albeit related, question. How do names “fit” into sentences? For example, how do we explicate a sentence such as: *Jock told me something interesting*. As a first pass, consider explication [F]. According to this, the speaker is offering the word *Jock* as a potential way of identifying the ‘someone’ mentioned in the first component.

[F] *Jock told me something interesting*:

- a. someone told me something interesting
- b. I can say who this someone IS with the word *Jock*
- c. this word is like a part of this someone

This seems to us to be basically correct, but there are a couple of problems. One of them is of a technical nature. It is going to be complicated to apply this style of explication to sentences involving several names, e.g., *Jock told Carol something interesting yesterday at Calypso [a cafe]*. Secondly, from an intuitive point of view, it is questionable whether component (b) should begin with a direct reference to the speaker ('I can say ...'). Don't names present themselves, as it were, as more objective than such a component implies? Aren't names in some sense "social facts"?

After considering and experimenting with several lines of explication,<sup>3</sup> we would like to suggest an approach which builds on the explication above—but with one important addition. This is the proposal that names are akin to semantic molecules, i.e., that each name functions as a self-contained semantic unit (a "plug in") embedded in the sentence. Names differ from regular semantic molecules (cf. Chapter 1) in that they follow a simple and uniform structure, and, unlike regular molecules, they are not productive building blocks of more complex lexical meanings. Perhaps a new term, such as "lexical module", would be appropriate. In any case, the set of explications in [G] will give the general idea. They are intended to explicate the use of the words *Jock*, *Carol* and *Calypso* in the sentence: *Jock told Carol something interesting yesterday at Calypso*.<sup>4</sup>

[G1] *Jock* [M]:

- a. someone
- b. people can say who this someone IS with the word *Jock*
- c. this word is like a part of this someone

[G2] *Carol* [M]:

- a. someone
- b. people can say who this someone IS with the word *Carol*
- c. this word is like a part of this someone

[G3] *Calypso* [M]:

- a. somewhere
- b. people can say what place this place IS with the word *Calypso*
- c. like someone can say who someone IS with a name [M]

These proposals are consistent with the fact that (unlike lexical categories such as noun, verb, and adjective) names are a lexical category which is psychologically real: people know names when they hear them, and they process them as such.

The set of explications in [G] will no doubt strike some readers as incomplete and unsatisfying. They depict the use of names like *Jock* or *Carol* as simply words which can have an identificational function with respect to a particular



person by virtue of their having a special “link” with that person. Isn’t there more to it than this? In a sense there is, and here we come to an issue sometimes discussed under the rubric of the encyclopedic content of names (cf. Allan 1995). This too is a substantial topic which we will only treat in schematic outline here.

The main point is that ordinary linguistic competence includes a lot of knowledge about names and about naming practices, and that this knowledge is involved in how hearers receive and process sentences. For example, ordinary speakers of English will recognise that *Jock* is usually the name of a man or boy, and that *Carol* is the name of a woman or girl, and that both are personal names (as opposed to surnames). They also know about bipartite names like *Jock Wong* or *Carol Jones*, and will recognise that the second part in each case is a ‘surname’ or ‘family name’. They know furthermore that *Wong* is a “Chinese” surname, whereas *Jones* is not.

In our view, this kind of cultural general knowledge about particular names can and should be represented in a full account of the English language. That is, like Allan (1995), we envisage that the lexicon includes entries for well-known names, such as *Carol* and *Jock*, modelling speakers’ knowledge about them. For example, the word *Carol* will be listed as a ‘name [M]’, and furthermore it will be accompanied by a specification like: ‘this can be a girl’s [M] name [M], this can be a woman’s [M] name [M]’. The word *Jones* will be listed as ‘a surname [M]’. As implied by these examples, some knowledge of naming practices is embedded in the lexicon itself, as part of the lexical entries for words such as *name*, *surname*, *nickname*, *pet name*, and so on; and some of these “ethno categories” of the English language function as semantic molecules in our knowledge base about individual names.

Even so—and this is a crucial point—knowledge of this kind is not part of the meaning of particular names as used by a specific speaker on a specific occasion (i.e., in a real utterance). Such knowledge may well be taken for granted by speakers and listeners, and it may enter into the linguistic processing of utterances. But it does not form part of the meaning which a speaker wishes to express, and as such it does not make its way into explications for the uses of names in particular utterances.

### 1.3 Descriptive NPs

How does this account of the use of proper names relate to other kinds of definite descriptions, i.e., to descriptive NPs in sentences like *His mother did it* or *The bus driver did it*? Clearly, as referring expressions, these NPs are also “identificational” in some sense. The speaker is offering the description as a way of saying who the person in question is. From an NSM point of point, this implies that such NPs also involve specificational BE.

Consider explication [H]. It tries to capture the idea that the description (*his mother, the bus driver*) is being presented as a potential means by which the speaker could issue an identification statement; specifically, the description could be the predicative complement of a sentence with BE: ‘this someone is his mother’ or ‘this someone is the bus driver’.

[H] *His mother/the bus driver did it:*

- a. someone did it
- b. I can say who this someone IS,
- c. if I say: “this someone IS his mother/the bus driver”

Note that the potential “issuer” of such an identifying statement is the speaker him or herself (‘I’). This is because (unlike as with names) such descriptions are deictically anchored in the speaker’s frame of reference (cf. McCawley’s (1968) classic analysis of NPs as relative clauses).

Approaching it another way, one can say that BE is necessary in order to connect the identifying descriptions with underlying simple sentence frames like ‘something happened to someone’, ‘someone did something’, ‘someone said something to someone else’, and so on. In routine NSM work, such frames are often presented using variables like ‘X’ and ‘Y’, e.g., ‘something happened to X’, ‘X did something’, ‘someone (X) did something to someone else (Y)’; but previous NSM work has not addressed the question of how the content of an expression like ‘X’ gets inserted into the underlying frame.

The current proposal reminds one of the formal situation in “polypersonal” languages, i.e., languages with pronominal prefixes in which a simple clause can be expressed by a single word. In such languages, a sentence like ‘X did it’ looks like: ‘3sg-did.it X’. In the literature on polysynthesis there has been a lot of discussion about how “referential” and/or how “argument-like” the 3rd person pronominal markers are in such languages. Baker (2002: 82) makes an acute suggestion when he proposes that they should be termed “bound pronominal *generics*” [emphasis added]. We interpret this proposal as saying that a 3sg prefix indicates simply ‘someone’ or ‘something’—with any further information about definiteness or referentiality being brought in via an external NP.

On the same issue, Evans (2002: 46–47) remarks (about a Bininj Gun-wok word *kabimang*) that:

the interlinear gloss ‘3sg marries 3sg’ captures the right degree of semantic specificity ... What is needed are formalisms capable of representing the appropriate level of semantic specificity contributed by the pronominal affix, then (where necessary) unifying this with the relevant information contributed by external nominals.

Clearly, ‘someone marries someone’ is better than ‘3sg marries 3sg’. Hopefully the formalism needed to unify such a statement with more specific information

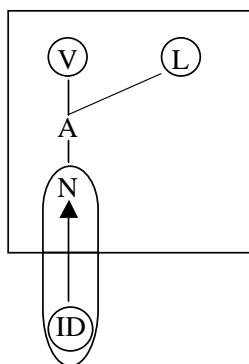
contributed by NPs can be provided by the expression ‘I can say who this someone is, if I say ...’ (or variants).

#### 1.4 Cross-linguistic exponents of specificational BE

There is still much to be learnt about cross-linguistic realisations of specificational BE, so the following observations are necessarily incomplete. In English the exponent of specificational BE is of course polysemous, and we expect that the same will be true for many languages. On the other hand, various languages, such as Thai (Kuno and Wongkhamthong 1981) and Lakhota (Pustet 2003: 46), are reported to have distinct “copulas” for identification as opposed to predication. These claims need to be looked at carefully, however, because the “division of labour” is seldom completely clear-cut.

Stassen (1997: 582), in his massive cross-linguistic study of intransitive predication, has devised a helpful framework, which is displayed in the diagram below. According to him, “property concepts” (represented in the diagram by A, for adjective-like concepts) never have a unique encoding strategy of their own. Rather, they are always encoded by a linguistic device which has been extended from another, more basic, use. There are three possibilities. The “identity strategy” (represented by ID in the diagram) refers to the situation in which property concepts are encoded by specificational BE (which, as shown, typically covers nominal (N) predicates in any case). The “locational strategy” refers to the situation whereby property concepts are encoded by locational BE (represented by L in the diagram). A third possibility is what Stassen calls the “verbal strategy”, whereby property-concept predicates behave like verbs, receiving marking for person and number.

The diagram in Figure 1 provides a useful way of systematising observations about the core and extended uses of specificational BE and locational BE.



**Figure 1.** Core and extended uses of specificational BE and locational BE.  
(adapted from Stassen 1997: 582)

According to Stassen's (1997) typological findings, specificational BE and locational BE often do battle, as it were, over the territory of property concepts. Sometimes one or other of the rivals wins out, but very often they divide the territory between them, and if so, the dimension of "time-stability" plays an important part in the way the disputed territory is divided. Reinterpreting Stassen's ideas into our framework, the basic idea is that locational BE is a "time-bound" predicate (naturally enough—a person or thing is often in a place only for a certain limited time). Thus an exponent of locational BE, if it extends into the realm of property-predications, tends to extend first into the domain of time-unstable predications. Specificational BE, on the other hand, is not "time-bound" at all. Its first extension is therefore into the realm of inherent, permanent or long-lasting properties.

Actually, in relation to inherent properties, it is probably better to regard such uses as basic uses of specificational BE (rather than as extensions), in frames such as:

- (3) a. *She is someone beautiful* (as opposed to *She is beautiful*).
- b. *It is something big* (as opposed to *It is big*).

The situation just described is highly compatible with the most celebrated set of such facts in European languages, namely, the two Spanish copula verbs *ser* and *estar*. From an NSM point of view, the Spanish exponent of specificational BE is clearly *ser*, while the exponent of locational BE is clearly *estar*. Both verbs are also used to make predications about properties, however, and the division of labour between them matches the prediction: *estar* being used for transient or temporary properties, and *ser* for inherent properties.<sup>5</sup>

There are many languages in which specificational BE is often expressed without the aid of any lexical material, i.e., by a "zero morpheme", especially in simple clauses of the "equational" kind (roughly, NP = NP). Russian, for example, is well-known for not employing its copula in simple present tense clauses. From an NSM point of view, "copula dropping" of the Russian kind does not pose any particular problem, since a lexical exponent for specificational BE appears in other tense/mood contexts.

Potentially more worrying is the conventional wisdom that many languages lack any copula verb whatsoever. In her survey of copulas, Pustet (2003: 71–73) states, on the basis of available descriptive grammars, that 41 of 131 languages (about 30%, concentrated in the Oceania region) are "non-copularizing". On the other hand, as Pustet acknowledges, descriptive grammars are often light on detail in relation to copula constructions. From preliminary investigation it seems to us that one cannot accept the conventional wisdom about copulas at face value (cf. Goddard 2007). In Australianist circles, for example, one commonly hears that in a particular language the copula function is shared by various verbs of stance or posture (cf. Dixon 2002). Yankunytjatjara (Pama-Nyungan) would be a typical language meeting this description. In this language, present

tense equational clauses are usually verbless, and in other contexts it looks as if the work of a copula is distributed across three stance verbs: *ngaranyi* ‘stand’, *nyinanyi* ‘sit’ and *ngarinyi* ‘lie’. On closer examination, however, *ngaranyi* emerges as a clear favourite for the status of a “true copula” (cf. Goddard and Harkins 2002).

As an example of a language which has been reported to exhibit a “complete absence of copularization” (Pustet 2003), we can consider Tagalog (Philippines, Austronesian). In Tagalog no copula is used in simple non-modal clauses, and this holds true regardless of time reference. Nonetheless, a candidate for copula status does appear when a clause with a nominal predicate contains *puwede* ‘can’, or when it occurs as a complement of *gusto* ‘want’ (Naomi Linning p.c.). In Tagalog-English dictionaries, the verb in question—*maging*—is usually glossed as both ‘be’ and ‘become’, but in the infinitive or aspect-neutral form it appears to correspond to specificational BE. It can certainly be used in contexts where ‘become’ does not make sense. For example:

- (4) a. *Hindi puwede maging tatay nya yun dahil mukha*  
           not can be father POSS that because looks  
           *syang bata.*  
           so young  
           ‘He can’t be her father because he looks so young.’  
       b. *Gusto kong maging ibon.*  
           want 1SG be bird  
           ‘I want to be a bird.’ (said by a day-dreaming child)

On current evidence, therefore, it still seems reasonable to expect that all languages will have a lexical exponent for specificational BE, even if its range of application is often much narrower than in English.

## 2. Abstract THIS/IT

In many contexts, English *it* can be readily explicated as ‘this something’ or (equivalently) as ‘this thing’. For example, in a sentence like *I lent him a book, but he lost it*, the word *it* is straightforwardly replaceable by ‘this thing’, or (less idiomatically) by ‘this something’: ‘I lent him something (a book), but he lost this something’. When it is used in this way, it parallels the other third person pronouns (English *he* and *she*), which can be explicated, essentially, as ‘this someone’.<sup>6</sup> However, there are also discourse anaphoric and propositional uses of English *it* which are not susceptible to explication in these terms. Consider a sentence like *She said that Max did it, but I don’t believe it*. The putative paraphrase ‘She said that Max did this something, but I don’t believe this something’ hardly seems acceptable.

NSM researchers have been grappling with this issue for some time. An initial proposal (Goddard 2002, 2003) was for a new semantic prime, variously referred to as “situational IT”, “propositional IT” or “abstract IT”. We have since decided that the meaning in question is not a new and distinct semantic prime, but rather represents a distinctive use of the prime THIS—not as a determiner, but as a referring expression in its own right.

In support of this interpretation, there is the fact that in many languages, the equivalent meaning is conveyed by a demonstrative word. For instance, Russian *eto* is the invariable neuter form of the word for ‘this’, and the same applies to Polish *to*. The fact that these items are fixed in gender makes perfect sense, since as referring expressions in their own right they are semantically self-sufficient, and have nothing to “agree” with. In this perspective, English discourse-anaphoric *it* is a language-specific allolex of referring uses of THIS.<sup>7</sup>

## 2.1 Initial exposition

In his book *Reference to Abstract Objects in Discourse*, Nicholas Asher (1993) provides considerable data and analysis relevant to the proposed NSM “abstract THIS/IT”. Asher explains that: “Abstract objects are things like propositions, properties, states of affairs and facts” and he notes that “[a]bstract entities and anaphoric reference to them abound in commentary and expository texts” (pp. 1, 11).

Three different pronouns can be used for “abstract entity anaphora” in English: *it*, *this*, and *that*. Comparing *it* to the other two, Asher characterises *it* as “a ‘local’ pronoun, referring most often to abstract entities introduced in the previous sentence, and mostly within the same discourse segment ... its referent must be a topic of conversation” (pp. 225, 226).

Among Asher’s examples of “abstract entity anaphora” are the following. They show that *it* can refer to an event, an action, a fact, or a proposition.

- (5) a. *The murder took place in a dark alley and no-one witnessed it.*
- b. *John wanted to go to the movies, but his mother wouldn’t allow it.*
- c. *Well, a clerk told us, we’d need to hire a lawyer to make a petition—but it probably wouldn’t be worth the effort.*
- d. *But ‘Misery’, which runs its mostly gripping if unattractive course in one little bedroom with only two real characters, is selling like mad. It just goes to show that some people don’t know when they’ve been insulted.*
- e. *John does not believe that Mary is treating him fairly. But Fred is certain of it.*

None of these examples allows a natural paraphrase in which ‘this thing’ (or ‘this something’) can be substituted for *it*, even when the previous material has

been schematicised or has had some of the implied illocutionary components “filled in”. For example:

- (6) a. *?Something happened (a murder) in a dark alley and no-one witnessed this thing.*
- b. *?John wanted to do something (go to the movies), but his mother wouldn't allow this thing.*
- c. *?I want you to know something (i.e., the film ‘Misery’ ... is selling like mad). This thing just goes to show that some people don't know when they've been insulted.*

Even more significantly, there are cases when *it* refers anaphorically to a chunk of connected text as in (7a). This particular example appears to be a constructed one, but similar examples are common enough in certain text types. Example (7b) comes from an autobiographical novel (Torey 2003: 5). The narrator is relating his experience of a terrible acid spill to his face.

- (7) a. *The “liberation” of the village had been a disaster. First on a sweep through the town some of the Marines had gone crazy and killed some innocent villagers. To cover up the “mistake”, the rest of the squad had torched the village. To cap it off the lieutenant called in an airstrike. At first the battalion commander hadn't believed it.*
- b. *Unaware that I had also swallowed a mouthful of the solution and that my vocal cords were being eaten, and with the evil cascade still coming at me, I spun around, beginning to notice a fast-thickening fog passing over my eyes. At this point my awareness exploded in a sense of catastrophe. There was no thought in that instant, just fragments, faces of people near to me, and a sickening feeling of this being the end. Then the fog closed in.  
How simple it sounds and how terrible it was. ...*

For examples of this kind, Asher (1993: 226) notes, there does not seem to be any determinable grammatical antecedent, which puts such examples outside the range of any known “binding theory” treatment of anaphor. In other words, not only does *it* in abstract contexts often resist paraphrase as ‘this thing’, and thus resist being interpreted as a normal anaphoric pronoun—there are also cases where it is impossible to pin down any specific antecedent expression.

## 2.2 Contexts of use

As an expression referring to a contextually obvious proposition, fact, situation, etc., abstract THIS/IT can be expected to occur in a variety of grammatical

contexts. For example (some of these have already been mentioned, but we repeat them here for convenience):

- (8) a. *It's true.*
- b. *It's terrible (wonderful, etc.).*
- c. *Something happened in that place, but I didn't see it.*
- d. *She told me what happened, but I didn't believe it.*
- e. *She knew what happened, but she didn't say anything about it.*

Abstract THIS/IT has one very important additional use, in which it combines with the combination LIKE THIS. The resulting expression can occur either in anaphoric contexts, as in (9a), referring to some previously mentioned or described situation, or in such a way as to “open up” a slot or space in which a description can occur, as in (9b). These two possibilities come from the LIKE THIS expression.

- (9) a. (I didn't know that) it is like this
- b. it is like this: – –

As examples of how the first of these expressions has been used in recent work, consider the following explications. Explication [I] (from Goddard 2003, slightly modified) is a schema for yes/no questions.

[I] *Is Mary at home?:*

I want to know something  
 I think like this now: maybe Mary is at home  
 if it is like this, I want you to say: it is like this  
 if it is not like this, I want you to say: it is not like this

*Yes:* it is like this  
*No:* it is not like this

Explication [J] is for the English conversational response *This is right* (said as a comment on a statement by one's interlocutor). Wierzbicka (2006: 71) advances this explication as one of a set of interrelated explications for *Right*, *You're right*, *This is right*, and so on.

[J] *This is right:*

if someone thinks that it is like this, this person thinks well  
 if someone thinks that it is not like this, this person doesn't think well  
 it is like this  
 people can know that it is like this



Explications [I] and [J] may give a sense of how the frame ‘it is like this’ can be used in practical explications. As mentioned, one context where abstract THIS/IT occurs on the surface, as it were, is in sentences like *It’s terrible*, *It’s not fair* and *It’s hard to say* (cf. Hedberg 2000 on cleft and allied constructions). Here *it* refers to some previously established discourse topic. Such sentences are not necessarily as simple as they look, however, on account of the semantic complexity of the predicate expressions.<sup>8</sup> But what about a sentence in which the predicate is semantically simple, such as *It is good*? Presumably this involves predicating GOOD directly of THIS/IT. This means that we have to allow an additional pair of frames for THIS/IT, as in (10a) and (10b). In such frames, the copula *is*, of course, a bit of English-specific grammar signalling the predicative nature of the relationship.

- (10) a. THIS/IT (IS) GOOD  
       b. THIS/IT (IS) BAD

### 2.3 Further implications and questions

Having abstract THIS/IT available for explications allows us to hold on to Peirce’s (1932) insight that every sentence needs to be somehow about something or about some things. Very often ordinary sentences are about something that happened, or something that someone did, or something that someone did to someone else. Without abstract THIS/IT, it would not be possible to refer to such happenings, actions, etc. (because they cannot be referred to, felicitously, as ‘this thing’ or ‘this something’). One would therefore expect that abstract THIS/IT would play a part in a wide range of sentence types in ordinary discourse, and indeed this seems to be the case. In section 3, we will consider a selection of these constructions in English.<sup>9</sup>

To close off the present discussion, however, we think it is helpful to consider a couple more contexts which clarify the difference between THIS/IT as a referring expression in its own right, on the one hand, and the combination THIS SOMETHING, on the other. Consider a sentence like *Tell me more about it* (a closely matching “pure” NSM sentence would be ‘I want to know more about it’). It seems to us that this sentence could be uttered in two quite different conversational contexts, and could express two rather different meanings. Suppose it is said in reference to some event which has happened to the addressee; for example,

- (11) A: *I had the strangest experience yesterday.*  
       B: *Tell me more about it (= this).*

It would sound very odd to paraphrase B’s sentence as ‘Tell me about this thing’, using the combination of determiner THIS plus SOMETHING/THING. In this context, the abstract THIS/IT is required.

On the other hand, the expression ‘Tell me more about this thing’ is a perfectly well-formed expression, and it would be a perfectly appropriate paraphrase in a different context, when the speaker is inquiring about a specific concrete thing. For example:

- (12) A: *I found something strange on the street yesterday.*  
 B: *Tell me more about it (= this thing).*

We would not be able to model this rather obvious difference between the two interpretations, if we could not distinguish between uses of THIS as a referring expression in its own right (i.e., as abstract THIS/IT), and uses of THIS as a determiner in combination with SOMETHING/THING (i.e., in combinations like ‘this thing’).<sup>10</sup>

In summary, semantic prime THIS has the capacity to appear as a self-contained quasi-pronominal expression. In these uses, we have been referring to it as abstract THIS/IT, partly to acknowledge that in English-based NSM its realisation is often by way of allolex *it*, and partly because it is convenient to have a designation for the prime in its non-specifier uses. Nevertheless, it must be remembered that we are not proposing a new prime, but rather recognising new syntactic possibilities for an existing prime.

### 3. Complex constructions involving specificational BE, abstract THIS/IT and other primes

This is a brief look at some English-specific constructions which we analyse as relying crucially on semantic components containing specificational BE and abstract THIS/IT in various combinations. Some of these constructions have analogues in other languages, but in general we do not expect these analyses to extend in precise detail to other languages. We begin with a brace of constructions which have *it* as surface subject. There is of course an extensive syntactic literature on these constructions. Without reviewing this literature here, we can say that the majority position is that these various “*it*’s” are meaningless expletives (dummy subjects, grammatical props, etc.), while the minority position is that, in some cases at least, *it* is a meaningful anaphoric pronoun. Our position is closer to the minority position, though we do not believe that any uniform analysis of all the various constructions is possible. We need to look at individual constructions one at a time.

#### 3.1 Clefts and related *it*-constructions

We will refer to sentences like the following as “presentational *it*-constructions”. They have sometimes been termed reduced or truncated clefts (Declerck 1983; Mikkelsen 2005); see below.

(13) Q: *Who's at the door?*

A: *It's a policeman.*

(14) a. *Oh, it's you.* [upon opening the door]

b. *Hullo! It's me!* [calling to someone upon arriving at an open front door]

(15) *Hey look. It's Woody Allen.*

Such sentences are concerned with the identification of someone present in the situation (cf. the question *Who is it?*). On our analysis, they involve locational BE, abstract THIS/IT (in the expression 'it is like this'), and specificational BE. These elements are the main ingredients of components (a) and (b) in the explication below. The explication also has a "potential counter-expectation" component (c) ('I know that someone can think that this someone is someone else'), which is correlated with the focus effect.<sup>11</sup>

[K] *It's a policeman (it's you, etc.):*

- a. [someone is in this place now]
- b. it is like this: this someone is a policeman (you, etc.)
- c. I know that someone can think that this someone is someone else

A slightly different schema is needed for sentences which are about something happening in a place. Though superficially similar, they are not concerned with identifying someone as such, but with supplying an explanation (a somewhat elliptical one) for what is happening. In the following exchanges, the implication that something is happening somewhere is conveyed by the semantics of the word *noise*. Notice that the explications in [L] and [M] do not involve specificational BE.

[L] (*What's that noise?*) *It's my husband:*

- a. [something is happening in this place now]
- b. it is like this: it is happening because my husband is doing something in this place
- c. I know that someone can think that it is happening because of something else

[M] (*What's that noise?*) *It's the rain (the wind, etc.):*

- a. [something is happening in this place now]
- b. it is like this: it is happening because of the rain
- c. I know that someone can think that it is happening because of something else

Returning to genuinely specificational constructions, consider so-called reduced or truncated clefts, as we see in exchanges like those in (16) and (17).

The terminology cannot be taken literally, but, as we will see in a moment, there is a real affiliation with “full” cleft constructions.

(16) Q: *Who got sick? Was it Malindy?*

A: *No, it was Max.*

(17) Q: *Where did it happen? Was it New York?*

A: *No, it was London.*

In this question-answer context, it is very clear that the “reduced cleft” answers presuppose some event or situation, and that the speaker wants to identify one element in this event or situation. Furthermore, this fact has a certain informational significance, correlated with the focus effect. Along with a number of other writers (Collins 1991; Hedberg 2000; Mikkelsen 2005), we think that a very similar structure of presupposition and assertion applies to full clefts, such as *It was Max who got sick*, or *It was in London that he got sick*. Accordingly, we would advance the explications in [N] and [O].

[N] *It was Max who got sick:*

- a. something happened to someone (i.e., someone got sick)
- b. it is like this: this someone is Max
- c. I know that someone can think that it happened to someone else

[O] *It was in London that he got sick:*

- a. something happened (i.e., he got sick) somewhere
- b. it is like this: this somewhere is London
- c. I know that someone can think that it happened somewhere else

The two sentences above focus on the identity of a person and a place, respectively. Equally, other situational elements such as times and “reasons/ causes” can be singled out in the cleft construction. For example:

[P] *It was because of the rain that we arrived late:*

- a. something happened (i.e., we arrived late) because of something
- b. it is like this: this something is the rain
- d. I know that someone can think that it happened because of something else

Relatedly, there are what Collins (1991) terms “*th*-clefts” headed by generic nouns; for example, *The one who got sick was Max*, *The place where he got sick was London*, *The reason we were late was the rain*, and so on.

In summary, on our analyses these various cleft and related *it*-constructions feature a meaningful quasi-pronominal element (namely, THIS/IT) as the subject

or topic of the assertion, specifically in the frame ‘it is like this’. On this score, we are in agreement with those analysts (e.g., Hedberg 2000; Mikkelsen 2005) who have disputed the traditional expletive analysis of cleft *it*. The ‘it is like this’ component presents the sentence as a way of characterising a situation—either a situation constructed in the preceding discourse or a situation which is self-evident in the external world (as it appears to the interlocutors).<sup>12</sup> The manner in which this situation is characterised involves identifying one particular element in the situation, such as a particular person, a particular place, a particular time, etc. This identificational component hinges on specificational BE.

### 3.2 Weather sentences (ambient *it*)

Although superficially similar to *it*-presentationals and reduced clefts, weather sentences differ in many ways, both formal and semantic. It has often been observed in the literature that weather sentences lack agnate *that*-constructions.

- (18) a. *It's raining.*  
       b. *\*That's raining.*
- (19) a. *It's often hot in Sydney.*  
       b. *\*That's often hot in Sydney.*

Weather sentences also vary much more across languages than *it*-presentationals. In many languages weather sentences do not contain any analogue of English *it*. We do not believe that English weather *it* is based on abstract THIS/IT, but this does not necessarily make it a meaningless dummy. A variety of authors have insisted that weather *it* is meaningful and referential (Bolinger 1977; Langacker 1991), and that it refers to the “setting”, the “environment”, or the like. The simplest way to represent this line of thought in NSM terms is to say that such sentences involve reference to a place. Roughly:

- [Q] *It's raining:*
- a. this place is like this now:  
 b. water is falling from the sky in this place

This phrasing is compatible with the possibility that the place being referred to is ‘here’ (the default reading), while also allowing that it could be somewhere else, as in sentences like *It's raining in San Francisco*.

Closely related to weather sentences are sentences like *It's often hot in Sydney*. They describe the conditions in a place.

[R] *It's often hot in Sydney:*

- a. this place (Sydney) is like this:
- b. when people are in this place they often feel hot

Another usage of English *it* occurs in temporal sentences like *It's getting late* and *It was time to go*. Presumably these can be analysed along similar lines, except that they involve reference to a time ('this time is like this: –'), rather than to a place.

On the analysis sketched here, weather *it* and cleft *it* are quite different from a semantic point of view, because weather sentences do not involve abstract THIS/IT.

### 3.3 Specificational sentences

Specificational sentences have been much studied in the syntax and formal semantics literature, beginning with Higgins (1979). Mikkelsen (2005) is a valuable book-length study. Although the term "specificational sentence" has been used with greater or narrower scope by different writers, some core examples are as follows:

- (20) a. *The tallest girl in the class is Molly.*
- b. *The capital of Australia is Canberra.*
- c. *Our next speaker is Claudia M.*
- d. *One of my heroes is Steve Jobs.*

Such sentences have a range of semantic and syntactic properties distinguishing them from ordinary predication sentences such as *Molly is the tallest girl in the class*, *Canberra is the capital of Australia*, etc. The specificational sentences appear to be "inverted" in terms of the usual phrase order of an English sentence. The subject NP is not a referring expression but rather represents a category (in logical jargon, a property), while the predicate complement is a referring expression (usually a name, as in the examples above). Associated with the inverted structure, specificational sentences have a fixed "information structure" compared with ordinary sentences: the focus is always on the predicate complement.

Intriguingly, the pronoun in a tag-question to a specificational sentence is invariably *it* (rather than *he*, *she*, or one of the other personal pronouns). Consider the tagged version of (21a), for example. The tag takes the form *isn't it?*, even though a regular predication sentence with the same subject NP must take the tag *isn't she?*.

- (21) a. *The tallest girl in the class is Molly, isn't it/\*she?*
- b. *The tallest girl in the class is Swedish, isn't \*it/she?*

In a specificational sentence, the speaker seems to presuppose the existence of a single instance of a certain category in the situation which he or she has in mind, and then goes on to specify the instance of it. We suggest the semantic structure can be modelled as in the following set of explications.

[S] *The tallest girl in the class is Molly:*

- a. in one class, one girl is taller than all the others
- b. I say: in this class it is like this: Molly is this one girl

[T] *The capital of Australia is Canberra:*

- a. in one country, one city is the capital city
- b. I say: in Australia it is like this: Canberra is this one city

These explications seem compatible with the grammatical and information structure characteristics of specificational sentences. Component (a) makes it clear that the apparent subjects (e.g., *the tallest girl in the class*, *the capital of Australia*) are not referring expressions, but rather represent the presupposed existence of a single instance of a category. Component (b) makes it clear that the speaker's interest is in a particular situation ('in this class it is like this', 'in Australia it is like this'), and that within this situation he or she wants to identify the individual which is the single instance of the category. Notice that the identifying clauses use specificational BE ('Molly is this one girl', 'Canberra is this one city') in the usual, non-inverted frame.

#### 4. Concluding remarks

The positing of these two new and interrelated innovations in the natural semantic metalanguage—specificational BE and abstract THIS/IT—opens up new avenues for improved explanations of many linguistic phenomena, both universal and language-specific. At the same time, however, the new proposals raise issues concerning their cross-linguistic realisations and combinatorial properties which will require sustained research in coming years.

#### Notes

1. We prefer the designation "specificational" because it is compatible with a wider range of use than the alternatives. The term "identificational" suggests a function or meaning specifically connected with saying something, e.g., saying who someone is, or saying what something is; and "identity statement", as used in the logical literature, is normally reserved for an even narrower selection of sentence types, e.g., *The Morning Star is the Evening Star*.

2. Hence the repugnant and dehumanising effect of the concentration camp practice of forcing people to identify themselves exclusively by numbers, depriving them of their names.
3. There are difficulties with using either 'to be called' or 'name' as semantic molecules, e.g., substituting for components (b) and (c) either 'this someone is called [M] Jock' or 'this person's name [M] is Jock'.
4. We will not discuss in any detail so-called "identity statements" involving names, such as *The Morning Star is the Evening Star*. Despite the big part they have played in philosophical discussions of identity, they are pretty remote from everyday usage. Such statements deny the presumed assumption that two named things or people are distinct. The following is a starting point for discussion.

*The Morning Star is the Evening Star:*

some people think like this:

there are two things

one of these things is the Morning Star [M], the other one is the Evening Star [M]

people can know that it is not like this

the Morning Star [M] is one thing, the Evening Star [M] is the same thing (not another thing)

5. A further complication is that *ser* is used to make statements about the time and place of "events" represented by event nouns, such as 'party', 'conference', or 'class'; e.g., *La fiesta es en casa de Ana a las 5* 'The party is at Ana's place at 5'; *El congreso será en la ANU* 'The conference will be at the ANU'. We would treat this an instance of polysemy.
6. We believe that the gender difference between *he* and *she* is best handled not as a semantic specification, but by way of rules of usage, i.e., scripts which stipulate that one should use the word *he* when speaking about a man or a boy, and the word *she* when speaking about a woman or a girl. To explore and justify this interpretation would take us too far away from the present topic, cf. Wierzbicka (2004), Goddard and Wierzbicka (to appear).
7. The conditions for use of *it* vs. "quasi-pronominal" *this/that* in English (as allollexes) are complex and a matter for further research.
8. These sentences have English-specific variants with *that* (*That's not fair* vs. *It's not fair*; *That's terrible* vs. *It's terrible*), which we will not investigate here. The complex semantics of the predicates in these expressions may have something to do with the fact that Polish equivalents of 'It's good' are grammatically different from, and simpler than, equivalents to 'It's terrible'. The former simply consist of *to* THIS/IT juxtaposed to *dobrze*, the adverbial form of GOOD. In *To (jest) okropne* 'It's terrible', on the other hand, *okropne* 'terrible' is an adjective and the sentence allows the possibility of a copula *jest* 'is'.
9. For example, in subject position: (a) *It's working out well*, (b) *It's not healthy to drink too much coffee*. And in object position: (c) *I can't stand it any longer*, (d) *He's doing it tough*, (e) *She's finally getting it together*.
10. Abstract THIS/IT cannot refer back to a previous referring expression. It can refer ("co-refer" would be a better term) to a previous substantive only if this substantive is functioning as a complement. For more on this point, see Chapter 3.
11. There is also an English-specific presentational *that*-construction. A tag to such a construction uses *it* (*That's John, isn't it/\*he?*), indicating that *that* is not simply elliptical for 'that person' (Mikkelsen 2005). The *that*-presentational seems more "deictic"—more immediate and/or reactive than the version with *it* (compare *Look, that's Alan over there* with *?Look, it's Alan over there*). Tentatively:

*That's Susan (over there)! =*

there is someone in this place, not here

it is like this: this someone IS Susan (i.e., the person called Susan)

I know that someone can think that this someone is someone else



There are independent reasons to think that English *that* (as a demonstrative) can be explicated as ‘this (someone/something), not here’ (Enfield 2003). This explains why *That’s me!* is unacceptable as a way of announcing one’s arrival at the door, but is alright as a reaction to seeing oneself, say, on the TV news.

12. We will not treat so-called pseudo-clefts (Higgins 1979; Collins 1991) in detail here, except to indicate that in our view they require a quite different line of analysis. The following explanations give the general idea: the speaker’s purpose is to identify an “abstract” SOMETHING (*what* in this context is an allolex of SOMETHING).

*What happened was that they got lost on the first day:*

- a. something happened
- b. I want to say what
- c. I say: they got lost on the first day

*What he did was to drop the whole thing:*

- a. he did something
- b. I want to say what
- c. I say: he dropped the whole thing

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## CHAPTER 3

# **Towards a systematic table of semantic elements**

Cliff Goddard

Semantic primes can be seen to fall into natural groups according to their grammatical properties and functional affiliations. This chapter explores ways in which these groupings, properties and affiliations can be systematised and displayed in tabular form, by analogy with the Periodic Table of chemical elements. It begins by reviewing the current “thematic” grouping of primes, observing that some of the categories, e.g. “time”, “space”, “logical elements”, contain elements of syntactically heterogeneous kinds. It then works in turn through different sections of the prime inventory, exploring tabular layouts which better display alignments such as deictic character, similar valency and complementation properties, the possibility of scalar modification, and so on. Non-compositional semantic relationships, as evidenced by cross-linguistically recurrent patterns of polysemy, are also taken into account to some extent. While incomplete in some respects, the investigation brings to light a number of findings about the structure and internal dynamics of the natural semantic metalanguage.

### **1. Introduction**

In the middle of the 19th century, chemists were busily isolating new elements and exploring their chemical and physical properties with the aid of new techniques. For a long time, it was not possible to discern any clear order in the maze of properties (density, valence, atomic weight, melting and boiling points, conductivity, etc.) of the elements—until, after twenty years of compiling, sorting and aligning these properties, Mendeleev published his Periodic Table of the Elements. It showed that the chemical elements could be classified into natural “families” according to atomic weight and valence, and that within each family the elements fell into a sequence reflecting cross-family analogies in a host of chemical and physical properties.

It may seem presumptuous to draw such a comparison, but it is possible to imagine that an analogous situation exists in linguistics now, at the turn of the 21st century. That is, linguists have managed to isolate a substantial number of “semantic elements” (i.e., the 63-odd semantic primes) and are beginning to explore and to specify their grammatical properties in detail (Wierzbicka 1972,

1996; Goddard and Wierzbicka eds 1994, 2002). It is already clear that although each prime has a unique configuration of grammatical properties (including combinatoric potential, valency and complementation options), many primes fall into natural groups with similar grammatical and functional properties. Could one then construct a Systematic Table of Semantic Elements, analogous to the Periodic Table of Elements? To answer this question, we need to explore how systematically the relevant grammatical properties are distributed across the inventory of primes, and to what extent they exhibit consistent alignments and interdependencies in the style of the chemical elements. The present chapter sets out to make a beginning towards this goal.

**2. The current “thematic” table of primes**

For some years now NSM researchers have been using a tabular listing of semantic primes in groups of comparable elements. This style of presentation was originally introduced in the *Semantic and Lexical Universals* volume (Goddard and Wierzbicka eds 1994), superseding earlier unstructured lists. In *Meaning and Universal Grammar* (Goddard and Wierzbicka eds 2002), the prime inventory was tabulated as shown in Table 1 below (Goddard 2002a: 14).

**Table 1.** Table of semantic primes (2002 version)

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Substantives:	I, YOU, SOMEONE/PERSON, PEOPLE, SOMETHING/THING, BODY
Determiners:	THIS, THE SAME, OTHER
Quantifiers:	ONE, TWO, SOME, ALL, MUCH/MANY
Evaluators:	GOOD, BAD
Descriptors:	BIG, SMALL
Mental/experiential predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY, WORDS, TRUE
Actions, events, movement:	DO, HAPPEN, MOVE
Existence and possession:	THERE IS, HAVE
Life and death:	LIVE, DIE
Time:	WHEN/TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME
Space:	WHERE/PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE
Logical concepts:	NOT, MAYBE, CAN, BECAUSE, IF
Intensifier, augmentor:	VERY, MORE
Taxonomy, partonomy:	KIND, PART
Similarity:	LIKE

---

A more recent version is shown in Table 2 (Wierzbicka 2006). This listing includes the “new” primes BE (SOMEWHERE) (i.e., locational BE), BE (SOMEONE/SOMETHING) (i.e., specificational BE), TOUCH and MOMENT. There have also been some small adjustments to the groupings: PART and KIND have been re-badged as “relational substantives” and moved up towards the top of the table, and the old grouping “existence and possession” has been expanded to accommodate locational BE and specificational BE.

The Table (in its different versions) has been rather successful. It displays something of the “logic” of the metalanguage, so that one can see how its major domains align with familiar typological descriptive categories. It enables one to effectively make the point that, overall, the NSM metalanguage looks very much like a natural language in miniature—which is, of course, just as it should be.

**Table 2.** Table of semantic primes (2006 version)

Substantives:	I, YOU, SOMEONE, SOMETHING/THING, PEOPLE, BODY
Relational substantives:	KIND, PART
Determiners:	THIS, THE SAME, OTHER/ELSE
Quantifiers:	ONE, TWO, MUCH/MANY, SOME, ALL
Evaluators:	GOOD, BAD
Descriptors:	BIG, SMALL
Mental predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY, WORDS, TRUE
Actions, events, movement, contact:	DO, HAPPEN, MOVE, TOUCH
Location, existence, possession, specification:	BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/THING)
Life and death:	LIVE, DIE
Time:	WHEN/TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT
Space:	WHERE/PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE
Logical concepts:	NOT, MAYBE, CAN, BECAUSE, IF
Intensifier, augmentor:	VERY, MORE
Similarity:	LIKE

Notes: • Primes exist as the meanings of lexical units (not at the level of lexemes) • Exponents of primes may be words, bound morphemes, or phrasemes • They can be formally complex • They can have different morphosyntactic properties, including word-class, in different languages • They can have combinatorial variants (allomorphs) • Each prime has well-specified syntactic (combinatorial) properties.

The tables shown above were both constructed using principles of two quite different kinds: thematic and syntactic. Sometimes these principles work in tandem. Groupings like Determiners, Quantifiers, and (perhaps) Mental Predicates seem to make sense both as thematic groupings and also in terms of shared syntactic properties. But elsewhere the thematic principle dominates at the expense of the syntactic principle. For example, the table does not make explicit the parallelism between *HERE* and *NOW* (as syntactically “inert” deictic anchors in their respective domains of space and time). It does not reveal that *WHERE/PLACE* and *WHEN/TIME* are substantive-like, in that they can combine with determiners and quantifiers. The five items in the Logical Concepts group are syntactically heterogeneous: *MAYBE*, *CAN*, and *NOT* can perhaps be termed “operators” (albeit with different scope properties), *BECAUSE* forms adjunct phrases, and *IF* introduces a dependent clause. In a similar vein, there seems to be little syntactic justification for putting the Intensifier (*VERY*) and Augmentor (*MORE*) on the same line, given the great syntactic differences between them. The bulk of this chapter is devoted to issues of this type, so there is no need to multiply further examples here.

My strategy will be to look at a number of different groupings in turn, trying to find a convenient visual arrangement to summarise their properties and interrelationships. The discussion presupposes background knowledge of current NSM theory and the results of recent NSM studies (e.g., Wierzbicka 1996; Goddard and Wierzbicka eds 2002).

### 3. Substantives

In general, I will start with a proposed table or diagram, then add a series of explanatory comments, and, often, questions about matters of fact or interpretation, unsolved puzzles, etc.

Table 3 displays substantive primes and related elements. Across the first two columns it aligns the deictic elements (*I*, *YOU*, *THIS/IT*, *HERE*, *NOW*) with the corresponding categorical elements (*SOMEONE*, *SOMETHING*, *SOMEWHERE*, *SOMETIME*). The term “specific” may not be optimal, but some such term seems necessary to highlight the difference between broad ontological categories (Aristotle’s persons, things, places, and times) and the items *PEOPLE*, *BODY* and *WORDS*. The final column lists the relational substantives *KIND* and *PART*.

The specifics *PEOPLE*, *BODY* and *WORDS* differ in their “numerosity” from the general categoricals *SOMEONE*, *SOMETHING*, *SOMEWHERE*, and *SOMETIME*, and also from one another. The categoricals are “indefinite” and close to genuinely number-neutral. (Although in isolation a term like *SOMEONE* or *SOMETIME* may suggest a single referent, in indefinite contexts there is no real implication of singularity. If, for example, one asks ‘Who did it?’ or ‘When did it happen?’ one is not implying that one person did it or that it happened only at one time.) But

**Table 3.** Substantives and related elements

Deictic	Categorical	Specific	Relational
I YOU	SOMEONE	PEOPLE	KIND
THIS/IT	SOMETHING (THING)	BODY	PART
HERE	SOMEWHERE (PLACE)	WORDS	
NOW	SOMETIME (TIME)		

there is a clear “collective” quality to PEOPLE, a palpable “discreteness” about BODY (a bounded, unit-like aspect), and a vaguely “multiple” feel about WORDS.

The arrangement of the third column can be explained as follows. To begin with, PEOPLE is affiliated in a non-compositional fashion with SOMEONE—presumably because, although in principle SOMEONE is compatible with a “being” of any kind, most SOMEONES in this life are of the kind PEOPLE. Next, BODY has non-compositional relationships both with SOMEONE and with SOMETHING, because on the one hand most SOMEONES in this life have a BODY (which is intimately tied up with their identity), and on the other hand because ‘someone’s body’ can readily be thought of as ‘something’. (In a sense therefore, the prime BODY provides a semantic intermediary between the concepts of SOMEONE and SOMETHING).<sup>1</sup> These links are evidenced by non-compositional polysemies in languages from around the world. There also seems to be an affiliation between WORDS and SOMETHING, inasmuch as words can be thought of as ‘things’.

As mentioned, the relational substantives—KIND and PART—can be readily combined with determiners and quantifiers, and it is this property which justifies including them in a table of substantive elements. But KIND and PART are also capable of combining with other substantive elements, forming distinctive types of substantive phases expressive of classification and partonomy. It appears that KIND and PART can both combine with all the categorical substantives, i.e., not only with SOMEONE and SOMETHING, but also with SOMEWHERE/PLACE and SOMETIME/TIME. These latter combinations are not as salient, but they seem to be necessary for explicating certain kinds of concept. For example, *towns* and *cities* may need to be explicated as ‘places of one kind’ where many people live together; the *seasons* may be ‘times of one kind’ when certain things happen and certain conditions prevail; “region words” such as *outskirts*, *interior*,



and *coast* seem to qualify as ‘parts of a place’; and words such as ‘day’ (in the “unit of time” sense) seem to qualify as ‘parts of a time’.

Generally speaking, *KIND* and *PART* can also combine with the specifics. That is, we can presumably speak of ‘kinds of people’, ‘kinds of body’, and ‘kinds of words’; and similarly of ‘parts of someone’s body’ and ‘parts of words’ (e.g., to say things like ‘some words have many parts’). The combination \*‘part of people’ appears to be impossible however (though an analogous meaning exists in the combination ‘some people’, with so-called “partitive-existential” *some*; see below).

One thing which seems clear is that *PART* has a special compositional affinity with *BODY*. All languages provide numerous lexemes for ‘parts of someone’s body’ and the *BODY* is the common human prototype of *SOMETHING* with *PARTS* (cf. Wierzbicka 2007). Interestingly, *BODY* itself has a certain “relational” quality in the sense that it cannot function by itself as an argument, but must always be combined with some kind of anchoring expression (e.g., ‘this person’s body’, ‘the body of a man’ vs. ‘the body of a woman’). Unfortunately this property is not indicated in any fashion in the layout of Table 3.

#### 4. Specifiers (determiners and quantifiers)

The current thematic table has two groupings: Determiners (*THIS*, *THE SAME*, *OTHER*) and Quantifiers (*ONE*, *TWO*, *SOME*, *MUCH/MANY*, *ALL*). As a first pass, this seems sound enough, but there are reasons to differentiate more finely, as shown in Table 4.

Within each major group (determiners and quantifiers) the members are mutually exclusive, but members of the two groups can be combined in a limited range of ways.

There is a sense in which *THIS* is the simplest determiner since it does not presuppose any previous mention or point of comparison; and in line with this fact, *THIS* appears to lack significant non-compositional links. The other two determiners, which I have dubbed “relational determiners”, have non-compositional links with quantifiers. Determiner *THE SAME* is linked with *ONE*, presumably because identity of reference often implies a single individual (Wierzbicka 1994: 470–471). Determiner *OTHER* is linked with quantifier *SOME*, presumably because *SOME* implies the existence of ‘some others’ (often in contrast with the group being characterised as *SOME*, e.g., ‘X does some things, not others’).

Within the Quantifiers grouping, the contrast between weak and strong, and then the internal divisions within the weak group, can be established as follows. The so-called “strong” quantifier *ALL* is set off from the others by an external criterion: its incompatibility with so-called “existential contexts”, i.e., it cannot combine with the subject of an existential statement. Compare: \*‘there are all people in the garden’, ‘there is one person in the garden’, ‘there are two/some/many things in this place’.

**Table 4.** Specifiers: Determiners and quantifiers

Determiners		Weak quantifiers		Strong quantifier	
Absolute	Relational	Determinate quantity	Indeterminate quantity	“big quantity”	
THIS	THE SAME  OTHER	ONE TWO	SOME	MUCH (MANY)	ALL

Within the weak group, the “quantity” elements ONE, TWO and SOME all have a partitive (or subset) option—ONE OF, TWO OF, SOME OF—which is not available, in universal terms, for MUCH/MANY and ALL. Finally, the “determinate quantity” elements—ONE and TWO—are set off by their compatibility with the determiners THIS and THE SAME (e.g., ‘this one thing’, ‘the same two things’), in contrast to the “indeterminate quantity” SOME (cf. \*‘this some things’, \*‘the same some things’).

I am groping for a suitable “meta-term” for MUCH/MANY: the naive expression “big quantity” at least reminds us of the non-compositional affiliation with BIG. Although it seems clear that this prime is neutral to the so-called count-mass distinction (like the colloquial expression *a lot* in English), the exact status of *many* is not yet fully clear.

## 5. Time and space

The primes of time and space show certain parallels which lend themselves to tabular alignment. Consider this extract from Goddard and Wierzbicka (2002: 66), which appears with the following commentary:

If we look down the rows ... , we can see that both domains have a “categorical” or substantive-like element, that both have a deictic element, that both have a pair of relational antonyms, and also a pair of “scalar” antonyms. ... It should also be noted, though, that there are some temporal and spatial primes which do not have any analogues in the other system. For example, there is no spatial analogue to the durational prime FOR SOME TIME; nor are there any temporal analogues to the spatial elements INSIDE and ON (ONE) SIDE.

Table 2.1: *Semantic primes of time and space*

Time	Space
WHEN/TIME	WHERE/PLACE
NOW	HERE
AFTER, BEFORE	ABOVE, BELOW
A LONG TIME, A SHORT TIME	FAR, NEAR
FOR SOME TIME	INSIDE
	ON (ONE) SIDE

## 5.1 Temporal primes

To the temporal items in the above table, we now have to add **MOMENT**. The syntax of this recently proposed prime is not perfectly clear, but it would appear that: (i) **MOMENT** bears an antonymic-like relationship to the durational prime **FOR SOME TIME**, inasmuch as a **MOMENT** lacks “duration” altogether, and (ii) **MOMENT** is rather inert syntactically. In other languages, the exponent of **MOMENT** may not look like a substantive, as it does in English (cf. Elouazizi and Trnavac this volume Ch 9). It may be a particle or an adverb.

There are reasons to wonder whether **MOMENT** even collocates with **THIS** and with **ONE**. The main reason for thinking that it does is that we would seem to need these expressions in explications. We seem to need ‘at that moment’ to explicate adverbs like *suddenly*, for instance, and to explicate the “momentary onset” effect conveyed in Polish by perfective forms of verbs like ‘see’, ‘hear’, and ‘think’. We seem to need ‘at one moment’ to explicate the meanings of punctual verbs like *blink* or *burst* (since these meanings are not tied to any particular moment). However, it seems odd for a prime to be combinable with such a narrow range of specifiers, and, as just mentioned, in some languages the best exponent of the “momentary” prime is not substantive-like at all, but a particle or an adverb.

The best alternative may be to take the expression **IN ONE MOMENT** as an English phraseme designating a unitary prime—paralleling its “anti-term” **FOR SOME TIME**, in this respect. To get the effect conveyed by ‘at that moment’, one can combine the unitary “momentary prime” with a temporal adjunct containing **THIS** (or *that*); for example, ‘it happened at that moment = it happened at that time, in one moment’. The idea is that the English expression ‘at that moment’ does not really identify a particular moment, but rather characterises the manner in which the event took place, i.e., in one moment, at a particular time.

Also worthy of further discussion is the status and syntax of **FOR SOME TIME**. Does this expression really stand for a unitary prime? And what is the status of an NSM expression like ‘for a long time’? These are related questions because the existence of the latter expression, and others like it, shows that “duration” can be combined with different time-periods (‘for some time’, ‘for a long time’, ‘for a short time’, etc.); and this would seem to suggest that **FOR SOME TIME** is divisible into two parts, a “durational **FOR**” and **SOME TIME**; and that similarly, ‘for a long time’ is a composite of “durational **FOR**” and **A LONG TIME**, and so on.

There are plenty of reasons for not wanting to go down this path, however. In many languages the exponent of **FOR SOME TIME** is a formally monolexicemic expression; furthermore it is doubtful whether the combination **SOME + TIME** is available, universally, to join with a putative “durational **FOR**” in order to create an expression for indeterminate duration (i.e., an equivalent to **FOR SOME TIME**). Instead, a better course of action seems to be to look more closely into the syntax of the expression ‘for a long time’, and in particular to ask whether it can

be seen as a composite of a unitary FOR SOME TIME and A LONG TIME. We would like to suggest that the expression ‘for a long time’ does indeed stand for a combination of these two primes, although the mode of combination is not as straightforward as it might seem. In particular, it is not an appositional construction, but a head-modifier construction—with the durational expression (FOR SOME TIME) as head and the “dimensional” time-period expression (A LONG TIME, A SHORT TIME, etc.) as modifier.

It is helpful to approach this issue by first considering the mode of combination of two other kinds of composite expression. As shown below: (a) temporal “adverbs” BEFORE or AFTER can be combined with A LONG TIME or A SHORT TIME; and (b) spatial relational phrases, such as ABOVE THIS PLACE or BELOW ME, can be combined with FAR (a dimensional prime from the spatial realm).

- (1) a. before: a long time before, a short time before  
b. after: a long time after, a short time after
- (2) a. above this place: far above this place  
b. below me: far below me

The existence of combinations such as these was noted in Goddard and Wierzbicka (2002), but with little comment on their internal syntax. Clearly, however, the dimensional expressions are modifier-like, in that they elaborate or add detail to the information given by the temporal adverb or spatial phrase.

As additional evidence, one can consider expressions such as the following, in which the basic temporal relationship is manifested by a verb like *precede* or *follow*. These expressions are, of course, English-specific, and they do not match precisely with BEFORE and AFTER, but nevertheless they can help us appreciate the syntactic relationships at play. When the temporal expression is a verb, the dimensional expression appears as an adverb or adverbial phrase, i.e., in a modifying role.

- (3) a. X preceded Y: X long preceded Y, X preceded Y by a long time  
b. Y followed X: Y quickly followed X, Y followed X after a short time

Coming back now to ‘for a long time’, the proposal is that this represents a portmanteau for FOR SOME TIME modified (elaborated) by the dimensional expression A LONG TIME. The time-period adds a dimensional specification to the basic temporal information provided by FOR SOME TIME.

The behaviour of English-specific verbs such as *to last* and *to continue*, which manifest duration in a verbal form, seems to reinforce this view, inasmuch as they can take temporal dimensional (time-period) expressions as adverbial modifiers or complements.

- (4) a. It lasted a long time (a short time, etc.)
- b. It continued for a long time (a short time, etc.)

## 5.2 Spatial primes

The status of the spatial relators ON (ONE) SIDE and INSIDE warrants further consideration, because they differ in several interesting ways from the other relators—both spatial, i.e., ABOVE and BELOW, and temporal, i.e., BEFORE and AFTER. Unlike these other relators, ON (ONE) SIDE and INSIDE do not appear as members of a pair of converse terms, but as “solo” items.

In the case of ON (ONE) SIDE, this peculiarity seems to be offset by the fact that “laterality” inherently implies the existence of options—prototypically, paired options. That is, simply saying that ‘X is on one side of Y’ implies that X could have been on another side (or perhaps, the other) side of Y. In a sense, therefore, the prime ON (ONE) SIDE does not need a separate converse because it has an in-built dual orientation. Along with this property, the laterality prime requires not only a relatum but also a specifier; i.e., one cannot speak of something being simply ON SIDE of something else, it must be ON THIS SIDE, ON THE SAME SIDE, ON ONE SIDE, ON TWO SIDES, and so on. Presumably these properties are linked with the anthropocentric orientation of laterality, i.e., with the role of the human body as the primary prototype or experiential reference point for “sidedness”.

Despite the differences between ABOVE and BELOW, on the one hand, and ON (ONE) SIDE, on the other, I think it is logical to see them as belonging to a single subgroup of “orientation” primes (following Kant in this regard). The asymmetry in their properties is natural in view of the experiential difference between the vertical and horizontal dimensions (due to gravity), and the bilateral design of the human body.

Whether INSIDE belongs to the same subgroup, however, is not so certain. Aside from its lack of a primitive antonym, INSIDE is unlike the other spatial primes in another way. It is natural and normal to speak of something being INSIDE SOMETHING (and perhaps, INSIDE SOMEONE), but it is not natural to speak of being ?INSIDE SOMEWHERE, e.g. *\*inside Sydney/camp*. I would like to suggest that INSIDE should be aligned with TOUCH (i.e., contact), rather than with the spatial relational primes, since TOUCH too is conspicuously specialised in having “somethings” (and someones) as arguments. This would give a new subgroup of “physical relational” elements: TOUCH and INSIDE. Such a grouping would bear on the issue 17th century thinkers wrestled with when they tried to identify the fundamental characteristics of “body” or “physical extension”, i.e., what gives a physical object its “physicality”, its corporeal existence? The primes INSIDE (implying something like “bulk” or mass) and TOUCHING (implying something tangible, and with a surface) would seem to go a long way in this direction.

### 5.3 A table of spatial and temporal primes

In view of the uncertainties discussed above, the layout of Table 5 is provisional. In a full Table of Semantic Elements, one would have to find a way of linking the left-hand side of the table to the appropriate part of the “substantives” table (Table 3). It would also be desirable in a complete Table for the top items in the “dimension” column to line up with “scalar” items from other domains (such as GOOD, BAD, BIG, and SMALL), because, as discussed below, these all share the property that they can be intensified by VERY.

One unexpected alignment which can be seen in Table 5 is between FOR SOME TIME and INSIDE, but on further consideration this makes a certain sense too. Aspectologists often make use of some analogy or metaphor linking “duration” (FOR SOME TIME) with “containment” (INSIDE).

**Table 5.** Primes of time and space

Deictic	Categorical	Relation (orientation)	Dimension	Extension
NOW	WHEN/TIME	BEFORE AFTER	A LONG TIME A SHORT TIME	FOR SOME TIME MOMENT
HERE	WHERE/PLACE	ABOVE BELOW ON (ONE ) SIDE	FAR NEAR	INSIDE TOUCH

## 6. Predicate primes

There are 17 predicate primes—in the sense of primes which are predicates first and foremost. A number of other primes, including GOOD, BAD, BIG, and SMALL, can appear as predicates, but not exclusively so; and of course many primes can form predicative phrases. As a reminder, here is the relevant extract of predicate primes from the current version of the thematic table (as given in Table 2).

**Table 6.** Predicate primes

Mental predicates:	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech:	SAY
Actions, events, movement, contact:	DO, HAPPEN, MOVE, TOUCH
Location, existence, possession, specification:	BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)
Life and death:	LIVE, DIE

## 6.1 Complements, valency, aspect, manner, formal patterning across languages

The predicate primes are characterised by a tangled set of cross-cutting properties, which enable them to be grouped or aligned in different ways. I will work through some of these properties and alternative groupings, but first it is useful to introduce some terminology and distinctions based on the model of NSM grammar developed in Goddard and Wierzbicka (2002).

We can begin with the distinction between referring expressions and substantive complements. In NSM-internal terms a “referring expression” is an expression of the form *THIS* + substantive (e.g., ‘this something’, ‘this someone’), or else a bare substantive in place of which an expression of the form *THIS* + substantive can be substituted. In a sentence like ‘something moved’, for example, we can replace the word ‘something’ with ‘this something’ and the sentence will still make sense (and could in fact occur in NSM text as a way of referring anaphorically to a particular something which has been previously mentioned). Likewise, in a sentence like ‘I don’t know’, we can replace the word ‘I’ with ‘this someone’ and the result is a meaningful sentence, i.e., ‘this someone doesn’t know’. Except for *SOMETHING*, the other substantives (i.e., *I*, *YOU*, *SOMEONE/WHO*, *SOMEWHERE/WHERE*, *SOMETIME/WHEN*) are all invariably referring expressions. The unique (and remarkable) property of *SOMETHING* is that it is capable of functioning not only as a referring expression, but also—with certain predicates—as a substantive complement; for example, in expressions like ‘something happened’ and ‘I did something’. A substantive complement does not allow specification with *THIS*; i.e., expressions such as ‘this something happened’ and ‘I did this something’ are not acceptable NSM. In order to refer anaphorically to a previously mentioned substantive complement (e.g., after saying ‘something happened’ or ‘I did something’), the semantic prime *THIS* is used, in its “abstract *THIS/IT*” capacity; for example, ‘when this/it happened, ...’ or ‘I didn’t want to do this/it’ (cf. Chapter 2).

As mentioned, only a subset of the semantically primitive predicates can occur with a substantive complement. They are the following nine (substantive complements underlined):<sup>2</sup>

something HAPPENS, DO something, THINK something about something/  
someone,<sup>3</sup> KNOW something, WANT something, FEEL something, SEE some-  
thing (somewhere), HEAR something, SAY something

Whether or not a substantive complement can occur with a particular predicate is determined by the identity of that predicate. It is part of the conceptual syntax of that predicate. None of the other predicate primes (i.e., *MOVE*,

TOUCH, BE (SOMEWHERE), BE (SOMEONE/SOMETHING), HAVE, LIVE, DIE) can occur with substantive complements.

It is also useful to be able to speak about the “arguments” of a predicate, and in NSM-internal terms an argument can be characterised as a referring expression which appears in combination with and dependent on a predicate, in the sense that its role in relation to the predicate is determined by the identity of the predicate. Generally speaking, obligatory argument slots can be filled by substantives of different kinds—categorical (e.g., SOMEONE, SOMETHING, SOMEWHERE), specific (e.g., PEOPLE, WORDS) or deictic (I, YOU). A couple of predicates are peculiar in requiring an obligatory argument of a certain type; for example, the “possessor” argument of HAVE must presumably be a personal substantive (SOMEONE, PEOPLE, I, YOU). Optional arguments are those introduced by valency extensions. They are also generally relatively unconstrained as to category type. The extra argument introduced by the HAPPEN TO, DO TO and SAY ABOUT valencies, for example, can be a person, a thing, or place.

Some optional arguments are constrained, however; for example, only personal substantives can appear in the valency extensions SAY TO and LIVE WITH. On this basis, one might say that SAY and LIVE are inherently more “social” than the other primes. Actually, the extra personal argument is usually only possible if the obligatory argument is also a personal substantive, so it might be better to speak about “interpersonal” valencies. For example, either a someone or a something can BE SOMEWHERE, but only a someone (or “someone-like” creature such as a dog) can BE WITH someone else. Similarly, the prime SAY can take a non-personal substantive phrase based on WORDS as its obligatory argument, e.g., in a frame like THESE WORDS SAY SOMETHING, but the SAY TO valency extension is then blocked. It does not make sense to speak of WORDS saying something TO someone.

The predicate HAPPEN is unique in not requiring any arguments at all. In its basic syntactic frame, SOMETHING HAPPENED, the word ‘something’ is not an argument (because it is not a referring expression), but a complement. An optional argument can of course be added with the HAPPEN TO valency extension, i.e., ‘something happened to this someone/something’.

An interesting property of some predicate primes is that they have a privileged “locus” slot for a SOMEWHERE expression (Wierzbicka 1996: 123–124). HAPPEN, MOVE, and TOUCH appear to have such a locus slot: something can HAPPEN SOMEWHERE, something or someone can MOVE SOMEWHERE (in the sense ‘move in a place’), something can TOUCH SOMETHING SOMEWHERE.<sup>4</sup> Locational BE normally requires SOMEWHERE (or a related locational expression) as a locus expression (unless it occurs in its ‘be with someone’ frame). Another kind of locus expression may be termed the “locus of observation”; for example, we can SEE SOMETHING SOMEWHERE and, perhaps, HEAR SOMETHING SOMEWHERE. All these predicates, then, can be seen as “localisable” in various ways.<sup>5</sup>



An outstanding property of a small number of primes—KNOW, THINK, WANT—is the possibility of taking a clausal (“propositional”) complement. For example, one can KNOW THAT someone did something, something happened, etc., or THINK THAT someone did something, something happened, etc. The prime WANT too can universally take a clausal complement (cf. Harkins 1995), albeit in two complementary forms: one in which the assumed subject of the complement is the “wanter”, and one in which the complement clause has a distinct subject of its own.

All the properties mentioned so far concern argument, valency and complement structure. There are other kinds of properties as well, including “temporal”, “aspectual”, and “manner” properties. As an example of a temporal property, one can take the fact that certain primes—MOVE, HAPPEN, TOUCH, DIE, DO, SAY, SEE, HEAR—appear to require a time adjunct. These time-dependent predicates can be regarded as “analogues of prototypical verbs” (Goddard and Wierzbicka 2002: 50). As an aspectual property, there is the fact that certain primes—MOVE, HAVE, LIVE—necessarily imply duration (FOR SOME TIME). As an example of a “manner” property, certain primes—MOVE, LIVE, DO, HAPPEN, TOUCH, SAY, DIE, THINK, KNOW—allow for variation in manner; that is, combinations such as MOVE LIKE THIS, LIVE LIKE THIS, DO SOMETHING LIKE THIS (= IN THIS WAY), and so on, are well-formed. I will assume that this also applies to THINK and to KNOW, i.e., that the expressions THINK LIKE THIS (= IN THIS WAY) and KNOW SOMETHING LIKE THIS (= IN THIS WAY) are available in universal grammar.

The intersection of the manner property and the temporal property appears to characterise a set of “event” predicates—MOVE, HAPPEN, DO, SAY, DIE. These describe things which both happen in time, so to speak, and which are capable of varying in a way which can be seen and commented on by an external observer (cf. Goddard and Wierzbicka 2002: 53).

So far I have mentioned only strictly syntactic facts. An entirely different source of evidence about affiliations between primes comes from the various patterns of formal realisation that are found across languages, such as recurrent non-compositional polysemies and shared patterns of formal marking, e.g., case-marking patterns. After nearly 15 years of cross-linguistic research into how semantic primes are realised in diverse languages (Goddard and Wierzbicka eds 1994, 2002; Goddard ed. 1997) we have accumulated a significant body of knowledge about these patterns. For example, we know that non-compositional polysemies are relatively common between SAY and DO, between SAY and WANT, between THERE IS and BE, and between BE and LIVE, among others.

## 6.2 Towards a table of predicate primes

The optimal arrangement of predicate primes is not yet clear, so what I will do is to present several diagrams and discuss the pros and cons of each. Needless

**Table 7.** Selection of predicate primes arranged in triples of comparable elements

Being	THERE IS	BE (SOMEWHERE)	LIVE
Event	HAPPEN	DO	MOVE
Mental	WANT	THINK	KNOW
Experience	FEEL	HEAR	SEE

to say, there many other possible modes of arrangement (circles, spirals, etc.) aside from rectilinear arrays, but whether or not these are appropriate will only become clear by experimenting with simpler arrangements first.

Table 7 presents 12 of the predicate primes in four groups of three each. Each “triple” appears to have some claim to thematic coherence, as shown by the labels along the left-hand side. Each triple also shares significant syntactic properties, as discussed below.

The “being” group are all non-dynamic (stative) and strongly “place-related” in the sense of either allowing or requiring a locus expression: THERE IS, LIVE, BE (SOMEWHERE). Recurrent non-compositional polysemies are attested across all three pairings in the top row, i.e., THERE IS with BE (SOMEWHERE), THERE IS with LIVE, and LIVE with BE (SOMEWHERE). As mentioned, HAPPEN, DO and MOVE can be regarded as “events”, presumably because they are both time-dependent and capable of manner modification.<sup>6</sup> The “mental” group—WANT, THINK, KNOW—are all capable of taking a propositional complement. The “experience” group—FEEL, HEAR, SEE—can all take a “locus” expression of sorts. I have also tried to maximise the intuitive interrelatedness along the vertical dimension of Table 7.

Despite its neat look, there are a number of syntactic affiliations among semantic primes which are not evident in the arrangement of Table 7. To make this clearer, I will present and explain some alternative diagrams. Table 8 on the following page depicts the non-complement-taking primes.

On the left-hand side there are four stative elements which can be seen as tightly interrelated. The first row—THERE IS and specificational BE—are impersonal in character, while the second row is more personal, either requiring a personal subject (as with HAVE) or allowing an “interpersonal” frame (as with ‘someone being with someone else’). Certainly, non-compositional polysemy between their exponents is strongly attested in various languages, i.e., THERE IS–HAVE polysemy and BE–BE polysemy.

Interestingly, THERE IS and HAVE both seem to have counterparts in the domain of NP syntax. The nominal counterpart of THERE IS is the “partitive-existential”

**Table 8.** Non-complement-taking predicate primes  
[S/T = SOMETHING, S/O = SOMEONE, S/W = SOMEWHERE]

<div>THERE IS</div> <div>there is S/T~S/O (S/W)</div>	<div>BE (specificational)</div> <div>S/T is S/T S/O is S/O</div>	<div>MOVE</div> <div>S/T~S/O moves (S/W) (like this)</div>	<div>TOUCH</div> <div>S/T~S/O touches S/T~S/O (S/W) (like this)</div>
<div>HAVE</div> <div>S/O has S/T</div>	<div>BE (locational)</div> <div>S/T is S/W S/O is with S/O</div>	<div>LIVE</div> <div>S/O lives (with S/O)</div>	<div>DIE</div> <div>S/O dies</div>

*some* (cf. Goddard 2002c: 128–132), as in ‘Some people admire Hitler’ (cf. ‘There are people who admire Hitler’), while the nominal counterpart of HAVE is the alienable possession construction. It may be that LIVE too has a nominal, or rather an adnominal, version which would allow us to form a substantive phrase like A LIVING THING (or SOMETHING LIVING). This would be very handy since it seems that ‘living things’ (in the sense of “creatures”) can routinely appear as subjects of the primes DO, THINK, KNOW, and WANT (and perhaps DIE).<sup>7</sup>

The right-hand side of Table 8 presents, in the top row, two predicates—MOVE and TOUCH—which share with the other elements on the top row the property of being localisable. The alignments in the bottom row are not as good. Predicate LIVE may appear to designate a “state-like” situation, and to this extent it might seem out of place in the right-hand section; but on the other hand, if LIVING is a state, it is a state characterised by activity (and, by movement). Predicate DIE appears at the bottom right, next to LIVE, but otherwise looking out of place.<sup>8</sup>

Table 9 presents eight primes in a symmetrical array, all of them having a certain subjective or experiential quality. From a grammatical point of view, their main shared properties are that they take a “personal” subject, and that they take a substantive complement SOMETHING. Correlated with this is the fact that they can all combine with augmentor MORE in place of this substantive complement. (The acceptability of the combination THINK MORE, in the intended sense, is not immediately obvious, but it is possible to say about someone that ‘he should think more about other people’.)

The left-hand column (SEE, HEAR, FEEL) represents the experiential meanings, which, as noted earlier, appear to allow locus expressions: one can SEE SOMETHING SOMEWHERE, HEAR SOMETHING SOMEWHERE, FEEL SOMETHING SOMEWHERE IN THE BODY. The middle column (DO, SAY) represents “actions” in a broad sense.

**Table 9.** Complement-taking predicate primes arranged by similarity of valence, complementation and manner (HAPPEN is not shown) [S/O = SOMEONE, S/T = SOMETHING, S/W = SOMEWHERE]

<p>SEE</p> <p>S/O sees S/T (S/W)</p>	<p>DO</p> <p>S/O does S/T (to S/O~S/T) (with S/T) (in this way)</p>	<p>THINK</p> <p>S/O thinks (S/T) about S/O~S/T ~ that – (in this way)</p>
<p>HEAR</p> <p>S/O hears S/T (S/W) ~ words</p>	<p>SAY</p> <p>S/O says S/T (to S/O) (about S/O~S/T) (with words) (in this way)</p>	<p>KNOW</p> <p>S/O knows S/T (about S/O~S/T) ~ that – (in this way)</p>
<p>FEEL</p> <p>S/O feels S/T (S/W in the body)</p>		<p>WANT</p> <p>S/O wants S/T ~ to – S/O to –</p>

Both DO and SAY have a complex set of valency options, which can be aligned to a certain extent: DOING TO with SAYING TO (i.e., patient with addressee), DOING SOMETHING WITH SOMETHING with SAYING SOMETHING WITH WORDS (i.e., instrument and “verbal means”). The right-hand column (THINK, KNOW, WANT) represents mental predicates, which can all take clausal complements.

Looking across the rows, it seems to me that SEE, DO, and THINK are intuitively affiliated in being subject to voluntary control. DO and THINK share a certain dynamic quality. (The English “*think of opinion*”, e.g., *Some people think that Elvis is still alive*, appears to violate this claim, but in a cross-linguistic perspective English *think* is peculiar in allowing such apparently “timeless” uses (Goddard 2003; Goddard and Karlsson 2004, this volume Ch 8).)

In the second row of Table 9, HEAR and SAY are clearly affiliated in that people can typically hear something which is said; and at a grammatical level both SAY and HEAR can take complements or adjuncts involving WORDS. As for SAY and KNOW, both allow a topic valency extension—SAY SOMETHING ABOUT and KNOW SOMETHING ABOUT. As for the bottom row, there is presumably some intuitive affiliation between FEEL and WANT, though I would not want to make too much of this considering the big differences in their grammatical properties.

The “square” of four elements at the right of Table 9—DO, THINK, SAY, KNOW—all accept manner modification (assuming that it is possible to speak of KNOWING SOMETHING IN ONE WAY), whereas the other items cannot. At a

more general level, it could be argued that the members of this group have a more complex range of valency extensions than the other predicates and thus form a small natural family.

Given the competing attractions and shortcomings of Table 7, on the one hand, and Tables 8 and 9, on the other, the optimal arrangement of predicate primes must remain open for discussion.

## 7. Logical concepts

In *Meaning and Universal Grammar* the relationships between MAYBE, CAN and NOT are sketched as follows: MAYBE is an “external” operator with scope over a clause, while CAN and NOT are both predicate operators (sometimes called “metapredicates” in earlier NSM work). What are the possible relationships between CAN and NOT? To begin with, we have to recognise that the English word *cannot* (*can’t*) is not semantically CAN NOT, but rather NOT CAN, i.e., the reverse order to that of the English morphemes. More precisely, ‘I can’t do it’ = ‘I not can do it’, with NOT having wider scope than CAN.

The converse relationship is also semantically acceptable, e.g. ‘I can not do it’. Indeed, this combination would seem indispensable, given the need for explications and scripts related to “freedoms” of various kinds. Conversely, to explicate notions of obligation, constraint, etc., we will need locutions such as ‘I can’t not do it’ (cf. Goddard to appear).<sup>9</sup> In summary, the combinations shown in Table 10 below are needed.

It would seem that only one instance of CAN is allowable in any clause. Combinations like the following just don’t make sense: *\*I can can do it*, *\*I can cannot do it*, *\*I cannot can do it*.

Turning now to BECAUSE, IF, and MAYBE, in Wierzbicka (1996) the primes IF and BECAUSE were grouped together (along with LIKE) as “interclausal linkers”. The idea was that from a textual point of view these elements allowed for explicit linking together of separate clauses. However, even if these two elements can serve a similar kind of function, their mode of operation is very different. BECAUSE forms small, simple adjunct phrases, in combination with a substantive or quasi-substantive phrase (e.g., BECAUSE OF IT/THIS, BECAUSE OF SOMETHING ELSE). The linking effect comes about because the substantive or quasi-substantive element can itself refer anaphorically to the content of a preceding clause. The element IF, on the other hand, introduces a dependent clause of its own, a clause which can have a great deal of internal complexity. It is tempting to say that BECAUSE forms phrasal adjuncts while IF forms clausal adjuncts; but on the other hand, an adjunct is supposed to be an optional extra, and presumably an IF-clause ought not to be seen in this way.

Table 10. Combinations of CAN and NOT

I CAN DO IT	I CAN NOT DO IT
I NOT CAN (= cannot) DO IT	I NOT CAN (= cannot) NOT DO IT

The prime MAYBE, though apparently simple in its syntax (as a clausal operator) and easy to identify cross-linguistically, is involved in a number of semantic puzzles which require clarification. First, there is the nature of its relationship with IF, evidenced by the fact that some languages (such as the Australian languages Yankunytjatjara and Arrernte) use the same lexical form for the two primes, while others employ the same “subjunctive” morphology to mark both IF-clauses and MAYBE-clauses. There are also some interesting combinatorial restrictions. In particular, MAYBE cannot occur immediately “inside” an IF-clause (cf. \*IF MAYBE THIS HAPPENS, ...; \*IF MAYBE I DO THIS, ...), though it can occur in the apodosis (cf. IF THIS HAPPENS, MAYBE ...; IF I DO THIS, MAYBE ...). Another peculiarity of MAYBE is that it is out of place in a “knowledge complement”, cf. ?I KNOW THAT MAYBE HE DID IT. Currently we attribute these various phenomena to affiliations and incompatibility of a non-compositional nature, but there may be other explanations.

8. Scalar modification

There are many other regularities and patterns in the grammar of semantic primes which have yet to be focused on in any depth. As a single example, one can point to the fact that the combinatorics of VERY (see Table 11 below) seem to mark out a covert class of “scalar” expressions which cross-cuts the thematic domains of size, evaluation, space, and time.

An interesting result of recent studies is that VERY apparently does not combine equally well with all the primes one might expect it to combine with, on the basis of English. In particular, the combination A VERY SHORT TIME is disallowed in some languages, such as Lao and Chinese (Enfield 2002; Chappell 2002), and the combination VERY NEAR is suspect in others. On account of this, I have not included either in Table 10, but it must be admitted that the situation is not fully clear.

Table 11. Scalar modification with VERY

VERY	BIG SMALL	GOOD BAD	FAR	A LONG TIME
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The generalisation is not that whenever there is a pair of antonyms the “small” member of the pair is ruled out, because VERY always seems to combine freely with SMALL itself—and it could scarcely be otherwise given the human interest in ‘very small things’ (including seeds, prickles, grains, etc.) and related words such as *tiny*, *minute*, etc. This consideration brings to mind a possible functional reason for the absence of ‘very near’ and ‘a very short time’, namely, that the difference between ‘near’ and ‘very near’ is unlikely to matter very much in practical terms (or at least, to matter a lot less than the difference between ‘far’ and ‘very far’); and *mutatis mutandis* for ‘a very short time’. If that’s all there was to it, however, one would not expect a complete grammatical block—yet this is apparently what we find in Lao and Chinese, at least in the case of ‘a very short time’.

For the time being, I am prepared to accept that the dimensional primes of both space and time (i.e., FAR and NEAR, A LONG TIME and A SHORT TIME) exhibit a parallel asymmetry in this regard.

## 9. Further work

There are several primes which have not received due attention in this chapter. In relation to MORE, I noted only that it can fit into the slot for a substantive complement with a range of predicates (e.g., DO MORE, WANT MORE, SAY MORE, KNOW MORE), but MORE is also useful in explications to describe the effect of interrupting or cutting off an ongoing state or condition. For example, it is useful to be able to describe the effect of *killing* someone or *breaking* something as ‘this person was not living anymore’ and ‘this thing was not one thing anymore’, respectively (Goddard 2006). Here MORE seems to be combining in some fashion with duration (FOR SOME TIME): *killing* someone or *breaking* something means that it will not be the way it was any longer, i.e., ‘not for any more time’. (Notice the *some/any* alternation, cf. ‘for some time more’ ~ ‘not for any more time’ ~ ‘not for some time more’.)

Nothing has been said in this chapter about LIKE. It seems to be amazingly versatile from a syntactic point of view, appearing in substantive phrases (e.g., SOMETHING LIKE THIS, SOMEONE LIKE ME), in an “adverbial” role (e.g., DO IT LIKE THIS, THINK LIKE THIS, DIE LIKE THIS), and as a linker between two clauses, in an “analogy construction” (e.g., X DOES SOMETHING LIKE (=AS) Y DOES SOMETHING). It has also been proposed recently (Goddard 2002b: 312–314) that LIKE has a substantive allolex (WAY), which allows it to combine directly with specifiers, i.e., in combinations such as IN THE SAME WAY, IN THIS WAY, IN TWO WAYS.

Also remaining to be treated in adequate detail are BIG and SMALL, GOOD and BAD, and TRUE. On current thinking, BIG and SMALL have no valency options or special combinatorial possibilities aside from their participation in the attributive relation (i.e., SOMETHING BIG/SMALL, and perhaps SOMEONE BIG/SMALL and

SOMEWHERE BIG/SMALL). GOOD and BAD are grammatically more complex since they can function not only as attributes, but in other ways as well; for example, allowing a “beneficiary” valency extension (e.g., GOOD FOR SOMEONE, BAD FOR SOMEONE), and taking a clausal complement (e.g., IT IS GOOD IF THIS HAPPENS, IT IS BAD IF THIS HAPPENS). GOOD also appears to have a compound valency (cf. Goddard 2002b: 310–312) with DO and SOMEONE—i.e., DO SOMETHING GOOD FOR SOMEONE—which has no analogues elsewhere in the system. TRUE is a very different kind of element, notwithstanding the fact that it can be seen as “evaluative” in some sense. Unlike GOOD and BAD, it cannot be modified by VERY, and—even more strikingly—it has highly constrained combinatorial possibilities. It can only occur as a predicate applied to something someone says or thinks, i.e., in frames such as ‘someone says/thinks something; it is true (not true)’.

Despite these omissions, it seems to me that the pursuit of a systematic Table of Semantic Elements has shown itself to be a productive investigative strategy. I would hope that additional research can fill the gaps left by this chapter, and allow us to move on to exploring how to integrate the various sub-tables proposed here into a single coherent overview.

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## Notes

1. A very early explication for BODY was ‘something that can be thought of as someone’ (Wierzbicka 1972), but this has long since been abandoned.
2. I don’t mean to say that these predicate primes cannot take referring expressions. Some of them obviously can; e.g., *I want an icecream, I heard your voice, Don’t say that word, I saw you there yesterday*. Some of these sentences seem to be possible only with semantically complex NPs, while others exemplify possibilities that are available in “pure” natural semantic metalanguage. More research is needed to clarify the situation.
3. With THINK, the possibility of a substantive complement is also tied to the presence of the second “topic” argument; i.e. one can THINK SOMETHING ABOUT SOMETHING, but not simply \*THINK SOMETHING. Conversely, one can simply THINK ABOUT SOMETHING, without any substantive complement present.
4. LIVE also appears to universally allow a “domain” argument (e.g., *Fish live in water*), but this domain is arguably a KIND OF PLACE, rather than a simple SOMEWHERE.



5. The prime FEEL may have a kind of “locus of experience” option, as it would appear to allow the combination FEEL SOMETHING IN PART OF THE BODY; but such an option would be quite different from the “place-related” locus option.

6. DIE and SAY can also be seen as events, but perhaps less prototypically so than HAPPEN, MOVE and DO.

7. Interestingly, to get this outcome one would have to allow that the prime LIVE does not correspond in full to the English word *live*, because in ordinary English *plants* can count as ‘living things’ (albeit not particularly salient ones). Notice also that although the LIVE WITH valency extension may be applicable to some kinds of non-human creature (e.g., creatures which look after their young in “families”; animals which live together in flocks or herds), it does not make sense to think of plants living together. If semantic prime LIVE is focused on people and “creatures”, it moves closer to the technical linguistic concept of animacy, which is likewise focused on people and on “higher” creatures.

8. It is worth noting that DIE has the most minimal syntax (essentially, just a single primary argument) of all the primes, which certainly makes it the “odd one out”.

9. In some recent NSM work, it has been assumed that English *have to* is a simple portmanteau for CAN’T NOT. It is now recognised that this claim is mistaken and it is withdrawn (Goddard to appear). Although *I have to do it* implies ‘I can’t not do it’, its overall meaning is more complex. Roughly:

*I have to do it* =

it is like this:

it will bad if I don’t do it

because of this, I can’t not do it

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## Semantic primes in Amharic

Mengistu Amberber

This study explores the lexical exponents of the full set of NSM primes in Amharic. It is shown that the identification of the Amharic exponents of the semantic primes is straightforward and the syntactic properties of the primes do not present any particular difficulties. Nevertheless, there are some proposed exponents whose status requires further investigation. For instance, the prime MORE seems to have two lexical exponents—one of which is employed in nominal comparative contexts. There are also some exponents whose polysemous meanings must be clearly distinguished on formal grounds. Overall, the chapter attempts to provide a broad overview of the universal and language-specific combinatorial properties of semantic primes in Amharic.

### 1. Introduction

The goal of this study is to explore the lexical exponents of NSM semantic primes (Wierzbicka 1996; Goddard and Wierzbicka eds 1994, 2002) in Amharic, a Semitic language of the Ethiosemitic branch.

Like other Semitic languages, Amharic employs the word-formation strategy known as root-and-pattern morphology. Root-and-pattern morphology is characterised by a root that consists of consonantal radicals and a pattern that comprises consonantal positions and vowels. In general, the roots encode lexical meaning, whereas the patterns encode grammatical meaning. For example, the verb *səbbəra* ‘he broke (tr.)’ consists of the triradical root  $\sqrt{sbr}$  ‘break’ and the pattern  $C_1\bar{\alpha}C_2C_2\bar{\alpha}C_3-$ , encodes the perfect conjugation. The verbal noun of  $\sqrt{sbr}$  ‘break’ is *məsbər* ‘to break’ which is formed by attaching the prefix *mə-* to the pattern  $-C_1C_2\bar{\alpha}C_3$ .

Amharic has both argument-reducing (anticausative, passive) and argument-adding (causative, applicative) morphological derivations (see Leslau 1995; Amberber 1996, 2000, 2002 for details). The passive is formed by attaching the prefix *t(ə)-* (*tə-* before consonants, *t-* before vowels) to the basic transitive stem. In addition to the passive, this prefix occurs with anticausatives, reflexives and reciprocals. There are two types of productive morphological causatives:

**Table 1.** Semantic primes: Amharic

Substantives:	INE <i>I</i> , ANTƏ/ANČI <i>you</i> , AND SƏW <i>someone</i> , SƏWOČČ <i>people</i> , AND NƏGƏR <i>something/thing</i> , SƏWINNƏT <i>body</i>
Relational substantives:	AYNƏT <i>kind</i> , KIFIL <i>part</i>
Determiners:	YIH <i>this</i> , AND AYNƏT <i>the same</i> , LELA <i>other</i>
Quantifiers:	AND <i>one</i> , HULƏTT <i>two</i> , ANDAND <i>some</i> , HULLU <i>all</i> , BIZU <i>much/many</i>
Attributes:	T'IRU <i>good</i> , MƏT'FO <i>bad</i>
Descriptors:	TILLIK' <i>big</i> , TINNIŠ <i>small</i>
Mental predicates:	ASSƏBƏ <i>think</i> , AWWƏK'Ə <i>know</i> , FƏLLƏGƏ <i>want</i> , TƏSƏMMA- <i>feel</i> , AYYƏ <i>see</i> , SƏMMA <i>hear</i>
Speech:	ALƏ <i>say</i> , K'AL <i>words</i> , İWNƏT <i>true</i>
Actions, events, movement, contact:	ADƏRRƏGƏ <i>do</i> , HONƏ <i>happen</i> , TƏNK'ƏSAK'K'ƏSƏ <i>move</i> , NƏKKA <i>touch</i>
Location, existence, possession, specification:	NƏW <i>be (somewhere)</i> , ALLƏ <i>there is</i> , ALLƏ- <i>have</i> , NƏW <i>be (someone/something)</i>
Life and death:	NORƏ <i>live</i> , MOTƏ <i>die</i>
Time:	GIZE <i>when/time</i> , AHUN <i>now</i> , K'ƏDMO <i>before</i> , BƏHWALA <i>after</i> , BIZU GIZE <i>a long time</i> , TINNIŠ GIZE <i>a short time</i> , LƏHONƏ GIZE <i>for some time</i> , BAND GIZE <i>moment/in one moment</i>
Space:	YƏT/BOTA <i>where/place</i> , İZZIH <i>here</i> , BƏLAY <i>above</i> , BƏTAČČ <i>below</i> , RUK' <i>far</i> , K'IRB <i>near</i> , GONN <i>side</i> , WIST' <i>inside</i>
Logical concepts:	A(L) ... MM <i>not</i> , MİNALBAT <i>maybe</i> , ČALƏ <i>can</i> , SİLƏ- <i>because</i> , KƏ- <i>if</i>
Intensifier, augmentor:	BƏT'AM <i>very</i> , YİBƏLT' <i>more</i>
Similarity:	İND- <i>like/how/as</i>

*a-* and *as-* whose distribution is, by and large, predictable from the lexical semantics and transitivity of the basic verb. The former often attaches to intransitive stems to derive transitives, whereas the latter can attach to both intransitives and transitives.

The basic constituent order in the clause is subject + verb (for intransitives) and subject + object + verb (for transitives). Subject agreement on the verb is obligatory, whereas object/oblique agreement is often optional. Case marking is of the nominative/accusative type. A definite object NP is obligatorily marked by the accusative suffix *-n*. The subject NP is unmarked. While number distinction is made in all persons, gender distinction is restricted to the second and third person singular only.

In the noun phrase, the head noun may be modified by a definite marker, a demonstrative, an adjective, a relative clause, a possessor NP or a quantifier (including number). In general, demonstratives appear furthest from the head whereas adjectives are closest to the head. The unmarked order of two modifiers within the NP, such as Demonstrative and Adjective, is: Demonstrative + Adjective; e.g., *ya rəžžim lij* ‘that tall boy’. If the noun is definite, the definite marker is suffixed onto the adjective: e.g., *rəžžim-u lij* ‘the tall boy’.

The overall predicate structure for a main clause predicate can be represented as follows: (a) Perfect: [verb + subject + (object)]; (b) Imperfect: [subject + verb + (object) + *allə* + subject]. Note that the (compound) imperfect involves the use of the verb *allə* ‘be’ which is itself marked for person, number and gender.

The inventory of the exponents of Amharic semantic primes is presented in Table 1 on the previous page.

## 2. Substantives: I, YOU, SOMEONE, PEOPLE, SOMETHING/THING, BODY

### 2.1 *ine* I and *antə/anči* YOU

The lexical exponent of I in Amharic is clearly *ine*. In object position, it occurs with the accusative suffix *-n*. It also freely occurs with various adpositions.

- (1) *ine wadə bet hed-k<sup>w</sup>*  
I to home go.PF-1SG  
‘I went home.’

- (2) *ine-n ayy-u-ññ*  
I-ACC see.PF-3PL-1SG.O  
‘They saw me.’

It should be noted, however, that the verb is marked for subject agreement and the use of independent pronouns is not very common. As Amharic is a pro-drop language, subject pronouns can be omitted quite freely. When independent pronouns are used, they often have a contrastive function:

- (3) *ine wadə bet hed-k<sup>w</sup>, issu gin izzih k’ərrə*  
I to home go.PF-1SG he but here stay.PF.3M  
‘I went home, but he stayed here.’

In the second person there is gender distinction: masculine *antə* ‘you (M)’ and feminine *anči* ‘you (F)’.

There is also a polite form of the second person (pronoun of respect), *irsīwo* ‘you (POL)’ for both masculine and feminine. When the pronoun of respect is used, the verb occurs with the 3rd person plural agreement suffix:

- (4) *irsīwo      wedet      hed-u*  
       you.POL    where    go.PF-3PL  
       ‘Where did you (POL) go?’

The use of the polite form is both formally and functionally more marked than the use of the more familiar 2nd person pronoun. Thus, we assume that the familiar form of the pronoun *antə/anči* is the most appropriate candidate for the semantic prime YOU. In object position it occurs with the accusative suffix *-n*.

The pronouns *ine* I and *antə/anči* YOU do not exhibit any unusual syntax—each can occur as a subject of a wide range of verbs. Both *ine* I and *antə/anči* YOU occur in combination with mental predicates (THINK, KNOW, WANT, FEEL, SEE, HEAR). They can also occur in combination with predicates encoding actions, events and movement: DO, HAPPEN, MOVE.

It is interesting to note that while in English the lexical exponents of I and YOU do not occur with definite articles, in Amharic there are cases where the pronoun + definite suffix combination is acceptable. As pointed out by Leslau (1995: 49), the personal pronouns occur with the definite marker to “express insistence with the meanings ‘oneself, only, own’”, as in (5a). In addition, there are reflexive forms which encode the same meaning, as in (5b).

- (5) a. *ine-w    i-hed-allə-h<sup>w</sup>*  
       I-DEF 1SG-go-IMP-1SG  
       ‘I myself will go.’  
       b. *ine      iras-e              i-hed-allə-h<sup>w</sup>*  
       I-DEF self-1SG.POSS 1SG-go-IMP-1SG  
       ‘I myself will go.’

Like English, however, Amharic does not allow the occurrence of pronouns with determiners such as ‘this’ and ‘that’, i.e., combinations like *\*yih ine* [this I] and *yih antə* [this you (M)] are ungrammatical.

## 2.2 *and səw* SOMEONE, *and nəgər* SOMETHING

The most likely Amharic candidates for the semantic primes SOMEONE and SOMETHING are *and səw* and *and nəgər* respectively (literally ‘one person’, ‘one thing’ respectively). However, there are potentially three different ways of expressing the equivalent of ‘someone’. They are: *and səw*, *səw*, and *yəhonə səw* (Leslau 1995: 118ff). Which one of these should be considered as the lexical exponent of the semantic prime SOMEONE?

Like English *someone* in this respect, *and sǝw* ‘someone’ cannot occur with a determiner (‘this’, ‘that’), while *sǝw* ‘person’ can do so: *yih sǝw* [this person]. Parallel to the allolexic relationship between *and sǝw* ‘someone’ and *sǝw* ‘person’, we find *and nəgər* ‘something’ and *nəgər* ‘thing’, cf. *tillik’nəgər* [big thing], *t’iru nəgər* [good thing], *mət’fo nəgər* [bad thing].

The exponent of PEOPLE is *sǝwočč*, which is formally the plural form of *sǝw* (cf. the situation in Korean, Yoon this volume Ch 5).

### 2.3 *sǝwinnat* BODY

There are two candidates for the prime BODY: *sǝwinnat* and *gəla*. The former is clearly derivationally related to the noun *sǝw* ‘person’. It is normally used to refer to the human body, as in *yǝsǝwinnat kifil* ‘parts of the body’ (lit. body’s part). The noun *gəla*, on the other hand, can be used to refer to humans, as well as other animals.

## 3. Determiners: THIS, OTHER, THE SAME

### 3.1 *yih* THIS

The Amharic exponents of THIS and OTHER are *yih/yihičč* and *lela* respectively. It has been argued (Wierzbicka 1996: 126ff; cf. Goddard and Wierzbicka this volume Ch 2) that THIS can have a determiner or a substantive function. The determiner function is illustrated in examples such as: *yih sǝw* [this person], *yih nəgər* [this thing], *yih gize* [this time]. The substantive function is shown in (6):

- (6) a. *yih t’iru/mət’fo nǝw*  
           this.M good/bad is.3M  
           ‘This is good/bad.’  
       b. *yih tillik’tinniš nǝw*  
           this.M big/small is.3M  
           ‘This is big/small.’

It can also occur as a complement of the predicates KNOW, WANT, SEE, HEAR, DO, HAPPEN, and SAY. Note that the accusative suffix *-n* is necessary when the determiner is used as a complement:

- (7) *yih-in al-ǝ/y-awk’al*  
       this-ACC say.PF-3M/3M-know.IMP.3M  
       ‘He said/knows this.’



### 3.2 *and aynat* THE SAME

The exponent of THE SAME is *and aynat*, which is literally *and* ‘one’ plus *aynat* ‘kind’. In some contexts a common way of expressing THE SAME is by the use of *and* ‘one’, as in (8). I am inclined to view this as an instance of polysemy, given that polysemy between exponents of THE SAME and ONE is known to be common enough across languages (Goddard and Wierzbicka eds 1994).

- (8) *and gize mət’-u*  
 same time come.PF-3PL  
 ‘They came at the same time.’

The same form of expression is used to produce phrases meaning ‘in the same place’, ‘the same person’, and so on.

As for predicative uses of THE SAME, e.g., ‘she did something, and I did the same’, ‘he thinks like this, and many other people think the same’, they are not very common in ordinary discourse. It is more felicitous to use *and aynat nəgər* ‘the same thing’. Here is an example:

- (9) *ine-mm and aynat (nəgər) səmma-h<sup>w</sup>*  
 I-too the.same (thing) hear.PF-1SG  
 ‘I also heard the same thing.’

However, the expression *yihinninu* ‘this very same one’ (Kane 1990: 1688) can also be used predicatively:

- (10) *ine-mm yihinninu sərra-h<sup>w</sup>*  
 I-too this.very.same.one do.PF-1SG  
 ‘I also did this very same thing.’

### 3.3 *lela* OTHER

The Amharic exponent of OTHER is *lela* (plural *lel-očč*).

- (11) *issu-nna and lela səw*  
 he-and one other person  
 ‘He and one other person.’

Unlike in English, the same form occurs with a *wh*-word such as *min* ‘what’, i.e., there is no allolex comparable to English *else*.

- (12) *lela min allə-h*  
 other what have-2M  
 ‘What else do you have?’

As in English, however (but unlike Polish; Wierzbicka 2002: 79), Amharic *lela* can have the “augmentative” use roughly equivalent to English *another*. While *lela* productively occurs as a determiner, it can also occur without the modified head noun, as in (13a). In these contexts *lela* can be marked as definite and take the accusative case suffix *-n* with the resulting meaning equivalent to English *the other one*, as in (13b).

- (13) a. *lela i-fəlligallə-h<sup>w</sup>*  
           other 1SG-want.IMP-1SG  
           ‘I want another (one).’  
       b. *lela-w-in i-fəlligallə-h<sup>w</sup>*  
           other-DEF-ACC 1SG-want.IMP-1SG  
           ‘I want the other (one).’

It is interesting to note that *lela* can be used in contexts which are functionally equivalent to English ‘any other’, such as the following:

- (14) *lela t’iyyak’e allə-h*  
       other question have-2M  
       ‘Do you have any other question?’

#### 4. Quantifiers: ONE, TWO, SOME, ALL, MUCH/MANY

##### 4.1 *and* ONE, *hulətt* TWO

The exponents of ONE and TWO are *and* and *hulətt*, respectively. They can occur with substantives such as *səw* ‘person’, and *nəgər* ‘thing’. For example: *and səw* [one person], *and nəgər* [one thing], *hulətt səw* (-očč) [two person(-PL)], *hulətt nəgər* (-očč) [two thing(-PL)]. They can also occur with other primes such as KIND, TIME, PLACE. For example: *and aynət* [one kind], *and gize* [one time] ‘once’, *and bota* [one place], *hulətt aynət* (-očč) [two kind(-PL)], *hulətt gize* (-wočč) [two time(-PL)] ‘twice’, *hulətt bota* (-wočč) [two place (-PL)].

It is important to note that in Amharic *and* can optionally be used to indicate the equivalent of the English indefinite article *a*. Thus, *and bota* can mean either ‘a place’ or ‘one place’. Consider the following contrast:

- (15) a. *lij hed-ə*  
           child go.PF-3M  
           ‘A child went.’  
       b. *and lij hed-ə*  
           a/one child go.PF-3M  
           ‘A/one child went.’

Both quantifiers ONE and TWO have a valency option which permits a subset reading: ‘one of’, ‘two of’. This option is realised by attaching the definite suffix to the quantifier:

- (16) *kə-gwaddəññ-očč-e*      *and-u*      *zəgyito*      *dərrəs-ə*  
 from-friend-PL-1SG.POSS    one-DEF    late      arrive.PF-3M  
 ‘One of my friends arrived late.’ [Leslau 1995: 135]

#### 4.2 *andand* SOME

The Amharic exponent of SOME is *andand*. Morphologically, it is formed by reduplicating the root *and* ‘one’.

- (17) *andand səwočč gənzəb bət’am yi-wəddall-u*  
 some      people      money      very      3-like.IMP-3PL  
 ‘Some people like money very much.’

When the form *andand* ‘some’ is marked by the definite suffix *-u* it can occur without the head noun ‘people’, but with basically the same meaning:

- (18) *andand-u gənzəb bət’am yi-wəddall*  
 some-DEF    money      very      3-like.IMP.3M  
 ‘Some (people) like money very much.’

Note that in (18) the verb is marked as 3rd person masculine singular, despite the fact that the subject is clearly plural. However, the semantic prime SOME is inherently plural as suggested in Wierzbicka (2002: 83).

Like English *some*, Amharic *andand* can occur in an absolute construction, as in the above examples, or in a selective (subset) construction. In this case, *andand* must be marked by the definite suffix *-u*:

- (19) *andand-očč-u təmari-wočč hed-u*  
 some-PL-DEF    student-PL    go.PF-3PL  
 ‘Some of the students went.’

The form also occurs with the primes PLACE, THING, TIME, as in *andand bota* ‘some places’, *andand nəgər* ‘some things’, and *andand gize* ‘sometimes’, respectively.

#### 4.3 *hullu* ALL, *bizu* MANY

The Amharic exponent of ALL is *hullu*. It normally occurs before the head noun, as in (20). The form can also be placed after the head noun in which case the latter must be marked by the definite suffix, as in (21).

- (20) *hullu səwočč mätt'-u*  
 all people come.PF-3PL  
 'All people came.'
- (21) *səwočč-u hullu mätt'-u*  
 people-DEF all come.PF-3PL  
 'All people came.'

With the particle (or enclitic) *-mm* (the meaning of which is not very clear), *hullu* can be used without the head noun:

- (22) *hullu-mm mätt'-u*  
 all-PART come.PF-3PL  
 'All came.'

There is no distinction in Amharic comparable to that between 'all' and 'every':

- (23) *hullu nəgər widd nəw*  
 all thing dear is.3M  
 'Everything is expensive.' OR 'All things are expensive.'

The same situation pertains in other languages. Wierzbicka (2002: 85) notes that "it would be hard to prove that Polish *wszystko* 'all' (neuter) differs in meaning from English *everything*". Wierzbicka (2002: 86) suggests that "English *every* can be either an allolex of *all* or a portmanteau for the combination ALL + ONE".

The Amharic exponent of the prime MUCH/MANY is *bizu*. Like English *a lot of*, it can occur with both count and mass nouns:

- (24) a. *bizu səwočč all-u*  
 many people are-3PL  
 'There are many people.'
- b. *bizu wiha allə*  
 much water is.3M  
 'There is much (a lot of) water.'

When *bizu* occurs with count nouns, the head noun may or may not be inflected in the plural and thus the verb may or may not be marked for plural agreement.

## 5. Evaluators: GOOD, BAD

The Amharic lexical exponents of the primes GOOD and BAD are *t'iru* and *mat'fo*, respectively. Both function as attributes, e.g., *t'iru səw* [good person],

*mət'fo nəgər* [bad thing]. Like other adjectives, both can also be used predicatively with the verb 'to be' (cf. example (6a)).

The prime GOOD can take a clausal complement:

- (25) a. *yih-in bi-ttisəra t'iru nəw*  
           this-ACC if-2M.work.PF.3M good is  
           'It will be good if you do this,'  
       b. *yih-in bi-ttisəra t'iru aydalləm*  
           this-ACC if-2M.work.PF.3M good not.be  
           'It will not be good if you do this.'

It should be noted here that GOOD is only one of a range of mostly polysemous meanings for *t'iru*. Others include: *fine, pure, clear, perfect, original*. Thus, *t'iru k'ən* is more idiomatically translated as 'a clear day', rather than as a 'good day'. It can also be used to mean 'genuine', as in the expression *t'iru diha*, literally 'good poor', but more idiomatically 'really poor' or 'dirt poor' (Kane 1990: 2110). The same is true for the exponent of BAD *mət'fo*. It has a range of related translation equivalents, such as: *evil, wicked, foul, repugnant, miserable, harsh, unpleasant, nasty*, etc. (Kane 1990: 363).

Morphologically, both words are derived from verbs. In the case of *t'iru* the verbal source is *t'ərɾa* 'become clear' ('purified'), whereas *mət'fo* is clearly related to the verbal root *t'affa*, which includes the meanings 'be lost', 'go astray'.

## 6. Descriptors: BIG, SMALL

The Amharic exponents of the primes BIG and SMALL are *tillik'* and *tinniš* respectively. In their attributive function they occur with various substantives, such as: *tillik'/tinniš nəggər* [big/small thing] and *tillik'səw* [big person] (the latter expression can also mean 'an adult' as opposed to 'a child').

When the descriptor *tinniš* 'small' occurs with the substantive 'person', a different ('metaphorical') meaning is forced: 'a person of little or no moral virtues'. Like the evaluators *t'iru* 'good' and *mət'fo* 'bad', *tillik'* 'big' and *tinniš* 'small' can be used predicatively, see example (6b).

## 7. Mental predicates: THINK, KNOW, FEEL, WANT, SEE, HEAR

### 7.1 *assəbə* THINK

The lexical exponent of the conceptual prime THINK in Amharic is *assəbə*. It can take a psychological topic, either as an adpositional phrase, as in (26), or as a NP, as in (27).

- (26) *silə-ihit-u*                      *assəb-ə*  
 about-sister-POSS.3M think.PF-3M  
 ‘He thought about his sister.’ OR ‘He worried about his sister.’
- (27) *ihit-u-n*                      *assəb-ə*  
 sister-POSS.3M-ACC think.PF-3M  
 ‘He thought of his sister.’

As expected, THINK can take a clausal complement, which is introduced by complementiser *bila* [lit. having said.3F].

- (28) *bəziya-n gize ibet yinoral bila assəb-əčč*  
 that-ACC time at.house 3M.exist.IMP.3M that think.PF-3F  
 ‘At that time, she thought that he would be at home.’

Amharic *assəbə* has a number of polysemous meanings (Amberber 2003). For example, it can be used to mean the equivalent of English *calculate* or *compute*, as in example (29):

- (29) *yə-wər wəčč'i-wa-n assəb-əčč*  
 POSS-month expense-POSS.3F-ACC calculate.PF-3F  
 ‘She calculated her monthly expenses.’

## 7.2 *awwək'ə* KNOW

The lexical exponent of the prime KNOW in Amharic is *awwək'ə*. The verb can take a psychological complement which can be clausal or phrasal, as in (30) and (31), respectively.

- (30) *ləmma k-amerika ində-tə-məlləs-ə t-awk'all-əčč*  
 L. from-America that-INCH-return.PF-3M 3F-know.IMP-3F  
 ‘She knows that Lemma returned back from America.’
- (31) a. *innəzih-in səwočč t-awk'all-əčč*  
 these-ACC people 3F-know.IMP-3F  
 ‘She knows these people.’  
 b. *ləmma-n t-awk'-əw-all-əčč*  
 L.-ACC 3F-know.IMP-3M.O-IMP-3F  
 ‘She knows Lemma.’

The verb can also take a psychological topic that occurs as an adpositional object. A psychological topic and a psychological complement can co-occur as a complex complement:

- (32) *silə lamma (bizu nəgər) t-awk'all-əčč*  
 about L. (lot thing) 3F-know.IMP-3F  
 'She knows (a lot of things) about Lemma.'

### 7.3 *təsamma-* FEEL

The Amharic exponent of the conceptual prime FEEL is found in the verb *təsamma-* (see Amberber 2001). Consider the following examples:

- (33) a. *minimm a-yi-ssamma-ññi-mm*  
 nothing NEG-3M-feel.IMP-1.O-NEG  
 'I feel nothing.'  
 b. *min yi-ssamma-h-al*  
 what 3M-feel.IMP-2M-IMP  
 'How do you feel?'  
 c. *dəssita yi-ssamma-ññ-al*  
 happiness 3M-feel.IMP-1SG-IMP  
 'I feel happy.'

The form *təsamma-* FEEL has a formal overlap with the exponent of another semantic prime *samma* HEAR. In fact, in some contexts *təsamma-* can be interpreted to mean 'hear'; for example, sentences (33a) and (33b) could be interpreted as 'I hear nothing' and 'What do you hear?', respectively. When combined with *dims'* 'noise', *təsamma-* also expresses the meaning 'hear', as in the example below:

- (34) *dims' yi-ssamma-ññ-al*  
 noise 3M-hear.IMP-1SG-IMP  
 'I hear a/some noise.'

The Amharic word *təsamma-* is used to express concepts that are undifferentiated between "emotions" and "sensations".

The Amharic equivalent of 'I feel good/bad' involves the use of the nominal *simmet* 'feeling' in the frame: 'I feel a good/bad feeling'.

- (35) a. *t'iru simmet tə-samma-t*  
 good feeling INCH-feel.PF.3M-3F.O  
 'She feels good.' (lit. She feels good feeling.)  
 b. *mət'fo simmet tə-samma-t*  
 bad feeling INCH-feel.PF.3M-3F.O  
 'She feels bad.' (lit. She feels bad feeling.)

#### 7.4 *fəllagə* WANT

The Amharic exponent of WANT is *fəllagə*. It should be noted that the verb *fəllagə* has a number of other (mostly polysemous) meanings, including: *seek, look for, search for* (Kane 1990: 2269). Like the other mental predicates, *fəllagə* ‘want’ can be predicated of psychological subjects:

- (36) *and nəgər fəllag-ə*  
 something want.PF-3M  
 ‘He wanted something.’

It can occur with a range of complements including infinitival clauses:

- (37) *wadə bet mə-hed fəllag-ə*  
 to home INF-go want.PF-3M  
 ‘He wanted to go home.’

Like the mental predicate *assəbə* ‘know’, *fəllagə* ‘want’ can occur with a complement clause headed by the complementiser *ind-* ‘that’:

- (38) *ləmma wadə bet indi-hed fəllag-əčč*  
 L. to home that-go.IMP.3M want.PF-3F  
 ‘She wanted that Lemma go home.’

As mentioned, the same form *fəllagə* can also mean ‘seek/look for’. The two senses can be distinguished formally as they occur in different syntactic frames. For example, while *fəllagə*<sub>1</sub> ‘want’ can occur with *ind-* ‘that’ complementiser, as shown above, *fəllagə*<sub>2</sub> ‘seek’ cannot.

#### 7.5 *ayyə* SEE, *səmma* HEAR

The lexical exponent of the prime SEE in Amharic is expressed by the verb *ayyə*. It can occur with nominal and clausal complements:

- (39) *and dimmət ayyə-h<sup>w</sup>*  
 one cat see.PF-1SG  
 ‘I saw a/one cat.’

Like the mental predicates *assəbə* ‘know’ and *fəllagə* ‘want’, *ayyə* can occur with a “factive” clausal complement introduced by *ind-* ‘that’, as shown in (40). This usage is not, however, part of the proposed universal grammar of



SEE, but a language-specific construction (albeit one shared with English, and a number of other languages).

- (40) *lamma wadə bet ində-hed-ə ayyə-h<sup>w</sup>*  
 L. to home that-go.PF.3M see.PF-1SG  
 ‘I saw that Lemma had gone home.’

Like many other languages, e.g., English and Spanish, Amharic makes a distinction between the volitional activity of ‘looking at’ something and the ability or experience of ‘seeing’. The former is expressed by the reflexive verb *təmələkkətə* ‘look at’.

- (41) *karta-w-in təmələkkət-ə*  
 map-DEF-ACC look.at.PF-1SG  
 ‘He looked at the map.’

However, the distinction between *ayyə* and *təmələkkətə* is not sharp: under some circumstances it is possible to convey the equivalent meaning to English ‘look at’ by using the verb *ayyə*.

The exponent of the prime HEAR is *səmma*. Its syntactic properties are more or less the same as those of *ayyə* SEE.

- (42) *and dɨms’ səmma-h<sup>w</sup>*  
 a sound hear.PF-1SG  
 ‘I heard a/some sound.’

- (43) *lamma wadə bet ində-hed-ə səmma-h<sup>w</sup>*  
 L. to home that-go.PF.3M hear.PF-1SG  
 ‘I heard that Lemma had gone home.’

Parallel to the case of SEE, Amharic makes a distinction between the volitional activity of ‘listening to something’ and the ability or experience of ‘hearing’. The former is expressed by the verb *adəmmət’ə* ‘listen’.

- (44) *nigiggir-u-n adəmmət’ə*  
 speech-DEF-ACC listen.PF-1SG  
 ‘He listened to the speech.’

The caveat made with SEE also applies here. There is an overlap between the use of *səmma* ‘hear’ and *adəmmət’ə* ‘listen’, such that the verb *səmma* can on occasions be used to mean ‘listen’. As mentioned in section 7.3, there is also a formal overlap between *səmma* HEAR and the exponent of another mental predicate, *təsəmma* FEEL (see Amberber 2001).

## 8. Speech: SAY, WORDS, TRUE

### 8.1 *alə* SAY

The lexical exponent of SAY in Amharic is *alə*. The verb has a range of other (mostly polysemous) uses roughly functionally equivalent to: *tell*, *claim*, *call*, *ask*, and even *think*. It is an extremely productive verb and its combinatorial properties are fairly complex. Typically, it is used to introduce a direct speech or quotation:

- (45) *ləmma wədə bet hed-ə all-əčč*  
 L. to home go.PF.3M go.PF-3F  
 ‘She said: “Lemma went home”’. OR  
 ‘She said that Lemma went home’.

However, in Amharic the difference between direct and indirect speech is not syntactically distinguished. Leslau (1995: 777) remarks: “Amharic very often uses direct speech where English would use indirect speech”.

- (46) *b-assir dək'ik'a wist' i-mət'allə-h" al-ə*  
 in-ten minute in 1SG-come.IMP-1SG say.PF-3M  
 ‘He said (that) he would come in ten minutes.’  
 (lit. “In ten minutes I will come” he said.)

The verb can also be used with an addressee only, that is, without specifying the content of what is being said. Thus, consider the following example:

- (47) *al-əčč-iññ*  
 say.PF-3F-1SG.O  
 ‘She said to me.’

It should be pointed out here that the verb *alə* ‘say’ is productively used as a light verb. Thus, consider the following example:

- (48) *t'ərmus-u sabbir al-ə*  
 bottle-DEF break.PV say.PF-3M  
 ‘The bottle broke.’

The verb in (48) is complex involving a preverbal element *sabbir* ‘break’ and the verb glossed as *alə* ‘say’. While the lexical semantic content of the predicate is encoded by the preverbal element, the grammatical features of tense/aspect and person are marked on *alə* ‘say’ rather than on the preverbal element (see Ammerber 2002 for discussion). Obviously the verb *alə* ‘say’ is not used as a speech

predicate in (48). In such contexts the meaning of *alə* is closer to DO—indicating an overlap between ‘doing’ and ‘saying’, or the semantic primes DO and SAY.

## 8.2 *k'al* WORDS

The lexical exponent of the prime WORDS in Amharic is *k'al*. The noun *k'al* has a range of related uses roughly functionally equivalent to the following English words: *word, voice, sound, speech, text, statement, term, expression, message* (see Kane 1990: 671). While the noun *k'al* is formally singular, its usage does not necessarily imply singularity. However, in some contexts the plural form, *k'alat* ‘words’, has to be used; for example in the compound noun *məzgəbə k'alat* ‘dictionary’ (literally ‘record of words’). The noun *k'al* behaves like many other substantives and does not present any syntactic peculiarities. It occurs with a number of verbs including verbs of speech, such as *nəggərə* ‘speak’:

- (49) *minim k'al al-tənaggər-ə-mm*  
 no word NEG-speak.PF-3M-NEG  
 ‘He did not speak any word.’

The form *k'al* occurs in hundreds of collocations and proverbial expressions suggesting great cultural importance. The following are just a few examples:

- (50) a. *k'al sət't'-ə*  
 word give.PF-3M  
 ‘He gave his word.’  
 b. *k'al at't'a*  
 word loose.PF.3M  
 ‘He is at a loss for words.’  
 c. *k'al t'əbbək'-ə*  
 word guard.PF-3M  
 ‘He kept his promise.’  
 d. *k'al gəbbə*  
 word enter.PF.3M  
 ‘He promised/pledged.’  
 e. *k'al siga hon-ə*  
 word flesh become.PF-3M  
 ‘The Word became Flesh.’  
 f. *k'alə hawariyat*  
 word.POSS apostles  
 ‘The teaching of the Apostles.’ (lit. The words of the Apostles.)

Notice that in these examples, *k'al* is formally singular, though the meanings make it clear that what is referred to is not a single word but rather a body of text.

### 8.3 *ᵢwnät* TRUE

The Amharic word *ᵢwnät* expresses the semantic prime TRUE. It is a noun and is derivationally related to the root *awon*, which literally means ‘yes’. It can occur as part of a predicate with the copula verb ‘be/not be’ as in (51). It can also fill in the subject position with a range of different predicates as in (52):

- (51) a. *yih ᵢwnät nəw*  
           this truth is  
           ‘This is true.’  
       b. *yih ᵢwnät aydallə-mm*  
           this truth not.be.PF.3M-NEG  
           ‘This is not true.’
- (52) a. *ᵢwnät-u t-awwək’-ə*  
           truth-DEF INCH-know.PF-3M  
           ‘The truth became known.’  
       b. *ᵢwnät-u wət’t’a*  
           truth-DEF exit.PF.3M  
           ‘The truth emerged’, ‘The truth was revealed.’

The noun alone, or in combination with the preposition *bə-* ‘with’, can be used as an adverbial roughly equivalent to English *really* (see Wierzbicka (2002: 103) for a similar fact in Polish):

- (53) *(bə-)ᵢwnät hed-ə?*  
       (with-)truth go.PF-3M  
       ‘Did he really go?’ (‘Did he truly go?’)

In some discourse contexts *ᵢwnät* can even be used in isolation without combining with any other element, as in the exclamation *ᵢwnät?* [truth] ‘Really?’.

There are a number of derivations based on the noun *ᵢwnät* such as *ᵢwnəta* ‘fact, reality’, *ᵢwnətəñña* ‘truthful’ (also ‘genuine, authentic’), *ᵢwīn* ‘real’.

## 9. Actions, events, movement, contact: DO, HAPPEN, MOVE, TOUCH

### 9.1 *adərrəgə* DO

The Amharic lexical exponent for the prime DO is *adərrəgə*. As expected, it can be predicated of an agent substantive, as in the examples (54a) and (54b). It can occur with question words such as *min* ‘what’, as in (54c):

- (54) a. *and nəgər adərrəg-ə*  
 something do.PF-3M  
 'He did something.'
- b. *mət'fo nəgər adərrəg-ə*  
 bad thing do.PF-3M  
 'He did a bad thing.'
- c. *min adərrəg-ə*  
 what do.PF-3M  
 'What did he do?'

The verb *adərrəgə* is also productively used with the meaning roughly equivalent to English 'make'. Before examining the relationship between 'do' and 'make', it is important to point out that the verb *adərrəgə* is morphologically complex in that it involves the causative prefix *a-* and a bound basic form *-dərrəgə*. The basic stem takes the full range of valency encoding affixes, as shown in (55):

- (55) a. *-dərrəgə*  
 b. *a-dərrəgə* 'do, make'  
 c. *as-dərrəgə* 'cause to do, cause to make'  
 d. *tə-dərrəgə* 'be done, be made'

Now consider the use of *adərrəgə* with the meaning 'make', rather than 'do':

- (56) *aster ləmma wadə bet ind-i-hed a-dərrəg-əčč*  
 A. L. to home COMP-3M-go.IMP CAUS-make.PF-3F  
 'Aster made Lemma go home.'

Note that the verb *adərrəgə* functions as a predicate of the matrix clause whereas a semantically fully specified verb occurs as the predicate of an embedded clause. The semantically basic verb is marked by a complementiser particle. As the English translation indicates, the meaning here is that of 'make' rather than 'do', as 'Aster did Lemma go' does not make sense. Clearly 'make' is not a prime, but a complex verb that contains the prime DO.

## 9.2 *honə* HAPPEN

The lexical exponent of the prime HAPPEN is *honə* in Amharic. It can express other meanings functionally equivalent to: *be*, *become*, *exist* (Kane 1990: 18).

- (57) a. *and nəgər hon-ə*  
 something happen.PF-3M  
 'Something happened.'

- b. *min hon-ə?*  
 what happen.PF-3M  
 ‘What happened?’
- c. *aster min hon-əčč?*  
 A. what happen.PF-3F  
 ‘What happened to Aster?’

*Honə* HAPPEN can be negated by the use of the negative affix:

- (58) *minimm al-hon-ə-mm*  
 nothing NEG-happen.PF-3M-NEG  
 ‘Nothing happened?’ (lit. Nothing didn’t happen.)

### 9.3 *tənk’əsak’k’əsə* MOVE

The verb *tənk’əsak’k’əsə* expresses the prime MOVE. Like its equivalents in other languages, the prime *tənk’əsak’k’əsə* is intransitive. It can be predicated of all the substantives, as in the examples below:

- (59) a. *and səw tənk’əsak’k’əs-ə*  
 someone move.PF-3M  
 ‘Someone moved.’
- b. *and nəgər tənk’əsak’k’əs-ə*  
 something move.PF-3M  
 ‘Something moved.’
- c. *antə tənk’əsak’k’əs-h*  
 you.M move.PF-2M  
 ‘You moved.’

### 9.4 *nəkka* TOUCH

A good candidate for the prime TOUCH is the verb *nəkka* ‘touch’. Here is an example:

- (60) *ijj-u-n nəkka-hu-t*  
 hand-POSS.3M-ACC touch.PF-1S-3M.O  
 ‘I touched his hand.’

*Nəkka* has a number of related meanings which have to do with feelings, as in ‘something touched my heart’ to mean ‘I was moved (emotionally)’. Consider also *min nəkka-w* ‘what touched-him’ to mean: ‘What’s the matter with him?’

## 10. Location, existence, possession, specification: BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)

### 10.1 *nəw* BE (SOMEWHERE)

The locational BE can be expressed by *nəw* ‘be’ (with a suppletive negative *aydalləm* ‘not be’). As expected, it has a comitative option (‘be with (someone)’ option).

- (61) *lemma izzih nəw*  
 Lemma here be.PF.3M  
 ‘Lemma is here.’

- (62) *ləmma kə-aster gar nəw*  
 Lemma with-Aster with be.PF.3M  
 ‘Lemma is with Aster.’

### 10.2 *allə* THERE IS

The lexical exponent of the prime THERE IS in Amharic is the verb *allə*. The following examples illustrate some typical constructions. As the examples in (62) show, it can occur with a “locus” expression.

- (63) a. *izzih bizu səwočč all-u*  
 here many people exist.PF-3PL  
 ‘There are many people here.’  
 b. *izzih bizu aynət wəf-očč all-u*  
 here many kind bird-PL exist.PF-3PL  
 ‘There are many kinds of bird here.’

The negated version of *allə* ‘there is’ is expressed by the verb *yəlləmm* ‘there is not’:

- (64) *izzih bizu səwočč yəll-u-mm*  
 here many people NEG.exist.PF-3PL-NEG  
 ‘There are not many people here.’

The verb *allə* is used in many formulaic expressions including the formulas for the informal greetings ‘How are you?’, and as one of the many possible responses to it: ‘I am fine’:

- (65) a. *indəmin allə-h?*  
 how exist.PF-2M  
 ‘How are you?’

- b. *allə-huññ*  
 exist.PF-1SG  
 'I am fine.'

The prime *allə* THERE IS in the future is expressed by the verb *yīnorall* (which is the future form of the verb *norə* 'live'). Thus, consider the following contrast:

- (66) a. *zare bīzu səwočč all-u*  
 today many people exist.PF-3PL  
 'Today there are many people.'  
 b. *nəgə bīzu səwočč yīnorall-u*  
 today many people exist.IMP-3PL  
 'Tomorrow there will be many people.'

### 10.3 *allə*- HAVE

The exponent of the prime HAVE is expressed by the verb *allə*-, which must be obligatorily inflected by an object pronominal agreement affix. Notice that *allə*- is identical in form to the verb which expresses the prime *allə* THERE IS. The only crucial difference is that in the case of *allə*- 'have', the verb must occur with an object agreement affix.

- (67) *yih səw bīzu gənzəb all-ə-w*  
 this person lot money have-3M-3M.O  
 'This person has a lot of money.'

Notice the verb *allə*- is obligatorily marked for object agreement. This is intriguing given that object agreement is normally optional in the language. Subject agreement is with the thing possessed, whereas object agreement is with the possessor. Consider the following example:

- (68) *yičči set bīzu lij-očč all-u-at*  
 this.F woman many child-PL have-3PL-3F.O  
 'This woman has many children.'

The agreement suffix *-u* cross-references the possessed NP (*bīzu lij-očč* 'many children') whereas the agreement suffix *-at* cross-references the possessor NP (*yičči set* 'this woman').

Given that the same form *allə*- is common to both THERE IS and HAVE, it is tempting to seek to derive the latter from the former. For example, it could be proposed that 'X has Y' is a kind of lexicalisation of 'Y exists at X'.



#### 10.4 *nəw* BE (SOMEONE/SOMETHING)

Specificational BE can be expressed by the same form as the locational BE, i.e., *nəw* (with its suppletive negative *aydəlləm*).

- (69) *ləmma wəndimm-e nəw*  
 Lemma brother-POSS.1S be.PF.3M  
 ‘Lemma is my brother.’
- (70) *gubbət bət’am t’ək’ami yə-səwinnət kifil nəw*  
 liver very important POSS-body part be.PF.3M  
 ‘The liver is a very important part of the body.’

### 11. Life and death: LIVE, DIE

#### 11.1 *norə* LIVE

The exponent of LIVE is expressed by the verb *norə*. Consider example (71) from the Lord’s Prayer for a typical construction with the prime *norə*. Like its equivalents in languages such as Malay (see Goddard 2002: 118–119), the prime *norə* can occur with duration phrases.

- (71) *abat-aččīn hoy bəsəmay yəmmīti-nor*  
 father-our INTER in.heaven REL.2M-live.IMP  
 ‘Our Father who lives in heaven.’  
 (lit. Our father who you live in heaven)
- (72) *nigus-u lə-rəjjīm gize nor-ə*  
 king-DEF for-long time live.PF-3M  
 ‘The king lived for a long time.’

As expected, *norə* LIVE can take a comitative (‘live with someone’) valency extension.

- (73) *bəziyan gize kə-wəndimm-u gar nor-ə*  
 that time with-brother-POSS.3M with live.PF-3M  
 ‘At that time, he lived with his brother.’

The verb *norə* can also express the meaning akin to ‘live in a place’, or ‘dwell’. The negative equivalent is expressed by attaching the negative affix on the verb as in other predicates. Notice that in the following example the

locational substantive ('Addis Ababa') occurs without any adposition equivalent to the English *in*.

- (74) *addisabāba ay-nor-imm*  
 A. A. NEG.3M-live.IMP-NEG  
 'He doesn't live in Addis Ababa.'

## 11.2 *motə* DIE

The exponent of DIE is *motə*. Its syntactic properties are straightforward.

- (75) *setiyy-əwa balləfəw amət mot-əčč*  
 woman-DEF last year die.PF-3F  
 'The woman died last year.'

It occurs in scores of idiomatic and proverbial expressions. The expression in (76) is commonly used to describe someone who has "no concern for the future" or others ('*après moi le déluge*') (Kane 1990: 305). Examples (77) and (78) are but two of the numerous metaphorical expressions and figures of speech based on *motə* 'die':

- (76) *ine kə-mot-k<sup>w</sup> sərdə ay-bk'al al-əčč ahīyya*  
 I if-die.PF-1SG grass NEG-grow.IMP say.PF-3F donkey  
 'The donkey said, "After I die, may no couch grass grow".'
- (77) *mənfəs-u mot-ə*  
 spirit-POSS.3M die.PF-3M  
 'He is downcast/depressed.' (lit. His spirit died.)
- (78) *al-mot bay*  
 NEG-die say  
 'Persistent, indefatigable' (lit. One who says, "I won't die".)

The verb *motə* 'die' is also very commonly used in expressions roughly equivalent to English 'I swear it!', 'I give you my word of honour':

- (79) *abbat-e yi-mut, iwnət nəw*  
 father-POSS.1SG JUSS-die truth is  
 'I swear, it is true.' (lit. Let my father die, it is true.)

Aspectually, the verb *motə* 'die' is punctual compared to the verb *norə* 'live'. Thus, the former (but not the latter) can occur with punctual adverbs such as *bədingət* 'suddenly' as in: *bədingət motə* 'he died suddenly'.

## 12. Time: TIME/WHEN, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT

### 12.1 *gize*, *bə* ... *gize* TIME/WHEN

The exponent of TIME is *gize*. It can be used to express a temporal adjunct with DO and HAPPEN sentences.

- (80) a. *yann gize and nəgər adərrəg-ə*  
           that time something do.PF-3M  
           ‘At that time, he did something.’  
       b. *yann gize and nəgər hon-ə*  
           that time something happen.PF-3M  
           ‘At that time, something happened.’

It occurs in a number of other time adverbials including: *lə-gize-w* (for-time-DEF) ‘for the time being’ or ‘for the moment’; *hul gize* ‘every time’, or ‘all the time’; *and gize* (one time) ‘once, at once’. Other idiomatic collocations include:

- (81) a. *gize yə-t'all-ə-w*  
           time REL-drop.PF.3M-3O  
           ‘One who has fallen on bad times’, ‘One who has fallen from power’, ‘One who lost his fortune’ (lit. One dropped by time)  
       b. *gize yə-sət't'-ə-w*  
           time REL-give.PF-3M-3O  
           ‘One favoured by the times’ (lit. One who received (something) from time)

In combination with the particle *bə*, *gize* can be used as an interclausal linker in biclausal constructions, as in (82). It could be argued that what functions as an interclausal linker is the discontinuous form *bə* ... *gize*.

- (82) *bə-mət't'a-h gize inawəralən*  
       PART-come.PF-1M time talk.IMP.1PL  
       ‘When you come, we will talk’ (‘At the time when you come ...’)

### 12.2 *ahun* NOW

The exponent of NOW is *ahun*. The form has a range of related uses roughly equivalent to: *at present*, *presently*, *shortly*, *soon* (Kane 1990: 1092). It combines with both mental and action predicates:

- (83) *ahun t'iru nəgər assiballə-h<sup>w</sup>*  
 now good thing think.IMP-1SG  
 'I now think of a good thing.'
- (84) *ahun and nəgər ayallə-h<sup>w</sup>*  
 now something see.IMP-1SG  
 'I now see something.'
- (85) *ahun min hon-ə*  
 now what happen.PF-3M  
 'What happened now?'
- (86) *ahun min adərrəg-ə*  
 now what do.PF-3M  
 'What did he do now?'

As is the case with many of the other primes, the prime *ahun* NOW supports a number of idiomatic and/or proverbial collocations.

### 12.3 *k'ədmo* BEFORE, *kə ... bəhwala* AFTER

The best candidate for the exponent of BEFORE is probably the adverbial form *k'ədmo*, which has the morphological structure of the gerund form of the tri-radical verb *k'addəmə* 'come before'.

- (87) *k'ədmo awk'ə-w nəbbər*  
 before 1SG.know-3M.O be.PF  
 'I knew him before.'

Its potential competitor is the adpositional *bəfit*, morphologically related to the noun *fit* 'face'. Note that the English sentence *You were born before me* can be felicitously translated into Amharic by the use of the adpositional *bəfit*, rather than the adverbial *k'ədmo*.

- (88) a. *ančči kə-ine bəfit təwalləd-š*  
 you.F from-I before born.PF-2F  
 'You were born before me'.
- b. *?ančči kə-ine k'ədmo təwalləd-š*  
 you.F from-I before born.PF-2F

The situation with AFTER is parallel in some ways. There is an adverbial element *bəhwala* which is morphologically complex, but which can seemingly

function to express the required meaning, as in (89). Formally *bəhwala* consists of the prepositional element *bə-* (elsewhere functioning with a range of different meanings including ‘on’, ‘at’, ‘by’) and the nominal *hwala* ‘behind’, ‘back’.

- (89) *bəhwala hed-əčč*  
 afterwards leave.PF-3F  
 ‘She left afterwards.’

Another candidate for the exponent of AFTER is the discontinuous adpositional form *kə ... bəhwala*. Elsewhere, *kə-* functions as a preposition with various meanings including ‘with’, ‘from’, ‘at’.

- (90) *kə-ine bəhwala hedə-čč*  
 after-I after leave.PF-3F  
 ‘She left after me.’
- (91) *kə-ziya bəhwala bə-səlam inna bə-fik’ir*  
 after-that after in-peace and in-love  
*abrəw nor-u*  
 together live.PF-3PL  
 ‘After that they lived together in peace and love.’

The form *kə ... bəhwala* can also occur as an interclausal linker in biclausal constructions where the subordinate verb is framed within *kə ... bəhwala*, as in the following example:

- (92) *aster ine kə-hed-h<sup>w</sup> bəhwala hed-əčč*  
 A. I after-leave.PF-1SG after leave.PF-3F  
 ‘Aster left after I had left.’

#### 12.4 *bizu gize* A LONG TIME, *tinniš gize* A SHORT TIME

The best candidate for the exponent of A LONG TIME is *bizu gize* (lit. much time).

- (93) *k-ayyə-hu-t bizu gize hon-ə*  
 since-see.PF-1SG-3M.O long time become.PF-3M  
 ‘It has been a long time since I saw him.’
- (94) *sira-w bizu gize wəssədə-bb-iññ*  
 task-DEF long time take.PF.3M-on-1SG.O  
 ‘The task took me a long time.’ OR ‘The task took me a lot of time.’

The Amharic word *rəžžim*, which is equivalent to English ‘long’/‘tall’, can occasionally combine with *gize*, as in the example below:

- (95) *(lə)-rəžžim gize tənəgaggər-n*  
 (for)-long time discuss.PF-1PL  
 ‘We discussed (talked to each other) for a long time.’

The exponent of A SHORT TIME is *tinniš gize* (literally ‘little time’) and its syntactic distribution is quite similar to that of *bizu gize* ‘a long time’.

- (96) *kə-tinniš gize bəfit ayyə-hu-at*  
 before-short time before see.PF-1SG-3F.O  
 ‘I saw her a short time (a little while) ago.’

### 12.5 *ləhonə gize* FOR SOME TIME

The Amharic exponent of the prime FOR SOME TIME is rather problematic. The form *ləhonə gize* seems to be the best candidate, but it requires further investigation.

- (97) *ləhonə gize hed-u*  
 for.some time go.PF-3PL  
 ‘They went away for some time.’

Note also that the form is complex with the prepositional element *lə-* and the verb *honə* ‘happen’, ‘be’, ‘become’. Elsewhere the form *honə* combines with a range of different substantives and particles to encode roughly the notion of ‘unspecified X’, where ‘X’ can be a ‘thing’, a ‘place’, a ‘person’, etc. For example, with the substantive ‘person’ it means an unspecified person.

- (98) *ləhonə səw awər-ra-čč*  
 for.some person talk.PF-3PL  
 ‘She talked to somebody (unspecified).’

- (99) *yəhonə nəggər ayyə-čč*  
 REL.some thing see.PF-3PL  
 ‘She saw something (unspecified).’

Note that when the onset (rather than the duration) of a future event is not specified, one can use the expression *laltəwəssənə gize*, literally ‘a time that is not fixed’—used, for example, if a scheduled event is cancelled and it was not known when it would recommence.

## 12.6 *band gize* MOMENT

The most likely Amharic candidate for the lexical expression corresponding to the NSM prime MOMENT (IN ONE MOMENT) is the expression *band gize*, derived transparently from *bə-and gize* [with-one time]. It is normally glossed ‘immediately, at once, all at once’. It would be the natural Amharic expression to use in explications for “punctual” events and for the meanings of lexical items such as *bədingət* ‘suddenly’. Typical uses of this adverbial are exemplified below:

- (100) *səwočč-u band gize mət’t-u*  
 people-DEF at.once come.PF-3PL  
 ‘The people came at once.’
- (101) *wəre-w band gize təzammət-ə*  
 news-DEF at.once spread.PF-3M  
 ‘The news spread at once.’

## 13. Space: WHERE/PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE

### 13.1 *yət/bota* WHERE/PLACE

The Amharic exponent for the prime WHERE/PLACE is expressed by the forms *yət* ‘where’ and *bota* ‘place’.

- (102) *lij-u yət hed-ə*  
 boy-DEF where go.PF-3M  
 ‘Where did the boy go?’
- (103) *wədə-izziya bota hed-ə*  
 to-that place go.PF-3M  
 ‘He went to that place.’

It should be noted here that in contexts such as the above, the noun *bota* ‘place’ can be optionally omitted without affecting the overall message.

- (104) *wədə-izziya hed-ə*  
 to-there go.PF-3M  
 ‘He went there.’

The noun has a range of (mostly) polysemous meanings including ‘spot’, ‘site’, ‘land (property, e.g., small plot)’, ‘seat (parliament)’, ‘status’.

### 13.2 *izzih* HERE

The exponent of HERE is *izzih*. The corresponding form *izziya* means ‘there’. See examples (105) and (106).

- (105) *lamma izzih allə*  
 L. here is  
 ‘Lemma is here.’

- (106) *lamma izziya allə*  
 L. there is  
 ‘Lemma is there.’

### 13.3 *bəlay* ABOVE, *bətačč* BELOW

The exponent of ABOVE is *bəlay*. It is morphologically composed of the prepositional particle *bə-* ‘on’ and the nominal *lay* ‘on’.

- (107) *wəf-wa kə-zaf-u bəlay bərrər-əčč*  
 bird-DEF.F from-tree-DEF above fly.PF-3F  
 ‘The bird flew above the tree.’

The sentence describes the space where the bird flew relative to the tree. Notice that ‘the tree’ occurs with the adpositional prefix *kə-* which is glossed here as ‘from’, but could have a range of different adpositional meanings elsewhere including ‘with’ and ‘at’. Given this fact, it is probably more appropriate to say ‘above’ is expressed by the discontinuous form *kə ... bəlay*.

It is important to point out that the closely related form *lay* ‘on’ most often occurs in situations where there is some contact between the two objects: X is on Y (‘the book is on the table’).

The syntactic behaviour of the prime *bətačč* BELOW is very similar to that of *bəlay* ABOVE.

- (108) *bet-aččəw kə-zaf-u bətačč nəw*  
 house-POSS.3PL from-tree-DEF below is  
 ‘Their house is below the tree.’

However, whether *bətačč* should be translated as ‘below’ or as ‘under’ in constructions such as the above is not clear at this stage.

### 13.4 *ruk’* FAR, *k’irb* NEAR

At the outset it is easy to identify the exponents of FAR and NEAR: they are *ruk’* and *k’irb*, respectively.



- (109) *bet-aččəw*      *bət'am*    *ruk'*    *nəw*  
 house-POSS.3PL    very    far    is  
 'Their house is very far.'
- (110) *bet-aččəw*      *bət'am*    *k'ərb*    *nəw*  
 house-POSS.3PL    very    near    is  
 'Their house is very near (close).'

Both have verbal counterparts that are morphologically related to them: *rak'ə* 'be far' and *k'ərrəbə* 'come close'. The question is then how to decide which class—the adjective or the verb—should be taken to represent the prime. At this stage it is simply stipulated that the adjective form is the basic exponent and the verbal variant is its allolex.

### 13.5 *gonn* SIDE

The word *gonn* is the exponent of the prime SIDE. It is typically used to indicate the location of a thing or a person relative to some other entity.

- (111) *lij-u*      *(kə)-k'es-u*      *gonn*    *k'omm-ə*  
 boy-DEF    (with)-priest-DEF    side    stand.PF-3M  
 'The boy stood on the side of the priest.'

In the above construction the full frame of 'side' is *kə-X gonn* where 'X' is filled by a substantive such as a person or a thing. As already mentioned, the prefix *kə-* functions elsewhere as a preposition with a range of different meanings including 'with', 'at', 'from'.

The substantive that fills the X slot in the frame *kə-X gonn* can be omitted if it is obvious from the discourse context, in which case *kə-* can be directly attached to *gonn* as in the following example:

- (112) *kə-gonn-wa*      *k'omm-ə*  
 with-side-DEF.M    stand.PF-3M  
 'He stood at her side.'

Constructions such as (112) can also be translated into English with the term 'beside', as in 'He stood beside her'. It can also be used to indicate nearness or closeness, but this may simply be a logical inference from the basic meaning: in the typical case, 'X is on the side of Y' implies that 'X is near Y'.

### 13.6 *wist'* INSIDE

The best candidate for the exponent of INSIDE is *wist'*. This form is derivationally related to the archaic verb *\*wəssət'ə* 'to put or place in the middle',

‘penetrate’. The form *wist’* has a number of related uses that are roughly equivalent to the English words *inside*, *interior*, *core*, *in*. As an adverb, its function is similar to that of English *inside* as it can occur in frames such as: ‘A is inside B’, as in (113). It can occur with existential *allə*, as in (114).

- (113) *məs’haf-u sat’in-u wist’ nəw*  
 book-DEF box-DEF inside is  
 ‘The book is inside the box.’

- (114) *sat’in-u wist’ mäs’haf all-ə*  
 box-DEF inside book exist.PF-3M  
 ‘In the box there is a book.’

The form can be combined with the prepositional prefix *bə-* as in *bəwist’* without any obvious meaning difference. However, whether there is a subtle distributional difference between *wist’* and *bəwist’* needs to be further investigated.

## 14. Logical concepts: NOT, MAYBE, CAN, BECAUSE, IF

### 14.1 *a(l) ... mm* NOT

The basic exponent for NOT is the clausal negative circumfix *a(l) ... mm* (the prefix occurs with a range of inflectional allomorphs). Clausal negation is expressed by the negative affix that attaches to the verb. The form of the negative varies depending on two parameters: (a) tense/aspect and (b) clause type (main vs. subordinate). In main clauses, the negative is expressed with the prefix *a(l)-* and the suffix *-mm*. In subordinate clauses, only the prefix is used.

- (115) Perfect: *al ... mm*
- |                        |  |
|------------------------|--|
| (a) Main clause        | (i) <i>al-səbbər-ə-mm</i><br>NEG-break.PF-3M-NEG<br>‘he did not break’                         |
| (b) Subordinate clause | (ii) <i>... ind-al-səbbər-ə ...</i><br>that-NEG-break.PF-3M<br>‘... that he did not break ...’ |
- (116) Imperfect: *a ... mm*
- |                         |  |
|-------------------------|--|
| (a) main clause:        | <i>a-ysəbr-imm</i><br>‘he is not breaking, he does not break,<br>he will not break’. |
| (b) subordinate clause: | <i>ind-a-ysəbr</i><br>‘so as he does not/ will not break’.                           |

The negative subordinate imperfect may have a number of different meanings depending on the conjunction used. For instance, with the conjunction particle *si-* the negative imperfect means ‘without’.

The negative interjection is *ay* ‘no’ and is often used in informal conversation. In formal style, the predicate in the question is repeated. The word *yəlləmm* ‘no’, which is the negative of the locative copula *allə* ‘exist’, may also be used to mean ‘no’.

Indefinite pronouns may have negative interpretation depending on the context (e.g., with a negative verb). Indefinite pronouns are formed by attaching the enclitic *-mm* to interrogative pronouns: *mannimm* ‘anybody’; ‘nobody’ < *mann* ‘who’; *minimm* ‘anything’, ‘nothing’ < *min* ‘what’. In the context of the question *man mət’t’a?* ‘who came?’, a reply consisting of the indefinite pronoun *manimm* has the interpretation ‘nobody’ or ‘no one’.

#### 14.2 *minalbat* MAYBE, *čalə* CAN

The exponents for the logical primes MAYBE and CAN are expressed by the adverb *minalbat* and the verb *čalə*, respectively.

- (117) *minalbat yimət’all-u*  
 maybe come.IMP-3PL  
 ‘Maybe they will come.’

Other meanings associated with the adverb *minalbat* are roughly equivalent to English *probably*, *presumably*, *possibly* and *perhaps*.

The prime *čalə* CAN often expresses what might be referred to as the abilitative—the ability to execute an event.

- (118) *aster wana tičilall-əčč*  
 Aster swimming can.IMP-3F  
 ‘Aster can swim.’

- (119) *yih-in madrağ yiččalall*  
 this-ACC INF.do possible.IMP.3M  
 ‘It is possible to do this.’

#### 14.3 *silə-* BECAUSE, *kə-* IF

It is difficult to determine the optimal lexical exponents of the primes BECAUSE and IF in Amharic. Not only are there a number of alternative ways of expressing causal and hypothetical clauses, but also the combinatorial properties of the various forms are rather complex.

However, at the outset it appears that the exponents for BECAUSE and IF are expressed by the conjunction particles *silə-* and *kə-*, respectively, and both

are attached to the verb. Regarding BECAUSE, the conjunctive particle *silā-* is attached to both the affirmative and negative perfect. Thus, consider the following example. (In (120), *silā-* can be translated into English as ‘because’, ‘since’, or even ‘as’.) *Silā* ‘because’ also occurs freely in the adjunct phrase *silā izzih* [because this] ‘because of this’.

- (120) *wəndimm-e*      *k-agərbet*      *silā-mət’t’a*  
 brother-POSS.1SG from-countryside because-come.PF.3M  
*l-ayə-w*      *hed-k<sup>w</sup>*  
 to-see.IMP.1SG-3M.O go.PF-1SG  
 ‘Because my brother came from the countryside I went to see him.’

The prime IF is expressed by the conjunctive particle *kə-* in the perfective:

- (121) *kə-fəlləg-h*      *wədə*      *bet*      *hid*  
 if-want.PF-2M to home go.IMPER.2M  
 ‘If you want, go home!’

In the imperfect, however, the conjunctive particle *bi-* is used in contexts which would correspond to both BECAUSE and to IF in the perfect.

- (122) *hulətt*      *səat*      *saybəla*      *b-ik’oy*  
 two hour without.eating because-wait.IMP.3M  
*hod-u-n*      *amməməw*  
 stomach-DEF-ACC sick.PF.3M  
 ‘His stomach ached because he went (lit. because he waited) two hours without eating.’

- (123) *ibet-e*      *bi-ttimət’a*      *dəssyləññal*  
 home-POSS.1SG if-come.IMP.2M be.happy.IMP.1SG  
 ‘I would be happy if you would come to my house.’

The above constructions exemplify the simplest cases for both BECAUSE and IF. There are other morphosyntactic alternatives that need to be explored further.

## 15. Intensifier and augmentor: VERY, MORE

### 15.1 *bət’am* VERY

The exponent of VERY is *bət’am* and its combinatorial properties are fairly straightforward. Typically it modifies adjectives, e.g., *bət’am t’iru səw* [very good person] ‘a very good person’. As in some other languages (e.g., Polish,

cf. Wierzbicka 2002: 132), the Amharic intensifier can modify verbs in the sense equivalent to English *very much*:

- (124) *bət'am ifəllig-əw-allə-h<sup>w</sup>*  
 very want.IMP.1SG-3M.O-IMP-1SG  
 'I want it very much.'

## 15.2 *yibəlt'* MORE

The exponent of MORE is *yibəlt'*. It is derivationally related to the verb *bəllət'ə* 'to surpass', 'to exceed', 'be more than'. It occurs with a range of verbs including mental predicates such as *awwək'ə* KNOW, *səmma* HEAR, *fəlləgə* WANT, *ayya* SEE, and also with the existential *allə* THERE IS.

- (125) *silə-zih yibəlt' m-awwək' i-fəlligallə-h<sup>w</sup>*  
 about-this more INF-know 1SG-want.IMP-1SG  
 'I want to know more about this.'

In "nominal comparative" contexts, where 'more' is modifying a substantive, a different form *č'immari* 'more' is used. It is derivationally related to the verb *č'əmmərə* 'add', 'increase'.

- (126) *č'immari wətət i-fəlligallə-h<sup>w</sup>*  
 more milk 1SG-want.IMP-1SG  
 'I want more milk.'

In the above construction the use of *yibəlt'* would sound very awkward. The precise semantic relationship between these two forms—*yibəlt'* and *č'immari*—needs further investigation.

## 16. Taxonomy and partonomy: KIND, PART

### 16.1 *aynət* KIND

The Amharic exponent of the prime KIND is *aynət*. It occurs with a number of different determiners: *yih aynət* [this kind], *lela aynət* [another kind], *bizu aynət* [many kinds], and *hullu aynət* [all kinds]. Its combinatorial properties appear to be rather straightforward.

- (127) *aqərit-u bizu aynət ihil t-amərtall-əčč*  
 country-DEF many kind crops 3F-produce.IMP-3F  
 'The country produces many kinds of crops.'

## 16.2 *kifil* PART

The Amharic word for the prime PART is *kifil*. Like the taxonomic *aynət* KIND, *kifil* PART can occur with determiners and specifiers: *yih kifil* [this part], *lela kifil* [another part], *bizu kifil* [many parts], *hullu kifil* [all parts].

The noun *kifil* is derivationally related to the verb *kəffələ* that has a range of different meanings including: ‘to divide’, ‘to part’, ‘to separate’. The prime *kifil* PART can occur in constructions such as the following:

- (128) *yə-səwinnət kifil*  
 POSS-body part  
 ‘Part of the body’ (lit. body’s part)

## 17. Similarity: LIKE

The best candidate for the prime LIKE is the particle *ind*—which can be attached to a pronoun or a noun to express ‘like’ and ‘as’:

- (129) *antə ində-ne nəh*  
 you like-me are.2M  
 ‘You are like me.’

It can occur in a more complex construction with a substantive encoding a ‘person’ or a ‘thing’, as in:

- (130) *ində-ne astəmari nəw*  
 like-me teacher is  
 ‘He is a teacher like me.’

- (131) *ində-zih gize/bota*  
 like-this time/place  
 ‘Like this time/place.’

It can also occur with action predicates *adərrəgə* DO, *honə* HAPPEN and the speech predicate *alə* SAY:

- (132) *ində-zih adərrəg-ə*  
 like-this do.PF-3M  
 ‘He did like this.’
- (133) *ində-zih hon-ə*  
 like-this happen.PF-3M  
 ‘It happened like this.’

- (134) *aster ində-zih al-əčč*  
A. like-this say.PF-3F  
'Aster said like this.'

It is important to note here that *ində* 'like' is similar in form to *ində-*, which productively functions as a complementiser equivalent to English *that*.

- (135) *ləmma wadə amerika ində-hed-ə nəggər-əčč-iññ*  
L. to America that-go.PF-3M tell.PF-3F-1SG.O  
'She told me that Lemma went to America.'

The complementiser *ində-* (in the perfect) and *indi-* (in the imperfect) is prefixed to the embedded verb as shown above. Verbs that take the *ində-/indi-* complement clause include verbs of perception and cognition (*ayya* 'see', *səmma* 'hear', *awwək'ə* 'know', *fəllagə* 'want') and speaking (*nəggərə* 'tell', *t'əyyək'ə* 'ask') among others.

While the formal identity between *ində* the exponent of LIKE and *ində-* the complementiser is intuitively unsurprising, in so far as each functions as a kind of "linker", the relationship between them needs to be explored further.

18. Concluding remarks

This study has explored the lexical exponents of the full set of proposed semantic primes in the Amharic language. In most cases, the identification of the Amharic exponents of the semantic primes is rather straightforward and the syntactic properties of the primes do not appear to present any particular problems. However, as indicated at various points in the study there are a number of issues that need to be investigated further. In particular, there are a number of primes whose polysemous meanings should be clearly distinguished on formal grounds. However, the above difficulties notwithstanding, the study provides a broad overview of the universal and language-specific combinatorial properties of semantic primes in Amharic.

Abbreviations

1	1st person	IMPER	imperative	PF	perfect
2	2nd person	INCH	inchoative	PL	plural
3	3rd person	INF	infinitive	POL	polite
ACC	accusative	INTER	interjection	POSS	possessive
CAUS	causative	JUSS	jussive	PV	preverb
COMP	complementiser	M	masculine	REL	relative pronoun
DEF	definite	NEG	negative	SG	singular
F	feminine	O	object	tr	transitive
IMP	imperfective	PART	particle		

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## The Natural Semantic Metalanguage of Korean

Kyung-Joo Yoon

This study aims to describe characteristics of Korean natural semantic metalanguage based on previous research (Yoon 2003, 2006). After testing against canonical sentences, the hypotheses of NSM theory are generally found to be supported in terms of lexicalisation, syntax, and cross-linguistic translatability at the textual level. These findings will be summarised together with discussion of the relevant issues that arise in connection with the Korean-based metalanguage. The practicality of the metalanguage as a descriptive tool for semantic analysis is tested and explications of Korean-specific concepts are presented in both English and Korean to demonstrate that they are isomorphic.

### 1. Introduction

Korea is well known as a homogeneous and monolingual society with around 48.1 million people in South Korea and 21.4 million in North Korea. Korean in this chapter refers to contemporary standard Korean (*phyocwunmal*), which has been developed and institutionalised in the Republic of Korea through language planning over the last few decades (cf. Kim 1978; Hoe 1994). In terms of the genetic relationships of the Korean language, the Altaic hypothesis is the most persuasive so far (Sohn 1994: 1).

Korean is characterised as an agglutinative language due to its morphological productivity and to the abundance of postpositional particles and verbal suffixes that are semantically distinct and formally constant (Sohn 1994: 229).<sup>2</sup> Words are formed by combining a root and one or more affixes. For verbals, affixes agglutinate to a stem, one after another in a fixed order (Chang 1996), while for nominals, various particles agglutinate depending on their syntactic roles. The agglutinative nature of Korean is most distinctly reflected in the morphological structure of verbals (verbs and adjectives). There are a number of inflectional slots following a verbal root, which are filled obligatorily or optionally by suffixes that represent categories such as voice, subject honorific, tense and aspect, modal, addressee honorific, mood and clause type. Some Korean exponents of primes are therefore given with an open suffix slot. There

will also be phonological variants of some Korean exponents, resulting mainly from the combined case markers and particles.

Although the basic word order of Korean is SOV, Korean is also known as a “scrambling” language because constituent order before the predicate is relatively free. Despite the flexibility in terms of word order, the present research follows the basic rule, which is known as neutral and unmarked (Lee, Lee and Chae 1997: 205; Kim 2000), since shifting constituent order may imply a different connotation or discourse presupposition for the purpose of focus.

The current NSM inventory is around 63 semantic primes and their combinatorics were tested in Yoon (2003, 2006). The testing was carried out using various methodological procedures and theoretical strategies developed by NSM scholars over the years (cf. Goddard and Wierzbicka eds 1994, 2002).<sup>3</sup> The current inventory is given in Table 1 with the identified Korean exponents.

**Table 1.** Semantic primes: Korean (Yoon 2003, 2006)

Substantives:	NA <i>I</i> , NE <i>you</i> , NWUKWU <i>someone</i> , SALAMTUL <i>people</i> , MWUES/-KES/IL <i>something/thing</i> , MOM <i>body</i>
Relational substantives:	CONGLYU(-UY) <i>kind</i> , PWUPUWN(-UY) <i>part</i>
Determiners:	I <i>this</i> , TTOKKATH- <i>the same</i> , TALU- <i>other</i>
Quantifiers:	HAN <i>one</i> , TWU <i>two</i> , MYECH/ETTEN N-TUL <i>some</i> , MOTUN <i>all</i> , MANH- <i>much/many</i>
Attributes:	COH- <i>good</i> , NAPPU- <i>bad</i>
Descriptors:	KHU- <i>big</i> , CAK- <i>small</i>
Mental predicates:	SAYNGKAKHA- <i>think</i> , AL- <i>know</i> , WENHA-(V + KO-SIPH-) <i>want</i> , NUKKI- <i>feel</i> , PO- <i>see</i> , TUT- <i>hear</i>
Speech:	MALHA- <i>say</i> , MAL <i>words</i> , SASIL <i>true</i>
Actions, events movement, contact:	HA- <i>do</i> , ILENA-(SAYNGKI-) <i>happen</i> , WUMCIKI- <i>move</i> , TAH-(A-ISS) <i>touch</i>
Location, existence, possession, specification:	ISS- <i>be (somewhere)</i> , ISS- <i>there is</i> , KAC- <i>have</i> , -I- <i>be (someone/something)</i>
Life and death:	SAL- <i>live</i> , CWUK- <i>die</i>
Time:	TTAY (ENCEY) <i>when/time</i> , CIKUM <i>now</i> , CEN <i>before</i> , HWU <i>after</i> , OLAY(-TONGAN) <i>a long time</i> , CAMKKAN(-TONGAN) <i>a short time</i> , ELMA TONGAN <i>for some time</i> , SWUNKAN <i>moment/in one moment</i>
Space:	KOS (ETI) <i>where/place</i> , YEKI <i>here</i> , WI <i>above</i> , ALAY <i>below</i> , MEL- <i>far</i> , KAKKAP- <i>near</i> , CCOK <i>side</i> , AN <i>inside</i>
Logical concepts:	AN (V + CI-ANH) <i>not</i> , AMA -(U)L KES I- <i>maybe</i> , -(U)L-SWU-(KA)-ISS- <i>can</i> , TTAYMWUN(EY) <i>because</i> , (U)MYEN <i>if</i>
Intensifier, augmentor:	ACWU <i>very</i> , TE <i>more</i>
Similarity:	KATH- <i>like</i>

The notions of canonical contexts, allollexy, portmanteau exponents and non-compositional polysemy are central to the process of identifying exponents of the proposed semantic primes. The canonical contexts—sentences or sentence fragments exemplifying proposed universal combinations—also played a critical role in testing the syntax of each member of the lexicon.

In the next section, I will report the findings of the study on Korean natural semantic metalanguage, focusing on the most noteworthy points and summarising other cases that are relatively straightforward.

## 2. Substantives: I, YOU, SOMEONE, SOMETHING, PEOPLE, BODY

### 2.1 *na* I, *ne* YOU

The counterparts of I and YOU are *na* and *ne*, respectively. There are several alternative forms for each that may be chosen according to pragmatic factors and the social norms of the Korean community. Sohn (1994: 281) has pointed out that Korean pronouns are “selected depending on the speaker’s and/or addressee’s sex, age, perceived social status, kin relationships, and emotional coloration”. Apart from various choices of strictly personal pronouns, kinship terms and occupational roles (teacher, professor, or president) are often used in place of first and second personal pronouns, as in other Asian languages, such as Thai (Diller 1994), Malay (Goddard 2002a) and Japanese (Onishi 1994). Despite the fact that people use the honorific or zero form widely in natural discourse, *na* and *ne* appear to be the semantically pure Korean exponents. (For details of the romanisation, see the Appendix.)

- (1) *nay-ka ne-eykey i-il-ul hay-ss-ta.*  
 I-NM you-DAT this-thing-ACC do-PST-DC  
 ‘I did this to you.’

These exponents are constant regardless of the different case functions, except when they are changed to *nay* and *ney*, respectively, before the nominative particle *-ka*. These forms should be treated as allollexes of *na* and *ne*.

### 2.2 *nwukwu* SOMEONE/WHO, *mwues* SOMETHING/WHAT

There seems to be a parallel between the two Korean counterparts of SOMEONE and SOMETHING. For the prime SOMEONE, both *nwukwu* and *etten i* seem to be the best candidates among a number of possibilities, considering the fact that they do not necessarily refer only to humans, while other translational counterparts, *enu salam* and *etten salam* (‘a certain person’ or ‘which person’) do refer only to humans. The word *nwukwu* can be substituted for *etten i* in (2) without any change of meaning:

- (2) *etten i-nun kkwum-ul kancikha-ko sal-ko*  
 someone-TC dream-ACC keep-and live-and  
*etten i-nun kkuwm-ul ilwumyen-se sal-ko*  
 someone-TC dream-ACC achieve-and live-and  
 'Someone keeps the dream, someone achieves the dream.'  
 (*etten i-uy kkwum* [someone's dream], *Choysin Kayo Taybakkwa*  
 1994: 159)

The Korean counterparts of SOMETHING/WHAT in Korean are *mwues* and *etten kes*.

- (3) *i an-ey mwues (etten kes)-i iss-ta.*  
 this inside-LOC something-NM there is-DC  
 'There is something inside this.'

In both cases, two different forms are identified as Korean exponents. One is monomorphemic and non-referential, while the other is bimorphemic consisting of an indefinite article and noun: *etten* and either *-i* (a bound morpheme for being) or *-kes* (a general noun for thing and event). There is no semantic difference between two counterparts for each case (i.e., *nwukwu* and *etten-i*, and *mwues* and *etten kes*) when they are used in the canonical sentences. There are fixed phrases involving the two categories of SOMETHING and SOMEONE, such as, *nwuka mwues-ul hay-ss-tun* ... 'no matter who did what ...' and *nwukwu-lul wihay mwues-ul ha-l-ttay* ... 'when you do something for someone ...'. Here the two words, *nwukwu* and *mwues* are used naturally and symmetrically to refer to 'someone' and 'something'.

The non-specific terms *nwukwu* and *mwues* are used naturally when they are not combined with any modifying word in natural discourse. On the other hand, *etten i* and *etten kes* are more natural in combination with attributives such as evaluators or descriptors, which are inserted in between the two morphemes (e.g., *etten coh-un* 'good' *kes*).

NSM researchers claim that in all languages the prime SOMETHING can combine with evaluators and with descriptors to form substantive phrases, such as SOMETHING GOOD, SOMETHING BAD, SOMETHING BIG and SOMETHING SMALL. This claim is valid in Korean. However, these kinds of substantive phrases can be expressed in more than one way, owing to the relatively flexible word order system in Korean, as shown in the examples below:

- (4) a. *olay cen-ey etten (mwusun) coh-un il-i*  
 long.time before-LOC some good-PN event-NM  
*ilena-ss-ta.*  
 happen-PST-DC  
 'Something good happened a long time before (now).'

- b.    *olay*        *cen-ey*        *coh-un*    *etten (mwusun)*    *il-i*  
       long.time   before-LOC   good-PN   some                    event-NM  
       *ilena-ss-ta*.  
       happen-PST-DC  
       ‘Something good happened a long time before (now).’

Examples (5) and (6) show that both *nwukwu* and *mwues* can serve as interrogative pronouns, as has been observed cross-linguistically (cf. Wierzbicka 1996; Chappell 1994: 111; Goddard and Wierzbicka 2002). The negative allolex of *nwukwu* is *amwu* ‘no-one’, and of *mwues* is *amwukes* ‘nothing’, respectively. They are used with the obligatory particle *-to*.

- (5) *nwuka*    *i*        *il-ul*        *hay-ss-ni?*  
       who    this    thing-ACC   do-PST-INT  
       ‘Who did this?’
- (6) *yeki*    *mwues-i*    *iss-ni?*  
       here   what        there is-INT  
       ‘What is there in this place?’

The non-specific term *nwukwu* SOMEONE and *mwues* SOMETHING are not used in combination with specifiers such as determiners and quantifiers, notwithstanding that such combinations can be readily understood. More idiomatic expressions for the combination THIS SOMEONE are *i salam* or *i pwun*. This situation is parallel to English in which *person* is used instead of SOMEONE when this concept combines with determiners or quantifiers (i.e. *this person* as opposed to *this someone*). However, the two Korean variants each seem to have an additional semantic component, roughly: *i salam*: ‘THIS SOMEONE, one of people’; *i pwun* ‘THIS SOMEONE, I think something good about this someone’.

The same applies when combining THIS and SOMETHING. In the case of being combined with specifiers, instead of *mwues*, the bound morpheme *-kes* ‘thing’ is used, as shown in the example below:

- (7) *na-nun*    *mwues-ul*        *kac-ko-iss-ta*.    *i-kes-un*        *khu-un*    *kes*    *i-ta*.  
       I-TC    something-ACC   have-PRG-DC   this-thing-TC   big-PN   thing   be-DC  
       ‘I have something. This thing is a big thing.’

However when SOMETHING appears as the complement of DO or HAPPEN, *il* is more idiomatic than *-kes*. The two variants were tested in the same canonical sentences and found to have no meaning difference.

A final point concerns the combination of SOMETHING and some quantifiers. When *-kes* is used in combination with *han-/ONE*, *twu/TWO* and *myech/SOME*,

the classifier for the general noun *kay* (or *kaci*) has to be used in place of *-kes*, since the numerical quantifiers must combine with a classifier not the noun itself.

To sum up, Korean exponents of SOMEONE and SOMETHING were found to have lexical variants depending on the predicates used and the existence of specifiers. For instance, *il* instead of *-kes* is preferred when it occurs as a complement of the predicate DO and HAPPEN. The proposed variants, *il* and *-kes*, can be treated as allomorphs on the basis of testing their meanings in the given canonical sentences.

### 2.3 *salamtul/salam* PEOPLE

The Korean exponent for PEOPLE is *salamtul*. The word consists of *salam* ‘person’ and *-tul* ‘plural marker’.

- (8) *salamtul-i ne-ey tayhay nappu-key mal-ul ha-l kes-i-ta.*  
 people-NM you-about bad-ADV word-ACC do-PRO thing-be-DC  
 ‘People will say bad things about you.’
- (9) *i kos-ey manh-un salamtul-i iss-ta.*  
 this place-LOC many-PN people-NM there is-DC  
 ‘There are many people in this place.’
- (10) *i salamtul cwung hana-ka i-kes-ul ha-l-swu-iss-ta.*  
 this people among one-NM this-thing-ACC do-can-DC  
 ‘One of these people can do this.’

The plural marker *-tul* (of *salamtul*) occurs selectively depending on contexts: *-tul* must not occur with numerical quantifiers while it is optional with other quantifying words, such as *manh-* MANY and *motun* ALL. This means that when plurality is already marked in the sentence, *salam* by itself can express the meaning PEOPLE.

It might appear that *salam* is the same in meaning as English *person*, and in some contexts they can be good translation equivalents, e.g. *i salam* ‘this person’, *cohun salam* ‘a good person’, *mikwuk salam* ‘American person’, *khun salam* ‘big person’. The apparent equivalence is not perfect, however. Firstly, as argued by Wierzbicka (2002: 66-74; cf. Goddard 2002a: 97), the contemporary use of English *person* often has an additional semantic component “focusing on individuality”, and this is not the case with Korean *salam*. Secondly, like *salamtul*, Korean *salam* is strictly confined to humans (human beings).

## 2.4 *mom* BODY

Identifying the counterpart of BODY is relatively straightforward. The word *mom* (rather than the Sino-Korean word *sinchey*) has a wider range of use in both spoken and written contexts.

- (11) *son-un mom (sinchey)-uy ilpwu-ta.*  
 hand-TC body-GEN a.part-DC  
 ‘The hand is a part of the body.’

## 3. Determiners: THIS, THE SAME, OTHER

The Korean exponent of THIS is *i*. As expected, it can be used in combination with all substantives, except the deictics. For example:

- (12) *i kos-ey nwuka iss-ta.*  
 this place-LOC someone there is-DC  
 ‘There is someone in this place.’

It has recently been suggested (cf. Goddard and Wierzbicka this volume) that the prime THIS has a “quasi-pronominal” syntactic option, where it occurs as a referring expression in its own right. In English, some uses of *it* are regarded as allosexical variants of this putative “quasi-pronominal” THIS (while others are complex expressions equivalent to ‘this thing’). Goddard and Wierzbicka adduce the English version of (13) below, pointing out that while the first occurrence of *it* is readily paraphrased as ‘this thing’, the second one is not. It is an instance of what they refer to as “abstract THIS/IT”.

- (13) *Jonh-un Mary-ka i il-ul hay-ss-ta-ko sayngkakha-n-ta,*  
 John-TC Mary-NM this thing-ACC do-PST-DC-Q think-IN-DC  
*haciman na-nun (i-lul) mit-ci-anh-nun-ta*  
 but I-TC (this-ACC) believe not-IN-DC  
 ‘John thinks that Mary did it, but I don’t believe this/it.’

As one can see from the Korean version, the options in Korean are either zero or *i* THIS (with an accusative suffix). The zero realisation is more typical. Korean expressions corresponding to English *It’s true* and the like, typically have zero subjects.

Another example, also in the contexts of anaphoric reference, is given in (14) below. Actually, in this context *i* can be used either by itself or in combination with *-kes* or *il*, both exponents of SOMETHING.



- (14) *na-nun ney-ka i(-kes)-ey tayhay malha-n-cwul mol-lass-ta.*  
 I-TC you-NM this(thing)-about say-PN-NOM not know-PST-DC  
 'I didn't know that you said (something) about this.'

Although as examples (13) and (14) show, it is possible to use Korean *i* THIS in the predicted quasi-pronominal fashion, uses of bare *i* THIS are more restricted than in English. For example, bare *i* THIS is not possible in an example like (15a). Rather, the combination of *i* + *il* SOMETHING is required, as shown in (15b):

- (15) a. *\*i-i nay-key ilena-ki-lul wenha-n-ta.*  
 this-NM I-DAT happen-NOM-ACC want-IN-DC  
 'I want this to happen to me.'  
 b. *i-il-i nay-key ilena-ki-lul wenha-n-ta.*  
 this-event-NM I-DAT happen-NOM-ACC want-IN-DC  
 'I want this to happen to me.'

More research is required before one can conclude that the newly proposed "abstract THIS/IT" is fully realised in Korean.

The Korean exponents for THE SAME and OTHER are *ttokkath-* and *tal-*, respectively.

- (16) *na-nun ecey ney-ka mwusun-il-ul hay-ss-nun-ci an-ta.*  
 I-TC yesterday you-NM what-thing-ACC do-PST-PN-NOM know-DC  
*na-to ttokkath-un il-ul hay-ss-ta.*  
 I-too the.same-NM thing-ACC do-PST-DC  
 'I know what you did yesterday. I did the same thing.'  
 (17) *na-nun i-il-ul hay-ss-ko talu-n twu salam-to ku*  
 I-TC this-event-ACC do-PST-and other-PN two people-too that  
*il-ul hay-ss-ta.*  
 thing-ACC do-PST-DC  
 'I did this and two other people did that.'

Goddard (2002b: 305) calls for cross-linguistic investigation into the relationship between the prime OTHER and 'different'. He raises the question as to whether they are allolexes or not. In the Korean language, the two different meanings are expressed by the single word *tal-*, as illustrated in the examples below:

- (18) a. *yeki-ey iss-nun i-kes-un ceki-ey*  
 here-LOC exist-PN this-thing-TC there-LOC  
*iss-nun ku-kes-kwa talu-ta.*  
 exist-PN that-thing-with different-DC  
 'This thing here is different from that thing over there.'

- b. *na-nun ne-wa talu-key hay-ss-ta.*  
 I-TC you-with other-ADV do-PST-DC  
 ‘I did it differently (from you).’

The Korean prime *talu-* OTHER is used predicatively and adverbially, as in (18a) and (18b), respectively. In Korean, this is the only possible option to express the equivalent of English *different*.

#### 4. Quantifiers: ONE, TWO, SOME, ALL, MUCH/MANY

##### 4.1 *han(a)* ONE, *twu(l)* TWO, *motwu(motun)* ALL, *manh-* MUCH/MANY

The Korean exponents for ONE and TWO are *han(a)* and *twu(l)*, respectively. These words can be used predicatively and attributively by taking different suffixes, and also can function as quasi-substantives. Their forms are determined by their syntactic role and combination with other words in a sentence. The formal variants of *han* and *twu* can be called combinatorial allolexes that are in complementary distribution. The same applies to the Korean exponent *motwu* (*motun*)/ALL.

ONE → *han/*\_\_\_ noun      TWO → *twu/*\_\_\_ noun      ALL → *motun/*\_\_\_ noun  
*hana/* elsewhere      *twul/* elsewhere      *motwu/* elsewhere

The Korean counterpart of MUCH/MANY is *manh-*. The word *manh-* is an absolute concept of a large number or a big quantity, the same as the English exponent MUCH/MANY. This word can be used regardless of the nature of the referent, as shown in the following examples:

- (19) *ku thong-ey mwul-i elmana manh-ci?*  
 that bucket-LOC water-NM how much-SUP  
 ‘How much water is in that bucket?’
- (20) *ku salamtul cwung manh-un salamtul-i tong-ccok-ulo ka-ko ...*  
 that people among many-PN people-NM east-direction-DIR go-and  
 ‘Many of them went to the east ...’

It is worth mentioning two points relevant to Korean quantifiers. Firstly, Korean has a well-developed classifier system. However, the relationship between classifier and noun is not simply that each noun is assigned to a separate classifier. One relevant issue for the purpose of this study is the fact that there is a syntactic difference between the Korean exponents of quantifiers

when they are used in combination with other exponents of primes. The numerical quantifiers *han* ONE, *twu* TWO and *myech* SOME combine with classifiers obligatorily while others, such as *manh-* MANY and *motun* ALL have to be combined with nouns, not classifiers. Consequently, there are instances where classifiers replace nouns in association with quantifiers. For instance, when occurrence of TIME is specified by *han* ONE, *twu* TWO, or *myech* SOME, instead of the proposed exponent *ttay*, the classifier *pen* has to be used. This is parallel to the classifier *kwuntay* for *kos* PLACE, *kay* or *kaci* for *-kes* SOMETHING, and *myeng* (plain form) or *pwun* (honorific form) for *salam* PEOPLE. The use of classifiers is one of the grammatical requirements of Korean, which does not affect the semantic level.

Another point to draw attention to is plurality marking in Korean. According to Sohn (1994: 268–269):

The plural marker is the nominal inflectional suffix *-tul* that appears after a noun designating either an animate or an inanimate object ... Without the plural marker *-tul*, a common noun is neutral with regard to plurality ... When a common noun is definitised, however, marking of plurality becomes obligatory, because unmarked definite nouns always refer to a singular. Thus, *ku salam* is always the singular ‘that person’ and *ku slam-tul* is always the plural ‘those people’.

Plurality is indicated in Korean by the suffix *-tul*, as mentioned previously, as well as by other quantifiers, such as *manh-un*, *myech*, or *yele*. When these attributive words that express plurality modify a noun, the suffix *-tul* is optional, since plurality is already marked by the other quantifiers. However, when a numerical quantifier such as, *twu* TWO, is used, the plural suffix *-tul* is not used at all. For the purpose of the Korean-based NSM, the plural suffix *-tul* is attached only when it makes a meaning difference, i.e., in cases like those noted in the quotation from Sohn (1994) above. Therefore, in cases like the one shown in example (21), the plural suffix *-tul* will not be used, while it will be in cases like the one shown in example (22) where plural marking makes a difference in meaning.

- (21) *manh-un kes(-tul)-ul ha-ko-siph-ta.*  
 many-PN thing-PL-ACC do-want-DC  
 ‘I want to do many things.’

- (22) a. *ku kes-ul ha-ko-siph-ta.*  
 that thing-ACC do-want-DC  
 ‘I want to do that thing.’  
 b. *ku kes-tul-ul ha-ko-siph-ta.*  
 that thing-PL-ACC do-want-DC  
 ‘I want to do those things.’

## 4.2 *etten* Noun-*tul*, *myech* SOME

The English word *some* is polysemous. Among its polysemic meanings, the meaning “indeterminate number” is proposed as the semantic prime SOME. However, canonical sentences such as ‘Some of these yams (lemons, etc.) are good, but some are rotten’ suggest two different Korean expressions: *myech* and *etten* Noun-*tul*. According to Goddard (2002a: 128–129), a similar situation is found in Malay, where there are two “some-words”—*beberapa* and *ada*—which he labels “vague number SOME” and “existential partitive SOME”, respectively. The former is not contrastive in any sense and refers to an unspecified number of items, while the latter is normally contrastive and is closely linked with an existential element. The Korean word *myech* seems to be used to express the former: it is a pre-nominal indefinite quantifier which appears in combination with classifiers. The expression *etten(-tul)* is close to an “existential partitive”: it is the combination of the indefinite article and the plural marker. The two expressions will be dealt with in turn.

Example (23) is a typical usage of *myech*. I can detect no meaning difference between *myech* and “vague number SOME” in contexts like these.

- (23) *chayksang-wi-ey chayk-i myech-kwen iss-ta.*  
 desk-above-LOC book-NM some-CL there is-DC  
 ‘There are some books on the desk.’

However, when SOME is used in an “existential partitive” function, that is, to assert the existence of a category of people or things, *etten* Noun-*tul* has to be used, as shown in (24):

- (24) *etten salamtul-un i il-ul ha-l-swu-iss-ko*  
 some people-TC this work-ACC do-can-and  
*etten salamtul-un ha-l-swu-eps-ta.*  
 some people-TC do-cannot-DC  
 ‘Some people can do this and some people cannot.’

The word *etten* seems to express the non-specificity of referents in terms of “identity”, rather than in terms of “number” in daily conversation. In Korean grammar it is not considered a quantifier, but rather an indefinite article similar to the English article *a* or *some*. *Etten* itself can be used either with a singular or plural referent: the combination of *etten* with the plural marker *-tul* jointly expresses indefinite plurality. Although the two expressions *etten* and *-tul* often occur together in natural conversations, from a Korean point of view it seems strange to consider them as representing a single unitary concept.

When they are used in the same context, as in (25a) and (25b), a slight meaning difference can be noted.

- (25) a. *myech salamtul-i cip-ulo tuleka-ss-ta.*  
           some people-NM house-into enter-PST-DC  
           ‘Some people went into that house.’  
       b. *etten salam(tul)-i cip-ulo tuleka-ss-ta.*  
           a/some person/people-NM house-DIR enter-PST-DC  
           ‘A person/some people went into that house.’

When using *myech*, the focus seems to be on the vague number of the modified noun, while using the expression *etten Noun-tul* seems to stress the uncertainty of the identity of the modified noun. Roughly, (25a) implies that ‘I don’t know how many people’, while (25b) implies ‘I don’t know who these people are’.

Although it is vague in natural discourse, *myech* is not usually used to refer to a large number. This may be because of the possibility of expressing *myech sip* ‘some tens’, *myech payk* ‘some hundreds’ and *myech chen* ‘some thousands’, and so on. Choosing bare *myech* among alternative choices therefore tends to give the impression that the number of items is rather small. Also in everyday life people tend to describe an amount or number more precisely, using such expressions as *manh-* ‘many’, *cokum* ‘a few’, *yakkan* ‘a little bit’, rather than purely vague numbers.

In some contexts, it appears that the two expressions are interchangeable. For example, in a selective context like (26) below, *etten Noun-tul* can be substituted for *myech*, without any meaning difference.

- (26) *i salamtul cwung myech salam-un talu-n kos-ulo ka-ko*  
       this people among some person-TC other-PN place-to go-and  
       *myech salam-un i kos-ey nam-ass-ta.*  
       some person-TC this place-LOC stay-PST-DC  
       ‘Some of these people moved to another place, and some of them stayed here.’

The two expressions can sometimes be used together in the same sentence in natural discourse, as follows:

- (27) *kath-un il-i etten talu-n myech salam-tul-ekey-to*  
       the same-PN event-NM some other-PN some person-PL-DAT-too  
       *ilena-ss-ta.*  
       happen-PST-DC  
       ‘The same thing happened to some other people.’

Presumably, the possibility of using both expressions in the same sentence suggests that they are different concepts, although they are very closely linked to each other. Nevertheless, the exact relationship between the two expressions remains an open question at this time.

## 5. Evaluators: *coh*- GOOD, *nappu*- BAD

The two stems *coh*- and *nappu*- are the Korean exponents of GOOD and BAD, respectively. They can take different suffixes, such as *-un*, *-ul*, *-key*, *-ta*, *-aha*-, *aci*-, *ahal*-, *acil*, *umyen*, according to their syntactic roles.

- (28) *i kos-ey coh-/nappu-(u)n salamtul-i iss-ta.*  
 this place-LOC good/bad-PN people-NM there are-DC  
 'There are good/bad people in this place.'

It is not possible in Korean to form an unambiguous sentence corresponding exactly to 'this person is good/bad', because when GOOD is used as a predicate it can have more than one reading, as exemplified in (29). On the other hand, a predicative phrase such as 'a good person', as in (29), is unambiguous.

- (29) *i salam-un coh-ta.*  
 this person-TC good-DC  
 'This person is good.' OR  
 'As to this person, it is okay (I like this person).'

- (30) *i salam-un coh-un salam i-ta.*  
 this person-TC good-PN person be-DC  
 'This person is a good person.'

The ambiguity of (29) seems to be caused by the capacity of *coh*- GOOD to indicate simple positive evaluation or psychological attraction. In other words, one meaning of *coh*- in such sentences as *na-nun i salam-i coh-ta* is close to 'I like this person'. However, the predicate use of *coh*- does not raise any problem of ambiguity in a context such as (31).

- (31) *salamtul-un i kes-i coh-ta-ko sayngkakha-n-ta.*  
 people-TC this thing-NM good-DC-Q think-IN-DC  
 'People think this is good.'

In NSM theory it is normally assumed that 'well' (in a context like 'this person cannot think well') is an adverbial allolex of GOOD. From this point of

view, it is interesting that in Korean the regular derived adverb from *coh*-GOOD, namely *coh-key*, is not the equivalent of ‘well’ in this sense. Rather a different word *cal* has this role. Example (32) shows *coh*-GOOD and *cal* used in the same sentence, a typical Korean saying.

- (32) *talun salamtul-eykey coh-un il-ul ha-l ttay-nun cal*  
 other-PN people-DAT good-PN thing-ACC do-PRO when-TC well  
*hay-ya ha-n-ta.*  
 do-should do-IN-DC  
 ‘When one does good things for others, one has to do them well.’

The implication of (32) is that one can do ‘good things’ either well or not well. The typical context for such a sentence is when one does an act of charity for someone and offends that person’s feelings, perhaps by carrying it through in an improper manner. If the adverbial form of *coh*- (*coh-key*) were to be substituted for *cal*, the meaning would be slightly different: it would involve personal relationships. For this reason, it would be awkward to use *coh-key* about contexts such as preparing for an exam or a school project, while *cal* ‘well’ can be used naturally in these situation.

The combination of *cal* ‘well’ and *al*-KNOW indicates familiarity, as shown in (33).

- (33) *na-nun i-salam-ul cal a-n-ta.*  
 I-TC this person-ACC well know-IN-DC  
 ‘I know this person well.’

The combination of *cal* and LIVE can be ambiguous: it can mean ‘living righteously or morally’ and ‘living wealthily’. The cues for correct interpretation are differences in prosodic characteristics and/or context. In written text the orthographic difference is another cue: *cal santa* (잘 산다, ‘living righteously’) versus *calsanta* (잘산다, ‘living wealthily’).

## 6. Descriptors: *khu*-BIG, *cak*-SMALL

The Korean exponents for these primes are *khu*- and *cak*-, respectively. These words belong to the adjective class. They can be used either attributively or predicatively by taking different suffixes, according to their syntactic roles.

All the proposed combinatorics of BIG and SMALL are supported in Korean. That is, they can be combined with SOMETHING, SOMEONE, PEOPLE, KIND, PART and PLACE; and they are readily used with the intensifier VERY.

It is commonly reported that BIG and SMALL can be used in an abstract sense but it is still an open question whether the abstract use of the word BIG and

SMALL is universal. The Korean counterparts, *khu-* and *cak-* can be used in this sense commonly and naturally in everyday contexts, as can be seen in examples (34) and (35) below. In both sentences, *khu-* BIG and *cak-* SMALL seem to indicate the importance of the matter, not physical size.

- (34) *mwues-inka khu-n il-i nay-key ilena-ss-ta.*  
 something-NM big-PN event-NM I-DAT happen-PST-DC  
 ‘Something big happened to me.’

- (35) *ilen cak-un il-ey tayhay kekcengha-ci-mal-a-la.*  
 like this small-PN event-about worry-not-INF-IMP  
 ‘Don’t you worry about small things like this.’

## 7. Mental predicates: THINK, KNOW, WANT, FEEL, SEE, HEAR

### 7.1 *sayngkakha-* THINK, *al-* KNOW

The word *sayngkakha-* is the only one that can be used in all canonical NSM sentences for THINK. The claim that this prime allows either a substantive or a clausal complement (‘think something’ and ‘think that ...’), as well as a topic of cognition (‘think about’), has been supported in Korean by employing the postpositional quotative particle *-(la)ko* (for a clausal complement) or the postpositional particle *-ey tayhay(e)* ‘about’.

However, when *sayngkakha-* takes a complement like ‘something good/bad’ or ‘good/bad things’, it preferably takes an adverbial complement rather than the combination of attributive *coh-/GOOD* or *nappu-/BAD* and the substantive. Note the contrast between (36a) and (36b) where (36b), is more idiomatic than (36a):

- (36) a. *na-nun i salam-ey tayhay coh-/nappu-(u)n*  
 I-TC this person-about good/bad-PN  
*sayngkak-ul ha-n-ta.*  
 thought-PL-ACC do-IN-DC  
 ‘I think good/bad things about this person.’  
 b. *na-nun i salam-ey tayhay coh-/nappu-key sayngkakha-n-ta.*  
 I-TC this person-about good/bad-ADV think-IN-DC  
 ‘I think (well/badly) good/bad things about this person.’

It is not clear whether the two sentences above differ semantically. However, (36a) can be interpreted as saying that the thinker is thinking of some pleasant memories about the person being thought about, while (36b) does not carry this kind of second meaning. Therefore, not only is (36b) the more idiomatic way to express one’s attitude toward someone or something, it is also



unambiguous in reflecting the meaning of the canonical sentence. The preference for taking an adverbial complement is parallel to the predicate SAY.

The Korean exponent of KNOW is *al-* (with an allomorphic variation *a-*). As expected, it can take a topic valency, as in (37), and a that-complement, as in (38).

- (37) *na-nun i salamtul-ey tayhay mwues-ul a-n-ta.*  
 I-TC this people-about something-ACC know-IN-DC  
 'I know something about these people.'
- (38) *na-nun i kes-i nappu-ta-nun kes-ul al-ass-ta.*  
 I-NM this thing-TC bad-DC-PN thing-ACC know-PST-DC  
 'I knew that this was bad.'

The same word *al-* KNOW is also used for 'to know someone', and to express 'knowing how to do something'. However, the syntactic construction for each case differs somewhat. For example, while a person can be a direct complement taking the accusative particle *-(l)ul*, in order to add a clausal 'how to' complement the nominaliser *-ci* or *-cwul* precedes the verb *al-* KNOW.

- (39) *na-nun kim-sensayng-ul a-n-ta.*  
 I-NM kim-Mr-ACC know-IN-DC  
 'I know Mr. Kim.'
- (40) *na-nun yoli-lul ha-l ci a-n-ta.*  
 I-NM cook-ACC do-PRO NOM know-IN-DC  
 'I know how to cook.'

## 7.2 V + *ko·siph-*, *wenha-* WANT

There are two expressions that are conceptually equivalent to WANT: *wenha-* and *-ko·siph-*. They are commonly used both in colloquial and in written contexts. The latter expression is bimorphemic consisting of *-ko* and *-siph*. The distribution of the two expressions is complementary: *wenha-* is used as a main predicate, while *-ko·siph-* is used as an auxiliary verb suffixed to a main verb stem. The usage of the two different expressions is exemplified as follows:

- (41) *i kes-ul wenha-n-ta.*  
 this thing-ACC want-IN-DC  
 'I want this.'
- (42) *na-nun ne-hako i il-ul ha-ko·siph-ta.*  
 I-NM you-with this thing-ACC do-want-DC  
 'I want to do this with you.'

When there is more than one predicate in a sentence *-ko-siph-* is favoured, although *wenha-* can also be used in the same syntactic frame by taking the nominalised second predicate as its complement. The combination of WANT and other predicates can therefore be expressed in two different ways in Korean: (i) verb stem + *ko-siph-*; (ii) verb stem + nominaliser + optional accusative marker (*lul* + *wenha-*). The two exponents can be considered as allolexes. There is no meaning difference between them when they are used in the given canonical sentences.

It is worth mentioning that the expression *-ko-siph-* is usually used only for the first person. There is a suffix distinction between ‘I want’ and ‘someone else wants’ in Korean, presumably because the ‘desire’ or ‘wish’ is personal and it is hard to know other people’s ‘wanting’ without being told. In the case of having a second or third person as an agent of WANT, instead of simply *-ko-siph-*, the form to be used is *ko-siph-e-ha-*. This has the extra morphemes, *-e-ha-* (complementiser + ‘do’) attached to *-ko-siph-*. For example, corresponding to first-person (41) above, example (43) has a third-person subject.

- (43) *i salamtul-un i kes-ul al-ko-siph-e-ha-n-ta.*  
 this people-TC this thing-ACC know-want-IN-DC  
 ‘These people want to know this.’

From a semantic point of view, the formal difference between the suffixes is indexical in nature: that is, although the difference is correlated with the person status of the subject, there is no paraphrasable conceptual difference expressed. The two forms both express the same concept of WANT. This view is supported by the fact that in the second-person both forms are possible, again with no paraphrasable meaning difference:

- (44) a. *ne-nun i kes-ul al-ko-siph-e-ha-kess ci man ...*  
 you-TC this thing-ACC know-want-PRO but  
 ‘Although you may want to know this ...’  
 b. *ney-ka i kes-ey tayhay al-ko-siph-umyen ...*  
 you-NM this thing-about know-want-if  
 ‘If you want to know this ...’

### 7.3 *nukki-* FEEL

While the proposed Korean exponent of FEEL is *nukki-*, there are some canonical sentences where the use of this word sounds awkward. This will be dealt with later in this section. Before proceeding, it is worth noting that Korean has many emotion words in which the concept of ‘feel’ is already intrinsic. In other words, most expressions of emotion and sensation are lexicalised with a built-in concept of ‘feeling’. Therefore, the word *nukki-* is not often used, presumably

because it is redundant. The examples below show that there are two ways of expressing ‘feeling sad’ in Korean: using the word *sulph-* predicatively and using the same word nominally as the complement of the verb *nukki-*. Semantically, there seems to be no meaning difference between (45a) and (45b).

- (45) a. *na-nun sulphu-ta.*  
 I-TC sad-DC  
 ‘I am sad.’ (‘I feel sad’)
- b. *na-nun sulphum-ul nukki-n-ta.*  
 I-TC sadness-ACC feel-IN-DC  
 ‘I feel sadness.’

Having pointed out the relatively limited range of use for the Korean exponent of FEEL in natural discourse, the proposed counterpart *nukki-* can be illustrated as follows:

- (46) *na-nun amwu-kes-to nukki-l-swu-eps-ta.*  
 I-TC anything-too feel-can-DC  
 ‘I can’t feel anything.’

The word *nukki-* is an intransitive verb that obligatorily takes complements expressing emotion (e.g., sadness, anger, joy), physical stimulation (e.g., hunger, coldness), and unclear psychological events in the mind (e.g., feeling something). However, when the complement is ‘something good/bad’ the situation is less straightforward. Note the contrast in the examples below:

- (47) a. *\*na-nun etten (mwusun) coh-um-ul nukki-n-ta.*  
 I-TC some good-NOM-ACC feel-IN-DC  
 ‘I feel good.’ (lit. I feel goodness.)
- b. *na-nun etten (mwusun) coh-un nukkim-ul nukki-n-ta.*  
 I-TC some good-PN feeling-ACC feel-IN-DC  
 ‘I feel a good feeling.’

As exemplified in (47b), in order to express the equivalent of ‘feel something good/bad’, *nukki-* has to take as its complement the combination of the attributive use of *coh-* GOOD/BAD and the nominal *nukkim* ‘feeling’. That is, the Korean structure has the form: ‘I feel a good/bad feeling’.

Apart from the expression in (47b), there are several other ways of talking about one’s feelings in Korean. One of the most common and natural fixed expressions is *nukkimi tunta* (feeling comes into me) and *nukkimul kacinta* (having a feeling). These are more idiomatic and more widely used than the combination of *nukki-* FEEL and its complement *nukkim* (feeling). The conventionalised ways of expressing one’s emotion seem to suggest that Koreans may

think that one is not in control of one's feelings and that an emotional state is a result of whatever is happening inside one.

#### 7.4 *po-* SEE, *tut-* HEAR

It is relatively straightforward to identify *po-* and *tut-* (with allomorph *tul-*) as the Korean counterparts of SEE and HEAR, respectively. However, the Korean exponents have a wider use than their English counterparts. The word *po-* covers all kinds of visual perception (i.e., English 'see' and 'watch', etc.) and *tut-* covers all kinds of auditory perception (i.e., English 'hear' and 'listen'). Also, the Korean exponents *po-* SEE and *tut-* HEAR can take progressive aspect *-ko-iss-*.

### 8. Speech: SAY, WORDS, TRUE

#### 8.1 *mal* WORDS, *malha-* SAY

The Korean exponents for WORDS and SAY are *mal* and *malha-*, respectively. The noun *mal* is polysemous and can mean either WORDS or 'language' depending on context. The two meanings of *mal*, can be distinguished primarily by the context, since when *mal* means 'language' it is usually preceded by a country or province name or previously given information. The two different meanings are expressed as follows:

- (48) *i phyenci-uy etten mal-i ceyil coh-ni?*  
 this letter-GEN which word-NM most like-INT  
 'Which word of this letter do you like most?'  
 (49) *i nala mal-un paywu-ki elyep-ta.*  
 this country word-TC learn-NOM hard-DC  
 'It is hard to learn the language of this country.'

As for many other words in Korean, *mal* WORDS has its corresponding honorific counterpart *malssum*. Korean has a rich system of honorifics for differentiating formality, respect and intimacy. Choosing a pragmatically preferred form from different possibilities is so important that if this is not done it normally implies that the speaker has a negative attitude toward the addressee or reference (cf. Yoon 2004). Consider the examples below:

- (50) a. *i chayk-ey-nun hanunim-uy malssum-i ssu-i-e-iss-ta.*  
 this book-at-TC God-GEN word(H)-NM write-CAU-be-DC  
 'In this book, the words of God are written.'

- b. *i chayk-ey-nun hanunim-uy mal-i ssu-i-e-iss-ta.*  
 this book-at-TC God-GEN word-NM write-CAU-be-DC  
 'In this book, the words of God are written.'

Example (50b) is pragmatically highly marked. Therefore, the use of the honorific form *malssum*, has to be considered as an alternative in order to reduce unwanted pragmatic interference (cf. Enfield 2002 on Lao; Goddard 2002a on Malay). This kind of alternative can be paraphrased, for it has extra semantic components apart from the primitive meaning of *mal*, presumably 'when I say this, I think good things about this someone'.

The Korean counterpart of SAY is *malha-*. It is a bimorphemic verb consisting of the *mal* WORDS and *ha-* (verbaliser, lit. do). This word, like all other compounding verbs verbalised by *ha-*, can be split into two parts, with the interposed accusative marker *-ul* between them. Compare the two cases exemplified below:

- (51) a. *na-nun ne-eykey i kes-ul malha-n-ta.*  
 I-TC you-DAT this thing-ACC say-IN-DC  
 'I say this to you.'
- b. *na-nun ne-eykey i mal-ul ha-n-ta.*  
 I-TC you-DAT this word-ACC do-IN-DC  
 'I say this to you.'

Although there is no meaning difference between the two different expressions when they are used in canonical sentences, they are different in syntactic association with other words, e.g. *mal-ul ha-* is the only option when negating such sentences. When *malssum* is chosen instead of *mal*, the use of *-ha-si-* that includes the honorific suffix *-si-*, is natural. This results from the honorific rule that the nominal honorific form readily takes verbs that contain an honorific verbal suffix.

Perhaps naturally, in view of their morphological overlap, *mal* WORDS and *malha-* SAY tend not to occur in the same sentence. To express meanings which combine both, e.g. in NSM combinations like 'to say a word' or 'this word says ...', Korean uses variants of one or other exponent. For example, in the expression equivalent to 'say a word', the "word classifier" *mati* occurs, combined with a quantifier, as in (52) below. In addition, in such contexts *ha-* DO seems to express the full meaning of SAY; cf. also (53).

- (52) *han-mati hay-la.*  
 one-CL say-IMP  
 'Say a word.'
- (53) *na-ey tayha-n mal-un amwu-hanthey-to ha-/malha-ci-ma.*  
 I-about-PN thing-TC nobody-to-too do/say-not-IMP  
 'Don't say anything about me to anybody.'

NSM theory claims that the prime SAY universally allows a locutionary topic slot ('saying about something') and an addressee slot ('saying something to someone'). The former option is marked by the postposed particle *-ey tayhay* 'about' and the latter by the postposed dative case marker *-eykey* 'to'.

An evaluative complement of SAY, such as 'something good/bad', can be expressed in two different ways in Korean as with the mental predicate *sayngkak-ha-* THINK. The verb *malha-* SAY can take either a substantive phrase or adverb as its complement. There is no meaning difference between (54a) and (54b).

- (54) a. *na-nun ne-ey tayhay (etten) coh-/nappu-(u)n mal-ul*  
 I-TC you-about (some) good/bad-PN word-ACC  
*hay-ss-ta.*  
 do-PST-DC  
 'I said something good/bad about you.'
- b. *na-nun ne-ey tayhay coh-/nappu-key malhay-ss-ta.*  
 I-TC you-about good/bad-ADV say-PST-DC  
 'I said (something) good/bad about you.'

## 8.2 *sasil* TRUE

It can be noted that the proposed primitive meaning of TRUE is not the same as the philosophical absolute concept of truth, nor is it related to the concept of truth conditions in formal semantics. Semantic prime TRUE seems to be closely related to 'words' or 'what someone said', and perhaps also to what someone thinks (Wierzbicka 2002: 102; Hahn 2002). Among a number of candidates such as *sasil*, *cham* and *cinsil*, I would proposed *sasil* as the Korean exponent. This word expresses the primitive meaning in canonical sentences, such as (55), as well as in relation to such contexts as 'what people say', 'what people know' or 'what people think':

- (55) *ku-ka ha-n mal-un sasil-i-ta.*  
 3SG-NM do-PN word-TC true-be-DC  
 'What he said is true.'

There are other expressions such as *cincca* or *cengmal*, which can be used attributively or predicatively. These words can replace *sasil* in all canonical sentences, including (55). Despite their versatility, however, these words are highly colloquial and in some contexts they may sound awkward.

## 9. Actions, events, movement and contact: DO, HAPPEN, MOVE, TOUCH

The Korean exponent of DO is *ha-* (with its allomorph *-hay-*, when it is followed by such phonemes as 'ss', 'e', 'yo').

- (56) *na-nun i-kes-ul ha-ko·siph-ta.*  
 I-TC this-thing-ACC do-want-DC  
 ‘I want to do this.’

As noted previously, the form *ha-* has a very wide range of use because, as well as expressing DO when used by itself as a main verb, it also functions as a productive verbaliser applying to nouns and adjectives. Many verbs of this kind are found in Korean; in fact, most Sino-Korean words are verbalised in this way. Several Korean semantic primes contain the verbaliser *-ha*, e.g., *sayngkakha*-THINK, *malha*- SAY and *wenha*- WANT.

A number of valency options are proposed for the prime DO, and all of them are readily realised in Korean. The patient slot is marked by the dative postpositional particle *-eykey*; the instrumental valency option is marked by the postpositional particle *-(u)lo* or *-ul kacko*; the comitative valency option is marked by the comitative particle *-(k)wa* or *-(k)wa hamkkey*.

There are two candidates for the Korean counterparts of HAPPEN: *ilena-* and *sayngki-*. Both are equally widely used to express the concept of HAPPEN in natural discourse, and both are also polysemous: *ilena-* also means ‘stand up’ or ‘get up’, and *sayngki-* also means ‘come to have’. There is no problem in isolating the primitive meaning from their other meanings. When the word *ilena-* is used with an inanimate subject, the only possible interpretation is ‘happen’.

- (57) *ttokkath-un il-i nay-key ilena-ss-ta.*  
 the same-PN event-NM I-DAT happen-PST-DC  
 ‘The same thing happened to me.’

The two meanings of *sayngki-* can lead to two different interpretations of example (58), since the non-specific exponent of SOMETHING—*mwues*—could designate an “event” or a tangible thing.

- (58) *i salam-eykey mwues-i sayngki-ess-ta.*  
 this person-DAT something-NM happen-PST-DC  
 ‘Something happened to this person.’ OR  
 ‘This person came to have something.’

If, on the other hand, the alternative allolex for SOMETHING *mwusun il* were to be used, *sayngki-* could only be HAPPEN.<sup>4</sup>

It is relatively straightforward to identify the Korean exponent of MOVE. It is *wumciki-*, as shown in the example (59):

- (59) *cikwu-nun wumciki-n-ta.*  
 planet-NM move-IN-DC  
 ‘This planet is moving.’

Like the English word *move*, Korean *wumciki-* MOVE is neutral in that it can be used about either so-called “internal motion” or “translocational motion”. Also like English *move*, Korean *wumciki-* can be used either as an intransitive or as transitive verb (though only the intransitive meaning is proposed as a semantic prime). This word can take either personal or impersonal substantives as the subject.

The Korean counterpart of the proposed prime TOUCH is *tah-*, in combination with the static verbal suffix *-a-iss-*, as in (60).

- (60) *nay mom-uy han pwupwun-un i talu-n pwupwun-kwa*  
 my body-GEN one part-TC this other-PN part-with  
*tah-a-iss-ta.*  
 be.in.touch-DC  
 ‘One part of my body is in touch with this other thing.’

This sentence refers to “pure” physical contact between one thing and another. In English the word *touch* has broader range of use, applying also to contexts such as (61), where the subject is a personal substantive. In this case, a different verb *manci-* is used. The word *manci-* can only be used with personal subjects.

- (61) *nay-ka i-kes-ul manci-l ttay na-nun mwues-inka-lul*  
 I-NM this-thing-ACC touch-PN when I-TC something-ACC  
*nukki-n-ta.*  
 feel-PN-DC  
 ‘I can feel something when I touch this thing.’

## 10. Location, existence, possession, specification: BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)

### 10.1 *iss-* BE (SOMEWHERE)

The Korean counterpart of locational BE is *iss-*, as shown in examples (62)–(64):

- (62) *i kes-un i talu-n kes an-ey iss-ta.*  
 this thing-TC this other-PN thing inside-LOC be-DC  
 ‘This thing is inside this other thing.’
- (63) *i salam-un ecey yeki-ey iss-ess-ta.*  
 this someone-PN yesterday here-LOC be-PST-DC  
 ‘This person was here yesterday.’



- (64) *na-nun yeki-ey iss-ko-siph ci-anh-ta.*  
 I-TC here-LOC be-want not-DC  
 ‘I don’t want to be here.’

## 10.2 -iss THERE IS

This exponent coincides with the locational prime in Korean. Examples like (65) show its use in the existential sense.

- (65) *sin-un iss-ta.*  
 God-TC be-DC  
 ‘God exists.’

There is another word *concayha-* ‘exist’ that can be equally good in the same context; but, like English *exist* in this respect, it is out of place in ordinary sentences with a locus expression. Compare (66a) and (66b) (in these examples *mwe-* is a form of *mwues* ‘something’).

- (66) a. *nay cwumeni-an-ey mwe-ka iss-ta.*  
 my pocket-inside-LOC something-NM there is-DC  
 ‘There is something in my pocket.’  
 b. *?nay cwumeni-an-ey mwe-ka concayha-n-ta.*  
 my pocket-inside-LOC something-NM exist-IN-DC  
 ‘Something exists in my pocket.’

Often the honorific counterpart *kyesi-* is used instead of *-iss*. The existence of this honorific in fact provides a formal argument for distinguishing the existential meaning of *-iss* from its meaning of possession: *issusi* is used when *iss-* means possession, and *kyesi* is used when it means existence.

A syntactic argument for the independence of the existential from the locational meaning is provided by “generic” existential sentences like (67) below, where there is no possibility of adding any locus expression.

- (67) *twu conglyu-uy salam mom-i iss-ta.*  
 two kind-of people body-NM there is-DC  
 ‘There are two kinds of people’s bodies.’ [referring to men and women]

On the other hand, from a Korean point of view the two concepts—existence and location—seem very close. Perhaps the locational BE could be viewed as an allolex of the existential prime when it occurs with a locus expression.

- (68) *hanunim-un iss-ciman i-ttang wi enu han kos-ey*  
 God-NM exist-but this-earth above any one place-LOC

*iss-ci-nun anh-ta.*

be-NOM-TC not-DC

‘God exists (is) but he isn’t in any one place on earth.’

It should be noted that the form *iss-* can also be used as an auxiliary verb, mainly to indicate the tense or aspect of the main verb. Auxiliary usages of *iss-* can be easily distinguished by the presence of the complementiser *-a* or *-ko*, which is used only when *iss-* is an auxiliary verb, as shown in (69).

- (69) *i-il-un ku salam-i sal-a-iss-ul-ttay ilena-ss-ta.*  
 this-thing-TC 3SG person-NM live-STA-PRO-when happen-PST-DC  
 ‘This thing happened when he was alive.’

### 10.3 *kac-* HAVE

Regarding the prime HAVE, only the meaning of ‘possession’, among various meanings and functions, is proposed as the semantic prime in the NSM theory. The Korean exponent is *kac-* although there is another word *soyuha-* ‘possess’, which in many cases can be used interchangeably with *kac-*. However, the word *soyuha-* has limited use compare to *kac-* because it cannot be used in such contexts as ‘He has two ducklings’, or ‘This child has many toys’.

Having identified the equivalent concepts of THERE IS and HAVE in Korean, one of the Korean specific features requires an explanation. While *iss-* THERE IS expresses the concept of existence, it is also commonly used to express “possession”. This is exemplified as follows:

- (70) *ku-nun cip-i twu-chay iss-ta.*  
 3SG-TC house-NM two-CL there is-DC  
 ‘He has two houses.’

There are instances in which *iss-* is preferred over *kac-* in expressing “possession” in natural discourse. For example, the kinship relation is not expressed via *kac-* HAVE (though this is not a part of the proposed primitive meaning of HAVE either). The central concern for the present research is whether the “possession” meaning of *iss-* can be clearly distinguished from cases where it expresses existence and/or location in a place. Compare the two examples below:

- (71) a. *ku-ka ton-i iss-ta-myen, ...*  
 3SG-NM money-NM there is-DC-if  
 ‘If he has money, ...’  
 b. *ku-ka i kos-ey iss-ta-myen, ...*  
 3SG-NM this place-LOC there is-DC-if  
 ‘If he is in this place, ...’

The contrast between (71a) and (68) shows that the meanings are distinguished mainly by different cues (cf. Goddard's (2002a: 117) observations on Cantonese and Malay): (i) the meaning "possession" always occurs in a two argument frame, (ii) the meanings "location" and/or "existence" in a place usually require a locus expression, as shown in (71b), although this expression can sometimes be omitted when context allows. Therefore, an ambiguity of meaning may arise if one of the two arguments is omitted, which is very common in Korean discourse. In order to avoid a possible ambiguity in a Korean-based NSM, arguments should not be omitted when the exponent *iss-* of THERE IS is used.

It is worth noting that there are some contexts which do not allow the use of *iss-* to express possession.

- (72) a. *na-nun te kac-ko-siph-ta.*  
           I-TC more have-want-DC  
           'I want to have more.'
- b. *na-nun te iss-ko-siph-ta.*  
           I-TC more be-want-DC  
           'I want to stay (here) more.'

Only the word *kac-* HAVE has to be used in order to express the equivalent meaning of 'I want to have more', as in example (72a). Substituting *iss-* makes the meaning of the sentence totally different.

#### 10.4 *-i-* BE (SOMEONE/SOMETHING)

The Korean exponent for specificational BE is *-i-* as shown in examples (73)–(75):

- (73) *i-nun nay mom-uy han pwupwun-i-ta.*  
       this-TC my body-GEN one part-be-DC  
       'This is a part of my body.'
- (74) *i-salam-un na-kath-un salam-i-ta.*  
       this-someone I-like-PN someone-be-DC  
       'This someone is someone like me.'
- (75) *John-un nay atul-i-ta.*  
       John-TC my son-be-DC  
       'John is my son.'

Some people view *-i-* as part of the predicate *-ita-*. However, *-i-* is easily isolated from the sentence ending particles. For instance, the Korean sentence below contains a separable morpheme for specificational BE.

- (76) *na-nun i nwukwu-ka nwukwu-i (\*ita)-nci a-n-ta.*  
 I-TC this someone-NM who-be(\*be) know-PN-DC  
 ‘(someone did something good to me.) I know who this someone is.’

It is clear that *-i-* should not be treated as an inseparable part of *-ita-*. This morpheme can be omitted when *-i-* is preceded by a vowel. The morpheme *-i-*, is polysemous, as exponents of specificational BE often are (cf. Goddard and Wierzbicka this volume).

## 11. Life and death: LIVE, DIE

The exponents of the primes LIVE and DIE are *sal-* (with its allomorphic variant *sa-*) and *cwuk-*, respectively. The two words are commonly used symmetrically in natural conversation.

- (77) *cwuk-ko sa-nun kes-un hanul-ey talli-ess-ta.*  
 die-and living-PN thing-TC heaven-LOC depend-PST-DC  
 ‘Dying and living depend on heaven.’

The Korean word *sal-* expresses not only the primitive meaning LIVE, but also ‘to dwell’ or ‘to inhabit’.

The combinatorial characteristics of LIVE and DIE are not symmetrical. Firstly, the Korean exponent *sal-* readily appears with comitative valency, while *cwuk-* does not, as predicted by NSM researchers. The second difference is in the possibility of adding a durational phrase with the prime LIVE, but not with DIE. The meaning of (79) is incomprehensible although the sentence is not ungrammatical.

- (78) *i salam-un olay tongan sal-ass-ta.*  
 this person-TC long.time for live-PST-DC  
 ‘This person lived for a long time.’
- (79) *?i salam-un olay tongan cwuk-ess-ta.*  
 this person-TC long.time for die-PST-DC  
 ‘This person died for a long time.’

## 12. Time: WHEN/TIME, BEFORE, AFTER, NOW, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT

### 12.1 *ttay (encey)* WHEN/TIME

The word *ttay* (pure Korean) is the Korean counterpart of TIME. This word has an interrogative allolex—*encey*—used in questions and in embedded questions.

The distribution of *ttay* and *encey* is complementary.

However, when *ttay* is combined with some quantifiers another lexical item, *pen*, (a classifier for ‘occurrence of happening or action’, has to be used (Koh 1996; Lee 1997). On this basis, I propose the classifier *pen* as an allolex of *ttay*.

For combining MANY and TIME in Korean, either *manhi*-, the adverbial form of *manh*- MUCH/MANY or a portmanteau *cacwu* is preferred over the straight-forward combination of the two exponents. The same applies to the direct combination between ALL and TIME: in natural discourse it is expressed by one of the two portmanteaus, *nul* or *hangsang*. This is parallel to the English case where *always* expresses the combination of ALL and TIME.

## 12.2 *cen* BEFORE, *hwu* AFTER, *cikum* NOW

The words *cen* and *hwu* are the Korean exponents of BEFORE and AFTER, respectively. Both words are nominals, which can also be used adverbially after adding the location marker *-ey* ‘at’. When no time reference is given, the present time is assumed as the reference point, although it is not explicit in Korean sentences. The notion of past and future tense can well be expressed by the adverbial use of *cen-ey* and *hwu-ey*, respectively, in Korean.

The Korean counterpart of NOW is *cikum*, a native Korean word, though there is another Sino-Korean word *hyencay* that can be used interchangeably with it in many contexts. According to Ky-Yong Lee (1976), the meaning of *cikum* includes ‘a very short time’ in reference to either the past or the future.

## 12.3 *olay* A LONG TIME, *camkkan* A SHORT TIME, *elma tongan* FOR SOME TIME

The Korean counterparts of A LONG TIME and A SHORT TIME are each lexicalised by a single morpheme in Korean: *olay* and *camkkan*, respectively. For the concept of indefinite duration FOR SOME TIME, *elma tongan* (vague quantity (some) + temporal duration) is proposed as the Korean counterpart. The use of the postpositional temporal duration word *tongan* is optional with *olay* and *camkkan*, while it is obligatory with *elma tongan*.

Both *olay* and *camkkan* are found to be used in combination with *acwu* VERY, and BEFORE NOW and AFTER NOW.

## 12.4 *swunkan* MOMENT

The concept MOMENT has recently been proposed as an additional prime (Goddard and Wierzbicka eds 2002). This concept is expected to capture the meaning of immediacy required in complex concepts such as ‘realise’ or ‘notice’. I propose the Sino-Korean word *swunkan* as the Korean exponent.

- (80) *ku-ka ku-kes-ul manci-nun swunkan kum-ulo pyenhay-ss-ta.*  
 3SG-NM that-thing-ACC touch-PN moment gold-to change-PST-DC  
 ‘At the moment he touched that, it changed into gold.’

The universal syntactic properties of the new prime MOMENT are not yet settled. However, the Korean word *swunkan* is nominal and as such it can be used readily in combination with specifiers such as *i* THIS, *han* ONE and *motun* ALL.

### 13. Space: WHERE/PLACE, ABOVE, BELOW, HERE, NEAR, FAR, SIDE, INSIDE

#### 13.1 *kos/eti* WHERE/PLACE

The Korean counterpart of WHERE/PLACE is *kos*. This word can also be combined freely with specifying words, such as determiners and quantifiers. *Kos* has an interrogative allolex, *eti* ‘where’, which is used in questions and embedded sentences. This is parallel to the temporal concept *ttay* and its allolex *encey*.

- (81) *(ne) cikum eti(-ey) iss-ni?*  
 you now where(-LOC) there is-INT  
 ‘Where are you now?’

The two interrogative allolexes, *encey* WHEN and *eti* WHERE, are often used symmetrically in natural conversation in Korean.

#### 13.2 *wi* ABOVE, *alay* BELOW

The Korean exponents for ABOVE and BELOW are *wi* and *alay*, respectively. These words are nominal, meaning also ‘the top’, or ‘the upper part of something’, and ‘the base’ or ‘the foot’, respectively. When they are used as nominals they can be topicalised and behave in exactly the same way as other nouns. They can be used adverbially by using the locational case marker *-ey* ‘at’.

The metaphorical application of the concepts of ABOVE and BELOW is claimed to be universal, or at least nearly universal. This claim is valid in the context of Korean culture where the metaphorical use of *wi* and *alay* plays a crucial role in expressing relative social positions of people (cf. Yoon 2004).

#### 13.3 *yeki* HERE, *kakkap-* NEAR, *mel-* FAR

The word *yeki* is the Korean exponent of HERE. This word is frequently used symmetrically to the temporal concept of *cikum* NOW in natural discourse. The combination of ‘somewhere’ and ‘here’ is possible in Korean.

The two words *kakkap-* and *mel-* are the Korean counterparts of NEAR and FAR, respectively. These exponents have allomorphic variants that are phonologically conditioned: *kakka-* and *me-*. Both words can be used adverbially, attributively or predicatively by taking different suffixes according to their syntactic roles in a sentence. They can freely be combined with *acwu* VERY.

The two Korean counterparts do not require a relatum or reference point, but when one does appear it is with the postpositional particle *-ulopwuthe* ‘from’. The optional reference point can be anything among ‘people’, ‘place’, or ‘thing’.

### 13.4 *ccok* SIDE, *an* INSIDE

The Korean exponent of SIDE is *ccok*. This is a polysemous word (‘side’, ‘piece’, or ‘cut’) and it can be ambiguous out of context, but no problems of ambiguity arise in canonical contexts. The reference point can be ‘people’, ‘thing’, or ‘place’, as claimed in Wierzbicka (1996: 136), and it is marked by the postposed genitive case marker *-uy*.

For the Korean counterpart of INSIDE, there are two candidates: *an* and *sok*. The dictionary definition for *an* is ‘inside’, while for *sok* it is ‘deeper inside’. These two words are used interchangeably in most cases. However, there are cases where one is favoured over the other, as shown in (83).

- (82) *nay mom an/sok-ey mwusun pyenhwa-ka nukki-e-ci-n-ta.*  
 my body inside-LOC some change-NM feel-INF-NOM-IN-DC  
 ‘I came to feel some change inside my body.’
- (83) *cwungkwuk pakk-eyse-nun salamtul-i ku kes-ey tayhay*  
 China out-LOC-TC people-NM that thing-about  
*malha-ci-anh-ciman ku-nala an/\*sok-eyse-nun*  
 say-not-but that-country inside-LOC-TC  
*ku-kes-ey tayhay malha-nun kes-kath-ta.*  
 that-thing-about say-PN thing-seem to-DC  
 ‘Outside China, people don’t talk about it much, but inside the country,  
 people don’t seem to be talking about anything else.’

It is not clear at this stage what the exact semantic difference is between *an* and *sok*; however, *an* seems to be the superior candidate for the exponent of INSIDE.

## 14. Logical concepts: NOT, MAYBE, CAN, BECAUSE, IF

### 14.1 *an* (*ci-anh-*) NOT

Korean is known to have two different types of negation, as shown below:

- (84) a. *na-nun i kes-ul an po-ass-ta.*  
 I-TC this thing-ACC not see-PST-DC  
 'I did not see this.'
- b. *na-nun i kes-ul po-ci-anh-ass-ta.*  
 I-TC this thing-ACC see-not-PST-DC  
 'I did not see this.'

The structure of (84a) is called the "short form" or preverbal negation, and that of (84b) is "long form" or postverbal negation. The latter is made up of the negative nominaliser *ci* and *anh-*. The question of whether there is a meaning difference between the two different structures has been an issue for many researchers. Yoon (1997) believes that there is no meaning difference in modern Korean. I am inclined to allow both forms for the purpose of a Korean-based NSM, since the meanings in the given contexts of canonical sentences are not different.

An explanation is required in relation to the combination of negation and various predicates in the NSM inventory. In Korean there are a few words that have corresponding negative lexical items. These kinds of negation are described as constituent negation or lexical negation (Sohn 1994: 134). For instance, the combination of negation and existential predicate (NOT + THERE IS) is *eps-*, and that of negation and KNOW (NOT + KNOW) is *molu-*. These expressions should be considered as obligatory portmanteaus.

By the same token, when NOT is combined with CAN, there are three ways of expressing the combination: (i) V + *-(u)l-swu-(ka)·eps-*; (ii) preverbal *mos* + predicate; and (iii) predicate stem + *ci-mos-ha-*, as shown in (85). The range of syntactic patterns is not pursued here in detail as their usage in canonical sentences does not raise any concerns for the purpose of the Korean-based NSM.

- (85) a. *na-nun i kes-ul po-l-swu-(ka)·eps-ta.*  
 I-TC this thing-ACC see-cannot-DC  
 'I cannot see this.'
- b. *na-nun i kes-ul mos po-n-ta.*  
 I-TC this thing-ACC cannot see-IN-DC  
 'I cannot see this.'
- c. *na-nun i kes-ul po-ci-mos-ha-n-ta.*  
 I-TC this thing-ACC see-cannot-IN-DC  
 'I cannot see this.'

#### 14.2 V + *-(u)l-swu-(ka)·iss-* CAN, *ama* V + *-(u)l-kes-i-* MAYBE

The Korean exponent of CAN is *-l-swu(ka)·iss-*. In NSM metalanguage, there is no distinction between "can of possibility" and "can of ability", as often assumed in other theories.



- (86) *ne-eykey nappu-n il-tul-i ilena-l-swu-(ka)-iss-ta.*  
 you-DAT bad-PN event-PL-NM happen-can-DC  
 'Bad things can happen to you.'

Despite the morphological complexity of the exponent, the meaning corresponds to the proposed prime CAN in the context of canonical sentences as shown above. This expression is obligatorily used in combination with predicates.

The concept MAYBE seems to be encoded in two separate morphemes, which are used jointly in a sentence: *ama* (preverbal) and *-(u)l-kes-i-* (postverbal). The latter consists of three morphemes: the prospective modifier suffix *-(u)l*, followed by the bound noun *-kes* (literally 'thing'), and the copular *i* 'be'. Similar to the case of CAN, the morphological complexity of *-(u)l-kes-i-* does not raise any problem as long as it means the same as the proposed primitive meaning, as shown below:

- (87) *ama ku-ka i il-ul ha-l-kes-i-ta.*  
 maybe 3sg-NM this work-ACC do-maybe-DC  
 'Maybe he will do it.'

The two Korean exponents are found to combine with various predicates. However, the combination of CAN and WANT is not found often in natural discourse. The meaning of the sentence can be interpreted, as 'I have the right to want this', depending on context.

- (88) *na-nun i kes-ul wenha-l-swu-(ka)-iss-ta.*  
 I-TC this thing-ACC want-can  
 'I can want this thing.'

### 14.3 *ttaymwun(ey)* BECAUSE

The Korean exponent of BECAUSE is *ttaymwun(ey)*. It is proposed that the fundamental combinatorial frame for BECAUSE is the causal adjunct expression 'because of this', where THIS refers to a situation spelt out in the preceding clause. This causal adjunct has an important role in semantic analysis in various situations.

- (89) *X-nun Y-ey tayhay etten nappu-n mal-ul hay-ss-ta.*  
 X-TC Y-about some bad-PN word-ACC do-PST-DC  
 'X said something bad about Y.'  
*i ttaymwuney salamtul-un Y-ey tayhay nappu-key*  
 this because people-TC Y-about bad-ADV  
*sayngkak-ul hay-ss-ta.*  
 thought-ACC do-PST-DC  
 'Because of this, people thought something bad about Y.'

#### 14.4 (*manyak*) -(u)*myen* IF

It is known that in Korean there are two conditional markers, -(u)*myen* and -*tamyen* (so called ‘cleft-conditional’), on which there are different views among linguists. Chang-Bong Lee (1994) argues that -(u)*myen* is preferred when the content of the protasis is viewed as an immediate or expected possibility, while -*tamyen* prevails to mark unexpected and remote possibility or unrealistic situations with a counterfactual flavour.

Regardless of this issue, it is agreed that -(u)*myen* functions to mark conditionality in Korean, although it can also function as a linker of a temporal clause that has nothing to do with conditionality. The two uses can be distinguished by the fact that -(u)*myen* can be used as a temporal linker only when it is used on its own. When -(u)*myen* is used with *manyak*, it must be interpreted as conditional. Therefore, the two parts, *manyak* and -(u)*myen* should be proposed as the Korean exponent, even though the first part can be omitted in normal discourse. Further study is required to determine the exact semantic status of -*tamyen*.

- (90) (*manyak*) *ney-ka i il-ul ha-myen/n tamyen*  
 (if) you-NM this thing-ACC do-if  
*salamtul-i ne-ey tayhay nappu-n mal-tul-ul ha-l-kes-i-ta.*  
 people-NM you-about bad-PN word-PL-ACC say-PRO-DC  
 ‘If you do this, people will say bad things about you.’

#### 15. Intensifier and augmentor: VERY, MORE

There are a number of potential exponents of the concept of VERY in Korean: *acwu*, *maywu*, *mopsi* and *mwuchek*. All of them are widely and interchangeably used, as shown in (91):

- (91) *i kes-un acwu/maywu/mopsi/mwuchek khu-ta.*  
 this thing-TC very big-DC  
 ‘This is very big.’

I propose *acwu* among others as the Korean exponent since it seems to be used most frequently regardless of the context, even among young children. Judging from ordinary observation, *acwu* seems to be acquired earlier than the other words.

The word *acwu* can readily be combined with evaluators, *coh-* GOOD and *nappu-* BAD, descriptors *khu-* BIG and *cak-* SMALL, and the quantifier, *manh-* MUCH/MANY.

I propose *te* as the Korean counterpart of MORE. The examples in (92) are typical natural examples. There is a negative allolex—*te isang* ‘anymore’—used when negation occurs in the same sentence.

- (92) A: *i-kes mek-ko te mek-e-la.*  
           this-thing eat-and more eat-INF-IMP  
           ‘Eat more after you finish eating this.’  
       B: *te cwu-sey-yo.*  
           more give-SH-POL  
           ‘Give me more please.’

The comparative meaning of ‘more’ (i.e. ‘more than’) is not proposed as universal. However, Korean *te* can sometimes be interpreted in a comparative sense, depending on context. When the intended meaning is comparative, the relatum *pota* ‘than’ co-occurs optionally preceding the exponent *te*. For example:

- (93) A: *na-nun ku-il-ey tayhay nemwu al-ko-siph-e.*  
           I-TC that-thing-about too.much know-want-INM  
           ‘I want to know about it very much.’  
       B: *na-nun (ne-pota) te al-ko-siph-e.*  
           I-TC (you-than) more see-want-INM  
           ‘I want to know it more (than you) do.’

## 16. Taxonomy and partonomy: KIND, PART

The concept of KIND is proposed as a semantic prime on the basis of the important role of taxonomic classification in all languages and cultures. In order to express the equivalent concept in Korean, the word *conglyu* is normally used. This Sino-Korean word consists of *cong* and *lyu*. Each of these can also be used by itself to express the same concept as *conglyu*, depending on context.

The Korean exponent of PART *pwupwun(uy)* is nominal and can be used to specify another noun by taking the postposed attributive particle *-uy*, paralleling the case of *conglyu(uy)*.

Both expressions—*conglyu* KIND and *pwupwun(uy)* PART—can combine with determiners and quantifiers, as well as evaluators and descriptors. Examples follow.

- (94) *soncapi-nun khal-uy han pwupwun-i-ta.*  
       handle-TC knife-of one part-be-DC  
       ‘The handle is a part of the knife.’  
  
 (95) *i-kes-un han/twu/myech pwupwun-ulo mantul-e-ci-e-iss-ta.*  
       this-thing-TC one/two/some part(s)-with make-INF-CAU-STA-DC  
       ‘This thing is made of one/two/some parts.’

- (96) *hankwuk-ey-nun manh-un conglyu-uy namwu-ka iss-ta.*  
 Korea-LOC-TC many-PN kind-ATR tree-NM there.is-DC  
 ‘There are many kinds of trees in Korea.’

## 17. Similarity: LIKE

The Korean exponent of LIKE is *kath-*. It can be used attributively, predicatively or adverbially by taking different suffixes or sentence markers according to its syntactic role. Although *kath-* can be used either with or without the relational particle *-(k)wa*, this particle should not be used when *kath-* is used attributively, since this may cause ambiguity between ‘sameness’ and ‘similarity’.

- (97) a. *na-eykey-to kath-un il-i ilena-l-swu-iss-ta.*  
 I-DAT-to the.same-PN thing-NM happen-can-DC  
 ‘The same thing can happen to me.’  
 b. *na-eykey-to i kath-un il-i ilena-l-swu-iss-ta.*  
 I-DAT-to this like-PN thing-NM happen-can-DC  
 ‘Something like this can happen to me.’

The meaning of *kath-* in example (97a) is interpreted as ‘sameness’, while that in (97b) expresses ‘similarity’. When *kath-* is used attributively, the use of relatum and particle can be a cue for the correct interpretation.

Using ‘like this’ as an adverbial “manner adjunct” is also possible:

- (98) *i kath-i (ilehkey) hay/sayngkakhay/nukki-(e)la.*  
 this like-ADV do/think/feel-IMP  
 ‘Do/think/feel it like this.’

In relation to the adverbial use, *ilehkey* LIKE THIS is a more idiomatic expression and can be considered as an optional portmanteau.

The Korean exponent *kath-* can introduce a kind of modifying clause, an “analogy clause”, as below:

- (99) *i salam-i na-eykey etten nappu-n il-ul ha-n kes*  
 this person-NM I-DAT some bad-PN thing-ACC do-PN thing  
*kath-i, na-to i salam-eykey etten nappu-n il-ul*  
 like-ADV I-too this person-DAT some bad-PN thing-ACC  
*ha-ko-siph-ta.*  
 do-want-DC  
 ‘I want to do something bad to this person like this person did something bad to me.’

## 18. Textual structure of the Korean metalanguage

While the previous sections have focused on identifying the Korean exponents of semantic primes and on testing NSM hypotheses about their inherent grammar, this section will test the textual structure of NSM explications based on the Korean metalanguage. Explications consist of varying numbers of semantic components and the overall coherence and ordering of them are of critical importance (Goddard and Wierzbicka 2002: 79-81). The test to be undertaken here consists of transposing two semantic texts composed originally in an English-based NSM into a Korean-based NSM. The first is an explication for the Korean cultural key word *noin* (or *elusin*) (Yoon 2004: 197). The second is a cultural script associated with Anglo attitudes towards “unreasonable” demands and expectations (Wierzbicka 2006: 131).

### [A] Explication of Korean *noin*

- (a) *salamtul-un etten salamtul-ey tayhay ilehkey sayngkakha-n-ta:*  
 people-TC some people-about like.this think-IN-DC  
 ‘people think about some people like this’
- (b) *i salamtul-un olay-tongan sal-ass-ta*  
 this people-TC long.time-for live-PST-DC  
 ‘these people have lived for a long time’
- (c) *i salamtul-un manh-un il-tul-ul hay-ss-ta*  
 this people-TC many-PN thing-PL-ACC do-PST-DC  
 ‘these people have done many things’
- (d) *i salamtul-eykey manh-un il-tul-i ilena-ss-ta*  
 this people-DAT many-PN thing-PL-NM happen-PST-DC  
 ‘these people have done many things’
- (e) *i ttaymwuney i salamtul-un etten kes-ul al-ko-iss-ta*  
 this because this people-TC some thing-ACC know-PRG-DC  
 ‘because of this, these people know many things’
- (f) *i salamtul-i i kes-tul-ul al-ko-iss-ki ttaymwuney,*  
 this people-NM this thing-PL-ACC know-PRG-NOM because  
*ettehkey cal sal-ci-ey tayhay manh-un kes-ul a-n-ta.*  
 how well live-NOM-about many-PN thing-ACC know-IN-DC  
 ‘because they know these things, they know many things about how to live well’

- (g) *i salamtul-i i kes-tul-ul al-ko-iss-ki ttaymwuney,*  
 this people-NM this thing-PL-ACC know-PRG-NOM because  
*talun salamtul-eykey mwues-inka-lul malha-l-swu-iss-ta*  
 other-PN people-DAT something-ACC say-can-DC  
 ‘because they know these things, they can say some things to other people’
- (h) *i ttaymwuney talun salamtul-un i salamtul-ey tayhay*  
 this because other-PN people-TC this people-about  
*acwu coh-key sayngkakha-n-ta.*  
 very good-ADV think-IN-DC  
 ‘other people think very good things about these people because of this’

There is no loss or alteration of the meaning of the two versions presented in [A]. One version can be transposed into another version straightforwardly. The following cultural script, however, raises a few issues that deserve comment.

- [B] Anglo cultural script associated with “unreasonable” demands and expectations
- (a) *[salamtul-un ilehkey sayngkakha-n-ta:]*  
 people-TC like.this think-IN-DC  
 ‘people think like this:’
- (b) *(etten salam-i) talun salam-i (or eykey) etten-il-ul*  
 (a person-NM) other-PN person-NM(DAT) something-ACC  
*ha-ki-lul wenha-nun kes-un nappu-ci-anh-ta*  
 do-ACC want-PN thing-TC bad-not-DC  
*manil i talun salam-i ilehkey sayngkakha-n-tamyen:*  
 if this other-PN person-NM like this think-IN-if  
 ‘it is not bad if a person wants another person to do something if this other person can think about it like this:’
- (c) *“na-nun woay i salam-i nay-key i-lul*  
 I-TC why this person-NM I-DAT this-ACC  
*ha-ki-lul wenha-nun-ci a-n-ta.*  
 do-NOM-ACC want-IN-NOM know-IN-DC  
 “‘I know why this person wants me to do it’
- (d) *(nay-ka) i il-ul ha-myen coh-ul-kes i-ta.*  
 (I-NM) this thing-ACC do-if good-PRO-thing be-DC  
 ‘it will be good if I do it’

- (e) (na-nun) *i* ttaymwney *i* il-ul ha-ko-siph-ta.  
 (I-TC) this because this thing-ACC do-want-DC  
 'I want to do it because of this'
- (f) etten salam-*i* talu-n salam-eykey *te* ha-ki-lul  
 a person-NM other-PN person-DAT more do-ACC  
 wenha-nun kes-un nappu-ta.  
 want-PN thing-TC bad-DC  
 'it is bad if a person wants another person to do more'

First of all, note that some personal pronouns have been put in brackets in the Korean version—in lines (b), (d) and (e)). This is because the subject of a sentence is not an obligatory surface constituent in Korean. In daily conversation subject ellipsis is natural and freely accepted as long as the context allows no risk of misinterpretation. On the other hand, overtly repeating the subject when it can be clearly understood may sound awkward and marked. Therefore, wherever pronouns can be omitted without conveying a meaning difference, I am inclined to put them in brackets, so that the texts can be read in two ways: naturally and semantically clearly.

However, if the first subject is not omitted in a syntactic construction like (b), it is more natural to use the dative case marker *-eykey* rather than the nominative *-i* for the second NP (*talun salam eykey* 'to other person'). At the same time, the verb *ha-* 'do' is often agglutinated with the beneficial verbal suffix *-cwu-* 'give'. The pragmatically preferred way of expressing 'I want someone to do something' is *talun salami etten ilul haycwukilul wenhanun kesun* (lit. want someone to do something and to give this thing), i.e. with *haycwu-* [do-give], rather than simply *ha-* 'do'. This is the case in line (f) as well. (In line (f), there is another problem too. In this context, the combination of *ha-* DO with *te* MORE sounds very awkward. I think this is a problem with the phrasing of the script itself: the intended reference of the expression 'do more' is not clear in this context. That is, there is a lack of connection between the final line and the rest of the script. It is not a grammatical problem, because there is no problem with the combination DO MORE in contexts such as 'I did a lot of things already, but he wants me to do more'.)

Second, *ku* is more natural than *i* as the counterpart of THIS in lines such as (b). When something has been referred to already and is known to the audience or reader, Korean prefers to use *ku* instead of *i* (see Yoon 2003 for details). At the same time, the use of *i* does not interfere with the meaning of the sentence. Although I have left the Korean exponent *i* in the script as presented, there may be some situations where the alteration can enhance the readability of the Korean text.

Third, an issue related to the abstract THIS/IT should be mentioned. The Korean counterpart of 'it' in the second part of line (b) is zero, though *i* THIS

would also be possible. In line (c), on the other hand, abstract THIS/IT has to be rendered as *i* THIS obligatorily. (There are other cases where an English *it* cannot be untransposed into Korean at all, as in expressions such as ‘it is not bad if ...’, ‘it will be good if ...’ and ‘it is bad if ...’, but these English *it*’s can be viewed as dummy subjects.)

Fourth, there is an issue related to the sequencing of the clauses. The order of the clauses in line (b) of the Korean text is somewhat unnatural. It would be natural in Korean if the subordinate clause could come prior to the main clause; but it cannot be adjusted in this way due to the logical flow of (b) and (c). The last part of the subordinate clause (‘like this’) has to be adjacent to line (c) in order to be clear and logical in introducing the person’s thought. While the sequence is not as natural as in ordinary Korean discourse, the meaning does not seem to be affected. One more case related to naturalness is that the expression ‘think like this’ (*ilehkey sayngkakhanta*) in this context would be more idiomatically expressed as ‘think like the next’ (*taum kathi sayngkakhanta*) in Korean. Again I have not altered this in the Korean text because it can be understood, despite the unidiomatic phrasing.

No problem is found in using NSM punctuation marks, such as the colon (:) and the quotation mark (“ ”) in the transposed Korean texts. Also the indentation is used to indicate that the speaker is ‘saying or thinking about something’. This is consistent with usage in the context of English. The semantic components are arranged in order in both texts in a way that reflects the speakers’ cognitive structure, and no problem with the order of components is found in the Korean-NSM text despite the difference in word order between the two languages.

## 19. Concluding remarks

This study set out to test the validity of the NSM hypotheses with reference to Korean. The current inventory of the NSM primes consists of 63 lexical items and there are numerous hypothesised combinatorial patterns of these primes. On the basis of testing against canonical sentences, the hypotheses of the NSM theory have been generally supported: all the proposed semantic primes are lexicalised in Korean, and their combinatorics are along the same lines as the universal grammar proposed in the theory.

The main problem with regard to identification of Korean exponents concerns SOME. In Korean, two different expressions are needed to cover the uses of SOME in the current set of canonical contexts.

Two different NSM texts were presented in both English and Korean, demonstrating that the expressive power of the Korean metalanguage is consistent with that of the English version. As a result of the exercise of transposing the selected texts into Korean-based NSM, no significant problems



have arisen. However, several notable Korean-language specific features were pointed out which could enhance its naturalness. Although the metalanguage is not a natural language carrying all the aspects of natural language, the idiomatic way of expressing meaning would certainly increase its comprehensibility by lay people. At the same time the unnaturalness of the NSM text should not be problematic in its semantic clarity.

Appendix. Romanisation of Korean

The Romanisation used in this chapter follows the Yale System without phonetic details. The Table gives equivalents of the Korean alphabetic letters with the International Phonetic Alphabet (IPA) symbols (after Sohn, 1994).

Consonants			Vowels		
Korean Alphabet	Yale	Phonetic value	Korean Alphabet	Yale	Phonetic value
ㅂ	p	[p,b]	ㅣ	i	[i]
ㅃ	ph	[ph]	ㅍㅣ	wi	[wi,y]
ㅍ	pp	[pʰ]	ㅅㅣ	ey	[e]
ㅌ	t	[t,d]	ㅅㅅㅣ	yey	[je]
ㅍ	th	[th]	ㅍㅣ	wey	[we]
ㅌ	tt	[tʰ]	ㅅㅅㅣ	oy	[we, Ø]
ㅅ	s	[sh]	ㅅ	ay	[ε]
ㅆ	ss	[sʰ]	ㅅ	yay	[j]
ㅈ	c	[c]	ㅅ	way	[w]
ㅊ	ch	[ch]	ㅡ	u	[i]
ㅉ	cc	[cʰ]	ㅅ	e	[e]
ㅋ	k	[k,g]	ㅅ	ye	[je]
ㅋ	kh	[kh]	ㅍㅣ	we	[we]
ㆁ	kk	[kʰ]	ㅏ	a	[a]
ㅁ	m	[m]	ㅑ	ya	[ja]
ㄴ	n	[n]	ㅓ	wa	[wa]
ㅇ	-ng	[ŋ]	ㅕ	wu	[wu]
ㄹ	l	[l, ɾ]	ㅠ	y(w)u	[ju]
	h	[h]	ㅜ	o	[o]
			ㅠ	yo	[jo]
			ㅡㅣ	uy	[i, i]

Abbreviations

ACC	accusative case marker	LOC	locative case marker
ADV	adverbialiser suffix	NM	nominative case marker
ATR	attributive particle	NOM	nominaliser suffix
CAU	causative suffix	PN	pre-nominal modifier
CL	classifier	PRG	progressive aspect suffix
DAT	dative case marker	PRO	prospective suffix

DC	declarative sentence ending	PST	past tense marker
DIR	directional particle	PL	plural suffix
GEN	genitive case marker (uy)	POL	polite sentence ending form
IMP	imperative sentence ending	SH	subjective honorific suffix
IN	indicative mood suffix	STA	stative suffix
INF	infinitive suffix	SUP	suppositive mood suffix
INT	interrogative sentence ending	TC	topic contrast particle
INM	intimate speech level or suffix	Q	quotative particle
(H)	honorific form of a word		

## Notes

1. This chapter is based on my dissertation (Yoon 2003). This was a comprehensive inquiry into constructing a Korean Natural Semantic Metalanguage, published in revised form as Yoon (2006). This dissertation had two main goals. First, it sought to test the hypotheses of the NSM theory against Korean in terms of both lexicalisation and syntax. Second, the possibility of using the NSM method as a tool of semantic analysis for Korean concepts was explored.
2. Among the numerous linguistic studies of Korean, especially in the area of grammar, this study primarily follows the approach of Sohn (1994) and Hyon-Bok Lee (1989).
3. The same canonical sentences have been used for the same purpose in such languages as Ewe, Mangap-Mbula, Acehnese, Kayardild, Yankunytjatjara, Misumalpan, Arrernte, Longgu, Samoan, Kalam, French, Japanese, Chinese, Thai, Lao, Malay, Italian and Russian.
4. The word *mwusun-il* is proposed as a combinatorial allolex of the Korean counterpart of the prime SOMETHING. This is because when the predicate is HAPPEN, instead of *mwues*, *mwusun il* sounds more natural.

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## **Semantic primes and their grammar in a polysynthetic language: East Cree**

Marie-Odile Junker

Using data from the polysynthetic language East Cree, this study examines challenges to the Natural Semantic Metalanguage theory developed by Wierzbicka and her colleagues. An almost complete version of the Cree NSM is proposed. While most primes have exponents in Cree, the universality of the lexical realisation of partonymy is called into question. Most combinatorial properties of the semantic metalanguage are attested in Cree, except for problems in the syntactic combinations of THINK and FEEL with SOMETHING, and with GOOD and BAD. Current ways of thinking about NSM clause structure need to be revised to accommodate the pronominal argument structure of such a language. The NSM approach also proves to be a good bottom-up technique for language description. More polysynthetic languages need to be studied using this framework.

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

East Cree is a language of the Algonquian family, spoken by over 13,000 people in northeastern Canada in the province of Quebec. The language is polysynthetic, head-marking and non-configurational. As a non-IndoEuropean language, East Cree is well suited to test the claim that the NSM system allows semantics and language description to be grounded in a cross-linguistically valid and intuitively intelligible framework. As a polysynthetic language, it has much to contribute to the specification of the combinatorial properties of the NSM semantic metalanguage. Finally, as a relatively poorly described language, it offers terrain for applying NSM analytical techniques in bottom-up language description.

The data presented here comes primarily from discussions with Louise Blacksmith, and several Cree consultants in Mistissini and Waskaganish. It represents the Southern dialect of East Cree. Some examples also come from the Northern dialect, whose version of Cree NSM is only expected to vary in very minor ways.

This chapter is organised as follows. Section 1 is a brief introduction to East Cree. Section 2 gives an overview of Cree NSM. Section 3 discusses the

main challenges that a polysynthetic language like East Cree poses for current NSM theory. Section 4 undertakes a closer investigation of cases where exponents of certain primes are apparently missing and where certain syntactic frames are not attested. Section 5 reports on successful uses of Cree NSM for lexical semantics and grammatical description. Section 6 contains concluding remarks.

### 1.1 Introduction to the East Cree language

East Cree is part of a subfamily of languages that forms the Cree-Innu (Montagnais)-Naskapi continuum, as described by MacKenzie (1980). Typologically, East Cree is a non-configurational (Hale 1983), polysynthetic (Sapir 1921), head-marking (Nichols 1986) language. Parts of speech consist of verbs, nouns, pronouns and particles. There are no adjectives. There is no infinitive for verbs. Every verb constitutes a grammatical sentence in itself: it contains pronominal affixes cross-referencing the optional full nominals, which are adjoined in a relatively free word order (Junker 2004). Both nouns and verbs observe a grammatical gender distinction between animate and inanimate genders. Consider these two East Cree sentences:<sup>2</sup>

- (1) *Ni-wâpamâu awen.*  
I-see.him/her someone  
'I see someone/a person.'
- (2) *Ni-wâpahten chekwân.*  
I-see.it something  
'I see something/a thing.'

The first sentence contains an animate noun, *awen*, combined with a transitive animate verb, *ni-wâpamâu*. The second sentence contains an inanimate noun, *chekwân*, combined with a transitive inanimate verb, *ni-wâpahten*. There is no case marking of nominal participants, except for locatives.

Following Bloomfield (1946) Cree verbs can be divided by their morphology into four verb classes, according to the gender of the subject for intransitive verbs, and the gender of the object for transitive verbs (cf. Wolfart 1973, 1996). The classes and their standard abbreviations are as follows: intransitive verbs taking an inanimate subject – (vii); intransitive verbs taking an animate subject – (vai); transitive verbs taking an inanimate object – (vti); transitive verbs taking an animate object – (vta). There can be regular morphological relations between the four classes, with a difference in the stem-final morpheme which indicates transitivity and animacy (*m* and *ht* in the examples above). The transitive verbs also carry further morphological specification in the theme sign placed before the personal inflection.

Personal prefixes appear both on nouns and verbs (in the independent order). They attach either directly to the stem, as in (1) and (2) above, or to various preverbs, such as the past preverb, or the volitional preverb, as in (3) and (4), respectively. Personal prefixes are obligatory on certain nouns, called dependent nouns, denoting kinship terms or body parts. In the examples below, *-mushum* ‘grandfather’, is a dependent noun stem.

- (3) *Ni-chî wâpam-â-u ni-mushum.*  
 1-PAST see.TA-1>3-3 1-grandfather  
 ‘I saw my grandfather.’
- (4) *Ni-wî wâpam-â-u ni-mushum.*  
 1-want see.TA-1>3-3 1-grandfather  
 ‘I want to see my grandfather.’

Another characteristic of the Cree family of languages is obviation (Wolfart 1973, 1996; Goddard I. 1990; Junker 2004). It has been described by Russell (1991) as the obligatory marking of non-topicality. In any discourse segment, any additional third person (animate or inanimate) must be marked as obviative.<sup>3</sup> For example, in (5) the animate noun *names* ‘fish’ is unmarked because it is the only third person in the sentence. In (6), on the other hand, the noun is marked obviative because the subject of the sentence is also a third person.

- (5) *Ni-wâpam-â-u names.*  
 1-see.TA-1>3-3 fish(3)  
 ‘I see a fish.’
- (6) *Wâpam-e-u names-a.*  
 see.TA-3>3’-3 fish-OBV(3’)  
 ‘S/he sees a fish.’

A final characteristic worth mentioning is the existence of an inverse system. It is best described as governed by a person hierarchy of the following type:

$$2 > 1 > 3 > 3' > 0 > 0'$$

(where 0 indicates an inanimate noun, and the mark /’/ indicates obviation). The Cree transitive verb bears a “direction” morpheme indicating whether or not the subject outranks the object on the person hierarchy. Personal prefixes are unaffected by the order of grammatical functions. Contrast (3) above, repeated in (7) with a more detailed gloss, with (8) below. (7) shows direct marking, while (8) shows inverse marking.

- (7) *Ni-chî wâpam-â-u ni-mushum.*  
 1-PAST see.TA-DIR(1>3)-3 1-grandfather  
 'I saw my grandfather.'
- (8) *Ni-chî wâpam-ik-u ni-mushum.*  
 1-PAST see.TA-INV(3>1)-3 1-grandfather  
 'My grandfather saw me.'

In accordance with the hierarchy, when Speech-Act Participants (SAP) are concerned, the direct will be found with YOU>I combination, and the inverse in the I>YOU combination.

- (9) *Chi-wâpam-in.*  
 2-see.TA.DIR(2>1)-SAP  
 'You see me.'
- (10) *Chi-wâpam-it-in.*  
 2-see.TA-INV(1>2)-SAP  
 'I see you.'

## 2. Identifying exponents of semantic primes in East Cree

The principal research tool used to identify the East Cree exponents of semantic primes and their syntax was the set of "canonical contexts" provided in Goddard and Wierzbicka (2002). This consists of about 200 sentences composed predominantly of semantic primes, hypothesised to be expressible in any language. Generally speaking it was possible to render these sentences into East Cree, despite the great grammatical differences between Cree grammar and English grammar, discussed in some detail below.

Table 1 on the following page gives the East Cree exponents of the Natural Semantic Metalanguage primes identified so far. According to the NSM hypothesis, they represent a set of universal indefinable lexical expressions. All parts of speech of East Cree are found in this set of exponents: pronouns, nouns, verbs, particles. Preforms, initials and finals are not autonomous forms, but can function as exponents of primes. In the Table, grammatical information has been included via the abbreviations in parentheses after each exponent. Notice that there is extensive allomorphy. In addition to the verb class abbreviations already mentioned, the abbreviations are: pr – pronoun, na – animate noun, ni – inanimate noun, nid – inanimate dependent noun, p – particle, pf – preform, vti2 – verb transitive inanimate class 2 (transitive verb with vai morphology with an inanimate object), i – initial (verb or noun initial), f – final (verb or noun final).

**Table 1.** Semantic primes: East Cree\*

Substantives:	NI- (pr) <i>I</i> , CHI- (pr) <i>you</i> , AWEN (na) <i>someone</i> , INNU (na) <i>people</i> , CHEKWÂN (ni)/WIYESH (p) <i>something/thing</i> , WÎYÛ (nid) <i>body</i>
Relational substantives:	?? <i>kind</i> , — <i>part</i>
Determiners:	Û (pr) <i>this</i> , TÂPISHKUN (p) <i>the same</i> , KUTAK (pr) <i>other</i>
Quantifiers:	PEYAKW (p) <i>one</i> , NISH (p) <i>two</i> , PASCH (p) <i>some</i> , MISIWE (p) <i>all</i> , MIHCHET (p)/MIHCHETU (vai)/MIHCHETIN (vii) — MISHTAHI (p) <i>much/many</i>
Attributes:	MIYU (pf/i) <i>good</i> , MACHI (pf/i) <i>bad</i>
Descriptors:	MISICHIHTÛ (vai)/MISHÂU (vii) <i>big</i> , APISHÎSHÛ (vai)/ APISHÂSHÛ (vii) <i>small</i>
Mental predicates:	ITEYIHTAM (vti)/ITEYIMEU (vta) <i>think</i> , CHISCHEYIHTAM (vti)/CHISCHEYIMEU (vta) <i>know</i> , WÎ (pf) <sup>4</sup> /NITUWEYIHTAM (vti)/NITUWEYIMEU (vta) <i>want</i> , ITAMAHCHIHÛ (vai)/ITAMAHCHIHÂU (vti2) <i>feel</i> , WÂPAHTAM (vti)/WÂPAMEU (vta) <i>see</i> , PEHTAM (vti)/PEHTUWEU (vta) <i>hear</i>
Speech:	ITWEU (vai)/ITEU (vta) <i>say</i> , AYIMUWIN (ni) <i>words</i> , TÂPWEH (p) <i>true</i>
Actions, events, movement, contact:	IHTÛTAM (vti)/IHTÛ (vai)/IHTÛTUWEU (vta) <i>do</i> , ISPAYÛ (vai/vii) <i>happen</i> , ÂHCHÛ (vai)/ÂHCHIPAYÛ (vai/vii) <i>move</i> , TAAHCHINAM (vti)/TAAHCHINEU (vta) <i>touch</i>
Location, existence, possession, specification:	IHTAKUN (vii)/IHTÂU (vai) <i>be (somewhere)</i> , IHTAKUN (vii)/IHTÂU (vai) <i>there is</i> , IYÂU (vti2)/IYÂWEU (vta) <i>have</i> , ?? <i>be (someone/something)</i>
Life and death:	PIMÂTISÛ (vai) <i>live</i> , NIPÛ (vai) <i>die</i>
Time:	PAISHPISH (p) <i>when/time</i> , ANÛHCHÎSH (p) <i>now</i> , PWÂMUSH (p) <i>before</i> , CHÎSKWÂ (p) <i>after</i> , CHINEUSH (p) <i>a long time</i> , WEIPISHCHÎSH (p) <i>a short time</i> , WESKACHÎSHÎSH (p) <i>for some time</i> , ISHKAYÂHCH (p) ('at that moment') <i>moment/in one moment</i>
Space:	TÂNTE (p) <i>where/place</i> , UT (p) <i>here</i> , ISHPIMIHC (p) <i>above</i> , NÎHTÂHCH (p) <i>below</i> , WÂYÛH (p)/YÂW- Âi) <i>far</i> , CHÎHCHICH (p)/CHÎHCH- (i) <i>near</i> , UHPIME (p) <i>side</i> , PÎHCH (p) <i>inside</i>
Logical concepts:	NAMUI (p)/EKÂ (C) <i>not</i> , MÂSKÛCH (p) <i>maybe</i> , CHÎ (preverb) <i>can</i> , EUKUN WEHCHI 'that's why' <i>because</i> , ?? <i>if</i>
Intensifier, augmentor:	NÂSCH (p) <i>very</i> , ETITÛ (p) <i>more</i>
Similarity:	MWEHCH (p) <i>like/how/as</i>

\* — indicates a missing exponent, ?? indicates exponents which have yet to be identified<sup>5</sup>

As indicated in the Table, several exponents are uncertain at the present time, pending further research. In relation to one prime, namely PART, it can be stated that it has no lexical exponent in Cree; see section 4.1. It is uncertain whether Cree has a lexical exponent for KIND, see section 4.2.

Some of the grammatical differences between East Cree and English can be illustrated using the canonical context sentences for the semantic prime SAY. In



East Cree, there are two verbs available for SAY: intransitive *itweu*, shown in (11) and (12), and transitive *iteu*, shown in (13) and (14). The transitive verb in these examples exhibits an inverse construction *itikw*, when a third person is acting on a first. The other third person *Mary* in (14) is marked obviative. In (14) we also see the contrast between the independent order and the conjunct order, often found in dependent clauses. In addition, we see a so-called “complement-copy” construction where the subject of an embedded clause is also the object of the transitive verb of the main clause (‘I know him, that he ...’). Despite these grammatical differences, the overall meanings of the English and East Cree sentences match up.

- (11) *Miywâ-u û, ni-chî itwe-n.*  
 be.good.II-3 this 1-PAST say.AI-1  
 ‘“This is good”, I said.’
- (12) *Eheh, chî itwe-u.*  
 ouch PAST say.AI-3  
 ‘“Ouch/damn”, he/she said.’
- (13) *Chekwâ-yû ni-chî it-ik-w*  
 something-OBV 1-PAST say.AI-(INV)3>1-3  
*mikw namui nûhchi pehtuw-e-u.*  
 but NEG 1.NEG.PAST hear.TA-1>3-3  
 ‘He said something to me, but I didn’t hear him.’
- (14) *Mary-h chî it-e-u, namui nî nûhchi,*  
 Mary-OBV PAST say.AI-3>3’-3 NEG me 1.NEG.PAST  
*it-ik-w mikw ni-chî chischeyim-â-u e*  
 say.AI-(INV)3>1-3 but 1-PAST know.TA-1>3-3 C  
*nitaweyimit che chî pehtuwak.*  
 want.TA.(CON.INV)3>1 C PAST hear.TA.(CON)1>3  
 ‘He said it to Mary, not to me, but I know that he wanted me to hear him.’

Here are a couple of other characteristics of the East Cree grammar which show up in Cree NSM.

## 2.1 Dependent nouns and the prime BODY

The exponent of the prime BODY is an inanimate dependent noun. It always occurs with a personal prefix: either as *nî-yû* [1-body] ‘my body’, *chî-yû* [2-body] ‘your body’, *wî-yû* [3-body] ‘his/her body’, or else with a prefix (*mi-*) that indicates an unspecified possessor: *mi-yû* [someone else’s-body] ‘a body’.

It cannot occur alone, nor can a personal prefix be attached to the unspecified form, i.e., the forms \*yû and \*ni-miyû are both ungrammatical.

The Cree data indicates that the BODY in Cree is conceptualised in relationship with the being whose body it is. We could consider two hypotheses: either this conceptualisation is specific to Cree, or it is universal but it is more explicit in Cree by virtue of being grammaticalised. We will adopt the second one, following Goddard C. (this volume Ch 3), who talks about the relational quality of the prime BODY, in the sense that it cannot function by itself as an argument, but must be combined with an anchoring expression (the “owner” of the body) in NSM.

## 2.2 Animacy as a grammatical distinction: SOMEONE, SOMETHING

The East Cree exponents for SOMEONE and SOMETHING are animate and inanimate in grammatical gender, respectively. As in other Algonquian languages, the grammatical class of animates includes living things like people, animals, spirits, trees and many plants. Physical objects are usually inanimate, except for some that are of animate gender. Across dialects and languages related to Cree there is variation in gender assignment for the animacy of objects (Goddard I. 2002). As we will see, however, even grammatically animate objects belong to the conceptual category covered by the prime SOMETHING.

The multiple English realisations of the prime SOMETHING as *something*, *thing*, and *what* all reduce to single a lexical realisation in East Cree: the inanimate noun *chekwân*. Likewise, there is a single lexical realisation for SOMEONE, the animate noun *awen*, as compared with English *someone*, *person*, and *who*.

- |         |                     |                 |                      |
|---------|---------------------|-----------------|----------------------|
| (15) a. | <i>Niwâpahten</i>   | <i>chekwân.</i> | ‘I see something.’   |
|         | I.see.it            | something       |                      |
| b.      | <i>Niwâpahten û</i> | <i>chekwân.</i> | ‘I see this thing.’  |
|         | I.see.it            | this thing      |                      |
| c.      | <i>Chekwân û?</i>   |                 | ‘What is it/this?’   |
|         | what                | this            |                      |
| (16) a. | <i>Niwâpamâu</i>    | <i>awen.</i>    | ‘I see someone.’     |
|         | I.see.him/her       | someone         |                      |
| b.      | <i>Niwâpamâu û</i>  | <i>awen.</i>    | ‘I see this person.’ |
|         | I.see.him/her       | this person     |                      |
| c.      | <i>Awen û?</i>      |                 | ‘Who is it/this?’    |
|         | who                 | this            |                      |

Significantly, the question in example (16c) with *awen* ‘someone, who’ is asked both about humans and about animals, indicating that *awen* is used to refer

to “beings” in general. The question in (15c) with *chekwân* ‘something, what’ is asked about objects, regardless of whether they are grammatically inanimate or animate. For instance, when hearing a car or a sled one will use the question in (15c) (unless referring to the human driver). The fact that the word *chekwân*, although grammatically inanimate, is nevertheless used to refer to animate objects confirms that there is a universal conceptual distinction between SOMEONE and SOMETHING, unaffected by the animate-inanimate gender assignment. Some readers might find it difficult to accept that an animal can be regarded as a ‘someone’ (although they might find it equally difficult to insist that an animal be regarded as true ‘something’). In East Cree, however, an animal is undoubtedly an *awen* ‘someone’, while a grammatically animate object is a *chekwân* ‘something’.

The universal conceptual distinction explains why some verbal constructions involving Transitive Animate verbs (i.e., verbs that take animate objects) can only take animate things as arguments, but not animate beings.<sup>6</sup> There is definitely a semantic hierarchy in Cree among animates (persons > animals > animate objects and plants) which operates in other areas of the grammar.

One complication arises from the fact that certain verbs, such as THINK, cannot combine with the noun *chekwân*. These verbs typically begin with the root *it-* which means ‘so, like this’ or ‘a certain way’. When combinations of THINK and SOMETHING are required, the particle *wiyesh* ‘something’ is used instead. It is mostly found in negative contexts like (17). For more on this, see section 4.4 below.

- (17) *Namui wiyesh nititeyimûn.*  
       not       something I.think (vai)  
       ‘I’m not thinking about anything.’ i.e., ‘I feel well, at peace.’

Thus, the East Cree exponent of the prime SOMEONE is *awen*, and the East Cree exponents of the prime SOMETHING are the allolexes *chekwân* and *wiyesh*.

### 2.3 Allolexes sensitive to animacy and transitivity: The prime THINK

Multiple realisations of a single prime will also be found in the verbal domain in Cree, due to the fact that animacy and transitivity govern the types of verbs. The potential candidates for the exponents of THINK vary in their stem finals (*mi-*, *ht-*, *m-*), indicating, respectively, that the verb is an intransitive verb with an animate subject (*iteyimû*)<sup>7</sup> (18a), a transitive verb with an inanimate object (*iteyihitam*) (18b), or a transitive verb with an animate object (*iteyimeu*) (18c).

- (18) a. *It-eyi-mi-u.* (vai)  
       so-think-AI.final-3  
       ‘S/he thinks/feels a certain way.’

- b. *It-eyi-ht-am-(u)*. (vti)  
 so-think-TI.final-TI.theme sign.3>0'-(3)  
 'S/he thinks so about something.'
- c. *It-eyi-m-e-u*. (vta)  
 so-think-TA.final-TA.DIR.theme sign.3>3'-3  
 'S/he thinks so about someone.'

We are thus forced to choose and identify syntactic frames for the East Cree exponents right from the start. Based on canonical context sentences in (19) and (20) below, we can identify two allolexes for the prime THINK in East Cree: transitive inanimate *iteyihitam*, and transitive animate *iteyiméu*.

*iteyihitam*:

- (19) *Iteyihitamuch aweni-chî [ekâ miywâshiyich*  
 they.think.so.of.it person-PL [C-not it.is.good  
*e utatâmuhwâkanûtwâu awâsh-ach*.  
 C they.are.beaten child-PL]  
 'People think it is bad to beat children.'

*iteyiméu*:

- (20) *Chinepukw nichî iteyimâu,*  
 snake 1.PAST think.so.of.it(AN)  
*mikw namui nûhchi chestinâhun.*  
 but not 1.NEG.PAST (I).am.certain  
 'I thought (that) it was a snake, but I wasn't sure.'

Why reject the animate intransitive verb *iteyimû*, shown in (18a)? First, no canonical contexts have been proposed for THINK in an intransitive construction. Second, bilingual speakers usually gloss *iteyimû* with English *feel*, rather than *think*, suggesting that it is a kind of composite "thinking with feeling" verb. The meaning becomes clearer when we compare how the three verbs in (18a)–(18c) behave in questions. A question with the animate intransitive *iteyimû*, as shown in (21a), is about the state of mind which will cause certain feelings to arise. This is illustrated by the possible answers listed in (21b)–(21d). *Iteyimû* (vai) is thus not an exponent of the prime THINK.

- (21) a. *Tân e iteyimuyin?*  
 how C you.so.think (vai)  
 'What is your state of mind?'/ 'How do you feel (in your mind)?'
- b. *Namui wiyesh nititeyimûn.*  
 'I am not thinking about anything.'

- c. *Nitâyimeyihten.*  
'I am troubled in my mind, I am worried.'
- d. *Nimiyeihten.*  
'I am happy.'

On the other hand, the second and third candidates *iteyihtam* (vti) and *iteyimeu* (vta), correspond to the intended meaning of the prime THINK, as shown by their use in questions in (22) and (23).

- (22) *Tân e iteyihtaman?*  
how C you.think.so.of.it (vti)  
'How are you thinking about it?'  
= 'What do you think?/What is your opinion?'
- (23) *Tân e iteyimat?*  
how C you.think.so.of.him/her (vta)  
'What do you think of him/her?'

The prime THINK has thus two inflectional allomorphs: the transitive inanimate verb *iteyihtam* is used for inanimate complements, propositional complements, and for topics of thought, as in (24)–(26), respectively. The transitive animate verb *iteyimeu* is used for animate complements and propositional complements involving an animate subject, as in (27).

- (24) *Namui miywâu nititeyihten û.*  
not it.is.good I.think.so.of.it (vti) this (INAN)  
'I think (that) this is bad.'
- (25) *Ekun e iteyihtamân anuhchîsh.*  
EMPH C I.think.so.of.it (vti) now  
'I think this now.'
- (26) *Ekun kê iteyihtahk: "...".*  
EMPH C s/he.thought.so.of.it (vti)  
'X thought like this: "...".
- (27) *Chihtimû, nititeyimâu.*  
she.is.lazy I.think.so.of.her (vta)  
'I think that s/he is lazy.'

Another proposed syntactic combination for the prime THINK is 'X thinks about someone/something', though it is not expected that other languages necessarily employ an analogue to the English word *about* in this construction.

As we have seen, the East Cree exponents of THINK—*iteyihtam* and *iteyimeu*—are parallel to the English expression ‘think about’ inasmuch as they can appear with a noun-phrase designating the “topic” of thought. However, unlike English ‘think about’, these East Cree exponents do not imply sustained thought. In this sense, they are closer to English ‘think of’, rather than ‘think about’.

It is necessary in NSM, however, to be able to depict sustained on-going thinking, in expressions like ‘think about something for some time’. To express meanings like this in East Cree, an additional allolex might be in order: the reduplicated derived verb *mâ-mitun-eyi-ht-am* (vti) ‘to think about it over and over, to ponder’. This verb has the structure [RED-complete-think.TI final-TI theme sign-(3)], i.e., it is made up of the initial *mitun* ‘complete’, which is reduplicated to indicate an on-going, repetitive process, and the complex final ‘think’. This verb is used to express the idea of ‘thinking about something’ as an activity, as illustrated below:

- (28) *Chineush nichî mâmituneyihtamihîkûn û.*  
 a.long.time 1.PAST ponder.about this  
 ‘I thought about this for a long time.’
- (29) *Ni-mâmituneyihtamihîkûn uyûh chekwâyûh e pechi*  
 1-make.think.about.TA.PASS these things C toward  
*kakwechimiyîn û.*  
 Ask.TA.2>1(you ask me) this  
 ‘Your question makes me think about those things.’

## 2.4 East Cree has no adjectives

Modifiers typically occur in East Cree in the initial position of words, either as initial morphemes of the stem, or as preforms preceding a stem. Exponents for primes like BIG, SMALL, GOOD and BAD are thus found as morphemes in more complex word formations. In the examples below, SMALL is expressed as an animate intransitive embedded verb *apishîshû*, made of the initial *apish-* and a intransitive animate final, meaning ‘it is small’.

- (30) *Apish-âshu-u.*  
 small-AI.final-3  
 ‘It is small.’
- (31) *Ni-chî wâpam-â-u [e apishâshi-t] mistikw.*  
 1-PAST see.TA-1>3-3 [C small.AI-3] tree  
 ‘I saw a small tree.’

## 2.5 East Cree exponents of WANT

In East Cree, there are two ways of expressing WANT: a volitional preverb *wî*, used in a complement construction when the subject of the complement clause is the same as the main subject; and a pair of full verbs *nituweyihtam* and *nituweyimeu*, used in other contexts, depending on the animacy of the object. Though unusual from the perspective of European languages, this situation is not unusual from a typological perspective. Harkins (1995) has shown that in many languages, clausal complements of WANT have a different form depending on whether or not the subject of the embedded clause is co-referential with the subject of WANT (borrowing terminology from early generative grammar, in so-called “equi” and “non-equi” constructions, respectively).

The volitional preverb is shown in the following examples:

- (32) *Ni-wî wâpamâu ni-mushûm.*  
 1-want see.him 1-grandfather  
 ‘I want to see my grandfather.’

- (33) *Ni-wî nâsipen.*  
 1-want go.to.the.shore  
 ‘I want to go to the shore.’

- (34) *E wî mîchisutwâu.*  
 C want eat  
 ‘They wanted to eat.’

The form *wî* is also used as an emphatic third person pronoun, and as an emphatic particle to add emphasis to NPs. Compare the placement of the emphatic pronoun *wî* in (35) outside the verbal complex, before the conjunct preverb *e*, with the position of volitional *wî* in (34) above, inside the verbal complex following the conjunct preverb *e*. This syntactic difference confirms that we are dealing with homonyms. Similarly, the emphatic particle has a syntactic distribution before or after the noun, as shown in (36a) and (36b), a position where volitional *wî* never occurs.

- (35) *E yahkahamûk mâk, wî(wiya)*  
 C I.pushed.toboggan.from.behind so 3-EMPH  
*e utâpet Charlotte.*  
 C she.was.pulling.it Charlotte  
 ‘I was pushing the toboggan from behind, while she, Charlotte, was pulling it.’

- (36) a. *Namui wî mâhkiyechin, namui eskw uhchi ihtakun an.*  
 not EMPH canvas not yet PAST.NEG it.exist that  
 ‘It was not canvas, it did not exist yet.’  
 b. *Namui mâk nûhchi ayânân tî wî.*  
 not even 1-NEG.PAST have.TI-1PL tea EMPH  
 ‘Even tea, we did not have.’

In non-equi contexts, where the subject of wanting is different from the subject of what is wanted, a full verb is used in Cree. Two verbs are available: transitive inanimate *nituweyihitam* (vti), and transitive animate *nituweyimeu* (vta). The inanimate verb is illustrated below:

- (37) *Nituweyitham chekwâyû.*  
 s/he.want.it (vti) something.OBV  
 ‘She wants something.’  
 (38) *Nituweyihitam chekwâyû chechî ispayich.*  
 s/he.want.it (vti) something.OBV C.FUT it.happen (vii)  
 ‘She wants something to happen.’

The transitive verb is found when the subject of the embedded verb is animate, in a construction called “subject copy” by Algonquianists (Frantz 1978). Examples follow.

- (39) *Chi-nituweyim-in chechî ithtûtamân.*  
 2-want.TA.DIR(2>1)-1 C.FUT I.do.it (vti)  
 ‘You want me to do it.’  
 (40) *Chi-nituweyim-it-in chechî ithtûtamân.*  
 2-want.TA-INV(1>2)-1 C.FUT I.do.it (vti)  
 ‘I want you to do it.’

The Cree data thus confirm that the syntax of WANT is to permit a substantive complement, and clausal equi- and non-equi complements.

An interesting aspect of these grammatical facts about the expression of volition in Cree is that they only came to light in full clarity during my research into the East Cree expression of semantic primes. Previously the volitional preverb *wî* WANT had not been clearly distinguished, in semantic or syntactic terms, from the pronominal and particle homonyms. The NSM research exercise therefore yielded a significant improvement to our general understanding of East Cree grammar and lexicon. The findings have allowed improvements to the East Cree dictionary (MacKenzie et al. 2004–2007), and have triggered a change in spelling, whereby volitional *wî* has been orthographically



distinguished from pronominal and particle *wî* (see Note 4). (For more reflections on the value of NSM research for language description, see section 5.)

### 3. NSM in a polysynthetic language: Some theoretical challenges

This section presupposes familiarity with the account of NSM universal syntax given in Goddard and Wierzbicka eds (2002: Ch 2).

#### 3.1 What counts as a lexical unit

One problem encountered when seeking to identify exponents of semantic primes in a polysynthetic language is the question of what counts as a lexical unit. The NSM approach uses the concept of lexical unit, defined as “the pairing of a single specifiable sense (meaning) with a lexical form” (Cruse 1986: 77–78). Goddard C. (2000) explains that in NSM, a lexical form need not be formally monomorphemic: it may be a compound or derived word, or a phraseme. But no claim has been made so far that the exponent of a prime could be the equivalent of an entire sentence. The problem in a polysynthetic language is that many words—and thus many candidates for prime exponents, are full sentences. In general, all main participants (subject, object, indirect object) in the event depicted by the verb must be indexed with prefixes and suffixes, including in the stem (where they are called finals). Furthermore, many verbs are morphologically complex. Take for example, the two exponents identified for THINK, with more detailed morphological information given below.<sup>8</sup>

- (41) a. *Iteyihitam(-u)*. (vti) it=eyi=ht=am(-u) ‘S/he thinks so of it.’  
 b. *Iteyimeu*. (vta) it=eyi=m-e-u ‘S/he thinks so of him.’
- it*: initial, relative root ‘so’  
*eyi*: medial ‘by mind’  
*ht/m*: transitive final ‘involvement of the mouth or face’  
*mi*: intransitive final ‘involvement of the mouth or face’  
*eyi-ht/eyi-m/eyi-mi*: complex final [medial *-eyi-* ‘by mind’ + transitive inanimate final *-ht* or the transitive animate final *-m* or the intransitive final *-mi* ]  
*am*: transitive inanimate theme sign  
*e*: transitive animate theme sign direct (3>3’)  
*-u*: 3rd person suffix

Morphological combinations for verbs in such a language are like syntactic ones, so that speakers perceive verbs as whole words, forming one lexical unit (Denny 1989). If we accept the assumption that the exponent of a prime has to be a lexical unit, presumably then in Cree, exponents of the primes could be

word-sentences. On the other hand, a semantic prime has also been defined as a meaning which exists as the sense of a lexical unit in all languages (Wierzbicka 1996; Goddard C. 2000). In non-polysynthetic languages, a lexical unit will not be a sentence. So far, it is not sentences which have been matched in NSM, although the need for a universal syntax for the primes has surfaced in recent work (Wierzbicka 1996; Goddard and Wierzbicka eds 2002). For NSM, as for other linguistic theories, there is a problem of formal mismatch between polysynthetic and non-polysynthetic languages.

To be consistent with the standard NSM approach, shouldn't we be able to find a part of an East Cree verb that counts as a smaller lexical unit with a matchable sense? But which part(s)? For example, is there a part of the two verbs in (41) that could count as a lexical unit and correspond to the meaning of English *think*, French *penser*, etc.?

The problem is that East Cree verbs do not have any infinitival forms. Looking at the structure of such verbs will help us understand this problem:

INFLECTION		STEM		INFLECTION
person prefix	preverbs	verb stem: initial (medial) final		suffixes: (theme, person, obviative, plural)
<i>ni</i> I	<i>chî wî</i> PAST want	<i>wâp</i>	<i>aht</i>	<i>en</i> it
$\emptyset$  S/he		<i>it</i>	<i>eyi</i> <i>m</i> medial final complex final	<i>e-u</i>  (of) him/her

**Figure 1.** Structure of the Cree verbal complex (adapted from Wolfart 1973; and Dahlstrom 1991)

In the material preceding the stem, some exponents of the primes have been identified, such as the volitional preverb *wî* WANT. So the search for the exponent of the prime THINK, for instance, should be restricted to the stem. The stem itself is morphologically complex, with an internal structure consisting of:

- initial: root or (recursively) another stem.
- medial: an incorporated noun, body-part or classifier.
- final: transitivity marker (may be further specified for instrumental and other functions), and derivational suffixes (e.g., causative, reflexive, reciprocal).

Minimally, the morpheme *-eyi-* may seem to be an obvious candidate for the prime THINK. However, this morpheme is never found alone, but always with a final (indicating elsewhere, involvement of the mouth and face). This final takes different forms (*ht-/m-/mi-*) depending on the transitivity of the verb and the animacy of its object. So a better candidate might be the complex final. However, as discussed in Junker (2003), this complex final is found in all kinds of verbs

having to do with thinking, including many “cognition with feeling” verbs, and also in mental predicates such as ‘know’ and ‘want’, as illustrated below. If *-eyiht-* were considered to be the exponent of the prime, we would then need to specify and heavily restrict its morphosyntactic combinations.<sup>9</sup> For example, we would want to rule out around 500 combinations of the kind illustrated below:

- (42) *Nituweyihtam.* ‘S/he wants it.’  
*Chischeyihtam.* ‘S/he knows it.’  
*Macheyihtam.* ‘S/he is sad (about it).’  
*Pâsikweyihtam.* ‘S/he is excited (about it).’  
*Mâmaskâtēyihtam.* ‘S/he thinks it is strange, surprising.’

So what are the combinations of the complex final that could mean ‘think’? We would need to include an initial. There is one basic set of combinations, exemplified in (41a) and (41b) above, where this complex final combines with initial *it-* ‘so’.

Applying the same approach to KNOW, there is the following set of combinations, with the initial *chisch-*.

- (43) a. *chisch=eyi=m-e-u* (vta) ‘S/he knows him/her.’  
 b. *chisch=eyi=ht-am-(u)* (vti) ‘S/he knows it.’

*chisch*: initial or root

*eyi-ht/eyi-m*: complex final [medial *-eyi-* ‘by mind’ + transitive inanimate final *-ht* or the transitive animate final *-m*]

*e*: transitive animate direct theme marker

*am*: transitive inanimate theme marker

*u*: 3rd person suffix

So, would it be viable to regard entire stems like *chischeyiht-* or *iteyiht-* as the exponent of primes such as KNOW and THINK? Further derivational combinations exist, but they are clearly based on the meanings KNOW and THINK, as illustrated by the derived appearance verbs<sup>10</sup> in (44)–(45), and the causative verbs in (46)–(47). Thus, in principle such basic stems could be the exponents, allowing only inflectional morphology to be attached to them.

- (44) *chisch=eyi=ht=âku-n* (vii)  
 ‘It is known’ (by appearance, by reputation), e.g., *chischeyihtâkûn che chimûhch*. ‘It is known that it will rain.’

first three elements as above, then:

*-âku*: valency changing morpheme indicating appearance

*-n*: 3rd person (inanimate) suffix

- (45) *chisch=eyi=ht=âku=su-u* (vai)  
 ‘S/he is known.’ (by character, by reputation good or bad)  
 first four elements as above, then:  
 -*su*: AI final  
 -*u*: 3rd person suffix
- (46) *chisch=eyi=ht=âku=hu-u* (vai)  
 ‘S/he wanted it to be known that she had been there.’  
 first four elements as above, then:  
 -*hu*: AI final indicating presence or involvement of the body  
 -*u*: 3rd person suffix
- (47) *chisch=eyi=ht=am=ih-e-u* (vta)  
 ‘S/he informs him, s/he makes it known to him.’  
 first three elements as above, then:  
 -*am*: TI theme  
 -*ih*: TA causative  
 -*e*: TA theme  
 -*u*: 3rd person suffix

Despite the viability of considering stems (e.g., *chischeyiht-* or *iteyiht-*) as exponents of primes from a purely formal point of view, there remains one serious problem with such a proposal. The proposed glosses do not match the intuition of bilingual speakers for whom East Cree is their first language. For them, these stems are not lexical units to which they can readily assign meanings.

- (48) a. *chischeyiht-* (vti)      ?‘to know something’  
 b. *chischeyim-* (vta)      ?‘to know someone’
- (49) a. *iteyiht-* (vti)      ?‘to think so of something’  
 b. *iteyim-* (vta)      ?‘to think so of someone’

We could consider the further possibility that the “lexical” exponents we are seeking are stems in combination with some suffixes. A Cree transitive verb bears a suffix called the theme sign which indicates person combinations, and which is often fused with person suffixes. For example, the set of stem + theme forms displayed below could all be viewed as allomorphs of KNOW.

- (50) a. *Chischeyiht-am-(u)*. (vti)  
 know.TI.final-TI.theme sign(3>0’)-(3)  
 ‘S/he knows it.’

- b. *Ni-chishcheyiht-en.* (vti)  
1-know.TI.final-TI.theme sign(1/2>0)  
'I know it.'
- c. *Ni-chishcheyim-â-u.* (vta)  
1-know.TA.final-TA.theme sign(DIR)(1>3)-3  
'I know him/her.'
- d. *Chi-chisheyim-in.* (vta)  
2-know.TA.final-[TA.theme sign(DIR)(2>1)]-2/1  
'You know me.'
- e. *Chi-chisheyim-it-in.* (vta)  
2-know.TA.final-TA.theme sign(INV)(1>2)-2/1  
'I know you.'

Each complex form in (50) incorporates more Cree-specific grammatical information (about transitivity and animacy, and about subject and object person combinations) than its English counterpart, but in itself this is not necessarily a problem for NSM theory. The situation is not different in principle from the array of inflectional allomorphs of verbs in a language like Polish or Spanish. What is different, however, is the lack of any "neutral" or citation form in Cree analogous to a bare stem or to an infinitive. English exponents of the verbal primes are listed as bare stems (e.g., KNOW, THINK) and they are presumed to have a "sense" that can be matched with infinitival forms in languages like Polish or Spanish (e.g., Polish *wiedzieć*, *myśleć*; Spanish *saber*, *pensar*). But Cree verbs do not have infinitival forms, and as I have shown in the preceding discussion, stripping down a morphologically complex Cree verb into subparts does not at any point yield a single form that would match in meaning with an infinitival form in another language. Rather, what we have to do is to match English and Cree at the only level at which they truly do match, which is at the sentential level.

I conclude that those semantic primes which correspond to verbs in East Cree will have exponents that look like word-sentences. For convenience (e.g., in Table 1), I have listed them arbitrarily in the third person singular, as they are in the East Cree dictionary (MacKenzie et al. 1987; MacKenzie et al. 2004–2007); but such a practice only "works" once native speakers have received some linguistic training.

This conclusion raises the question of what counts as a lexical unit in NSM. Working in a framework seeking syntactic universals, Baker (2001) has proposed a "polysynthesis parameter" to account for differences between languages which have infinitival verbs and languages which do not. He identifies three types of languages. The first type (e.g., Mohawk) are subject to the following condition: "All participants of an event must be expressed on the verb". For the second type (e.g., Chichewa), the condition is: "Any participant of an event may be expressed on the verb". For the third type (e.g., English),

the condition is: “No participant of an event is expressed on the verb” (pp. 150–151).

So far the approach adopted by NSM theorists has been to regard NSM syntax as being essentially of the third (English-like) type, and to treat languages of other types as somehow exceptional, requiring special devices such as inflectional allolexy. It also forces the use of overt emphatic pronouns in the NSM of languages of types one and two, but at the same time, denying them their normal emphatic value, which runs counter to speakers intuition and jeopardises the intelligibility of the metalanguage (for more on this, see below). A revision to the NSM “meta-theory” thus seems necessary in order to accommodate the sentence-like verbs of polysynthetic languages. Essentially, the notion of exponent-as-a-lexical-unit is not independent of a syntactic frame.

### 3.2 The concepts of substantive phrase and predicate phrase

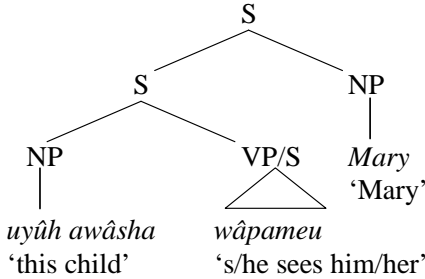
As described in Goddard and Wierzbicka (2002), the basic unit of NSM syntax is the clause, which is described as consisting, minimally, of a minimal predicate part and a minimal substantive part. As we saw in the previous section, a Cree clause can consist of just a verb, or of a verb with nouns adjoined to it.

- (51) *Wâpameu.*  
 she.sees him/her  
 ‘S/he sees him/her.’
- (52) *Uyûh awâsha wâpameu.*  
 this child she.sees.him/her  
 ‘S/he sees this child.’
- (53) *Wâpameu Mary.*  
 she.sees.him/her Mary  
 ‘Mary sees him/her.’
- (54) *Uyûh awâsha wâpameu Mary.*  
 this child she.sees.him/her Mary  
 ‘Mary sees this child.’

Following Baker’s (1996, 2001) proposal for Mohawk, I take the structure of the Cree syntactic clause to consist of a verb-sentence to which NP are optionally adjoined (Junker 2004). The sentence in (54) would have the representation in (55) in standard syntactic theory. The idea is that the verb contains pronouns or pronominal affixes that agree with the features of the adjoined

nouns. A Cree sentence with nominal adjuncts looks a bit like an English sentence with dislocated Noun Phrases.

(55) A Cree Sentence



Goddard and Wierzbicka (2002) propose two components for the clause in NSM syntax, which they term the “substantive phrase” and the “predicate phrase” in place of NP and VP (to avoid presupposing the universality of nouns and verbs). The test used to establish these syntactic components is the classical test of substitution: “A substantive phrase is, essentially, a word or group of words that can be substituted for the ‘minimal substantive part’ ... A predicate phrase is, essentially, a word or group of words that can be substituted for the ‘minimal predicate part’” (Goddard and Wierzbicka 2002: 43). Note that these definitions are framed in terms of the notion of word (not lexical unit). This will prevent us from applying the substitution test to the following examples, because a personal prefix, like *ni-* I or *chi-* YOU, is not a word and therefore will not meet the definition of a substantive phrase. This prediction is consistent with the fact that *-wâpahten* alone is not a grammatical word in East Cree.

- (56) *Ni-wâpaht-en chekwân.*  
1-see.TI-(1>0) something  
‘I see something.’

- (57) *Chi-wâpaht-en chekwân.*  
2-see.TI-(2>0) something  
‘You see something.’

Now consider the fact that the second word of these East Cree sentences, *chekwân* SOMETHING, is structurally not part of a verb phrase, unlike its English counterpart. As shown by the examples below, while English *something* combines with *see*, East Cree *chekwân* combines with the minimal verb-sentence *chiwâpahten*, which bears verbal agreement that matches its gender and number features.

- (58) English:  
[you] + [see + something]
- (59) East Cree:  
[you see it] + [something]  
[*chi-wâpaht-en*] [*chekwân*]  
2-see.TI-(2>0) something

Goddard and Wierzbicka's definition of the NSM clause does not explicitly refer to the functional notion of subject; however, it seems implicit. Applying their substitution test to (59), we obtain sentences like (60a) and (60b) where we can replace *chekwân* with any inanimate noun.

- (60) a. [*chi-wâpaht-en*] [*muhkumân*]  
2-see.TI-(2>0) knife
- b. [*ni-wâpaht-en*] [*muhkumân*]  
1-see.TI-(1>0) knife

These pairings establish that *chekwân* 'something' and *muhkumân* 'knife' are substantive phrases, and that *niwâpahten* 'I see it' and *chiwâpahten* 'you see it' are predicate phrases. Because we can identify both a predicate phrase and a substantive phrase, and because there is no explicit requirement for the substantive phrase to be a subject, the clauses in (60a) and (60b) qualify as "NSM clauses". Note however that a Cree predicate phrase can be used alone, without any accompanying substantive phrase; for example:

- (61) *Chi-wâpaht-en*.  
2-see.TI-(2>0)  
'You see it.'

A similar problem arises with so-called pro-drop languages, like Polish and Spanish, where verbal agreement makes the subject pronoun optional and where the use of overt pronouns indicates emphasis. To be consistent with the assumptions and definitions above, Wierzbicka (2002) claims that in Polish NSM emphatic pronouns must be used, but without their usual emphatic function. On similar reasoning, we would have to require a Cree NSM clause to use an emphatic subject pronoun, instead of being realised as a predicate phrase alone.

- (62) *Chî chi-wâpaht-en*.  
you 2-see.TI-(2>0)  
'You, you see it.'



But, according to the current definition of an NSM clause, this step would only be necessary when no other substantive phrase was expressed. So the emphatic pronoun would not be required in sentences like (60), because they contain an (object) substantive phrase, but would be required in sentences like (62). This asymmetry is clearly an unwanted result that calls for a refinement of the current NSM definition of the clause.<sup>11</sup>

#### 4. Missing exponents and combinations

In the following section, we will firstly review evidence that East Cree lacks lexical equivalents for abstract concepts like PART and KIND. Then we will examine evidence that several of the syntactic combinations posited in Goddard and Wierzbicka (2002) as universally available in natural semantic metalanguage are not in fact available in East Cree.

##### 4.1 Partonomy

The abstract concept of ‘part of’ is not expressed in East Cree by any specific lexeme or morpheme. Despite its long history as a semantic prime (dating back to Wierzbicka 1972), this finding calls into question the status of PART as a universal prime. How then are analogous relations and notions expressed in East Cree? In what follows I examine all the possible strategies.

Goddard and Wierzbicka (2002), acknowledging the lack of interest certain cultures seem to have in the concept of PART, suggested that in some languages the notion of ‘part-hood’ could be expressed by the verb ‘to have’ in a construction such as ‘X has Y’, where Y is a part of X. For example, instead of saying ‘The nose is part of the face’, it is more natural in many languages to say the equivalent of ‘the face has a nose’.

The East Cree verb *iyâu* ‘have’, which is also the exponent of the semantic prime HAVE found in possession contexts, can be used to translate English sentences about body-parts, as in (63). However, speakers will not naturally retranslate such sentences using the word ‘part’. Sentences where the part-whole relationship could be more salient, e.g., ‘the hands are part of the body’ or (putatively) ‘the body has hands’ are impossible in East Cree: as shown in (64), inanimate noun *miyû* ‘body’ cannot be a subject of *iyâu*. These facts suggest that *iyâu* ‘have’ does not express the PART notion.

- (63) *Iyâu            mitihchî   awen.*  
       s/he.has.it   hand        someone  
       ‘A person has a hand.’

- (64) \**Iyâu        mitihchî   miyû.*  
       it.has.it   hand        body

A construction like (65) with an existential verb based on the body-part and a demonstrative pronoun preceding the whole is possible (although the gloss says ‘on this body’, locative marking is not allowed); but the whole proposition has the connotation of a murder scene, clearly not the intended NSM meaning.

- (65) *Mitihchîyû û miyû.*  
 there.is.a.hand this body  
 ‘There is a hand on this body.’

A common strategy to translate English sentences containing the words ‘parts’ or ‘pieces’ is to just ignore them. For example, (66a) was offered as a translation of ‘Something happened to a part of John’s body’. When prompted that this did not reflect the English sentence, the sentence in (66b) was offered:

- (66) a. *Chekwâyû chî ispayû John wîyûhch.*  
 something.OBV PAST it.happen.so (vii) John his.body.LOC  
 ‘Something happened in John’s body.’  
 b. *Chekwâyû chî ispayû wiyesh*  
 something.OBV PAST it.happen.so (vii) something  
*anite John wîyûhch.*  
 there John his.body.LOC  
 ‘Something happened there in John’s body.’

One can, of course, easily express the concept of “part-hood” in East Cree in relation to specific kinds of objects. It is quite frequent that the name for part of an object is derived from the noun for this object by adding a classifier. For example, one can add to the word *usitâskw* ‘axe’ the classifier suffix *-âhtikw* ‘stick-like’ to create the word *usitâskw-âhtikw* ‘axe handle’. The part-whole relation is implicit, but no reference is ever made to an abstract concept of ‘part’. This is shown by how the following canonical sentences were translated into East Cree.<sup>12</sup>

- (67) *Nîshuyich ishinâkun.*  
 be.two (p) it.looks.like  
 ‘It looks like they are two.’ (For: ‘This thing has two parts’)  
 (68) *Misiwe uyûh (chekwâyû-h) ayâpishâshû.*  
 all these (thing.OBV-PL) they.are.small  
 ‘All these are small.’ (For: All of these parts are small.)

The first example above uses a particle often found with verbs of dividing and separating. It is composed of a numeral and a final indicating, as a young speaker described it to me, “(two) from a whole”. This particle is most often

translated as ‘two ways, two manners’. Such particles can be derived for all numbers.

Sentence (68) uses the universal quantifier *misiwe* ‘all’, followed by a plural demonstrative pronoun *uyûh* ‘these’, and optionally by *chekwân* ‘something’. All three of these elements are East Cree exponents of other semantic primes (ALL, THIS, SOMETHING) and none of them can be said to refer to the concept ‘part’. In particular, the demonstrative is attested in equational sentences and as a modifier (Junker and MacKenzie 2003), but it is not possible in a genitive construction of the type [Dem + of X], where the demonstrative could be functioning as an exponent of PART. In fact, speakers are unlikely to translate back the East Cree sentences above using the word ‘part’ or ‘piece’ in English.

Enumeration is a natural East Cree way to define things. When asked how to say ‘Our bodies have many parts’, consultants reply: ‘You would not say it like that in East Cree. You would show and name the different parts’, using the following example.

- (69) *Misiwe awen iyâu mistikwâniyû, miskuniyû, misit-h.*  
 all someone s/he.has head liver foot  
 ‘Everybody has a liver, a foot, a head.’

A container-containee relationship can be used to approximate English part-whole relationships. For example, the particle *pîhch* ‘inside’ can be used to create words indicating a part situated inside a larger whole, as in the following examples. These kinds of expressions are used by Crees to talk about morphology in Cree.

- (70) a. *pîhch ante nîwatihch*  
 inside there my.bag  
 ‘in my bag’  
 b. *Pîhch e ihtakuch.*  
 inside C there.is/it.exists (vii)  
 ‘It is inside.’  
 c. *Pîhch-iyû ihtakun miskun, mitehî, uhpanh ...*  
 inside-body there.is/it.exists (vii) liver heart lungs  
 ‘Inside the body, there is a liver, a heart, lungs ...’

Notice how sentence (70) uses the complex word *pîhchîyu* ‘in the body’ together with a verb of existence followed by an enumeration. Enumeration is thus a very productive strategy to talk about parts in East Cree. However, the particle *pîhch* cannot be considered an exponent for PART for two reasons: first, it is restricted to the spatial domain: it is clearly the exponent of semantic prime INSIDE; second, the thing that is located as ‘inside’ the larger object does not need to be a part of that object, e.g., it could be an article in a bag.

In my view, part-whole relationships are conceptualised in East Cree, but from an opposite direction from that operative in English. From a Cree perspective, it seems that we should speak of whole-part relationships, starting from the view that something is first perceived as whole, and then divided up or broken into (specific) parts. There are plenty of verbs of dividing and separating that exemplify this type of conceptualisation:

- (71) a. *Pîkwâpiham.* (vti)  
 ‘S/he takes it (e.g., engine) apart, dismantles it.’  
 b. *Pîsisîu.* (vai)  
 ‘It (e.g., money) is small change, is in small pieces.’  
 c. *Tetâusham.* (vti)  
 ‘S/he divides it equally by cutting down the middle.’  
 d. *Pîsihtitâu.* (vai)  
 ‘S/he drops it and it breaks into pieces.’  
 e. *Tipishwâu.* (vta)  
 ‘S/he divides it equally by cutting.’  
 f. *Tipânimâtuwich.* (vai)  
 ‘They divide it among themselves.’  
 g. *Tipâninimuwâu.* (vta)  
 ‘S/he divides it among them.’

Consider, for example, the case of someone dividing up meat after the hunt, giving parts to everybody. The following example was elicited as a translation for ‘She divided the meat into four equal pieces, and gave each child one piece.’

- (72) *Newîch*                      *tâtâushwâu,*  
 four.ways (p)    she.divides.it.equally.by.cutting (vta)  
*pâh-peyakw*    *awâsh*    *miyâu.*  
 REDUP-one    child    she.gives.it.to.him (vta)

Notice that there is no word used for pieces or parts, but rather a verb of division (of the kind mentioned above), together with a particle of manner, *newîch*, based on the numeral *neu* ‘four’, and a reduplicated numeral, *pâhpeyakw*, meaning ‘one by one’. That there are ‘parts’ or ‘pieces’ is not encoded in any morpheme or lexical element of the sentence. Whether it is inferred in Cree remains an open question at this point.

In community dictionary-making and in translation situations there can be pressure on Cree-English translators to create a word for ‘part’. An interesting example comes from a Cree textbook with lists of words organised by themes (Whiskeychan and Moar 2002) for which generic chapter titles had to be created. The word *pischesuwin* was used as a title for a list of ‘body-parts’. Speakers interviewed about this word out of context said that they had never

heard it before, and had no idea what it meant. Once given its context (a title for a list of body-parts) they translated it as literally meaning ‘where things meet’, comparing it to other words starting with the same initial, like *picheshimû* ‘a road branching off the main road’. Even in a situation of needing to create a new word, it is interesting that the same view of giving priority to the whole was preserved.

I will now turn to some original text extracts from a legend told by Job Kawapit in the Northern dialect of East Cree (Kawapit 2006), that illustrate how English translations containing the words like ‘some’ (in its partitive sense), ‘part’ or ‘piece’ should not mislead us into believing that there are such words or morphemes in East Cree.

- (73) *mikw usâ mimân niki titipâchimâu.*  
 only EMPH here and there (p) 1-FUT story.tell (vai)  
 ‘I will tell only some of his story.’

The sentence in (73) contains a locative particle *mimân*, meaning ‘scattered’ or ‘here and there’. The verb *tipachimâu* literally means ‘to story-tell’. While a natural translation in English is that only part of the story will be told, the East Cree sentence rather refers to a process of telling in a “scattered” way.

Consider now the passage in (74), comparing its free translation in (74a) with its literal translation in (74b) by Luci Salt, a fluently bilingual speaker and professional Cree translator and interpreter. While the free translation contains two mentions of the English word *part*, the literal translation and interlinear glosses show only a list of specific terms, i.e., the stylistic figure of enumeration. No abstract term for ‘part’ is used.

- (74) a. *Âkuh kiyipwâ châ apisihîpwânâskwâyihkw. Wâsh kiti mihchât-wâskunh chitipwânâskuniuh. Apûtisiûpwânâskw, utiyipwânâskw, ukâhkâchîupwânâskw, misiwâ âti wîhtihk aniyâ châkwâyiu châ âti kichîshtâhk.*  
 ‘Now we have to make roasting sticks for each of the body parts, the stomach, the food sac, the large intestines, and all the other parts of the beaver.’  
 b. *Âkuh kiyipwâ châ apisihîpwânâskwâyihkw.*  
 so of course C.FUT we.make.roasting.sticks (vai-CON)  
 ‘So of course we will make roasting sticks.’  
*Wâsh kiti mihchât-wâskunh chitipwânâskuniuh*  
 in fact FUT be.many.stick-like (vii) roasting.sticks  
 ‘In fact there will be many roasting sticks.’  
*Apûtisiûpwânâskw, utiyipwânâskw,*  
 stomach.roasting-stick food-sac.roasting-stick  
 ‘A roasting-stick for the stomach, for the food sac,

*ukâhkâchûpwânâskw*      *misiwâ âti wîhtihk*  
 large-intestine.roasting-stick all start he.tells (vti)  
 for the large intestine. He starts to tell all  
*aniyâ châkwâyiu châ âti kichîshâtâhk*  
 those things C.FUT start he.would.roast.on.a.stick  
 those things that he would start roasting on a stick.'

The examples above all show that 'parts' in East Cree are not viewed in an abstract way. All speakers consulted agreed that an abstract lexeme "part of" does not exist in East Cree. After several years of sustained attention to this question in East Cree, I have come to the conclusion that there is a fundamental difference in perspective between a language like East Cree and a language like English—a difference that has vast consequences for how the language is organised. East Cree starts from the whole, and then sees parts as specifics in relation to specific objects. I conclude that there is no exponent for the prime PART in East Cree. The status of this prime must therefore be reconsidered.

## 4.2 Taxonomy

Whether or not there is a lexical exponent for KIND in Cree is uncertain at the present time.

Some taxonomic relationships are routinely expressed in Cree with classifiers, which appear as finals of nouns or verbs. They describe concrete properties of objects that are culturally important for the way of life of hunter-gatherers in the boreal forest. For example (MacKenzie and Junker 2004):

<i>-âhtikw</i>	long and rigid (stick-like)	<i>-min</i>	berry-like
<i>-âpiskw</i>	hard (metal, glass or stone-like)	<i>-(i)pekwa</i>	a small lake
<i>-âpû/-âpuy</i>	liquid (broth-like)	<i>-stikw</i>	a river
<i>-âskw</i>	branch-like	<i>-(i)htakw</i>	of wood (useful for humans)
<i>-echin</i>	fabric-like	<i>-uyân</i>	of fur
<i>-(i)kamikw</i>	building-like	<i>-(y)âpî</i>	long and flexible (thread-like)
<i>-(i)skamikw</i>	in moss or earth		

- (75) a. *apuy + âhtikw*       $\Rightarrow$       *apuyâhtikw*  
          paddle-wood       $\Rightarrow$       wood for paddle  
       b. *apwân + âskw*       $\Rightarrow$       *apwânâskw*  
          roast-stick       $\Rightarrow$       roasting-stick  
       c. *amiskw + âpû*       $\Rightarrow$       *amiskwâpui*  
          beaver-liquid(broth)  $\Rightarrow$       beaver broth

However, when it comes to expressing an abstract "kind of" relationship, there is no simple or obvious lexical strategy. Consultants use expressions like

*e ishinâkuhch* ‘when it looks like’ or *e iteyihtâakuhch* lit. ‘when it is so thought that’, ‘it seems like’. Whether these expressions—or any other lexical expressions—furnish an adequate exponent for the prime KIND awaits further research.

### 4.3 BECAUSE

The concept of BECAUSE raises a somewhat different problem. While the concept of causality is certainly lexicalised in East Cree, its realisation is more along the lines of ‘this is why’. Now, there are many languages which seem to express causality this way (Goddard and Wierzbicka 2002). An example of such an East Cree exponent is the complex expression *eukun wehchi*, seen in (76) and (77). It is made up of the focus demonstrative pronoun *eukun* and the particle *wehchi*. This particle is also found in questions like (78) and (79).

- (76) *Nâsch tâpwe chî kachistewehtâsunânû, eukun wehchi ekâ uhchî nipâyân.*  
‘There was a lot of noise, because of this I could not sleep.’

- (77) *Nichî utâmahukw. Eukun wehchi mâtuâyân.*  
1.PAST hit.3>1(vta INV) that(EMPH) why I.cry (vai)  
‘She hit me. That’s why I am crying.’

- (78) *Chekwân mâk wehchi?*  
something so why  
‘But why?’

- (79) *Chekwân wehchi chî ihtûtaman an?*  
something why PAST you.did.it that  
‘Why did you do that?’

Lexical expressions of causality are not frequent in texts, however. The Cree language seems to prefer focus constructions in which the causal element is fronted. Compare the following sentences. In (80) the locative complement *âhkusîukamikuhch* ‘in hospital’ is placed in the middle of the sentence, before a subordinate clause with a temporal meaning. In (81) it is placed at the beginning of the sentence, and this focus indicates the causal meaning (the final construction particle *mâk* is optional).

- (80) *Chipâ chiyûtamâu chikâwî âhkusîukamikuhch mekwâch e*  
2.should visit.her your.mother in.hospital while C  
*ihât.*  
she.is.there.  
‘You should visit your mother while she is in hospital.’

- (81) *Âhkusîukamikuhch ihtâu chikâwî chipâ*  
 in.hospital she.is.there your.mother you.should  
*chiyûtamâu (mâk).*  
 visit.her so  
 ‘You should visit your mother because she is in hospital.’

There is thus a lexical expression of causality in Cree, but it is rather infrequent. Focus possibilities are preferred (see Junker 2004 and Dahlstrom 2003 for discussion of focus in Cree). According to Goddard and Wierzbicka (2002), frequency in normal discourse is not a relevant factor for identifying exponents of semantic primes. What counts is that the exponent be attested, even if it has a low frequency of use. Nonetheless, it remains to be seen whether this will create a problem for intelligibility and naturalness of the metalanguage for speakers.

#### 4.4 Missing syntactic combinations of primes

Wierzbicka (1996) and Goddard and Wierzbicka (2002) have proposed a universal syntax for the semantic primes. Each prime occurs in specific grammatical (combinatorial) contexts. The East Cree exponents of THINK and FEEL provide a good testing ground for these hypotheses and raise some specific challenges to these claims. A full discussion of challenges in finding the East Cree exponent for FEEL can be found in Junker and Blacksmith (2006), while the identification of the East Cree exponent of THINK has been discussed earlier in this chapter.

The frames proposed by Goddard and Wierzbicka (2002: 60) and Goddard C. (2002: Ch 5) for THINK are shown in (83a)–(83d).<sup>13</sup>

- (82) a. X thinks (that) – –  
 b. X thinks about someone/something  
 c. X thinks something (good/bad) about someone/something  
 d. X thinks like this: “– –”

(Actually, in Goddard and Wierzbicka (2002: 60), the frame in (d) is presented as ‘X thinks: “– –”’, i.e., the quasi-quotational complement directly follows the verb THINK, rather than being introduced by the phrase ‘like this’. Subsequent work, however, has assumed the more explicit version as shown above.)

The proposed frames for FEEL are shown in (83a)–(83c) (Goddard and Wierzbicka 2002: 64; Goddard C. 2002: 311). The frame presented in (83c) was acknowledged as being less secure in terms of evidence for its cross-linguistic validity, but it has been widely used in descriptive-analytical work on emotion semantics. Notice that these frames for FEEL can be realised in some languages via a nominal word like ‘feeling’, rather than by use of an explicit SOMETHING.



- (83) a. X feels something (good/bad)  
           X had a (good/bad) feeling  
       b. X feels something like this  
           X has a feeling like this  
       c. X feels something good/bad towards Y  
           X has good/bad feelings towards Y

Some of these frames are unproblematical in East Cree. For example, equivalents of the combination of THINK with a direct quotation (X thinks: “–”) and with a propositional complement (‘X thinks (that) –’), are widely attested, in two patterns. One pattern consists of a propositional complement or a quotation appearing first, in focus position, with the verb in the independent order, followed by THINK, also in the independent order. The type of verb (vti or vta) depends on the gender of the subject of the complement or quotation clause.

- (84) *Namui miywâu nititeyihten û.*  
       not it.is.good I.think.so.of.it (vti) this (INAN)  
       ‘I think (that) this is bad.’/‘I think: “this is bad”.’
- (85) *Chihtimu-u, ni-t-iteyim-â-u.*  
       be.lazy.AI-3 1-t-think.TA final-TA.DIR.1>3-3  
       she is lazy I think this/so about her  
       ‘I think (that) s/he is lazy.’/‘I think: “she is lazy”.’

There is one peculiarity of this construction that needs mentioning. When the complement verb is intransitive, it is usually expressed by some kind of compounding or incorporation, where the embedded verb becomes the initial of a complex verb. Compare example (85) with the incorporated form below. This is quite productive, and not limited to third persons. I take such incorporated sentences to be variants of the frame “X thinks (that) –”.<sup>14</sup>

- (86) *Ni-chihihtimuw-eyim-â-u.*  
       1-[s/he.is.lazy]-think.TA-1>3(DIR)-3  
       ‘I think of her as lazy.’

The second pattern consists of the vti verb for THINK in the independent order followed by a subordinate clause in the conjunct, introduced by a conjunct preverb *e* (C).

- (87) *Iteyihtamuch aweni-chî [ekâ miywâshiyich*  
       they.think.so.of.it (vti) person-PL [C-not it.is.good  
       *e utatâmuhwâkanûtâu awâsh-ach].*  
       C they.are.beaten child-PL]  
       ‘People think that it is bad to beat children.’

We now turn to discussing the more problematic frames, combinations of THINK and FEEL simultaneously with SOMETHING, and with GOOD and BAD. As mentioned earlier, the East Cree exponents for SOMETHING are the pronoun *chekwân* and the particle *wiyesh*. Syntactic reasons block a combination of FEEL and THINK with *chekwân*, as shown below, because these East Cree verbs start with the relative root *it-* ‘so’.<sup>15</sup>

- (88) a. \**chekwâyû itamahchihtâu.*  
           something.OBV s/he.feels.so.of.it (vti2)  
       b. \**chekwâyû iteyihtam.*  
           something.OBV s/he.thinks.so.of.it (vti)  
       c. \**namui chekwân nûhchi iteyihten.*  
           not something 1.NEG.PAST think.so.of.it

As for the particle exponent of SOMETHING *wiyesh*, it can combine with FEEL and THINK, but the results are not always as would be hoped for on current NSM thinking. It is convenient to begin with considering FEEL. As mentioned, among the frames currently posited for FEEL are ‘feel something’ and ‘feel something good/bad’.

When possible exponents of FEEL are combined with *wiyesh* SOMETHING, the resulting sentences do not express the proposed NSM meaning ‘X feels something’—undifferentiated between sensation and emotion. Rather, the meaning is typically one of a physical sensation.

- (89) *Wiyesh itamahchihû.*  
       something s/he.feels.so (vai)  
       ‘S/he feels something (physical).’

- (90) *Wiyesh itamahchihtâu.*  
       something s/he.feels.so.of.it (vti2)  
       ‘S/he feels something (physical).’

On the other hand, there is nothing odd about a sentence like the following, which could be taken as semantically equivalent to ‘s/he feels something good’. This involves the East Cree exponent of FEEL with the preform and initial *miyu-* GOOD. But the point is that this sentence does not contain any reflex of SOMETHING.

- (91) *Miyu-mahchihû.*  
       she.good-feels (vai)  
       ‘S/he feels good.’

Leaving aside the derived verbs, the frame FEEL SOMETHING GOOD can only be realised in East Cree by the “feel/sense” verb *mûshitâu*, as in (92b), which

specialises in bodily feelings, and then only by using a conjunct construction. The simple *miyu-chekwâyû* [good-thing. OBV] is ungrammatical, as in (92a).

- (92) a. \**mûshitâu*                      *miyu-chekwâyû*  
           she.feels/senses.it      good-thing.OBV  
       b. *Mûshitâu*                      *e miywâyich*                      *chekwâyû*.  
           she.feels (vai/vti)    C    it.is.good (vai-CON)    something.OBV  
           ‘She feels something (physically) (which is) good.’

The East Cree data thus suggests that the simple combination of FEEL with SOMETHING (i.e., the combination FEEL SOMETHING) is not part of a universal syntax of semantic primes.

The more complex posited valency ‘feel something good towards Y’ is even more problematical. Disregarding the question of the FEEL SOMETHING aspect frame, and just concentrating on the proposed “target of feeling” valency, the derived transitive versions of the East Cree exponent for FEEL GOOD are not viable candidates, for two reasons. Firstly, they imply physical contact (touching), and secondly, they imply that that the object (‘it’ or ‘him/her’, respectively) is the cause of the feeling, not the “target” or “object”.<sup>16</sup>

- (93) a. *Miyu-mahchihtâu*.  
           she.good-feels (vti2)  
           ‘S/he feels good because of it.’  
       b. *Miyu-mahchiheu*.  
           she.good-feels (vta)  
           ‘S/he feels good because of him/her’ (with sexual connotation)

As far as I know, there is no general way of expressing the precise meaning ‘s/he feels (something) good/bad towards Y’ in East Cree.

Coming now to combinations of SOMETHING with THINK, as mentioned in section 2, *wiyesh* SOMETHING is attested in combination with exponents of THINK. In natural discourse, these usually occur in a negative context, such as (17) above and (94) below. In a positive context, a sentence like (95) conveys a meaning where *wiyesh* SOMETHING is a topic of cognition. Constructions like these are equivalent to the posited valency ‘think about something’.

- (94) *Anit an mekwâch, namui wiyesh nûhchi iteyihten.*  
           there that time      not      something 1.NEG.PAST think.so.of.it (vti)  
           ‘At that time, I did not think about anything.’  
       (95) *Wiyesh iteyihtam.*  
           something s/he.thinks.so.of.it (vti)  
           ‘S/he thinks (in a certain way) about something.’

However, when we turn to the more elaborated version—‘think something good/bad about something (or someone)’—the situation is not so clear. The examples in (96) show derived verbs with the preform and initial *miyu-* GOOD with the two East Cree exponents of THINK.<sup>17</sup>

- (96) a. *Miy(u)-eyihtam.*  
           she.good-thinks (vti)  
           ‘S/he likes it, s/he is happy.’  
           (= ‘she thinks something good about it’?)
- b. *Miy(u)-eyimeu.*  
           she.good-thinks (vta)  
           ‘S/he likes him/her.’  
           (= ‘she thinks something good about him/her’?)

From their morphological make-up, these verbs mean what is conceived of as a consequence of thinking well about something or someone. In normal translation, they can often be glossed as ‘to like it’ and ‘to like him/her’, respectively. It is possible that these constructions could be regarded as semantic equivalents of the NSM-like sentences: ‘s/he thinks well about it’ and ‘s/he thinks well about him/her’. But this can hardly amount to full equivalence to ‘s/he thinks something good about it’ and ‘s/he thinks something good about him/her’—on account of the syntactic mismatch. The point is that the East Cree sentences in (96) do not exhibit any overt reflex of the prime SOMETHING. (If *chekwân* SOMETHING is added to the vti version of the verb, as given in (96a), the SOMETHING is understood as designating the “topic” of the positive thinking).<sup>18</sup> *Mutatis mutandis*, the same applies to combinations with *machi-* BAD.

In summary, from a syntactic point of view certain combinations of THINK and FEEL with SOMETHING, and with GOOD and BAD do not occur in East Cree, even though in some cases there may be semantic equivalents with a somewhat different syntax. The situation is summarised in Table 2 below and Table 3 on the next page.

**Table 2.** Syntax of the semantic prime THINK

NSM frames posited in Goddard/ Wierzbicka (2002)	Attested in East Cree?	Possible East Cree alternatives (if not attested)
‘X thinks: “– – ”’	Yes	
‘X thinks (that) –’	Yes	
‘X thinks about someone/something’	Yes	
‘X thinks something good/bad about someone/something’	No	‘X thinks.so well/badly of it’

**Table 3.** Syntax of the semantic prime FEEL

NSM frames posited in Goddard/ Wierzbicka (2002)	Attested in East Cree?	Possible East Cree alternatives (if not attested)
‘X feels like this’	Yes	
‘X feels something’	No	None
‘X feels something good/bad’	No	‘X feels good/bad’
‘X feels something good/bad towards someone/something’	No	None

How can we explain that a language like East Cree does not comply with the pattern of syntactic frames for THINK and—especially—FEEL that have been identified in many other languages? Our expectation was that the complex exponents of polysynthetic languages would reflect the universal syntactic properties of the NSM primes.

One element of an answer could be found in the fact that East Cree seems to be a language that favours conceptualising feeling and thinking in terms of the *how*, rather than the *what*. Questions with East Cree verbs for FEEL and THINK are built with *tân* ‘how’. And as we have seen throughout this chapter, the initial part of the East Cree words for FEEL and THINK means ‘so, like this’. Complex verbs are built by replacing that initial with another verb, a modifier or a noun. To paraphrase a complex verb like (97a), one would use a construction like (97b), which involves the exponent of the prime LIKE.

- (97) a. *Chisheinuweyihtam.*  
          elder-think-TI.final-TI.theme sign-(u)  
          ‘S/he thinks (about it) like an elder.’  
      b. *Mwech chisheinû itheyihtam.*  
          like      elder      s/he.thinks.so.of.it (vti)  
          ‘S/he thinks (about it) like an elder.’

In other words, the East Cree exponents of the primes THINK and FEEL reveal an affinity with the prime LIKE, rather than with the prime SOMETHING. Some languages may indeed prefer to conceptualise thinking and feeling in terms of *how*, rather than *what* one feels or thinks.

To mention a single additional language example, there is Pintupi-Luritja, a Central Australian Aboriginal language. Heffernan (1999: 82) notes that in this language one asks not ‘What do you think?, as in English, but ‘How do you think?’ (*Yaaltji nyuntu kulini?*). Pintupi-Luritja, like East Cree, appears to be a language favouring *how*. With further research, this feature might turn out to provide the basis for a semantic typology which could help account for the syntactic non-alignments between Cree NSM and English NSM in the domain of thinking and feeling.

## 5. Using Cree NSM

Identifying the exponents of semantic primes in a poorly described language has an undeniable heuristic value. Focusing on the subset of the language represented by the semantic primes allows for in-depth grammatical and lexical analysis, leading to discoveries that can then be tested against and extended further to other parts of the grammar. The East Cree version of NSM can then enrich lexical and grammatical analysis by providing tools to discuss lexical properties and grammatical description with speakers. The following sections will present examples of how NSM has been used in East Cree for lexical analysis and language description. It has already been mentioned in section 2 that investigating posited semantic frames for WANT led to new discoveries about the East Cree grammar of volition.

### 5.1 Applying Cree NSM to lexical analysis

Junker (2003) reports on a study of East Cree verbs of thinking, where monolingual Cree speakers were interviewed. For that purpose, NSM offered a formalism that could be understood by our Cree consultants and was perfectly translatable from Cree into English or French. For example, there was a class of verbs which seemed to correspond to what could be described in English as verbs with an incorporated complement clause. An example is given in (98a). The meaning of such verbs can be explained with a very simple gloss, using the East Cree exponent of THINK *iteyimeu* ('someone thinks so about someone else') or *iteyihtam* ('someone thinks so about something'), preceded by a verb or an expression based on the initial component. The paraphrase in (98b), containing the East Cree exponent of the prime THINK: *iteyimeu* was proposed and then judged as equivalent to example (98a) made up of a complex verb. Similarly for the pair in (99). Another paraphrase pair, where the paraphrase uses *mwech* LIKE, was given in (97). (In the paraphrases some complex words are used, on the assumption that they can be further defined independently.)

- (98) a. *Nichihitimuweyimâu*  
 ni-[chihitimuw]-eyimâu  
 1-[s/he.is.lazy]-think.of.him/her (vta)  
 'I think that s/he is lazy.'
- b. *Chihitimû, nit-it-eyimâu.*  
 s/he.is.lazy(vai) 1-so-think.of.him/her (vta)  
 'I think that s/he is lazy.'
- (99) a. *Meyâuch-eyimeu.*  
 right-think.of.him/her (vta)  
 'S/he thinks it serves him/her (other) right.'

- b. *Meyâu nâshch, iteyimeu.*  
 well-deserved s/he.thinks.so.of.him/her (vta)  
 ‘S/he thinks that it serves him/her right.’

In another study (Junker and Blacksmith 2006), Cree NSM was used as a tool for consulting with speakers about the meanings of emotion words. The task was to describe the meanings of the East Cree words for “cry” and “smile” using East Cree exponents of the semantic primes. Wierzbicka (1999) has proposed that the shared components of meanings for near-counterparts of these words across languages would be:

*cry/weep:*

I think: something bad is happening

I feel something bad now

*smile/laugh:*

I think: something good is happening

I feel something good now

To test this hypothesis, the explanations above were translated into the Cree version of the NSM. Only one small pragmatic adjustment was required. While it is possible to say in Cree the equivalent of ‘something bad is happening’, as in (100), speakers definitely prefer to say the equivalent of ‘something not good is happening’. In Cree, to use the word for ‘bad’ implies ‘very bad’ (almost like English *evil*), so it is a word that has to be used with caution. (This might be due to a general tendency across the culture to view the positive as the preferred pole of reference.) Speakers were then asked if the words *mâtû* (via) ‘she cries’ and *pâhpû* (vai) ‘she laughs’ did or did not contain the components of meaning expressed in (101) and (102), respectively.

- (100) *E ispahihch chekwân e macheyihtâkuhch.*  
 C it.happen (vii) something C it.is.bad (vii-CON)  
 ‘Something bad is happening.’
- (101) *nit-iteyihten: e ispahihch chekwân ekâ miyeyihtâkuhch.*  
 I-think (vti) C it.happen (vii) something C.not it.is.good (vii-CON)  
*ni-machi-mahchihun*  
 I-bad-feel (vai)
- (102) *nititeyihten: e ispahihch chekwân e miyeyihtâkuhch.*  
 I-think (vti) C it.happen (vii) something C it.is.good (vii-CON)  
*ni-miyu-mahchihun*  
 I-good-feel (vai)

## 5.2 Applying Cree NSM to grammatical analysis: Verb classes

The four Algonquian verb classes, based on animacy and transitivity, are notoriously difficult to teach native speakers about. How does one explain transitivity to people whose language has no such word? The descriptions shown in Table 4 are composed in Cree NSM. They are based on Wierzbicka's (1998, 2002) proposals for anchoring grammatical description and linguistic typology in universal semantic primes. The descriptions are, in effect, simply-phrased keys or cues which will allow speakers to identify the verb class of a given verb.

They were first proposed to a group of 40 elementary school teachers, who are native speakers of Cree and who teach the first three grades in Cree, during a workshop held in November 2001. The reaction was overwhelmingly positive. Everybody understood what I was trying to convey. Cree grammar suddenly became clear and intelligible. One particular reaction that I heard several times and which summarises the success of this approach was: "Oh, I did not know we already had words for that in our language!". Since then, these terms have been adopted as descriptive terminology in writing the grammar of Cree in Cree (Junker, Blacksmith and MacKenzie 2000–2007).

**Table 4.** Cree descriptions for animacy/transitivity verb classes

Verb class		East Cree exponents used
Inanimate	<i>e ispayihch chekwân</i>	CHEKWÂN <i>something</i> , ISPAYÛ <i>happen</i>
Intransitive	'when something happens'	
Animate	<i>e ihtit awen</i>	AWEN <i>someone</i> , IHTÛ <i>do</i>
Intransitive	'when someone does it' (or 'when someone has a certain condition')	
Transitive	<i>e ihtûtawât aweyûh</i>	IHTÛTAM <i>do</i> , CHEKWÂN <i>something</i>
Animate	'when someone does it to someone or something (animate)'	
Transitive	<i>e ihtûtahk chekwâyû</i>	IHTÛTUWEU <i>do</i> , AWEN <i>someone</i>
Inanimate	'when someone does it to something'	

## 6. Concluding remarks

The title of this chapter is an oxymoron. In a polysynthetic language, there are no semantic primes without their grammar. As we have seen, a polysynthetic language like East Cree generates several challenges for NSM theory. Theoretically, the definition of a lexeme needs to include (polysynthetic) verbs that are fully inflected for both subject and object, i.e., sentences. The definition of an NSM clause needs to be revised to include the notion of subject or the



provision that a transitive verb primarily combines with its object, then its subject. We chose in this chapter to discuss what seemed the most important challenges for NSM. Problem areas we identified are certain syntactic combinations of THINK and FEEL with SOMETHING (including complex valencies with GOOD and BAD), and the universality of the lexical realisation of partonymy and taxonomy. It seems that a handful of primes—most clearly PART—do not have lexical exponents in East Cree.

Nevertheless, most of the primes do have exponents in East Cree and most combinatorial properties of the semantic metalanguage are attested in East Cree. Grammatical features of exponents in one language might reveal or confirm some universal properties of a particular prime, as we have shown with BODY, which has an explicit (grammaticalised) “relational” quality in Cree. Considering that we are dealing with more than 60 primes and that the challenges in identifying Cree primes only concerns a few of them, we can only conclude that NSM is possible in a polysynthetic language like East Cree. We were able to test the claim that semantics and language description can be grounded in a cross-linguistically valid and intuitively intelligible framework. It can be in East Cree. The NSM approach also proved to be a good bottom-up technique for language description.

This study no doubt suffers certain defects from being the first to deal with the full NSM in a polysynthetic language (but see Knight this volume). Many of the challenges we have identified will surely be overcome when more polysynthetic languages are studied using this framework.

**Abbreviations**

0'	third person inanimate obviative	INAN	inanimate
0	third person inanimate proximate	INV	inverse
1	first person	na	noun animate
2	second person	ni	noun inanimate
3'	third person animate obviative	nid	inanimate dependent noun
3	third person animate proximate	OBV	obviative
AN	animate	p	particle
AI	animate intransitive	PASS	passive
C	conjunct preverb	PAST	past tense
CON	conjunct	pf	preform
DIR	direct	PL	plural
EMPH	emphatic particle	pr	pronoun
f	final (verb or noun final)	REDUP	reduplication
FUT	future	SAP	speech act participants
i	initial	TA	transitive animate
II	inanimate intransitive	TI	transitive inanimate

CC	changed conjunct (the vowel of the first syllable of the verb is changed)
vai	verb animate intransitive class (intransitive verbs with an animate subject)
vii	verb inanimate intransitive class (intransitive verbs with an inanimate subject)
vta	verb transitive animate class (transitive verbs with an animate object)
vti	verb transitive inanimate class (transitive verbs with an inanimate object)
vti2	verb transitive inanimate class 2 (transitive verb with vai morphology with an inanimate object) <sup>19</sup>

## Notes

1. An earlier and much abbreviated version of this chapter was published in French as Junker, M.-O. (2004) Les primitives sémantiques universelles en cri de l'Est in H. C. Wolfart (ed.) *Papers of the 35th Algonquian Conference*, Winnipeg: University of Manitoba Press: 163–185. I wish to thank my Cree teacher Louise Blacksmith, Dr. Marguerite MacKenzie and all the Cree speakers consulted: Louise Diamond, Evadney Gunner, Mali Iserhoff, Florrie Mark-Stewart, Sarah Matoush, Daisy Moar, Ella Gull Neposh, Marion Petawabano, Luci Salt, Ruth Salt, Johnny Shecapio, Frances Visitor and Frances Voyageur. Chinaskumitînâwâu! Research for this chapter began during a sabbatical visit at the University of New England, Armidale, Australia. Special thanks to Jean Harkins, Cliff Goddard and Anna Wierzbicka for discussions of NSM theory. This research was partially funded by two grants from the Social Sciences and Humanities Research Council (# 820-2000-2013 and 856-2004-1028).

2. For sake of readability, the level of detail in morphological analysis for the interlinear glosses depends on the point being made.

3. Not all Cree languages have obviative marking on inanimates, but East Cree does.

4. The forms used in this table and throughout the chapter are based on the orthography used for East Cree in 2006. There has since been a change in the spelling of the exponent for WANT: *wîh* used with independent verbs and *wâh* (the revised form of *wî*) used with conjunct forms.

5. The primary fieldwork on which this chapter is based was carried out in 2001–2. At that time several of the current NSM primes had not been definitively proposed and therefore were not investigated.

6. I am grateful to José Mailhot for sharing her observations on related Innu facts with me.

7. *Iteyimû* is how the verb is spelled, *it-eyi-mi-u* as shown in (18a) is a morpheme decomposition before vowel coalescence takes place.

8. = indicates stem-internal morphology, - indicates inflectional morphology around the stem.

9. When asked if they could paraphrase the Cree equivalents of 'know' and 'want' with *iteyiht-am*, speakers said they could not. This in itself is evidence that exponents for the primes KNOW and WANT exist in Cree, and that the complex final *-eyiht-* is just common to all mental predicates, and not the exponent of the prime THINK.

10. Note that these verbs are derived verbs, different from passive forms. Compare:

- (i) *Chischeyiht-âkanu-u*. (vti) 'It is known, people know.'  
*Chischeyiht-âkanu-u che chimûhch*. 'Everybody knows that it is going to rain.'
- (ii) *Nichischeyim-iku-un*. (vta) 'I am known.'  
*Chischeyim-âkanu-u*. (vta) 'S/he is known.'

11. This definition should probably include the provision that the minimal "substantive phrase" of an NSM clause is a subject. For a discussion of a universal definition of the notion of subject based on NSM, see Wierzbicka's (2002) proposition that a subject is an intersection of "topic", "agent", or "patient", defined in terms of the universal primes SAY, DO and HAPPEN.

12. Sometimes, *chekwân* ‘something’ is translated in English by *part* as in the following Northern dialect example:

*mikw ninânish chî ichishtâu châkwâyiu kâ pîkwâpâhk upimipiyimish.*  
 only PAST things.OBV C he.dismantles.it his.outboardmotor  
 S/he had parts scattered all over the place when s/he took her/his outboard motor apart.  
 (example from Eastern James Bay Cree Dictionary on the web)

13. As noted by Goddard C. (2002: 311), earlier work had assumed the existence of simpler frames such as ‘X thinks something’ and ‘X thinks something about Y’, but this assumption was rejected in view of evidence that it was not available in a number of languages, including French and Cree.

14. Surprisingly, the TA verb *iteyimeu* cannot take a “complement copy” construction, parallel to the TI verb with a propositional complement in the conjunct. This interesting syntactic restriction on *iteyimeu* needs to be further investigated.

15. No verb starting with the initial *it-* ‘so’ can combine with the pronoun *chekwân* SOMETHING. In particular, this applies to the Cree exponent of SAY *itweu*, which also contains this initial *it-*.

16. One can say something like ‘feel something good about someone/something’ by using a derived verb based on the ‘think’ final; but the meaning is more about being in agreement or approving of what someone else does, as in (a) and (b) below.

- a. *Naheyimeu.* (vta)  
 ‘He feels good about him/her.’ (because he approves what the person does)
- b. *Naheyihtam.* (vti)  
 ‘He feels good about it.’ (in the sense of agreeing with it)

17. The parallel verb *miy(u)-eyimû*, based on the vai verb *iteyimû*, cannot be a contender for the ‘think something good’ frame, because as we decided in section 2, *iteyimû* is not an exponent of THINK in the first place. As it happens, *miy(u)-eyimû* means something like ‘be comfortable’.

18. The combination THINK SOMETHING GOOD cannot be expressed by modifying the particle *wiyesh* SOMETHING either. I speculate that this may follow from a general restriction not allowing particles to take modifying clauses.

*\*wiyesh e miywâyich iteyihtam.*  
 something (p) C it.is.good (vai-CON) she.thinks.so.of.it (vai/vti)

19. vti2 verbs are currently codified as vai in the East Cree on-line dictionary.

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## **Hyperpolysemy in Bunuba, a polysynthetic language of the Kimberley, Western Australia**

Emily Knight

Like a number of other Kimberley languages, Bunuba has very few morphologically simple verbs. Most verbs (including exponents of some semantic primes, such as WANT, SEE, and THERE IS) consist of an inflected auxiliary combined with an invariable coverb. After a brief review of how other predicate primes are expressed in Bunuba, the main body of the chapter considers semantic primes SAY, DO, THINK, HAPPEN, and FEEL, which, it is argued, are all expressed by a single, morphologically simple Bunuba verb MA. Detailed language-internal evidence is adduced to support the existence of this striking five-way polysemy. It is shown that each of the five identifiable lexical units has a distinctive syntactic/semantic profile. These facts are incompatible with alternative analyses which posit a single general abstract meaning.

### **1. Introduction**

Bunuba is an Australian Aboriginal language spoken in and around Fitzroy Crossing, a small town about 400km east of Broome in the Kimberley region of north-west Western Australia (Rumsey 2000; Knight 2004). It is severely endangered, with perhaps 100 speakers in all, mostly over the age of forty.

Bunuba is a non-Pama-Nyungan language, whose closest genetic relative appears to be Gooniyandi (Knight 2004; McGregor 1990). Like most languages of the Kimberley, it is predominately head-marking. The verbal auxiliary carries prefixes indexing the person and number of subject and object. Unlike many nearby languages (but like Gooniyandi in this respect), Bunuba has no noun class markers.

Almost all verbs in Bunuba are formally complex, consisting of an inflected auxiliary (drawn from a closed class of 10 roots)<sup>1</sup> together with an invariable coverb (drawn from a large open class). The coverb carries most of the lexical content of a complex verb, while the auxiliary expresses the grammatical properties and hosts the prefixes and suffixes. Simple verb constructions also occur, consisting of an auxiliary alone without a coverb, but they are highly restricted

in Bunuba, compared with many other nearby languages which also have coverb + auxiliary constructions, such as Jaminjung (Schultze-Berndt 2000), Marriṯhiyel (Green 1989), Ngan'gityemerri (Reid 1990) and Wunumbal (Carr 2000). In fact, in Bunuba only two auxiliary roots can occur in simple verb constructions. They are the extremely common item MA, and a much rarer item NA, which appears to function as a partial reflexive/reciprocal counterpart of MA. (By convention, auxiliaries are cited in uppercase letters. Their forms vary somewhat in example sentences due to allomorphy conditioned by the preceding and/or following morphemes.)

The present study is focused on the polysemy—or to coin a phrase, the hyperpolysemy—of the simple verb MA. I will argue on formal and semantic grounds that MA functions as an exponent of no less than five of the semantic primes—DO, SAY, THINK, HAPPEN, and FEEL—proposed by the Natural Semantic Metalanguage approach (Wierzbicka 1996; Goddard and Wierzbicka eds 2002).

How are the other verbal semantic primes expressed in Bunuba? Since with the exception of MA, all other Bunuba verbal constructions are complex, it follows that certain auxiliary + coverb combinations, namely those which express semantic primes, must be regarded as single units from a semantic point of view. This conclusion leads to a radically different approach to the Bunuba verbal system from that adopted in previous studies of comparable languages.

The most important studies (Schultze-Berndt 2000; McGregor 1990, 2002) of the coverb + auxiliary system in languages of this region describe it as a largely semantic system of verb classification:

these verbs [i.e., auxiliaries] have a similar function, in the domain of verbs, to nominal classifiers in the domain of nominals. They form a closed class, are obligatory in certain constructions (as it happens, in every finite clause), and serve to group all verbal expressions into a limited number of classes. (Schultze-Berndt 2000: 212)

McGregor (2002: 29ff) reaches a similar conclusion, arguing that verb classificatory system works in terms of three abstract factors: vectoral configuration, *Aksionsart*, i.e., telicity, dynamicity, etc., and valency. Schultze-Berndt's analytical categories are also highly abstract.

NSM assumptions give rise to a more nuanced and fine-grained approach. First, as just stated, a small number of coverb + auxiliary combinations must be recognised as semantically unitary. Given the analysability of many other combinations, it follows that a uniform account of Bunuba verb classification is impossible. Second, when it comes to identifying semantic content, NSM analyses are much less “abstract” than other approaches, because of the constraint that they must be expressible by way of paraphrase in terms of ordinary simple meanings, expressible in Bunuba (as well as in other languages). An NSM approach to Bunuba verbal semantics identifies multiple subclasses sharing common components, related in a network or family resemblance fashion (Knight 2004).

**Table 1.** Partial listing of predicate semantic primes: Bunuba

Mental predicates:	MA/L <u>INGA</u> + RA2 <i>think/think about</i> , BINARRI (ADV) ~ BINARRIYA + MA2 <i>know</i> , DAWUN <u>GGA</u> + MA2 <i>want</i> , MA <i>feel</i> , MILA + RA2 <i>see</i> , WINYI + RA2 <i>hear</i>
Speech:	MA <i>say</i>
Actions, events, movement:	MA <i>do</i> , MA <i>happen</i> , <u>NGULAN</u> GGA + RA <i>move</i>
Existence, possession:	BAGA + RA <i>there is</i> , GURRI <u>GGA</u> + RA2 <i>have</i>
Life and death:	YATHA + RA <i>live</i> , DULUGA + WU <i>die</i>

## 2. Semantic primes in Bunuba

With a few exceptions, the predicate semantic primes and their Bunuba counterparts are listed in Table 1. There are three notable points. First, ten of the fifteen predicate primes listed here are expressed by fixed auxiliary + coverb combinations. That is, in combinations like *duwungga* + MA2 WANT, *mila* + RA2 SEE, and *baga* + RA THERE IS, as in the following canonical contexts for semantic primes, the roots MA2, RA2 and RA do not convey any specifiable meanings. To put it another way, in these particular combinations it is impossible to “divide up” the meaning, apportioning part of it to the coverb and part to the auxiliary. This is because semantic primes are, by definition, unitary, indivisible meanings.

- (1) *Dawungga lima wad bungay jobjawu.*  
*dawungga li-ma wad wu-ngi-ra-y job-yawu*  
want 1SG.A>3SG.O-MA2 go FUT-1SG.S-RA-EXCL shop-ALL  
‘I want to go to the shop.’
- (2) *Nginjagama ngurru milala.*  
nginjaga-ma ngurru mila-l-ra  
what-indefinite over there see-3SG.O<1SG.S-RA2  
‘I see something over there.’
- (3) *Bagara galagalangarri gawiy.*  
baga-ø-ra gala-galangarri gawiy  
there.is-3SG-RA different-different fish  
‘There are different (kinds of) fish.’

However, although the auxiliaries RA, RA2, MA2 and WU are in a strict sense meaningless in the combinations listed in Table 1, it does not follow that they are meaningless in other coverb + auxiliary combinations. On the contrary, I argue elsewhere (Knight 2004) that these auxiliaries in many cases do have specifiable meanings in semantically complex combinations.



**Table 2.** Polysemous exponents of verbal primes in Bunuba

Exponent	Prime meaning	Other meanings	Other auxiliary + coverb combinations
<i>binarri</i> [ADV]	KNOW	–	<i>binarriya</i> + MA2 ‘show’ <i>binarriya</i> + RA2 ‘teach’
<i>dawungga</i> + MA2	WANT	‘like’	
<i>mila</i> + RA2	SEE	–	<i>mila</i> + RA ‘look around’
<i>ngulangga</i> + RA	MOVE	–	<i>ngulangga</i> + MA <i>ngulangga</i> + MA2 <i>ngulangga</i> + NGARRI
<i>baga</i> + RA	THERE IS	‘lie.down’ ‘stay’ ‘sleep’	
<i>gurrija</i> + RA2	HAVE	‘hold onto’	
<i>yatha</i> + RA	LIVE	‘sit’ ‘stay’	

Third, MA stands out in Table 1 because it is identified as an exponent of no less than five semantic primes—DO, SAY, THINK, HAPPEN, and FEEL. The main task of this chapter is to show on language-internal evidence that simple verb MA is indeed five-ways ambiguous<sup>2</sup> (actually, MA also has a sixth, semantically complex meaning linked with SAY).

Many of the Bunuba exponents of semantic primes are polysemous in ways which are paralleled in many other languages (cf. Goddard and Wierzbicka eds 1994, 2002). Summary information is given in Table 2. The table also shows some of the meanings expressed by the coverbs when they are combined with various other auxiliaries (discussed at length in Knight 2004).

Some brief notes about these identifications and associated polysemies are in order. Unusually for Bunuba, the exponent of KNOW is not a coverb, but an adverb: *binarri*. This is obviously related to the coverb *binarriya*, however, and when this coverb combines with either MA2 or RA2, the meanings are ‘show’ and ‘teach’, respectively. Obviously both these meanings involve KNOW.

In identifying the semantic primes THERE IS and LIVE, informants gave me the posture expressions *baga* + RA and *yatha* + RA, respectively. In narratives these combinations commonly appear with the meanings ‘lie’ and ‘sit’, respectively, but their relative infrequency in their semantically primitive senses is not relevant to their status as exponents of semantic primes. The sole criterion is their claim to indefinability, with the concomitant claim that other, non-prime meanings are analysable in terms of the primes. That is, the claim is that the non-prime senses of *baga* (i.e., ‘lie down’, ‘stay’, ‘sleep’) are decomposable, whereas the THERE IS sense is indefinable. Likewise with *yatha* + RA, I assume that all senses except for the LIVE sense are complex and decomposable into simpler components.

A comparable polysemy for posture expressions is common in other Australian languages. For example, semantic prime THERE IS is expressed by two different posture verbs in the geographically contiguous languages Pitjantjatjara/

Yankunytjatjara (P/Y) and Arrernte: by *ngaranyi* ‘stand’ in P/Y and by *aneme* ‘sit’ in Arrernte (Goddard and Harkins 2002).

Likewise, polysemy between WANT and ‘like’ is common in Australian languages, and in languages of the world (cf. Goddard 1991; Goddard and Wierzbicka eds 1994). The assumption is that ‘like’ is a complex meaning which requires WANT and other semantic primes in its explication, whereas the WANT sense is indefinable. The same applies to HAVE and ‘hold onto’. A polysemy comparable to that of Bunuba *gurrija* + RA2 is found in languages such as Yankunytjatjara and Arrernte in central Australia (Goddard 1996; Henderson and Dobson 1994).

The exponent of SEE is the textually frequent combination *mila* + RA2, with the transitive auxiliary RA2. It is notable that by switching to the intransitive auxiliary RA, the meaning becomes ‘look around’. It might be tempting on this basis to assume that coverb *mila* expresses “pure” SEE, which is manifested as either transitive or intransitive depending on the auxiliary; but this argument does not go through: firstly, because the assumptions of the NSM approach require that every prime be expounded by a full lexical item (thus, a coverb alone will not suffice), and secondly, because *mila* + RA2 “works” unproblematically in explications as the equivalent of SEE. In fact, it is needed for the explication of *mila* + RA ‘look around’.

### 3. Hyperpolysemy of simple verb MA

It is argued here that MA conveys the following semantically primitive senses: SAY, DO, THINK, HAPPEN, and FEEL. That five semantic primes can be expressed (at least partially) using a single lexical form is surely an extraordinary situation and one demanding close scrutiny. Furthermore, related to the SAY sense there is an additional specialised polysemic meaning, glossed as ‘call up’.

Certain sentences, such as in (4) below, are five-ways ambiguous. Usually, however, aspects of the constructional or textual context provide cues for disambiguation. For example, in (5) MA can only mean SAY, in (6) it can only mean THINK, and in (7) it can only mean FEEL.

- (4) *Ngaanyima miy?*  
*ngaanyi-ma ø-ma-iy*  
 I/1.PRO=I/1 3SG.S-MA-PAST  
 ‘What did he (or she) say/do/think/feel?’ OR ‘What happened?’
- (5) “*Miyhayawu wad bungay*”, *miyngarribiyirrantha*.  
*miyha-yawu wad bu-ŋgi-ra-y ø-ma-iy-ŋgarri-biyirrantha*  
 meat-ALL go FUT-1SG.S-RA-EXCL 3SG.S-MA:SAY-PAST-HAB-3DL.OBL  
 ‘He went away, “I’m going for meat”, he said to them.’

- (6) *Jalungurruyarra limiy* *mithura niy.*  
jalungurru=yarra li-ma-iy mithuri ø-ni-y  
good=DUB 1SG.S-MA:THINK-PAST bad/off 3SG.S-NI-PAST  
‘I thought that it might be good but it’s actually gone off.’
- (7) *Yiningga lima.*  
yiningga li-ma  
just.like.that 1SG.S-MA:FEEL  
‘I feel just the same.’

SAY/DO/THINK polysemy is common in many non-Pama-Nyungan languages. Table 3 lists some languages in which this polysemy occurs, the canonical form of the morpheme, and whether it is conveyed through a simple verb construction or a complex verb construction. The languages listed are all in a geographical bloc, from the Kimberley region in Western Australia to the Daly region in the Northern Territory. On the face of it, therefore, SAY/DO/THINK polysemy is an areal feature.

Bunuba MA exhibits genuine language-internal polysemy. That is, it is not the case that the meaning of MA is vague or general, with the apparent differences being induced by the linguistic context. My argument is similar to that advanced by Goddard (1994) in relation to Pitjantjatjara *kulini* ‘think’, ‘hear’. The reasoning has been expanded by Evans and Wilkins (2000), as follows:

For the Australian language Pitjantjatjara, Bain (1979: 126) similarly claims a lack of distinction between perception and cognition senses of a basic verb: “there is no way to differentiate the concepts of thinking, listening and heeding in Pitjantjatjara. The same verb *kulini* does duty for all”. In this case, however, there is clear evidence that we are dealing with distinct senses. In response to Bain’s claim about Pitjantjatjara, Goddard (1994: 237) pointed out that the three senses of *kulini* have different syntactic frames: ‘Only the THINK sense can take a “quasi-quotational” clausal complement...’, ‘only the ‘hear, listen’ sense can take a nonfinite circumstantial complement’, and ‘only the ‘heed’ sense can take a locative case complement’. (Evans and Wilkins 2000: 563)

**Table 3.** SAY/DO/THINK polysemy in some Australian languages

Language and source	Verb form	Meanings	Verb type
Gooniyandi (McGregor 1990: 558)	<i>miga</i>	say; do; tell; think	complex
Ungarinyin (Rumsey 1982: 157-66)	<i>-ma-</i>	say; do	simple
Nyikina (Stokes 1996: 179)	<i>-I-</i>	say; do	simple
Gunin/Kwini (McGregor 1993: 44)	<i>-MA</i>	say; do	simple
Wunambal (Carr 2000: 139)	<i>=MA</i>	say; think	simple
Kija (Kofod 1996: 89)	<i>-INI</i>	say; do	simple
Jaminjung (Schultze-Berndt 2000: 349)	<i>-yu(nggu)</i>	say; do	simple
Ngan’gityemerri (Reid 1990, 2000: 335)	<i>ngiN</i>	say; do; think	simple
Emmi (Ford 1998: 226)	<i>me</i>	say; do; feel	simple/complex <sup>3</sup>

In other words, I will argue that the five semantically primitive meanings can be separated from one another using various formal and semantic tests. These tests or criteria, which are discussed in detail in subsequent sections are: (a) restrictions on person/number and animacy of the subject NP; (b) differential availability of semantic roles for an NP added by means of Oblique pronominal suffix, e.g., only SAY can take an Oblique addressee argument, only DO can take an Oblique instrument argument; (c) the existence of lexical alternatives, either allolexes, e.g., *linga* + RA ‘think.about’, or lexically specific disambiguated expressions, e.g., MA *guda* [stomach] = FEEL. By taking this full suite of criteria into account, a distinctive profile can be compiled for each semantically primitive sense.

#### 4. MA as HAPPEN

Like all Bunuba verbs, MA takes pronominal prefixes which cross-reference its core arguments. The HAPPEN sense of MA is distinguished by a very striking, albeit semantically natural, distributional restriction—namely, that its subject can only be cross-referenced as 3SG.S or 3NSG.S, and it must be inanimate. Though a sentence like (4) above is five-ways ambiguous, one like (9), with 1SG subject, is only four-ways ambiguous because the HAPPEN sense is excluded once the subject is no longer 3SG. That is, the inability to switch to a non 3rd person subject is diagnostic of a distinct sense of MA, namely, HAPPEN.

- (8) *Thurrandaywa miy.*  
 thurranda-yuwa ø-ma-iy  
 two-LOC 3SG.S-MA-PAST  
 ‘He or she said/did/thought/felt (it) twice.’  
 ‘It happened twice.’
- (9) *Thurrandaywa limiy.*  
 thurranda-yuwa li-ma-iy  
 two-LOC 1SG-MA-PAST  
 ‘I said/did/thought/felt (it) twice.’  
 ‘\*I happened (it) twice.’

To add an “undergoer” to HAPPEN, the Oblique suffix is used.

- (10) *Ngindaji miyngarragi.*  
 ngindaji ø-ma-iy-ngarragi  
 this 3SG.S-MA-PAST-1SG.OBL  
 ‘This happened to me.’

A second characteristic property of HAPPEN is severe restrictions on the kinds of NP which can appear as overt subject. As one would expect, they must

be indefinite/interrogative inanimates, i.e., expressions with meanings like ‘something’, ‘what’, ‘some things’, ‘many things’, etc. It is just impossible to get an ordinary NP, especially an animate NP, as subject of HAPPEN, e.g., to say anything like ‘the man happened’. So while it is quite alright to use the inanimate indefinite *nginjaga* ‘something’ as the subject of MA:HAPPEN, the animate indefinite *ngunda* ‘someone’ cannot co-occur with MA:HAPPEN.

A third characteristic of MA:HAPPEN is that it can co-occur with the adverb *yiningga* ‘like this’ to form expressions like ‘it happened like this’.

- (11) *Yiningga miy jirali.*  
*yiningga* *ø-ma-iy* *jirali*  
 like.this 3SG-MA-PAST long.ago  
 ‘It happened like this a long time ago.’

## 5. MA as SAY vs. MA as DO

SAY is in many ways the most obvious sense of MA, because the most frequent use of MA in the simple verb construction is to frame quoted or reported speech in narratives. Clearly in this context only the SAY sense is coherent, so no ambiguity arises.

- (12) “*Yatha wunggurrantha*”, *burrmibiyirrantha.*  
*yatha* *wu-nggurr-ra-ntha* *wurr-ma-iy-biyirrantha*  
 stay FUT-2NSG.S.NONPAST-RA 3NSG.S-MA-PAST-3DL.OBL  
 “‘You two can stay’”, they said (\*did, \*thought, \*felt, \*happened)  
 to them.’
- (13) “*Yanengi jalungurru muway*” *miy.*  
*yanengi* *jalungurru* *muway* *ø-ma-iy*  
 today good place 3SG.S-MA:SAY-PAST  
 ‘S/he said, “Good morning”.’
- (14) *Yaninja “wau!” wurrmiynhingi.*  
*yaninja* *wau* *wurr-ma-iy-nhingi*  
 alright whoa 3NSG.S-MA-PAST-3SG.OBL  
 ‘Alright, “Whoa!” they said (\*did, \*thought, \*felt, \*happened) to him.’

Similarly, where MA occurs with the lexical item *thangani* ‘words’ as its object, or with a single word or phrase as its object, as in the following examples, SAY is the only possible interpretation. These are not quasi-quotational constructions, but the principle is the same.

- (15) *Gilima*            *yuwana* *thangani* ...  
 (g)iy-li-ma    *yuwana* *thangani*  
 IRR-1SG.S-MA one        word  
 'If I say (\*do, \*think, \*feel, \*happen) one word ...'
- (16) 'Wali'    *gurrma*                    *nyirra* 'yaninja' *giyirra*.  
 wali    gi-wurr-ma            nyirra yaninja    gi-iyirr-ma  
 alright PRES-3NSG.S-MA DEM    alright    PRES-1R.S.NONPAST-MA  
 'They say (\*do, \*think, \*feel, \*happen) 'wali' and we say this (word)  
 'yaninja'.'

It could be argued that the interpretation is forced by the quotational context itself, i.e., by the fact that one can only SAY words to someone else—not think them, or do them, etc. In particular, it could be argued that there is no differentiation in Bunuba between SAY and DO (Rumsey 1990). This could seem natural on a view of speaking as a kind of social action in which one, as it were, “does words”. It is therefore extremely significant that the SAY sense of MA is associated with several distinctive formal properties which distinguish it from DO (and from the other senses), including the following: (a) when an additional argument is introduced by way of the Oblique pronominal suffix, the semantic roles available to this argument differ between MA:SAY and MA:DO; (b) the oblique arguments are also subject to differing animacy constraints.

To appreciate the argument it is necessary to recognise that we expect, on independent grounds, that semantic primes SAY and DO will have inherently different valency options (Goddard and Wierzbicka eds 2002). In addition to its basic frame ‘someone says something’, SAY is expected to allow optional valencies of “addressee” and “topic”. Similarly, in addition to its basic frame ‘someone does something’, DO is expected to allow additional valencies of “patient”, “instrument” and “comitative”. These possibilities can be represented schematically as below. Unless otherwise indicated, an NP variable like X, Y or Z can be either a person (SOMEONE) or a thing (SOMETHING); but notice that an addressee NP or a comitative NP has to be a person (SOMEONE), and that an instrument NP has to be a thing (SOMETHING).

Valency options for SAY:

someone says something	
someone says something to person-X	[addressee]
someone says something about X	[topic]

Valency options for DO:

someone does something	
someone does something to X [patient]	
someone does something (to X) with thing-Y	[instrument]
someone does something (to X) with person-Z	[comitative]

**Table 4.** Differential availability of semantic roles of an Oblique NP for four different senses of MA

	DO	SAY	THINK	FEEL
patient (to X)	yes	no	no	no
instrument (with X)	yes	no	no	no
addressee (to X)	no	yes	no	no
topic (about X)	no	yes	no	yes
comitative (with X)	yes	?yes	no	?yes
purpose (for X)	yes	no	no	?yes

As mentioned, a Bunuba verb can take an Oblique pronominal suffix to introduce an additional non-core NP argument. The suffix cross-references the person/number of this additional argument, but the semantic role of the NP can vary widely. It can be an addressee, an instrument, a comitative, a beneficiary, etc. The role of the oblique pronominal suffix is purely syntactic, i.e., to add a further argument without specifying its semantic role.

Now the key fact: when an Oblique pronominal suffix is attached to MA in a simple verb construction, only some of these potential semantic roles are available—depending on the sense identity of the verb. With each sense, certain semantic roles are permitted and others are excluded. The main possibilities are set out in Table 4 above.<sup>4</sup> Therefore, when an oblique pronominal suffix is attached to the MA simple verb construction, we have a test which can distinguish the senses from one another. We will concentrate for the moment on the contrast between MA:SAY and MA:DO. With the SAY sense, an Oblique suffix can cross-reference an NP in the addressee role or in the topic role (i.e., ‘say to –’ or ‘say something about –’). With the DO sense, it can cross-reference a patient or an instrument NP (i.e., ‘do something to –’ or ‘do something with –’). The converse assignments are impossible.

- (17) *Miynhingi*.  
ø-ma-iy-nhingi  
3SG.S-MA-PAST-3SG.OBL

MA:SAY	
she said something <u>to</u> X	[addressee]
she said <u>about</u> X	[topic]
*she said something <u>to</u> X	[patient]
*she said <u>with</u> X	[instrument]
MA:DO	
she did something <u>to</u> X	[patient]
she did something <u>with</u> X	[instrument]
*she did something <u>about</u> X	[topic]
*she did something <u>to</u> X	[addressee]

If MA expressed a single undifferentiated meaning, it would be difficult to account for this added specificity, given that it does not originate with the Oblique morphology itself. Instead, the semantic interpretations of the role of the added syntactic argument have to come from the semantics of MA itself.

The configuration of possible semantic roles associated with the Oblique suffix furnishes a set of criteria for distinguishing the senses from one another. The MA:SAY sense, for example, is the only one which can have the pronominal suffix cross-reference an addressee ('say to X'). It may be objected that, obviously, the addressee option only makes sense with a SAY interpretation, but this is just the point: the existence of the addressee option actually implies the existence of SAY as a lexical meaning in Bunuba. Likewise, the existence of the instrument option actually implies the existence of DO as a lexical meaning in Bunuba.

Furthermore, each of these semantic roles is subject to a further distinctive, semantically-motivated constraint; namely, that an addressee must be an animate (SOMEONE), while an instrument must be an inanimate (SOMETHING). In contrast, the other valency options, such as patient and topic, can be either animate or inanimate. Hence, when an interrogative/indefinite pronoun appears in the addressee role, it can only be *ngunda* 'someone/who', whereas in the instrument role, it can only be *nginjaga* 'something/what'. The topic and patient roles, on the other hand, can accept either interrogative/indefinite pronoun. Again, this pattern of restrictions would be difficult to explain if MA had a single meaning, undifferentiated between SAY and DO.

The attentive reader may have noticed an apparent anomaly in Table 4—the absence of a “topic” option with MA:THINK. Surely semantic prime THINK necessarily allows the option of saying things such as ‘I was thinking about my mother’. We will come to the solution of this apparent anomaly shortly, when we consider the evidence for THINK as a further discrete sense of MA. Before that, however, it is convenient to note an additional polysemic extension based on the SAY sense.

## 6. MA as ‘call up’: Naming places

MA has a specialised sense glossed here, using local Aboriginal English, as ‘call up’. This refers to the naming (‘calling up’) of places and tracts of country. The relevant sense occurs in an extremely limited syntactic frame; most commonly, in narratives when a Dreamtime figure is moving through the land and naming places. The following extract is typical. There is little possibility of ambiguity between this and the other senses. Furthermore, MA ‘call up’ has a syntactic peculiarity which sets it aside from all other senses: it can only take the 3SG form *-nhingi* of the Oblique suffix, unlike other senses which permit all person/number combinations of the Oblique suffix.



- (18) *Yaninja nyirrajinhingi dalijsa ray*  
 yaninja nyirraji-nhingi daliya-wa ø-ra-y  
 well DEM-ABL name-ITER 3SG.O<3SG.A-RA2-PAST  
 ‘Well, from then he named that place:

*muway ngindaji: Ganbalamanganya*  
 muway ngindaji ganbalamanganya  
 place this [place.name]  
*miynhingi;*  
 ø-ma-iy-nhingi  
 3SG.S-MA:SAY:call.up-PAST-3SG.OBL  
 he called up this place *Ganbalamanganya*;

*Wurrgunyu miynhingi;*  
 wurrgunyu ø-ma-iy-nhingi  
 [place.name] 3SG.S-MA:SAY:call.up-PAST-3SG.OBL  
 he called up *Wurrgunyu*;

*Gilinymanja miynhingi;*  
 gilinymanja ø-ma-iy-nhingi  
 [place.name] 3SG.S-MA:SAY:call.up-PAST-3SG.OBL  
 he called up *Gilinymanja*.’

## 7. MA as THINK

As mentioned, the reader may have wondered why THINK is not listed in Table 4 as allowing a cognitive topic option (i.e., ‘thinking about’). Indeed, it is not possible to employ an Oblique pronominal suffix to add an NP in fulfillment of this semantic role: no oblique suffix is possible at all with MA:THINK. From the point of view of sense differentiation, this is obviously a clear diagnostic of a difference between the SAY and THINK senses of MA, but it raises the question of how the expected topic option for THINK can be expressed. The answer comes in the form of a distinct lexical item *linga* + RA2 ‘think about’. That is, to say in Bunuba that one ‘thinks’ certain things, one uses MA, but to specify that one is thinking about something or someone in particular the formally transitive verb *linga* + RA2 is used, with the topic NP cross-referenced as the second argument in the pronominal prefix. Compare (19a) and (19b). Example (20) is another example of *linga* + RA2.

- (19) a. *Limi* *wad* *bungayarra*.  
 I-i-ma-iy *wad* *wu-ngi-ra-y-yarra*  
 1SG.S-ins-MA-PAST go FUT-1SG.S-RA-PAST-EXCL  
 ‘I thought: I might go.’

- b. *Linga*      *layi*                      *wad* *bungayarra*.  
      *linga*      li-ra-yi                      *wad* wu-*ngi*-ra-y=yarra  
      think.about 1SG.A>3SG.O-RA2-PAST go      FUT-1SG.S-RA-EXCL=DUB  
      'I thought about going.'

- (20) *Ngindaji* *jiraliyarra* *linga*      *la*.  
      *ngindaji* *jirali*=yarra *linga*      li-ra  
      DEM      before=DUB think.about 1SG.A>3SG.O-RA2  
      'I thought about this for a long time.'

From the point of view of the NSM model, it is clear that MA:THINK and *linga* + RA2 'think about' are in a relationship of allolexy; that is, they are alternative exponents of a single semantic prime. Allolexy refers to the situation where the same prime is expressed by variant forms, either allomorphs or allolexes, which may be conditioned by syntactic context (Wierzbicka 1996: 26). The main arguments in support of this conclusion are: (i) that aside from the syntactic difference, no specifiable semantic difference can be identified between them (paralleling 'think' and 'think about' in English, in this respect); and (ii) that any sentence with *linga* + RA2 always implies a related sentence with MA:THINK, i.e., if one 'thinks about Y' then one necessarily 'thinks'.

The following examples further show the difference between these two forms. Once a second argument is added through the oblique pronominal suffix, the THINK sense of MA can no longer be conveyed. In example (21), MA can only be interpreted as SAY, not as THINK. To convey the sense 'think about', the formally transitive allolex *linga* + RA2 is needed, as in example (22).

- (21) *Ngalja* *limiynhingi*.  
      *ngalja* li-ma-iy-nhingi  
      frog 1SG.S-MA-PAST-3SG.OBL  
      "'Frogs", I said to him.'  
      '\*I thought about frogs.'
- (22) *Ngalja* *linga*      *layi*.  
      *ngalja* *linga*      li-ra-yi  
      frog think.about 1SG.A>3SG.O-RA2-PAST  
      'I thought about frogs.'

The neighbouring, and closely related, language Gooniyandi has a similar situation. The Gooniyandi coverb *miga-* has polysemous lexical content: 'say, tell', 'do', and 'think'. To say 'think about' in Gooniyandi, the coverb *lingi-* is used, cognate with Bunuba *linga*. The transitivity alternation is the same in both languages: in Gooniyandi one 'thinks' with *miga-*, but 'thinks about' with *lingi-*.

## 8. MA as FEEL

Although I do not have as much data on uses of MA to express semantic prime FEEL, I am fairly confident that the FEEL sense exists independently of the others. In a naturally occurring example like the following, FEEL seems to be the only appropriate interpretation. The speaker was explaining that she was feeling bad on account of homesickness and illness.

- (23) *Ngayi jalungurru gulumiya.*  
       ngayi    jalungurru     $\emptyset$ -guw-l-u-ma-iy(a)  
       not      good            CV-IRR-1SG-INS-MA-PRES  
       ‘I don’t feel good.’

In elicitation, other grammatical frames with MA:FEEL were obtained as follows. These are consistent with NSM hypotheses about the grammatical potentials of semantic prime FEEL.

- (24) *Yiningga lima.*  
       yiningga     $\emptyset$ -l-i-ma  
       like.this    CV-1SG-INS-MA  
       ‘I feel like this.’
- (25) *Ngaanyima gilima.*  
       ngaanyi=ma     $\emptyset$ -gi-l-i-ma  
       I/I.PRO=I/I    CV-PRES-1SG-INS-MA  
       ‘I feel something.’

At the moment, however, perhaps the best evidence for the existence of FEEL as a separate meaning of MA is the evidence from the modifying “body-part noun” specifier construction, to which I now turn.

## 9. Modifying “body-part nouns”

An interesting way to test whether two putative meanings are truly distinct in a language is to see whether the two senses can occur contrastively. In elicitation I attempted to translate sentence (26a) below into Bunuba. My reasoning was that if MA simply had a single meaning, undifferentiated between THINK and SAY, this would not be possible. The Bunuba sentence would be anomalous, as indicated by (26b).

- (26) a. I know what you said but what are you thinking?  
       b. I know what you *MA*ed but what are you *MA*ing?

I was surprised instead to be given the sentence presented as example (27). Notice that an expression combining *gun.gulu* ‘head’ and MA has been used to render the meaning THINK.

- (27) *Ngayini binarri nganggu thangani*  
*ngayini binarri nganggi thangani*  
 1SG.PRO know 2SG.OBL mouth/words
- nganggu gun.gulu nginjaga ginjima?*  
*nganggu gun.gulu nginjaga gi-nj-i-ma*  
 2SG.OBL head I/I.PRO PRES-2SG.S.NONFUT-INS-MA  
 ‘I know your mouth/words but what is your head thinking?’

On further investigation it emerged that, in similar fashion, the nouns *thangani* ‘mouth’ and *guda* ‘stomach’ can be combined with MA to unambiguously distinguish THINK, SAY, and FEEL, respectively: [MA + head] = THINK, [MA + mouth] = SAY; [MA + stomach] = FEEL. That is, although the sentence *Ngaanyima miy?* could mean either ‘What did she say?’, ‘What did she think?’ or ‘What did she feel?’, if these body-part nouns are added only a single interpretation is possible in each case. The construction [MA + ‘body-part noun’] creates a non-ambiguous construction in which the senses SAY, THINK, and FEEL can be differentiated.

- (28) *Ngaanyima miy thangani?*  
*ngaanyi=ma ø-ma-iy thangani*  
 I/I.PRO=I/I 3SG.S-MA:SAY-PAST mouth  
 ‘What did s/he say?’
- (29) *Ngaanyima miy gun.gulu?*  
*ngaanyi=ma ø-ma-iy gun.gulu*  
 I/I.PRO=I/I 3SG.S-MA:THINK-PAST head  
 ‘What did s/he think?’
- (30) *Ngaanyima miy guda?*  
*ngaanyi=ma ø-ma-iy guda*  
 I/I.PRO=I/I 3SG.S-MA:FEEL-PAST stomach  
 ‘What did s/he feel?’

Regarding the [MA + stomach] combination, it is important to note that this is not confined to reference to one’s stomach, in the literal sense, or even to bodily sensations. That is, it does not mean ‘feel something in the stomach’ or even ‘feel something in the body’, but rather FEEL in a non-localised and undifferentiated sense which can be applied to emotional reactions as well as to

sensations. Similarly, I believe that [MA + mouth] is not confined to reference to the mouth, in the literal sense, but can be used about, for example, saying something by means of gestures. More research on this is required.

It is true that this “modifying body-part noun” construction was found through elicitation, and has not been attested in natural texts (presumably because hearers are commonly able to disambiguate the senses of MA from context). Nonetheless, I am certain that the construction is a valid one, which may be employed to explicitly disambiguate the senses when and as necessary.

## 10. Distinctive profiles based on syntactic/semantic criteria

Based on the criteria discussed above, a distinctive profile of each of the five semantically primitive senses of MA can be compiled. Although no single criterion distinguishes all of the senses from one another, each sense has a unique profile overall.

### Profile of MA:HAPPEN

- Takes only 3SGS/3NSGS core pronominal prefixes i.e., ‘something happens’ or ‘some things happen’
- Subject must be inanimate; oblique pronominal suffix referents can be animate or inanimate
- Semantic roles cross-referenced by oblique pronominal suffix: undergoer (to X) or purpose (for X)
- Can take *yiningga* ‘just.like.that’ as an adverbial modifier.

### Profile of MA:SAY

- Takes the full complement of core person/number pronominal prefixes, but subject must be animate
- Can frame reported speech
- Semantic roles cross-referenced by oblique pronominal suffix: addressee (to X) or topic (about X)
- Takes the full complement of person/number oblique pronominal suffixes, referents can be animate or inanimate
- Takes *thangani* ‘mouth’ as a “body-part modifier” specifying the verb as SAY.

### Profile of MA:DO

- Takes the full complement of core person/number pronominal prefixes; subject can be animate or inanimate
- Semantic roles cross-referenced by oblique pronominal suffix: patient (to X), instrument (with X), or accompaniment (with X)
- Takes the full complement of person/number oblique pronominal suffixes; referents can be animate or inanimate.

### Profile of MA:THINK

- Takes the full complement of core person/number pronominal prefixes; subject must be animate
- Oblique pronominal cross-referencing is not available; instead, the transitive allolex *linga* + RA2 for topic role
- The object topic of *linga* + RA2 can be animate or inanimate
- Takes *gun.gulu* ‘head’ as a “body-part modifier” specifying the verb as THINK.

### Profile of MA:FEEL

- Takes the full complement of person/number oblique pronominal suffixes; subject must be animate
- Takes *guda* ‘stomach’ as a “body-part modifier” specifying the verb as FEEL.

## 11. Concluding remarks

In broad perspective, the results of this study have far-reaching implications for the analysis of other coverb + auxiliary constructions in Bunuba (see Knight 2004), and for the interpretation and analysis of similar complex predicate constructions in other Australian languages. These further implications lie beyond the scope of the present chapter. From the point of view of the present volume, the main lesson of the analyses undertaken in this study is that semantic primes may have discrete and distinct exponents even in a language such as Bunuba, which seems on the surface to exhibit extreme “under-differentiation” of a set of a semantic primes. In such a situation, what is needed is careful use of language-internal evidence to disentangle the different senses and establish that each constitutes a distinct lexical unit in the language.

## Abbreviations

1	First person	DUB	dubitative	OBL	oblique pronominal
2	Second person	EXCL	exclusive		(bound or free form)
3	Third person	FUT	future	O	transitive object:
A	transitive subject:	HAB	habitual		grammatical function
	grammatical function	I/I	interrogative/indefinite	PAST	past
ABL	ablative	INS	insert	PRES	present tense
ADV	adverb	IRR	irrealis	PRO	core pronoun
ALL	allative	ITER	iterative		(free form only)
CV	coverb	LOC	locative	R	restricted
DEM	demonstrative/	NONPAST	nonpast	S	intransitive subject:
	deictic pronoun	NSG	non-singular		grammatical function
DL	dual (verb participant	NONFUT	non-future	SG	singular
	number marking)				

## Notes

1. The full set is as follows – intransitive: MA, NA, RA, NI, WU; transitive: YHA, WU2, NGARRI, RA2, MA2. Prior to Rumsey (2000), only six auxiliary roots were recognised, mainly because the existence of pairs of homophonous roots RA and RA2, MA and MA2, and WU and WU2, had been overlooked. The strongest formal criteria for identifying distinct roots are: (i) that the respective members of each pair take different sets of tense/mood suffixes, and (ii) that they differ in transitivity. The underlying form of each auxiliary appears on the surface when the pronominal prefix is  $\emptyset$ .
2. Rumsey (1994) mentions the polysemous nature of MA as a simple verb, but he does not discuss it in any detail. Rumsey (1990) also discusses the role of this type of construction in the language Ungarinyin, where the cognate form *-ma-* performs similar functions. He says that in both languages MA may convey various meanings such as ‘think’, ‘want’, and ‘get ready to’.
3. It is not clear from Ford’s description whether the senses of ‘do’ and ‘feel’ expressed by the *me* auxiliaries are equivalent to those in Bunuba, but Ford’s glosses suggest this is the case.
4. Notice in the last line of Table 4 that one possible role for MA:DO is the purposive (including beneficiary role), but this can be ignored for present purposes.

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## Re-thinking THINK in contrastive perspective: Swedish vs. English

Cliff Goddard and Susanna Karlsson

Swedish and English differ in interesting ways in relation to how they express semantic prime THINK and related concepts. At first, it is not even obvious that there is a good Swedish exponent of THINK, because many uses of English *think* correspond not with Swedish *tänka* ‘think’, but with either *tro* (roughly) ‘be of the opinion that’ or *tycka* (very roughly) ‘feel that’. We argue that English *think* and Swedish *tänka* are in fact precise semantic equivalents in canonical NSM contexts, and we show how *tro* and *tycka*, which we term “epistemic verbs”, can be explicated in terms of semantic prime THINK (TÄNKÅ) and other elements. We also argue that English *think* has certain complex, i.e. non-primitive uses, namely the “opinion” frame (e.g. *She thinks that* – –) and the conversational formula *I think*, and we explicate these English-specific constructions. All the explications are presented in parallel English and Swedish versions. The contrastive exercise makes it clear that in universal grammar THINK can take a propositional complement (i.e. ‘think that –’) only when it depicts an “occurrent thought” anchored to a particular time.

### 1. Introduction

The Natural Semantic Metalanguage (NSM) framework originated by Anna Wierzbicka (1996, and other works) has long postulated THINK as a semantic prime, and a large body of cross-linguistic research demonstrates that lexical exponents of THINK can be identified in a diversity of languages (Goddard and Wierzbicka eds 1994, 2002; Goddard 2003; Wierzbicka 1998). This result is challenged, however, by the apparent existence in Swedish and other Scandinavian languages of several basic-level “verbs of thinking”. Viberg (1980) and Fortescue (2001) describe the uses of these verbs in the following terms:

<i>tänka</i>	“thinking about”, “cogitation”
<i>tro</i>	“opinion”; “used in relation to verifiable state of affairs”
<i>tycka</i>	“to express judgements based on private experiences or subjective evaluation”

Dictionaries and native speakers often gloss *tro* as ‘believe’, and *tycka* as ‘think, be of the opinion’. All three are very common. According to Viberg (1998), of the 100 most common Swedish verbs *tycka*, *tro* and *tänka* occupy places 24, 31 and 36, respectively.

The three verbs are exemplified in the following examples. Sentence (1) shows a typical example of *tänka* as ‘thinking about’ (with Swedish *på* ‘on’ corresponding, in this context, to English *about*). Sentences (2) and (3) respectively exemplify *tro* and *tycka*. Notice the clausal complement introduced by complementiser *att* (corresponding roughly to English *that*, but with a broader functional range). *Tro* can be used not only for casual, mundane judgements, as in (2), but also to state firmly held beliefs.

- (1) *Jag mår så illa när jag tänker på det!*  
 I feel:PRES so bad when I think:PRES on it  
 ‘I feel so nauseous when I think about it!’
- (2) *Jag tror/\*tänker att det blir soligt i morgon.*  
 I think:PRES CONJ it become:PRES sunny tomorrow  
 ‘I think it’s going to be sunny tomorrow.’
- (3) *Jag tycker/\*tänker att hon är trevlig.*  
 I think:PRES CONJ she be:PRES nice  
 ‘I think she’s nice.’

The crucial thing about this data set is that Swedish *tänka* is impossible in contexts like (2) and (3), while English *think* is perfectly ordinary and natural. We therefore seem to see a situation where, as Fortescue (2001) puts it, “languages divide up the semantic space” of cognition differently. In this connection, one recalls Vendler’s (1967) widely accepted view that even English *think* has “two basic senses”:

*Thinking* functions differently in *He is thinking about Jones* and in *He thinks that Jones is a rascal*. The first ‘thinking’ is a process, the second a state. The first sentence can be used to describe what one is doing; the second cannot. (Vendler 1967: 110)

In this study we will argue that the primary senses of Swedish *tänka* and English *think* are in fact semantically identical, and correspond to semantic prime THINK as proposed in the NSM theory. We will propose and justify semantic explications for Swedish *tro* and *tycka*, as in (2)–(3), and for the use of *I think* in English as an epistemic formula (Aijmer 1997), as in the English translations of (2)–(3). In the process we will discover that previous NSM assumptions about semantic prime THINK have been incorrectly influenced by language-specific properties of English *think*. Likewise, we will find cause to amend the widely held Vendlerian view of the relation between *thinking about* and *thinking that*.

By and large, identification of the Swedish exponents of semantic primes is straightforward. See Table 1. It can be noted that in a couple of cases alternative stylistic exponents have been nominated: both *sak* and *ting* for ‘thing’ (an allolex of SOMETHING), and both *hända* and *ske* for ‘happen’. In each case the latter exponent is a little old-fashioned (though according to Viberg (1998), *hända* and *ske* are both very common verbs). There are some partial formal overlaps. For example, *mycket* VERY is the same in form as *mycket* ‘much’ (one allolex of MUCH/MANY). There is a partial overlap between the exponents of MOVE and TOUCH: the former *röra sig* is the reflexive form of the verb *röra* (which in non-reflexive uses is the transitive verb ‘to move (something)’) and *vidröra* TOUCH. *Göra* DO can also mean ‘make’, another common polysemy across languages. One should also note that there are a couple of portmanteau forms, such as *såhär* ‘like this’ and *samtidigt* ‘at the same time’. Conversely, the formally composite form *det här* (usually written as two words) is the semantic equivalent of THIS.

**Table 1.** Semantic primes: Swedish

Substantives:	JAG <i>I</i> , DU <i>you</i> , NÅGON <i>someone</i> , NÅGONTING/TING/SAK <i>something/thing</i> , FOLK <i>people</i> , KROPP <i>body</i>
Relational substantives:	SORT/EN SORT <i>kind</i> , DEL AV <i>part</i>
Determiners:	DEN HÄR/DENNA/DET HÄR/DETTA <i>this</i> , SAMMA/SAMME <i>the same</i> , ANNAN <i>other</i>
Quantifiers:	EN/ETT <i>one</i> , TVÅ <i>two</i> , MYCKET/MÅNGA <i>much/many</i> , NÅGRA <i>some</i> , ALLA <i>all</i>
Evaluators:	BRA <i>good</i> , DÅLIG <i>bad</i>
Descriptors:	STOR <i>big</i> , LITEN <i>small</i>
Mental predicates:	TÄNKA <i>think</i> , VETA <i>know</i> , VILJA <i>want</i> , KÄNNA <i>feel</i> , SE <i>see</i> , HÖRA <i>hear</i>
Speech:	SÄGA <i>say</i> , ORD <i>words</i> , SANN <i>true</i>
Action, events movement, contact:	GÖRA <i>do</i> , HÄNDA/SKE <i>happen</i> , RÖRA SIG <i>move</i> , VIDÖRA <i>touch</i>
Location, existence, possession, specification:	VARA (NÅGONSTANS) <i>be (somewhere)</i> , DET FINNS <i>there is</i> , HA <i>have</i> , VARA (NÅGON/NÅGONTING) <i>be (someone/something)</i>
Life and death:	LEVA <i>live</i> , DÖ <i>die</i>
Time:	DÅ/NÄR/TID <i>when/time</i> , NU <i>now</i> , INNAN <i>before</i> , EFTER <i>after</i> , LÄNGE <i>a long time</i> , EN KORT STUND <i>a short time</i> , EN STUND <i>for some time</i> , ÖGONBLICK/OM ETT ÖGONBLICK <i>moment/in one moment</i>
Space:	DÄR/VAR/PLATS <i>where/place</i> , HÄR <i>here</i> , ÖVER <i>above</i> , UNDER below, NÄRA <i>near</i> , AVLÄGSEN <i>far</i> , SIDA <i>side</i> , INSIDA <i>inside</i>
Logical concepts:	INTE <i>not</i> , KANSKE <i>maybe</i> , KAN <i>can</i> , EFTERSOM <i>because</i> , OM <i>if</i>
Intensifier, augmentor:	MYCKET <i>very</i> , MER <i>more</i>
Similarity:	SOM <i>like/how/as</i>

## 2. THINK and TÄNKA: Exponents of the same semantic prime

*Tänka* is clearly the most basic verb in the Swedish lexicon of cognition, far outstripping *tro* and *tycka* in terms of morphological and phraseological productivity. Some of its numerous derivatives are listed in (4).

- (4) *tanke* ‘thought’, *tankfull* ‘thoughtful’, *tänkbar* ‘thinkable’, *tänkesätt* ‘way of thinking’, *tänkare* ‘thinker’, *misstänka* ‘suspect(v)’, *tankspridd* ‘distracted, absentminded’, *tänkvärd* ‘remarkable, worth thinking about’

If one of the three Swedish verbs of thinking is going to match semantic prime THINK, *tänka* is clearly the most likely candidate.

In this section we show that all the syntactic frames currently proposed for semantic prime THINK (Goddard and Wierzbicka eds 2002) are equally possible with both *think* and *tänka*. Example (5) shows THINK, in parallel English and Swedish versions, in the “the topic of cognition” construction. (6) shows an elaborated version with a substantive complement SOMETHING/NÅGONTING.

- (5) a. X thinks about Y  
b. X *tänker på* Y
- (6) a. X thinks something (good/bad) about Y  
b. X *tänker någonting (bra/dåligt) om* Y

The examples in (7) and (8) illustrate the “way of thinking” construction (WAY is regarded as a nominal “allosex” of semantic prime LIKE, cf. Goddard (2002: 313)). As mentioned earlier, the fixed Swedish expression *det här* (though usually written as two words) is the semantic equivalent of THIS; conversely, the prime THE SAME, which has a fixed two-word exponent in English, is expressed by a single Swedish word *samma*. The difference in form in the Swedish equivalents of WAY (*sättet/sätt*) is due to grammatical gender and has no semantic import in this context.

- (7) a. X thinks in this way  
b. X *tänker på det=här sättet*
- (8) a. X thinks in the same way  
b. X *tänker på samma sätt*

The examples in (9) and (10) show semantic prime THINK in two versions of its “quasi-quotational” frame. In example (9b), Swedish *såhär* is a portmanteau for the combination LIKE THIS, though it is also possible to express the combination as *som det=här* [like this], as in (10b).

- (9) a. X thinks like this: – –  
       b. *X tänker såhär*: – –
- (10) a. sometimes a person thinks something like this: – –  
        b. *ibland tänker en person någonting som det=här*: – –

The most problematical frame for THINK, so far as Swedish is concerned, is the propositional complement frame, i.e., the *think that* frame. One might imagine, given the unacceptability of *tänka att* in contexts like (2) and (3), and the typical characterisation of *tänka* as denoting “cogitation”, that *tänka* simply cannot take an *att*-complement. But this is not so. Although *tänka* THINK cannot be used in this way to state an “opinion”, an *att*-complement can be used to depict an occurrent thought, i.e., a concrete thought which is specified as occurring at a particular time, as in (11) and (12). In (12b), the temporal adverb *då* ‘then’ acts a portmanteau for the semantic combination ‘at this time (not now)’.

In cross-linguistic terms, it appears that English may be the “unusual” language, in allowing *think* to be used so freely in “opinion” contexts: see section 4 below (also Goddard 2003).

- (11) a. X now thinks that [ – – ]<sub>S</sub>  
        b. *nu tänker X att* [ – – ]<sub>S</sub>
- (12) a. at that time, X thought that [ – – ]<sub>S</sub>  
        b. *då tänkte X att* [ – – ]<sub>S</sub>

These facts cut across Vendler’s (1967) distinction between a dynamic time-bound process (‘thinking about’ = “cogitation”) vs. a timeless state (‘thinking that’ = “opinion”). Actually, Wierzbicka (1998: 300–304) had already observed that Vendler’s dichotomy does not correspond even to the facts of English, in view of sentences like ‘I think that someone is knocking at the door’. A comparable “time-bound” use of *tänka att* in Swedish is given in (13).

- (13) *När jag hörde det, tänkte jag att vi kanske*  
       when I hear:PRET it think:PRET I CONJ we maybe  
       *hade en chans.*  
       have:PRET IND chance  
       ‘When I heard that, I thought that maybe we had a chance.’

We conclude that contrary to initial appearances, English *think* and Swedish *tänka* express the same semantic prime, at least in the narrow range of syntactic frames which are found in the natural semantic metalanguage.<sup>1</sup> If we stick to these frames, therefore, we can compose semantic explications in either English-based NSM or Swedish-based NSM, confident that we will be able to

transpose the explications into the other language. We now turn to the task of explicating Swedish *tro* and *tycka*.

### 3. Explicating Swedish *tro* and *tycka*

Examples (14)–(17) will help give a further insight into the meaning differences between these two verbs. The contrast shown in the first pair is particularly revealing (we thank Elisabet Engdahl for these). In (14), with *tro*, the speaker backs up his or her assessment with a known fact, whereas in (15), with *tycka*, the backup relies on a sensory experience.

- (14) *Jag tror att potatisen är färdig nu. Den*  
 I think:PRES CONJ potato:SG:DEF be:PRES done now it  
*har kokat i tjugo minuter.*  
 have:PRES boil:PERF in twenty minute:PL  
 ‘I think the potatoes are done now. They’ve been cooking for twenty minutes.’

- (15) *Jag tycker att potatisen är färdig nu. Den*  
 I think:PRES CONJ potato:SG:DEF be:PRES done now it  
*känns mjuk.*  
 feel:PRES soft  
 ‘I think the potatoes are done now. They feel soft.’

Example (16), also with *tycka*, would be an appropriate way for the speaker to report his or her own subjective evaluation of the music in question. A speaker who frames his or her evaluation in such a way has presumably experienced the music first hand. Example (17) would be an appropriate way to pass on an authoritative evaluation from someone else, presumed to be reliable in this context. The speaker will not have experienced the music him or herself.

- (16) *Men jag tycker det är ganska bra musik ändå.*  
 but I think:PRES it is rather good music yet  
 ‘But I still think the music’s pretty good.’
- (17) *Men jag tror det är ganska bra musik ändå.*  
 but I think:PRES it is rather good music yet  
 ‘But even so I believe the music’s pretty good.’

Before proposing an explication for *tro*, we would like to add two observations about *tro* compared with English *believe*, cf. Wierzbicka (2006: Ch 7)

and section 5 below. First, *tro* is more “evidentiary” in orientation than English *believe* and does not imply the same degree of personal conviction. Second, *tro* seems to make allowance for the possibility that others might not share the speaker’s view. As Linnéa Anglemark (p.c.) has pointed out, statements with *jag tror* can in most cases be challenged by interlocutors without any resultant bad feelings on either part. Both these facts are illustrated in the exchange in (18).

- (18) A: *Jag tror att det blir soligt i morgon.*  
           I think:PRES CONJ it become:PRES sunny tomorrow  
       B: *Nej, på radion sade de att det skulle regna.*  
           no on radio:DEF say:PRET they CONJ it shall:PRET rain:INF  
       A: ‘I think it’s going to be sunny tomorrow.’  
       B: ‘No, on the radio they said it’s going to rain.’

We now propose an explication for Swedish *tro*, in the frame *Jag tror att*, i.e., “I *tro* that”. The explication is presented in parallel versions in English and Swedish NSMs. As one can see, as well as voicing the speaker’s view (‘I say: I think like this: – –’), it contains an “epistemic disclaimer” (‘I don’t say I know it’), an evidential component referring to an item of the speaker’s knowledge (‘I think like this because I know something’), and an allowance for a contrary point of view (‘I know that someone else can think not like this’).

[A1] *Jag tror att* – – =

I say: I think like this – –  
 I don’t say I know it  
 I think like this because I know something  
 I know that someone else can think not like this

[A2] *Jag tror att* – – =

jag säger: jag tänker såhär – –  
 jag säger inte att jag vet det  
 jag tänker såhär eftersom jag vet någonting  
 jag vet att någon annan kan tänka på ett annat sätt

Moving now to *tycka*, we propose the following explication, again presented in parallel versions. Comparing the explications, it can be seen that although they share most components, the critical difference resides in the nature of the evidential component. Whereas with *tro* this is based on something the speaker KNOWS, with *tycka* it is based on something the speaker FEELS.



[B1] *Jag tycker att* – – =

I say: I think like this – –  
 I don't say I know it  
 I think like this because I feel something  
 I know that someone else can think not like this

[B2] *Jag tycker att* – – =

jag säger: jag tänker såhär – –  
 jag säger inte att jag vet det  
 jag tänker såhär eftersom jag känner någonting  
 jag vet att någon annan kan tänka på ett annat sätt

The proposal that *tycka* is grounded in the speaker's feeling not only enables us to capture the intuition that this verb is more "personal" than *tro*, it is also compatible with some further subtleties of usage; for example, that *tycka* can be used equally about emotional, aesthetic and sensory matters (just like semantic prime FEEL). It is also a more appropriate characterisation than a complex expression like "personal experience", which would not fit examples like (19) below.<sup>2</sup>

- (19) *Det tycker jag faktiskt är en skymf emot*  
 it think:PRES I actually be:PRES IND offence towards  
*fäderna till Gemenskapen och sedermera EU.*  
 father:PL:DEF to union:DEF CONJ later EU  
 'I think that this is actually an insult to the founding fathers of the  
 Union, later the EU.'

Explications [A] and [B] share the same final line: 'I know that someone else can think not like this' (*jag vet att någon annan kan tänka på ett annat sätt*). This common component enables the phrases *jag tror* and *jag tycker* to function in Swedish discourse as resources for intersubjective engagement. In a sense, they open a space for the interlocutors to hold and express their own beliefs, views and feelings, without incurring any "face threatening" challenge to the speaker (cf. Karlsson 2006; White 2000).

The explications in [A] and [B] are also consistent with the fact that neither *tro* or *tycka* are appropriate ways to report a thought which is not "epistemically grounded" in either knowledge or feeling. In these contexts, it is *tänka* THINK which is used. For example, in (20) a speaker is reporting a view about a factual matter which is not being presented as being based on evidence: it's just how the speaker thinks. Example (21) is not about a factual matter, but again it presents itself as expressing "purely and simply", as it were, how the speaker thinks. (When *tänka* THINK takes a propositional complement it also commonly

occurs with the reflexive particle *sig* (or a variant), apparently indicating that the thought being articulated is more or less spontaneous and personal.)

- (20) *Men jag tänker att jag nog har en tre fyra*  
 but I think CONJ I probably have a three four  
*år till då jag kan vara frisk.*  
 years to then I can be healthy  
 ‘But I think that I’ll probably have about three or four healthy years left.’ [Elderly speaker in a newspaper lifestyle feature, *Bank of Swedish*, Press 97]

- (21) *Och jag tänker att det är nyttigt för*  
 and I think:PRES CONJ it be:PRES useful for  
*mänskligheten att blicka ut i världsrymden ett tag*  
 humanity:DEF INFM look:INF out in worldspace:DEF IND take  
*efter allt navelskådande på sista tiden.*  
 after all navelgazing on last time:DEF  
 ‘And I think that it’s good for mankind to look out into space for a while after all the navel-gazing of late.’ [From a newspaper column about the passing of the Hale-Bopp comet, *Bank of Swedish*, Press 97]

#### 4. Language-specific peculiarities of English *think*

Turning back to English now, how can we account for the fact that English *think that* can be used in “opinion” contexts (e.g., *She thinks that Max did it*)? This usage evidently conveys something semantically “weaker” or less specified than Swedish *tro*; but since one cannot use Swedish *tänka* in these contexts, how can be it explicated in terms of *tänka*?

Our proposal is that these usages involve a kind of “generic” time-specification, as in the following explication (cf. Goddard 2003). As can be seen, there is no problem with rendering this explication into Swedish, using *tänka* as the exponent of THINK, because the initial clause ‘when she thinks about it’ provides sufficient temporal grounding to support an *att*-complement.

[C1] *She thinks that* [ – – ] =

when she thinks about it,  
 she thinks that [ – – ]

[C2] *She thinks that* [ – – ] =

när hon tänker på det,  
 tänker hon att [ – – ]

A different treatment is required for the “performative-like” combination *I think*, i.e., with first-person subject, in present tense, and without an explicit *that* complementiser. A number of scholars (Thompson and Mulac 1991; Aijmer 1997; Kärkkäinen 2003; Scheibman 2001; Wierzbicka 2002, 2006; for comparable studies on Swedish, cf. Karlsson 2003, 2006) have argued convincingly that this *I think* is a conversational formula of English, with distinct semantic and pragmatic functions. It has a very high frequency, even compared with comparable formulas in other European languages, and serves a range of conventionalised conversational functions. Formula *I think* also has distinctive syntactic properties, especially its so-called “parenthetical” syntax, i.e., the fact that it can occur clause-medially or clause-finally. The general view emerging from the studies just cited is that formula *I think* functions like an epistemic adverb with respect to a single clause, rather than as a full complement-taking verb.

Aijmer (1997: 21) describes its function as follows: “the tentative *I think* expresses uncertainty (epistemic modality) or softens an assertion which may be too blunt (interactive meaning)”. Wierzbicka (2002, 2006) has advanced the following account and explications. A normal declarative sentence, she points out, conveys the impression of a “knowledge claim” by the speaker. From a semantic point of view therefore, a simple sentence like *Bill wrote it* is accompanied by the illocutionary assumption spelt out in [D1]: ‘I know it’. The effect of prefacing such a sentence with *I think*, on Wierzbicka’s analysis, is not only to present the content within the frame ‘I think like this’, but concomitantly to add a disclaimer about knowledge, as spelt out in [E1]. By the way, note that the “disclaimer” component reads ‘I don’t say I know it’, rather than ‘I don’t know it’: the speaker is not professing a lack of knowledge, but rather explicitly declining to claim knowledge.

[D1] *Bill wrote it* =

I say: Bill wrote it  
I know it

[D2] *Bill wrote it* =

jag säger: Bill skrev det  
jag vet det

[E1] *I think Bill wrote it* =

I say: I think like this – Bill wrote it  
I don’t say I know it

[E2] *I think Bill wrote it* =

jag säger: jag tänker såhär – Bill skrev det  
jag säger inte att jag vet det

To capture the effect of *I think* in a declarative sentence with a modal, such as *We should go*, we must first do a bit of semantic analysis on the modal itself. In the case of *should*, we suggest that this can be done roughly as in [F1]; that is, to say *We should go* is to say that it would be good if we go, and not good if we don't go. (The  $\Rightarrow$  symbol is intended to indicate that this semantic breakdown may be partial and/or approximate.) The effect of prefacing such an utterance with formula *I think* is again to add the disclaimer 'I don't say I know it', with a "softening" effect.

[F1] *We should go*  $\Rightarrow$

I say: it will be good if we go, it will not be good if we don't go  
I know it

[F2] *We should go*  $\Rightarrow$

jag säger: det blir bra om vi går, det blir inte bra om vi inte går  
jag vet det

[G1] *I think we should go*  $\Rightarrow$

I say: I think like this – it will be good if we go, it will not be good if we don't go  
I don't say I know it

[G2] *I think we should go*  $\Rightarrow$

jag säger: jag tänker såhär – det blir bra om vi går, det blir inte bra om vi inte går  
jag säger inte att jag vet det

Wierzbicka (2006: Ch 7) argues that the evolution of the English *I think* formula, and its extraordinarily high frequency, is consistent with the existence of a portfolio of English-specific cultural scripts linked with the ideal of personal autonomy, including autonomy of thinking. In this context, she argues, there is a need to distinguish explicitly what one knows from what one thinks—a need directly served by the *I think* formula. The lexical discrimination in Swedish between *tänka*, *tro* and *tycka* (and the high frequency of the latter pair of verbs) presumably indicates the existence of some comparably important Swedish-specific cultural scripts which remain to be investigated.

## 5. Using Swedish NSM to explicate English epistemic verbs

Wierzbicka (2006: Ch 7) also includes an extensive treatment of the semantics of English epistemic verbs, including *believe*, *suppose*, *gather*, *assume*, *imagine*, and many others. To demonstrate the expressive equivalence of Swedish-based NSM—and in particular, to demonstrate that in NSM explications *think* and

*tänka* can be used equivalently—we will present some further parallel explications in English and Swedish versions.

Perhaps the most directly pertinent to the Swedish material in this chapter is the English verb *believe*, because, as mentioned, this verb is often given as a translation equivalent for Swedish *tro*. It is clear that *believe* (like *tro* in this respect) is a polysemous item, and we confine ourselves here to senses in which it has a propositional complement.<sup>3</sup> Even given this restriction, Wierzbicka (2006) argues that two meanings must be distinguished. One meaning is confined to the epistemic phrase *I believe*, which occurs without the complementiser *that*; for example, in sentences like *I believe you can get custard in a tin*. Wierzbicka argues that this *I believe* is a quasi-performative “epistemic qualifier” restricted to the first person present tense. Roughly speaking, it expresses something like a considered but cautiously expressed personal opinion. The phrase has a “parenthetical” syntax, in the sense that it can occur mid-clause or clause-finally, e.g., *You can, I believe, get custard in a tin*, and *You can get custard in a tin, I believe*. Wierzbicka proposes the explication in [H1], which, as one would expect, relies rather centrally on semantic prime THINK. To show that the Swedish *tänka* is a practical equivalent in explications, we provide the Swedish equivalent in [H2].

[H1] *I believe you can get it in a tin* =

I say: I think like this – you can get it in a tin  
 I don't say I know it  
 I can say why I think like this  
 I know that someone else can think not like this

[H2] *I believe you can get it in a tin* =

jag säger: jag tänker såhär – man kan få det på burk  
 jag säger inte att jag vet det  
 jag kan säga varför jag tänker såhär  
 jag vet att någon annan kan tänka på ett annat sätt

The second meaning of *believe* is “stronger”, conveying something like conviction or commitment, and a certain gravitas. It is fully compatible with the complementiser *that* (notwithstanding that it can be subject to deletion). Though this sense of *believe* can occur with a first person subject, it is not restricted to first person or to the present tense; cf. sentences like *He believed that they shouldn't get the vote* or *They believed that Phar Lap had been poisoned by a rival stable*. Unlike epistemic qualifier *I believe*, this sense of *believe* corresponds to the noun *belief*. Relatedly, it can collocate with adverbs like *strongly*; compare, e.g., *He strongly believed that they shouldn't get the vote* with *?I strongly believe you can get custard in a tin*. Wierzbicka (2006) discusses a

range of other evidence and examples in context, and advances the explication given in [I1] below.

The initial component articulates the obvious link between *X believes that* and *X thinks that*. The subsequent set of components, introduced by ‘X thinks about it like this’, characterise the nature of the propositional attitude involved in *believing*—that is to say, they characterise how X thinks about what he or she thinks. This is a composite of three factors: an awareness that other people may think differently, the sense that one can articulate a reason for thinking as one does, and, furthermore, that one can justify or defend the value of thinking as one does. The last two factors are intended to account for the conviction and commitment conveyed by *to believe that* (and by the corresponding noun *belief*), and for the implication that something important is at stake. Again, we provide the Swedish equivalent and again, it can be seen that *tänka* functions in this context as a precise equivalent to THINK.

[I1] *I believe that they shouldn't have the vote* =

I say: when I think about it, I think that they shouldn't have the vote  
I know that someone else can think not like this  
I can say why I think like this  
I can say why it is good if someone thinks like this

[I2] *I believe that they shouldn't have the vote* =

jag säger: när jag tänker på det, tänker jag att de inte borde få rösta  
jag vet att någon annan kan tänka på ett annat sätt  
jag kan säga varför jag tänker såhär  
jag kan säga varför det är bra om någon tänker såhär

To reinforce the point, the following two sets of parallel explications are for two additional epistemic formulas of English, namely, *I suppose* and *I gather*. For detailed justification, the reader is referred to Wierzbicka (2006). What is of relevance here is not the accuracy of the explications as such, but their transposability between the English-based and Swedish-based versions of the natural semantic metalanguage.

[J1] *I suppose it's up to the public* =

I say: at this moment I think like this – it's up to the public  
I don't know  
I'm thinking about it now

[J2] *I suppose it's up to the public* =

jag säger: i det här ögonblicket tänker jag såhär – det är upp till allmänheten  
jag vet inte  
jag tänker på det nu

[K1] *I gather that there is going to be a further inquiry =*

I say: I think like this about it now – there is going to be a further inquiry

I don't say I know it

I think like this because I know that people can know some other things

[K2] *I gather that there is going to be a further inquiry =*

jag säger: jag tänker såhär på det nu – det kommer att bli fler utredningar

jag säger inte att jag vet det

jag tänker såhär på grund av att jag vet att folk kan veta andra saker

## 6. Conclusions

We have argued that English *think* and Swedish *tänka* are exponents of a single semantic prime THINK. At the same time, however, we have acknowledged and sought to explain the considerable divergences in usage patterns between the two words in ordinary discourse in their respective languages. This has required us to propose explications for the other common Swedish verbs of cognition, *tro* and *tycka*, neither of which has any exact equivalent in English. We have also identified and explicated two English-specific uses of *think*, namely, the generic or “opinion” frame (as in *She thinks that* – –) and the conversational formula *I think*, which have no exact equivalents in Swedish. Since the explications are composed within the narrow confines of the natural semantic metalanguage, however, they are freely transposable between the two languages.

The contrastive exercise has also enabled us to more precisely specify the universal syntactic properties of semantic prime THINK. It has emerged that some earlier NSM hypotheses (as presented in Goddard and Wierzbicka (1994), for example) were invalidly influenced by the peculiarities of English. In particular, it seems clear now that the propositional complement construction, i.e., the *think that* frame, is possible only in relation to a temporally-grounded concrete thought.

In short, the results of this study consolidate the status of THINK as a universal conceptual prime in the face of apparent counter-evidence, while at the same time enabling us to characterise its syntax with greater precision.

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## Abbreviations

CONJ	conjunction	INFM	infinitive marker	PRET	preterite tense
DEF	definite (form or article)	PERF	perfect tense	SG	singular
IND	indefinite (form or article)	PL	plural	S	sentential complement
INF	infinitive	PRES	present tense		

## Notes

1. *Tänka* also has additional language-specific meanings, which involve the semantically primitive THINK meaning in combination with other elements; for example, with an infinitive complement it conveys something close to ‘intend (to do), think (of doing)’. A comparable polysemy is found in many languages.
2. Both *tro* and *tycka* have other polysemic meanings. For example, when *tro* appears in combination with the preposition *på* it is akin to English ‘believe in’; and when *tycka* appears with preposition *om* (‘about, around’) it is close to English ‘like’, as in *Jag tycker om tomaten* ‘I like tomatoes’. We will not investigate further here.
3. Wierzbicka (2006) argues *to believe someone*, i.e. to believe what someone says, requires a further, distinct but related meaning involving semantic prime TRUE, and that the expression *to believe in* someone or something manifests still further polysemic meanings either involving TRUE or GOOD. Overall, these multiple senses of *believe* constitute a formidable polysemic cluster.

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## Identification and syntax of semantic prime MOMENT in Tarifyt Berber

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This study contributes to our understanding of the status of the newly proposed NSM semantic prime MOMENT using data from Tarifyt Berber. The syntax of the primary Tarifyt Berber exponent *ga'* is exclusively adverbial and requires a biclausal construction. We argue that this reflects the universal “conceptual syntax” of MOMENT, because the aspect-like modification provided by MOMENT requires the implicit presence of an “eventive” frame. The English sentence ‘it happened in one moment’, for example, is elliptical for a semantically equivalent, but more explicit, expanded version: ‘when it happened, it happened in one moment’. English expressions such as ‘at that moment’ and ‘for a moment’ also lack direct equivalents in Tarifyt Berber.

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

This study examines the status of semantic prime MOMENT (Goddard 2002a; Enfield 2002) in the Tarifyt Berber language. We argue that from a universal point of view the facts of Tarifyt Berber are more revealing of the essential syntax of the semantic prime MOMENT than the facts of English, where the situation is not entirely clear because of the existence of a semantically non-prime noun *moment*. From the point of view of Tarifyt Berber, we show that there is an obvious candidate for capturing meanings which have to do with “suddenness” and “punctuality”; namely, the temporal adverb *ga'* which expresses meanings like ‘in one moment, at that sudden moment’. This is a clause-initial particle which introduces a subordinate temporal clause (preceding any tense-marking particle). It cannot occur in a monoclausal construction. A phrasal equivalent may exist in the form of the expression *ði g ijj n θsaçat*, which is ambiguous between ‘in one moment’ and ‘in one hour’, but the subordinate clause particle is clearly the primary exponent.

From the Berber perspective, the optimal English exponent of the prime MOMENT appears to be the expression IN ONE MOMENT. English expressions like

*at that moment* would no longer be regarded as semantically transparent, but rather would be understood as meaning ‘at this time, in one moment’ (cf. Goddard this volume Ch 3). That is, temporal anchoring at a particular time can be represented separately and explicitly, via an explicit occurrence of semantic prime WHEN/TIME. This proposal teases apart the tense-like meaning (AT THIS TIME), which relates to location in time, from the aspect-like meaning (IN ONE MOMENT) expressed by IN ONE MOMENT, which is tied to a particular event. We further argue that from the Berber perspective, the basic construction is a bi-clausal construction of the form: ‘when it happened, it happened in one moment’.

The chapter is organised into three main sections. Section 2 provides a background on the structure of the variety of Berber described in this study. Section 3 gives an overview of semantic primes in Tarifyt Berber. Section 4 addresses in a detailed manner the identification and the syntax of the prime MOMENT in Tarifyt Berber.

**2. Typological overview of Tarifyt Berber**

Tarifyt Berber belongs to the Afro-Asiatic languages family. It is a spoken language with an estimated five hundred dialects (Abdel-Massih 1968), distributed over a vast territory (from the oasis of Siwa in the Egyptian western desert westward to Morocco through Libya, Tunisia and Algeria; and from the Mediterranean coast southward to Mali, Niger and Burkina Faso). The largest number of Berber speakers is found in North Africa, especially in Morocco, where there are three major dialect groups: Tarifyt, Tashlhit and Tamazight. Tarifyt is spoken in the north of Morocco. Unless indicated and documented otherwise, all the data that is used in this chapter is drawn from the Tarifyt Berber variety of the north. One of the authors (Elouazizi) is a native speaker of this variety of Berber.

Like other Berber varieties, the word order of Tarifyt Berber is canonically a VSO word order, as in (1). An SVO word order can be derived by fronting the subject to the preverbal position, and an O,VS word order is possible in a restricted syntactic environment which requires the presence of a resumptive pronoun in the object position.

- (1) *i-ffa*                      *Jamal*    *ağrum*  
      3S.M-eat.PERF    Jamal    bread  
      ‘Jamal ate bread.’

Verbal morphology in Berber is complex. It is based around a set of aspect oppositions (see Basset 1952; Galand 1977; Chaker 1983; Guerssel 1985; Cadi

1987; Ouhalla 1988; Sadiqi 1997; Kossmann 1997, 2000; Elouazizi 2006; among others). Verbs have five different tense/aspect/mood (henceforth TAM) stems: aorist, perfective (prétérit/accompli), imperfective (referred to also as aoriste intensif/inaccompli), negative perfective, and negative imperfective forms. Every verbal form in Tarifyt Berber is analysable into a combination of a (root) stem, aspectual affixes and obligatory subject agreement affixes (showing gender, number and person). These subject agreement affixes are either prefixed, suffixed or circumfixed to the verbal stem. The verbal stem itself is further analysable into consonantal roots and vocalic/consonantal melodies. The three major verbal forms are illustrated below (see references cited for the negative forms).

- (2) a. *azzr*  
run.AOR  
'To run.' [Aorist]
- b. *i-tazzr* *Jamal ġa θadaʀθ*  
3S.M-run.IMPERF Jamal to home  
'Jamal runs home.' [Imperfective]
- c. *θ-uzzr* *Fatima ġa θadaʀθ*  
3S.F-run.PERF Fatima to home  
'Fatima ran home.' [Perfective]

The aorist is an unmarked neutral verbal stem (Bentolila 1981: 116; Basset 1952: 14) which can be taken as a starting point for comparing and describing the five Berber TAM stems. In simple clauses, it can occur only with a preceding irrealis/future preverbal particle (*að* 'will', *ġa* 'will'). It can also occur in series of verb clusters, in which case it picks up its temporal-aspectual value from other inflected verbs.

- (3) *að y-arri θabrat*  
FUT 3S.M-write.AOR letter  
'He will write a letter.'
- (4) *mayemi ġa y-arri θabrat?*  
why FUT 3S.M-write.AOR letter  
'Why will he write a letter?'

The imperfective verbal stem describes how the event occurs in time, for example, as continuing or as iterative. It can form a sentence on its own without any preverbal particles. The imperfective verbal stem is derived by three morphological processes, which operate either independently or jointly. This involves prefixation of *t-/ti-* to the verbal stem, with or without an associated vowel, or alternatively, processes of consonantal gemination and revowelisation.

The details need not concern us here (see Kossmann 2000; Elouazizi 2006; among others). In terms of use, the imperfective verbal stem is used to express durative/progressive, iterative, and habitual events and actions, which can be situated either in the present (default) or in the past or future (with a past or future preverbal particle). The following examples show the durative/progressive use with and without preverbal particles.

- (5) a. *i-t-zzw* *rwað*  
 3S.M-IMPERF-plant flowers  
 ‘He is planting flowers.’  
 b. *dža i-t-zzw* *rwað*  
 PTP 3S.M-IMPERF-plant flowers  
 ‘He was planting flowers.’  
 c. *að i-t-zzw* *rwað*  
 FUT 3S.M-IMPERF-plant flowers  
 ‘He will be planting flowers.’

The examples in (5a)–(5c) show how the imperfective is used to encode an iterative process which expresses a general truth/fact or an indefinite ongoing state, and to express a (progressive) habitual action, respectively. Both these events can be positioned in the past or future by addition of the appropriate preverbal particles (*dža* = past, *að* = future).

- (6) a. *ðfuθ t-t-ari* *d* *zi* *faq, t-tğarrab*  
 sun 3S.F-IMPERF-rise CL.DIR from east 3S.F-IMPERF-set  
*ğa rrğab*  
 to west  
 ‘The sun rises from the east and sets in the west.’  
 b. *i-t-arri* *θibratin*  
 3S.M-IMPERF-write letters  
 ‘He writes/is writing letters.’

The perfective stem, referred to in Berber grammar also as “prétérit or accompli”, depicts a completed event or action. It marks the end point of this “terminated/completed” action/event. Perfective verbal stems are realised by two main morphophonological processes, involving either suffixation of vowel /a/ or vowel shift from /i/ to /a/. Again, the details need not concern us here (see the Berber grammar references cited above). The perfective verbal stem is used, firstly, to express a dynamic/active event in the past.

- (7) a. *y-wrra* *θabrat*  
 3S.M-write.PERF letter  
 ‘He wrote a letter.’

- b. *i-bdr*                      *w-a'ba* *sawar*    *i-nnes*  
 3S.M-change.PERF CS-boy trousers of-his  
 'The boy changed his trousers.'
- c. *i-ḍwr*                      *ḍ*    *a'yaz*  
 3S.M-become.PERF COP man  
 'He became a man.'
- d. *y-siwr*                      *ag*    *memi-s*  
 3S.M-talk.PERF with son-CL.his  
 'He talked with his son.'

A past perfect is formed when the perfective verbal stem is used in combination with the past tense particle *dža* 'was'.

- (8) *dža* *y-wrra*                      *ṭabrat* *zga*    *s*                      *t-rağa*  
 PTP 3S.M-write.PERF letter when CL.to.him 3S.F-call.PERF  
 'He had already written the letter when she called him.'

Moreover, the Tarifyt Berber perfective can express stative situations. In the following examples, the stative verbs *a'ws* 'resemble' and *ṭ-dža* 'exist', though inflected and glossed as perfective, entail reference to both present and past.

- (9) a. *y-arws*                      *ḍi* *baba-s*  
 3S.M-resemble.PERF in father-CL.his  
 'He resembles/ed his father.'
- b. *ṭ-dža*                      *lmaḥaba*  
 3S.F-exist.PERF kindness  
 'Kindness exists.'

To complement this brief description of the TAM system of Tarifyt Berber, we will describe briefly some of the uses of the preverbal future/irrealis particle.<sup>2</sup> The particle *aḍ* (and its allomorphic form *ga*) is normally labelled as future tense/irrealis mood.<sup>3</sup> When combined with an aorist stem, this particle describes a future event/action, as in (10). It depicts an event or action which might be unreal but possible (hence the possibility of expressing the prime CAN).

- (10) *aḍ* *y-wθ*                      *w-nza*  
 FUT 3S.M-hit.AOR CS-rain  
 'The rain will fall.'/'It can rain.'

When the particle *aḍ* appears with an imperfective verbal stem, the combination gives rise to the interpretation of a future unrealised habitual event.

- (11) *að i-t-arri lktub*  
FUT 3S.M-IMPERF-write books  
'He will keep writing books (frequently and habitually).'

With this overview in place, now we are in a position to address the identification and syntax of the semantic primes in Tarifyt Berber.

3. Semantic primes in Tarifyt Berber

The current inventory of semantic primes, in English and Tarifyt Berber, is given in Table 1. The reader will note that there are some provisional identifications, but for most primes the Berber exponents are unproblematic.

Table 1. Semantic primes: Tarifyt Berber\*

Substantives:	Nʃ I, ʃK you, ʃANIJJN someone, ʃANRRHAJθ something/thing, IWðAN people, ?? body
Relational substantives:	ʃA+N+NP kind, ZI+NP part
Determiners:	θA this, S-IXEFINESS the same, NNEGNI other/else
Quantifiers:	IJJ one, θNAYN two, ʔTTAS much/many, ʃA/ʃWAIT some, MARRA/KULʃI all
Evaluators:	ðLMLIH good, QBAH bad
Descriptors:	MGA <sup>R</sup> big, MZI small
Mental predicates:	ĠHIR think, SNN know, XIS want, SHUS feel, ZA <sup>R</sup> see, TSRA hear
Speech:	INNI say, AWARN words, SSAH true
Actions, events, movement, contact:	GG do, WQAÇ happen, NHZ move, HAðA touch
Location, existence, possession, specification:	IRI+ð+NP be (somewhere), I- DŽA there is/exist, ĠARS have, IRI+ð+NP be (someone/thing)
Life and death:	DDA <sup>R</sup> live, MMθ die
Time:	ZGA/DŽEXMI/GA <sup>R</sup> /MERMI when/wh-when, RUXT time, RUXA now, QBR/ZAθ before, MBAÇD/ZEFA after, XARRABI ZIGWAMI a long time, ʃWAIT a short time, ʃWAIT/ʃA+N+ RUXT for some time, ĠA <sup>R</sup> moment
Space:	MANNI/ARAQ where/place, ðA here, SENEJJ above, SWADAI below, GGUI far, TTAF near, ĠZðIS side, ðIXR inside
Logical concepts:	WA not, RBBAMA maybe, ZMAR can, UMI because, MARA if
Augmentor, intensifier:	KTA <sup>R</sup> more, ʔTTAS very
Similarity:	AM/AMAʃ like

\* The slash symbol (/) indicates that the two words are alternatives (allolexes).  
?? indicates exponents which have yet to be identified.

Except for the temporal primes, dealt with briefly below, and especially MOMENT, which is reserved for extended treatment, we will not go into the details of either the universal syntax or the language-specific morphosyntax of the Berber primes.

Setting aside MOMENT, the temporal primes can be outlined as follows. First, *ruxt* ‘time’ and *ruxa* ‘now’ share the same morphological stem *rux*.<sup>4</sup> Note that it is possible to combine the noun *ruxt* ‘time’ with other primes such as *fa* SOME and *nneḡni* OTHER, as shown in example (13).

- (12) *ði ruxt-ni, dža wa t sinne-x*  
 at time-that PTP NEG CL.it know.NEG.PERF-1S.M/F  
 ‘At that time, I did not know anything about it.’
- (13) *ði fa n ruxt nneḡni, θinnata θ-nhz*  
 in some of time other this.one 3S.IMPERF-move.PERF  
 ‘At some other time, this thing moved.’

Other allollexes of TIME are the interrogative ‘when’ *mermi*, and the subordinate clause ‘when’ *zga*, shown in the first two examples below (14 and 15). There is also a second subordinate ‘when’ *džexmi*, as shown in (16), but it is not entirely clear whether it is semantically identical with *zga*; however, see the asymmetries briefly discussed.

- (14) *mermi t y-zra?*  
 when CL.it 3S.M-see.PERF  
 ‘When did he see it?’
- (15) *zga dža i-ttari θabrat dža t-iqa lktab*  
 when PTP 3S.M-write.IMPERF letter PTP 3S.F-read.IMPERF book  
 ‘When he was writing the letter, she was reading the book.’
- (16) *džexmi i-zar iθri i-taḍf ġa θadaʹθ*  
 when 3S.M-see.IMPERF star 3S.M-enter.IMPERF into house  
 ‘When he sees the star, he enters the house.’

The temporal adverb *zga* ‘when’ in example (15) can also be used with verbs in the perfective aspect, but in this case the sentence does not indicate a parallel reading of the actions/events denoted by the verbs of the main and the subordinate clauses. When used with both verbs in the perfective aspect, the temporal adverb *zga* ‘when’ conveys a sequential reading of the actions/events. Moreover, temporal adverbial *zga* ‘when’ restricts the aspectual shifts of the verbs of the main clause and the subordinate clause to being both perfective or both imperfective. The temporal adverb *džexmi* ‘when’ in example (16)



can be used to express two actions/events that are either sequential or parallel. Unlike the case with *zga* ‘when’, the temporal adverbial *džexmi* ‘when’ requires that its main clause and subordinate clause verbs are both always in the imperfective.

There is another ‘when’-temporal adverb which is similar yet considerably distinct from *džexmi* ‘when’ and *zga* ‘when’ in many respects. This is the temporal adverb *gaʳ* ‘when’. Like *zga* ‘when’, *gaʳ* ‘when’ requires that both of its main and subordinate clause verbs are in the perfective aspect as in example (17).<sup>5</sup>

- (17) *gaʳ*                    *i-reqfi*                    *t*,                    *θ-bða*  
just.when    3S.M-hit.PERF    CL.it    3S.F-fall.PERF  
‘Just at the moment he hit it, it fell.’

Moreover, *gaʳ* ‘when’ exclusively bears a sequential (but not parallel) reading of the actions/events. Hence, in this respect it differs from *džexmi* ‘when’ and *zga* ‘when’. Furthermore, in terms of interpretation, the temporal adverb *zga* ‘when’ provides a temporal frame to the main clause event, which is less durative; hence, more momentary, so to say, than the one conveyed by the temporal adverb *džexmi* ‘when’. Likewise, *gaʳ* ‘when’ provides a temporal frame to the main clause event, which is less durative than the one provided by *zga* ‘when’. As a consequence of this fact, on a momentariness scale, *gaʳ* is more momentary than either *zga* or *džexmi*:

- (18) *gaʳ* ‘when’    <    *zga* ‘when’    <    *džexmi* ‘when’

We sum up the discussion of the properties of the events structure and the aspectual shifts of these three “when-adverbs” in Tables 2 and 3 below.

We will not pursue the interesting details of the issues of the interaction of aspectual shifts, the structure of subordinate clauses and the temporal adverbials in Berber in the current chapter. We leave the issue open for future work.<sup>6</sup>

**Table 2.** Aspectual shifts of *gaʳ* ‘when’, *zga* ‘when’ and *džexmi* ‘when’

	Aspectual Shifts			
	Main Clause		Subordinate Clause	
	Perfective	Imperfective	Perfective	Imperfective
<i>zga</i>	+	–	+	–
<i>džexmi</i>	–	+	–	+
<i>gaʳ</i>	+	–	+	–

**Table 3.** Event structure of *ġa'* 'when', *zga* 'when' and *džexmi* 'when'

	Event structure	
	Sequential	Parallel
<i>zga</i>	(+)	+
<i>džexmi</i>	+	+
<i>ġa'</i>	+	–

Note: Brackets indicate that *zga* 'when' can be optionally sequential.

Now to the other temporal primes that are of concern to us here. As expected, *ruxa* 'now' can be used both about a narrowly focused "present", as in (19), and about a broader "present" time, as in (20).

- (19) *i-tari* *t* *ruxa*  
 3S.M-write.IMPERF CL.it now  
 'He is writing it now.'

- (20) *ð* *anbðu* *ruxa*  
 COP summer now  
 'It is summer now.'

Tarifyt Berber equivalents of A SHORT TIME and A LONG TIME are *fwait* and *xarrabi*, respectively, as shown in example (21).<sup>7</sup>

- (21) *i-qim* *ðin* *fwait*, *θ-qim* *ðin* *xarrabi*  
 3S.M-stay.PERF there a.bit 3S.F.stay.PERF there a.lot  
 'He stayed there for a short time, but she stayed there for a long time.'

Tarifyt Berber exponents of BEFORE and AFTER are *zaθ/qbr* and *zefa/mbaçd*, respectively.<sup>8</sup> They can be illustrated in the following sentence.

- (22) *rbama að za-x* *Mina fa n-ruxt qbr/zefa*  
 maybe FUT see.AOR-1S.M/F Mina some of-time before/after  
*a' bça w çafi*  
 four of afternoon  
 'Maybe I will see Mina some time before/after 4 in the afternoon.'

Further note that the example in (22) illustrates also the use of the Berber exponent of FOR SOME TIME. This exponent has a complex internal nominal structure, as it is composed of a quantifier *fa* 'some' and a prepositional phrase *n ruxt* 'of+time'. Note also that the durativity of FOR SOME TIME can also be expressed with *fwait* 'some'. Moreover, the durativity of *fa-n-ruxt*

‘some+of+time’ stands in contrast with the momentariness of ‘in one moment’. In the next section, we identify the true candidate for the prime MOMENT in Tarifyt Berber.

#### 4. Semantic prime MOMENT in Tarifyt Berber

The original proposal that MOMENT could qualify as a semantic prime was articulated in Enfield (2002) and it stemmed from studying the syntax of the temporal primes in the Lao language. The proposal is based on the observation that there is an asymmetry between A LONG TIME and A SHORT TIME in Lao, in that the former combines readily with VERY while the latter does not. Similar facts had been noticed before in other languages, for example, in Cantonese (Tong, Yell and Goddard 1997: 252–253) and in Malay (Goddard 2002b). But Enfield (2002) pushed his observation further when he asked how one could express and conceptualise meanings such as ‘suddenly’ and ‘immediately’, if the combination A VERY SHORT TIME was not available. This in turn motivated him to propose MOMENT as a prime. Enfield further noted that in such contexts where a ‘point in time’ is referred to, Lao makes use of an expression similar to English *moment*.

Supporting this proposal, Goddard (2002a: 303) drew on classical works about the philosophy of time (Locke (1976[1690]: 93); Leibniz (1996[1765]: 153)), which indicate the necessity of distinguishing between the notions TIME and MOMENT. He states that ‘time’ can be thought of as having duration, but MOMENT cannot be thought of in this way. Furthermore, Wierzbicka (unpublished work, cited in Goddard 2002a: 302) observes, on the basis of studying some passages of Biblical narratives, that the reference to a ‘point in time’ is often realised by means of a particle, an adverb or a prepositional phrase (*at that moment*), without the use of which it is not possible to refer to a ‘particular moment’. Subsequently both Wierzbicka (2002) and Goddard (2002a) have employed MOMENT to capture aspect-like meanings related to punctuality and suddenness in Polish (in the aspect system) and Malay (prefix *ter-*), respectively.

##### 4.1 The adverb *ǵaʼ*—the primary exponent of MOMENT in Tarifyt Berber

From the point of view of Tarifyt Berber, there is an obvious candidate for capturing meanings which have to do with suddenness and punctuality; namely, the adverb *ǵaʼ* ‘at that sudden moment, in one moment’. This is a clause-initial adverb which precedes any tense particle. Several other temporal and aspectual adverbs can also occur (mutually exclusively) in the same clause-initial position: *zimani* ‘since that precise point in time’, *ǵammas* ‘no longer/never’, *ǵaǵ* ‘still/not yet’, *ǵrayn* ‘almost’, *zikh* ‘early/fast’, and *rbda*

‘often’ (see Elouazizi 2003). In a sentence like (23), the adverb *ḡaʳ* implies that at the sudden precise moment of the realisation of an action X, another action Y will follow immediately as a consequence. Thus, both clauses map onto a precise moment in time.

- (23) *ḡaʳ dža y-zra iθri y-uǝf ḡa θadaʳθ*  
 just.when PTP 3S.M-see.PERF star 3S.M-enter.PERF into house  
 ‘Just when he (suddenly) saw the star, he entered the house.’

In terms of its temporal interpretation, *ḡaʳ* injects much more precision into the event denoted by the verb *y-zra* ‘see’ in (23). The event is characterised by a sort of precise temporal suddenness. Importantly, temporal adverbials cannot exist without a referential relation to an anchoring temporal reference point, which is usually provided by the aspectual-temporal reading of the verb. This is especially clear in Tarifyt Berber on account of the structural separation between the signalling of “momentariness” via an adverbial, and time reference via preverbal TAM particles and the aspectual affixes on the verbal stem. The following three examples show this clearly.

- (24) a. *ḡaʳ i-ħaǝa t, y-ǰmǝ*  
 just.when 3S.M-touch.PERF CL.it 3S.M-burn.PERF  
 ‘Just at the moment he touched it, he got burned.’  
 b. *ḡaʳ dža i-ħaǝa t, y-ǰmǝ*  
 just.when PTP 3S.M-touch.PERF CL.it 3S.M-burn.PERF  
 ‘Just at the moment he had touched it, he got burned.’  
 c. *ḡaʳ aǝ t i-ħaǝa, aǝ y-ǰmǝ*  
 just.when FUT CL.it 3S.M-touch.AOR FUT 3S.M-burn.AOR  
 ‘Just at the moment he would touch, he would get burned.’

These examples describe two sudden consecutive events, where the second event can be described as the immediate outcome of the occurrence of the first. In two respects, however, there is radical non-isomorphism between Berber and English so far as the syntactic expression of MOMENT is concerned. We now examine these in turn, suggesting in each case that the Tarifyt Berber realisation provides a better picture of the fundamental deep syntax of “momentariness” than does English.

## 4.2 The marginal status of “nominal syntax” with MOMENT in Tarifyt Berber

Though *ḡaʳ* ‘in one moment/at that sudden moment’ can clearly convey a momentary meaning, it cannot appear in constructions whose analogues in English sound perfectly natural, and which have in fact been used in some previous

NSM studies employing MOMENT in explications. Specifically, *ga'* cannot appear in a quasi-durational construction corresponding to English 'for a moment'; nor can it occur in locutions such as 'at that moment', 'the moment before', or 'the moment after'.

To begin with the frame 'for a moment', from a Berber perspective this frame is not an appropriate canonical case to test the existence of MOMENT cross-linguistically. Elicitation tests carried out with a group of Tarifyt Berber native speakers show that it is not possible to obtain a precise Tarifyt Berber translation equivalent to the English word *moment* in a context such as *For a moment he could not speak*. The procedure followed in our testing, which was the same for the other frames described below, can be outlined as follows. We devised a discursive context of use approximating the context in which the English construction can be uttered, then we asked a group of respondents to come up with the closest Tarifyt Berber equivalent, with a special focus on the temporal expression. To begin with, we just asked them to do this intuitively, trying to match the English meaning as closely as possible. In case they were not able to generate an equivalent translation, they were then asked to try and find a translation alternative, the point being to see what other grammatical devices that they might use to convey something close to the English expression. The respondents included both professional linguists and ordinary native speakers with very high proficiency in the English language. (In addition, one of the authors of the present paper is a native speaker of Tarifyt Berber.)

The results show that there is no equivalent translations of English *moment* in the expression *for a moment* in Tarifyt Berber. Asked to express a similar meaning, Tarifyt Berber consultants refer to minimal time portions such as 'minutes', as in (25a), or to idiomatic phrasing, as in (25b), or to quantifying over the event denoted by the verb, as in (25c).

- (25) a. *kki-x*                      *θminut(5θminut)* *war nni-x*                      *la d awal*  
           spend.PERF-1S minute                      NEG say.PERF-1S any COP word  
           'I spent (5 minutes) without saying any word.' (El Aissati, p.c.)
- b. *i-bdd*                      *as*                      *awar*  
           3S.M-stop.PERF CL.IND.OBJ word  
           'His words stopped'  
           Literally: 'The words stuck in his throat' (Lafkioui, p.c.)
- c. *ʃhal*                      *war nni-x*                      *la d awal*  
           how.much NEG say.PERF-1S any COP word  
           'I spent a lot (of time) without saying any word.' (El Aissati, p.c.)  
           Literally: 'How much time did I spend without saying a word.'

Equally, it proves impossible to obtain in Tarifyt Berber a structural equivalent to the English expressions such as 'at that moment' and 'a moment after'.

The following shows examples elicited in response to English ‘at that moment something happened’. In both cases, the Tarifyt Berber expression used is ‘at that time’.

- (26) a. *ði ruxt-ni ʃa ħaja θ-wqaç*  
 in time-that some thing 3S.F-happen.PERF  
 ‘At that time something happened.’  
 b. *ði lweqt-ni t-ewqeç ʃa n lhajeθ*  
 in time-that 3S.F-happen.PERF some of thing  
 ‘At that time something happened.’ (El Aissati, p.c.)

When faced with the English ‘a moment after something else happened’, Tarifyt Berber speakers resorted to phrasings which involve *ʃwait* ‘a bit’ *ʃwait n ruxt* ‘a short time’.

- (27) a. *ʃwait n ruxt zeffa-s ʃa ħaja nnegni θ-wqaç*  
 a.bit of time after-CL.his some thing else 3S.F-happen.PERF  
 ‘A short time afterwards something else happened.’  
 b. *ʃwayt u xa t-ewqeç ʃa n lhajeθ nnegni*  
 a.bit and then 3S.F-happen.PERF some of thing else  
 ‘A short time and something else happened.’ (El Aissati, p.c.)

These facts from Tarifyt Berber support the proposal that the semantically primitive sense of MOMENT is better modelled via the phraseme IN ONE MOMENT (regarded as representing a single semantic unit), than by the word MOMENT alone—because the latter suggests (wrongly, it now seems) that MOMENT is a substantive in the syntactic sense, i.e., that it can combine with determiners and quantifiers. If this proposal is correct, then MOMENT would be analogous in this respect to its “converse” term, namely FOR SOME TIME, since it receives a formally phrasemic realisation in English (though not in many other languages).

On this interpretation, English expressions like ‘at that moment’ has to be regarded as meaning ‘at that time, in one moment’. That is, temporal anchoring to a particular time is to be represented separately and explicitly, via an explicit occurrence of semantic prime WHEN/TIME. This amounts to teasing apart the tense-like meaning (AT THIS TIME), which relates to location in time, from the aspect-like meaning (IN ONE MOMENT) expressed by IN ONE MOMENT, which is tied to a particular event.

The situation in Tarifyt Berber raises the question whether the structural realisation of MOMENT is necessarily biclausal—even in languages where MOMENT seems to be realised in monoclausal constructions. It is to this issue that we turn next.

### 4.3 The marginal status of monoclausal realisation of MOMENT in Tarifyt Berber

The most striking fact about Tarifyt Berber *ḡa<sup>r</sup>* MOMENT is not that it is manifested as an adverbial particle, but rather that it cannot occur in a monoclausal construction at all, as shown in (28). That is, there is no way to use *ḡa<sup>r</sup>* to express equivalents of English sentences such as ‘at that time it happened in one moment’.

- (28) \**ḡa<sup>r</sup>*                      *θ-wqaç*, ...  
           just.when 3S.F-happen.PERF  
           ‘Just at the moment it happened, ...’  
           ‘It happened in a moment.’

There is an alternative, adpositional candidate for MOMENT, however, which can be used in a monoclausal expression. This is a phrase of the form ‘in one hour’, i.e., with the quantifier *ijj* ‘one’ and a duration noun *θsaçat*.<sup>9</sup> Surprising enough, when combined with the quantifier *ijj* ‘one’, the noun *θsaçat* appears to be ambiguous between ‘moment’ and ‘hour’. Example (29a) illustrates this point: it is subject to two alternative readings, as shown. When combined with other quantifiers or specifiers, on the other hand, only the ‘hour’ reading is possible, as shown in (29b).

- (29) a.    *θ-wqaç*                      *ði g ij n θsaçat*  
               3S.F-happen.PERF in X one of moment/hour  
               ‘It happened in one moment’ OR ‘It happened in one hour.’  
       b.    *θ-wqaç*                      *ði g θnayan n θsaçatin*  
               3S.F-happen.PERF in X two of hours  
               ‘It happened in two hours.’

The ambiguity of (29a) compared with the univocality of (29b) is clear syntactic evidence for the polysemy of *θsaçat*. From an interpretative point of view, the fact that the two readings of (29a) are so far apart in meaning is another argument for the same conclusion. (More commonly, a word for a very short time-frame such as ‘second’ or a momentary event, such as an ‘eye-blink’, furnishes an exponent for MOMENT, and in these cases the similarity in meaning requires careful argumentation to establish that the putative polysemy is real.)

Examples (30a) and (30b) show that the same “momentary” interpretation is available with other verbs, such as *gg* DO and *za<sup>r</sup>* SEE. That is, it is not tied to the identity of any particular predicate, such as *wqaç* HAPPEN.

- (30) a. *y-ggi t ði g ijj n θsaçat*  
 3S.M-do.PERF CL.it in X one of moment/hour  
 'He did it in one moment.'
- b. *y-zri t ði g ijj n θsaçat*  
 3S.M-see.PERF CL.it in X one of moment/hour  
 'He saw it in one moment.'

Notwithstanding the availability of this option, we would like to propose a conceptual argument in favour of the view that the deep "semantic syntax" of MOMENT is biclausal. This is the argument that the aspect-like modification provided by MOMENT would simply not make sense without the implicit presence of an "eventive" frame, such as 'when it happened, ...'. To put it another way, our argument is that temporal grounding "pure and simple"—in the form of an expression like 'at this time'—is not sufficient for 'in one moment' to make sense; unless, that is, we understand that the 'time' being referred to is the time of an event taking place. It is the event which happens 'in one moment'.

This implies that even an English sentence like 'it happened in one moment' is elliptical for a semantically equivalent, but more explicit, expanded version: 'when it happened, it happened in one moment'. Consider (31). The material with the strike-through represents a clause which is typically elided in English-type languages, while being typically present in Tarifyt Berber type-languages.

- (31) [~~When it happened~~], [it happened in one moment]

□

- (32) *ga<sup>r</sup> θ-wqaç, θ-wqaç ði g ijj*  
 just.when 3S.F-happen.PERF 3S.F-happen.PERF in X one  
*n θsaçat*  
 of moment  
 'When it happened, it happened in one moment.'

As one would expect, the same construction is possible with other time-anchored, semantic primes such as DO, SEE and HEAR:

- (33) a. *ga<sup>r</sup> y-ggi t y-ggi t ði g ijj*  
 just.when 3S.M-do.PERF CL.it 3S.M-do.PERF CL.it in X one  
*θsaçat*  
 moment  
 'He did it in one moment.' (lit. When he did it, he did it in one moment.)



- b.     *ḡaʳ*             *y-zri*             *t*             *y-zri*             *t*             *ði g*  
         just.when   3S.M-see.PERF   CL.it   3S.M-see.PERF   CL.it   in X  
         *ijj θsaçat*  
         one   moment  
         ‘He saw it in one moment.’ (lit. When he saw it, he saw it in one  
         moment.)
- c.     *ḡaʳ*             *y-tsra*             *t*             *y-tsra*             *t*             *ði*  
         just.when   3S.M-hear.PERF   CL.it   3S.M-hear.PERF   CL.it   in  
         *g ijj θsaçat*  
         X   one   moment  
         ‘He heard it in one moment.’ (lit. When he heard it, he heard it  
         in one moment.)

As one can see, “momentariness” is marked in two ways in the Berber version of these sentences—via the introductory particle *ḡaʳ* and via the phrasal expression *ði g ijj n θsaçat* ‘in one moment’. (The latter expression, furthermore, is unambiguous in this context: it can only mean ‘in one moment’, i.e. it is not open to the alternative interpretation ‘in one hour’.) We see no theoretical reason why this kind of double-marking should be unacceptable in NSM theory.

5. Concluding remarks

In this chapter, we have argued for the existence of the prime MOMENT in Tarifyt Berber, while at the same time arguing that its surface syntax, and indeed its deeper “conceptual syntax”, is not the same as suggested by English expressions such as ‘at that moment’ or ‘for a moment’. Though expressions like these sound idiomatic and natural in English they are in reality English-specific, and not reliable guides to the universal syntax of MOMENT. The primary Tarifyt Berber exponent *ḡaʳ* has an exclusively adverbial syntax and requires a biclausal construction. Despite the existence of a possible (but ambiguous) phrasal exponent *ði g ijj n θsaçat* ‘in one moment’, we have proposed that the biclausal structure which is favoured in Tarifyt Berber actually represents the true universal syntax of MOMENT. Needless to say, our proposals are tentative since they are based only on facts drawn from the Tarifyt Berber language. A broader comparative perspective is required to extend the line of analysis adopted here and to test it in cross-linguistic perspective.

Abbreviations

ACC	accusative case	IND	indirect
AOR	aorist	NEG	negative
CL	clitic	OBJ	object

COP	copula	PTP	past tense particle
CS	construct state	PERF	perfective
DIR	directional	S.M/F	singular masculine or feminine
FUT	future/mood	S.F	singular feminine
IMPERF	imperfective	S.M	singular masculine

## Notes

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2. The term preverbal particle is used here as a cover term for the elements which can occur in a position which precedes the verb. They are free morphemes, which are neither verbs, nouns, adjectives nor prepositions. They are semantically heterogeneous, however, including not only Tense/Aspect/Mood preverbal particles but also the negation particle, cleft particle, relative clause particle, declarative clause particle and WH-particles. For a detailed formal cartographic description and analysis of orderings and co-occurrence properties (syntax) of this preverbal particle, as well as other preverbal particles in Tarifyt Berber, see Elouazizi (2006). For a descriptive overview of the preverbal particles in other Berber varieties, see Bentolila (1981), Guerssel (1985), Sadiqi (1997), Kossmann (1997, 2000), among others.

3. See Chaker (1983), among others.

4. Note that there is a further temporal adverb *ruxni* 'by then' which also shares the stem *rux* with the temporal primes *ruxt* 'time' and *ruxa* 'now'. The morphological stem *rux* presumably originates from the Standard Arabic *alwaqtu* 'time'.

5. There are, however, some very restricted contexts where *ga'* 'when' can be used with verbs in the imperfective. To the best of our knowledge this is restricted to the habitual-imperfective contexts in Tarifyt Berber. We do not make any claim about the situation in other varieties of Berber.

6. The syntactic and the semantic asymmetries between the temporal adverb *zga* 'when' and the temporal adverb *džexmi* 'when' extend beyond the descriptive criteria of the aspectual shifts (perfective vs. imperfective) and event structure (sequential vs. parallel) to other structural and distributional asymmetric properties. We will not elaborate on these here.

7. Note that in other contexts these words can mean 'a bit' and 'a lot', respectively.

8. Note that in other contexts the word *zaθ* has a locative function as it can mean 'in front of'. Likewise, the word *zeθa* has a locative function and can mean 'behind'. The words *qbr* and *mbačd* are loan words from the Standard Arabic words *qabl* and *bačd*, meaning 'before' and 'after', respectively.

9. The duration noun *θminute* 'minute' also exhibits the same polysemy, i.e. with quantifier *ijj* 'one', it can be interpreted to mean 'moment'.

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## **The ethnogeometry of Makasai (East Timor)**

Anna Brotherson

The identification of language universals has long been a topic of interest. This article tests a number of theories in relation to universal human conceptualisation of space, by analysing spatial concepts in the Papuan language Makasai (East Timor). This analysis is conducted within the framework of the Natural Semantic Metalanguage (NSM). This chapter provides detailed NSM explications for various Makasai shape adjectives, which are then compared and contrasted with spatial terms of English (Wiezbicka 2003, 2006). This analysis finds that while a number of posited language universals are indeed present in Makasai, others are not, and therefore should no longer be considered universal. The chapter also demonstrates the value of using NSM in the search for language universals, and for analysing and comparing spatial terms across languages.

### **1. Introduction**

Recent developments in cognitive science have led to increased interest in the study of space and, in particular, of concepts relating to shape. Paul Friedrich, in his 1979[1970] article, after discussing in detail the various “shape-oriented sets” of Tarascan, proposes the following as possible language universals: “(1) the complex concept of orifice(-curved) edge; (2) the trichotomy of “long, flat, and round,” or (...) the relative salience of one, two, and three dimensions; and (3) the overall shape of the zoological body, particularly the human body, as an abstract model of anatomical relations” (p. 356). However, Friedrich noted that in order to confirm the existence of cross-linguistic universals of shape, more research into these concepts across a wider typological base is needed (p. 356). Since that time, various theories and hypotheses concerning the nature and contents of a largely innate (or universal) stock of spatial concepts have been tested more thoroughly against linguistic evidence from a wide variety of languages, and the results have been typically discouraging for those hoping to find universal shape terms (see, for example, Clark 1973; Miller and Johnson-Laird 1976; discussed in Levinson 1996: 355f). Foley (1997)

concludes from the recent cross-linguistic studies on space that the idea of innate (and therefore universal) spatial concepts cannot be upheld, and that languages have “fundamentally different ways of describing spatial orientation” (1997: 216).

However, the question arises: Does the fact that the proposed spatial (or shape) universals have been found to be unsustainable mean that no spatial (or shape) universals exist in any form? Two notable disputers of such a conclusion are Cliff Goddard (1998b) and Anna Wierzbicka (2003, 2006), who argue that the spatial terms set forward as members of the Natural Semantic Metalanguage (including WHERE/PLACE, HERE, ABOVE, BELOW, INSIDE, ON (ONE) SIDE, NEAR and FAR) are both supportable as language universals and essential for the description of more complex spatial concepts within and across languages.

Indeed, the only way forward in debates such as these is, as Friedrich suggests, to gather a large and varied body of information from a wide variety of languages. Such empirical evidence can then be used to draw conclusions as to what is clearly not a conceptual universal (being absent from a certain language), and what may be considered to be universal (until proven otherwise by subsequent empirical research). Goddard and Wierzbicka’s (2002) book *Meaning and Universal Grammar: Theory and Empirical Findings* presents such cross-linguistic evidence for the spatial universals proposed above (HERE, ABOVE, and so on).

In his book *Systematic Lexicography*, Juri Apresjan (2000: 103) writes:

Each natural language reflects a specific way of perceiving and organizing (i.e. conceptualizing) the world about us. The meanings expressed in natural language form a unified system of views, a kind of collective philosophy which becomes obligatory for all speakers of that language.

In this chapter, I intend to analyse, through lexicography, the world-view reflected in the Makasai language, in relation to geometry—in particular, Makasai speakers’ perception and classification of shape. This, it is intended, will answer in part Friedrich’s call to broaden the base of empirical evidence from which theories of spatial (and, specifically, shape) universals can be upheld or refuted. Before beginning this task, I present a brief introduction to the sociolinguistic and typological background of the Makasai language, and a discussion of the methodology used in this paper to define several prominent Makasai shape terms.

Makasai (sometimes spelled *Makasae*) is the second largest language group in East Timor (surpassed only by Tetum), with over 100,000 speakers. It is widely spoken across the districts of Baucau, Quelicai, Ossu, Baguia, Laga, Laivai and Luro (Hull 2004). On SIL International’s *Ethnologue*, Makasai is classified as belonging to the South Bird’s Head-Timor-Alor-Pantar subgroup within the Trans New Guinea languages. Due to the presence of Portuguese

colonisers from the 1500s to 1975, Makasai has incorporated many lexical items from Portuguese. Makasai also has a number of borrowings from Tetum, and some words which seem to be of other (Austronesian) origin.

The basic word order of Makasai is SV in intransitive clauses and AOV in transitive clauses. Noun phrases are left-headed (with modifiers appearing after the noun). Serial verb constructions are common. Makasai is a very highly isolating language, and so its morphology is very limited. Verbs do not inflect for person, number, tense or aspect, nor nouns for case (except a possessed case), number, gender or any other feature. One clear example of derivational morphology can be seen in a process which derives verbs from other verbs. As well, some adjectives can be reduplicated to form adverbs.

The methodology used to define and interpret lexical information from the Makasai language is that of the Natural Semantic Metalanguage (NSM) (Goddard and Wierzbicka eds 1994, 2002, and other works). Semantic analysis based on this theory uses a form of reductive paraphrase, employing in its definitions a mini-language composed entirely of established language universals. In relying on simple terms which are drawn from natural language, NSM definitions (or explications) avoid the pitfalls of technical or symbolic definitions which, as well as eventually needing explanation in plain English (or another language) in order to be understood, cannot be realistically considered to be the speakers' intended meaning, and cannot be tested against a speaker's intuitions.

Furthermore, in each language studied in the NSM context exact equivalents have been found for each NSM prime. This enables each NSM explication to be translated across languages without any distortion of meaning, and so the NSM provides an effective tool for the comparison of shape terms cross-culturally. This comparative function of NSM will be demonstrated in this chapter through the comparison of Makasai shape terms with those of English, as defined in NSM by Wierzbicka (2003).

In practice, it is not always convenient or optimal to define complex terms relying solely on the 60-odd universal primes which comprise the NSM. In the description of complex objects or ideas, meanings are often best explicated using "semantic molecules", terms which are not necessarily universal and which themselves need to be explicated (see, for example, Wierzbicka 1996: 221; Goddard 1998a: 254f, 2007). Many shape terms are indeed much more simply explicated with the use of a small number of semantic molecules, such as (for English shape terms) *hands*, *ends*, *top* and *bottom* (cf. Wierzbicka 2003, 2006). Where semantic molecules are used in Makasai explications, they are marked with [M], and are themselves explicated elsewhere in the chapter.

The complete set of primes, in English and in Makasai, are given in Table 1 on the next page.

**Table 1.** Semantic primes: Makasai\*

Substantives:	ANI <i>I</i> , AI <i>you</i> , ANU U <i>someone</i> , ANU <i>people</i> , NA'I <i>something/thing</i> , AMBERE <i>body</i>
Relational substantives:	HALAPU/MAHE <i>kind</i> , GATA (DA) <i>part</i>
Determiners:	ERE <i>this</i> , TAHANI <i>the same</i> , SELUK <i>other</i>
Quantifiers:	U <i>one</i> , LOLA'E/MAI <i>two</i> , OHO <i>some</i> , HAU-SA'I/HEROBA <i>all</i> , BOUN <i>much/many</i>
Attributes:	RAU <i>good</i> , REDEKE <i>bad</i>
Descriptors:	KUIN <i>big</i> , ARAI <i>small</i>
Mental predicates:	GER <i>think</i> , MA'ENE/BA'E <i>know</i> , KARAKA <i>want</i> , SENTI <i>feel</i> , GENA <i>see</i> , WALI <i>hear</i>
Speech:	LOLO/LOLINI <i>say</i> , SOBU <i>words</i> , ?LOLOR <i>true</i>
Actions, events, movement, contact:	GINI <i>do</i> , AKONTESE/GINI <i>happen</i> , GERI-GINI <i>move</i> , GATA <i>touch</i>
Location, existence, possession, specification:	?? <i>be (somewhere)</i> , HE'E <i>there is/exist</i> , GE'E <i>have</i> , ?? <i>be (someone/something)</i>
Life and death:	LAPU'U <i>live</i> , UMU <i>die</i>
Time:	NA'I NEE/WATU'U <i>when/time</i> , OPOLOI <i>now</i> , DETE <i>before</i> , DEPOIS <i>after</i> , MU'IR (ISI) <i>a long time</i> , BESEBESE <i>a short time</i> , SOE U <i>for some time</i> , ?? <i>moment/in one moment</i>
Space:	NA'I GALU/GA'AWAI <i>where/place</i> , HE <i>here</i> , GUA <i>above</i> , GIA <i>below</i> , GA'AGA'A <i>far</i> , MALE <i>near</i> , ?GAPI <i>side</i> , MUTU <i>inside</i>
Logical concepts:	TO <i>not</i> , DAWA <i>maybe</i> , BE'U <i>can</i> , TAMBA <i>because</i> , DAWA <i>if</i>
Intensifier, augmentor:	LITA <i>very</i> , LITA/TENI <i>more</i>
Similarity:	(TA)HANI <i>like (how, as)</i>

\* ?? indicates exponents which have yet to be identified; ? indicates a provisional identification

## 2. Previous NSM studies on shape

The first major NSM study of the meaning of shape terms was Wierzbicka's (2003) paper 'Empirically established universals of language and their importance for cognitive science: The human conceptualisation of shape'. It discussed the meaning of the concept of "shape" itself, as well as providing NSM explications of English shape terms *short*, *long*, *round*, *flat* and several related terms (including the semantic molecules used in these explications). Following this came Wierzbicka's (2006) article 'Shape in grammar revisited', which sought "to establish the fundamental conceptual elements on which the semantics of shape is based, and to show how they operate in the grammar and

lexicon of English”, and, arguably, of “any other language” (p. 116, 117). One of her main theses in the latter article is that the shape terms of all languages rely on the same set of “geometrical primitives”—namely, the set of NSM terms which can be used to define all other shape terms. She proceeds to use NSM to explicate English shape-related terms, such as the verbs *sit*, *lie* and *stand*, the adjectives *high*, *low*, *tall*, *deep*, *shallow*, *wide*, *narrow*, *broad* and *straight*. The article also includes a brief section describing the Russian words *ležat’* ‘to lie’ and *stojat’* ‘to stand’, in contrast to English *lie* and *stand*.

Wierzbicka’s two studies have demonstrated that by using the natural semantic metalanguage one can construct detailed explications of shape terms in English. In this chapter, I intend to use the same methodology to analyse Makasai shape terms. In so doing, Wierzbicka’s proposed set of universal “geometrical primitives” will be tested against further linguistic evidence—that is, it will be discovered whether or not Makasai shape terms are built with the same building blocks (the NSM primes) as English shape terms.

The NSM explications of Makasai terms enable us to draw comparisons and contrasts with the nearest English terms, as explicated by Wierzbicka (2003, 2006), thus illustrating the practical value of reductive paraphrase based on a limited, fully translatable set of semantic primes.

### 3. Shape-oriented sets in Makasai

Before detailing the Makasai word classes which make reference to shape, it is important to clarify what is meant by “shape”. This concept has been defined by Wierzbicka (2003: 9), by means of the Natural Semantic Metalanguage, as follows:

- [A] *shape (of something)* =  
     if someone sees this thing  
         this someone can know something about it because of this  
     if someone’s hands [M] touch this thing everywhere  
         this someone can know the same because of this

This explication draws on the fact that the shape of an object, unlike its colour or texture, can be equally determined by touch (especially by the hands) and by sight. The components of this explication are thus included in the majority of shape terms in Wierzbicka (2003, 2006), as well as in the explications of Makasai shape terms contained in this chapter.

It should be noted at this point that the Makasai language does not have any term equivalent to English *shape*. Even so, there are several classes of words in Makasai which specify or refer to the particular shape of an item, and some of



these terms appear to be far more significant in normal discourse than are comparable shape terms in English.

The focus of this chapter is on the class of adjectives used to describe “shape”, specifically: *asan* ‘long’, *digar* ‘short’, *bokun* ‘round’, *leben* ‘flat’, *nipi’i* ‘thin’, and *aba’a* ‘thick’.

Verbs denoting the shape and/or posture of the subject also frequently occur in Makasai discourse, such as *na/nahara* ‘stand’ and *wou/bu’u/rai* ‘lie’, which are preferred to the shape-neutral locative/existential verbs such as *he’e* ‘be here’ or *de’i* ‘be up there’; but for reasons of space, posture verbs cannot be discussed in this chapter. A third shape-oriented set is a small class of Makasai numeral classifiers, including: *boku* roughly, ‘three dimensional’, *asa* roughly, ‘two dimensional; flat’ and *lapi* roughly, ‘one dimensional, long and thin’. These classifiers are optional and relatively rare (cf. Carr 2002), and I will not discuss them in this chapter.

## 4. Semantic analysis of Makasai shape adjectives

### 4.1 *Asan* and *digar*

The Makasai word *asan* has a wide variety of uses and can correspond to various English glosses including ‘thin’, ‘high’, ‘tall’, and ‘long’. Consider the following examples:

*panu asan* ‘a thin face’, *umurapa asan* ‘a high mountain’, *butil asan* ‘a tall bottle’, *ate-lolo asan* ‘a long stick’, *munu asan* ‘tall grass’, *bistidu asan* ‘a long dress’, *muri asan* ‘a long nose’, *biti asan* ‘a rectangular mat’, *detu asan* ‘a long fence/a high fence’, *liu asan* ‘a deep waterhole’.

I propose that *asan*, like English *long*, is polysemous (cf. Wierzbicka 2003). The first meaning I will discuss is the “classifying meaning” (henceforth referred to as *asan*<sub>1</sub>), which has the ability to be used in a description of an object unknown to the speaker. For example, if someone were to see a tall tree in the distance, but could not make out exactly what it was, he or she would be able to use *asan* to describe it:

- (1) *Ani na’i asan woi gena.*  
 I something *asan* there see  
 ‘I can see something tall over there.’

(As we will see, this function can be contrasted with that of adjectives such as *digar* ‘short’, which cannot be used in such a context.)

In my data, *asan* was used in the descriptions of a skewer, a belt, a jam jar, a candle (cylindrical, measuring roughly 9cm in height and 7cm diameter), a marble (chicken) egg, and a carrot. While some of these, such as the skewer, the belt, and the carrot, fit well with the English concept of 'long' (*long<sub>I</sub>* in Wierzbicka 2003), it would be rare indeed for an English speaker to classify a jam jar, a candle of the dimensions given, or an egg as 'long'. However, despite the apparent difference in usage between *asan<sub>I</sub>* and *long<sub>I</sub>*, the definition of English *long<sub>I</sub>* (as found in Wierzbicka 2003) seems, at first sight, to fit with all the occurrences of *asan<sub>I</sub>*:

- [B] something *long<sub>I</sub>* =  
     if someone sees this thing,  
         this someone can know something about it  
     because of this, this someone can think about it like this:  
         "this thing has two ends [M]"<sup>1</sup>  
     if someone's hands [M] are touching this thing everywhere,  
         this someone can know the same about it  
     because of this, this someone can think about it in the same way

The reason that this definition of *long<sub>I</sub>* seems equally applicable to *asan<sub>I</sub>* despite the slight difference in the usages of the two words is that the explication provided for *long<sub>I</sub>* relies on the semantic molecule *ends*, which itself is explicated as follows (Wierzbicka 2003):

- [C] *the ends of something* =  
     two parts of something  
     these two parts are not like all the other parts of this thing  
     one of these two parts is on one side of this thing  
         the other is on the other side  
     if someone thinks about the other parts at the same time,  
         this someone can think about these two parts like this:  
             "one of these two parts is very far from the other part"

This English concept of 'ends', however, must not be taken for granted as a semantic building block for Makasai words such as *asan*. Indeed, there are several words in Makasai providing rough equivalents for 'end', and yet none of them correlate exactly. The most basic meaning which could be equated with English 'end' is Makasai *tapu*, which can be used to describe the 'end' of an object (such as a pen). There are two ways in which the word *tapu* can be used.

The sense of *tapu* which will be important for this discussion (*tapu<sub>I</sub>*) refers to the 'end' of an object (such as the tip of a pen), and can be defined as the part of an object which is unique in that it is furthest away from the other *tapu<sub>I</sub>*:

[D] *na'i gi-tapu<sub>1</sub>* ('the *tapu<sub>1</sub>* of something') =

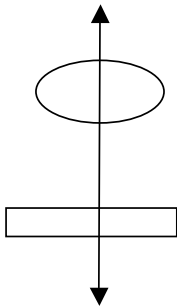
two parts of something

if someone thinks about all the parts of this thing at the same time,

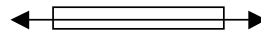
this someone can think about these two parts like this:

"one of these parts is far from the other part"

However, *tapu* can also refer to an entire "half" of something—on the condition that the item is cut across the shorter side. The opposite of this kind of 'half' is *gapi*, which refers to a 'half' of something which has been cut length-ways. For example, if the oval below were a bird's-eye view of a mountain, and the rectangle were a pen, the arrowed line on the left would create two *tapu* for each object, and the arrowed lines on the right would create *gapi*:



line creating *tapu*



lines creating *gapi*

**Figure 1.** Dividing shapes into *tapu* and *gapi*

The difference between *gapi* 'half' and *tapu* 'half' can be seen in how close the parts of the one half are to the parts of the other half. The terms can be explicated as follows, with the second, third and fourth lines of the explications providing the information that the two 'parts' are similar, and together constitute the whole object. The final components denote that each *tapu<sub>2</sub>* has a part which is far from another part of the thing (that is, has a *tapu<sub>1</sub>*), whereas each *gapi* does not have this feature:

[E] *na'i gi-tapu<sub>2</sub>* ('the *tapu<sub>2</sub>* of something') =

two parts of something

people can think about these two parts like this:

"one part is like the other part

this thing has no other parts"

at the same time this someone can think like this:

"one part of one of these two parts is far from one part of the other part"

- [F] *na'i gi-gapi* ('the *gapi* of something') =  
 two parts of something  
 people can think about these two parts like this:  
     "one part is like the other part  
     this thing has no other parts"  
 at the same time this someone can think like this:  
     "no part of one of these two parts is far from the other part"

It is the first sense of the word *tapu* which represents a similar concept to that of *end* (as in Wierzbicka 2003, reproduced above), except that each *tapu<sub>1</sub>* can be considered 'far' but not 'very far' from the other (as in the final components of *tapu<sub>1</sub>* and *tapu<sub>2</sub>*). It is this slight but important distinction which enables Makasai *asan* (which relies on *tapu<sub>1</sub>*, as I will discuss below) to refer to an egg or a candle of the proportions given, for which English *long* (relying on *ends*) would be unsuitable.

Returning to *asan* (in the classificatory sense) then, we can propose the following explication, using the Makasai molecule *tapu<sub>1</sub>* rather than English *ends*:

- [G] something *asan<sub>1</sub>* (e.g., a carrot, an egg) =  
 if someone sees this thing,  
     this someone can know something about it  
 because of this, this someone can think about it like this:  
     "this thing has two *tapu<sub>1</sub>* [M]"  
 if someone's hands [M] are touching this thing everywhere,  
     this someone can know the same about it  
 because of this, this someone can think about it in the same way

This explication uses the basic shape components (the first, second, fifth, sixth and seventh lines), with the third and fourth lines specifying the particular shape. It also uses a Makasai term, *tapu*, rather than *ends* used in the English explication of *long<sub>1</sub>* (above). The slight difference in meaning between the semantic molecules *tapu<sub>1</sub>* and *end* provides for the difference in meaning between *asan<sub>1</sub>* and *long<sub>1</sub>*.

Like *long*, *asan* also has a related sense, which is not used to describe the shape of unknown objects, but is used to refer to something which is *asan<sub>1</sub>*, and whose *tapu<sub>1</sub>* are further from each other than those of other objects of its kind (and therefore its "kind", or what it is, must already be determined). This "dimensional" or comparative meaning is most obvious in comparative expressions such as *ai ani lita asan* [you me more *asan*] 'you are more *asan* than I am'. In this sense, like *long<sub>2</sub>* (Wierzbicka 2003), *asan<sub>2</sub>* has an opposite: *digar*, which refers to something *asan<sub>1</sub>* whose *tapu<sub>1</sub>* are closer to each other than those of other objects of its kind:

- [H] *asan*<sub>2</sub> (e.g., an *asan* fence, mug, stick) =  
 this thing has two *tapu*<sub>1</sub> [M]  
 if someone thinks about other things of this kind at the same time,  
 this someone can think about this thing like this:  
 "one *tapu*<sub>1</sub> [M] of this thing is far from the other *tapu*<sub>1</sub> [M]"

- [I] *digar*<sub>1</sub> (e.g., a *digar* fence, mug, stick) =  
 this thing has two *tapu*<sub>1</sub> [M]  
 if someone thinks about other things of this kind at the same time  
 this someone can think about this thing like this:  
 "one *tapu*<sub>1</sub> [M] of this thing is near to the other *tapu*<sub>1</sub> [M]"

*Asan*<sub>2</sub> and *digar*<sub>1</sub> can be used, for example, to describe pencils, necks, noses, fences, carrots and different shaped eggs.

*Asan* and *digar* can also be used for parts of places (rather than things) such as mountains and lakes (being roughly equivalent to English *high/low* and *deep/shallow*). In these cases, the meaning is slightly different from *asan*<sub>2</sub> and *digar*<sub>1</sub>; not only do the terms refer to places rather than things, but these places cannot be seen as having *tapu*<sub>1</sub>. Rather, the meaning of *asan* and *digar* in these cases involves a comparison with other things of the same kind (other lakes and mountains) in regard to the distance from the top to the bottom. The 'default' understanding of *asan* and *digar*, is however, the comparative readings given above; hence *wair asan* 'asan river' is a long river, not a deep one, by virtue of it having two *tapu*<sub>1</sub>. A *liu* 'lake, waterhole', however, is by definition not 'long', and so the only possible reading of *liu asan* is 'deep lake' (and *liu digar*, 'shallow lake'). I propose the following explication for these meanings of *asan* and *digar*:

- [J] *asan*<sub>3</sub> (e.g., an *asan* mountain, lake) =  
 a part of a place  
 if someone thinks about other places of this kind at the same time,  
 this someone can think about this place like this:  
 "the *gia* [M: 'top'] of this place is far from the *gua* [M: 'bottom']"<sup>2</sup>

- [K] *digar*<sub>2</sub> (e.g., a *digar* mountain, lake) =  
 a part of a place  
 if someone thinks about other places of this kind at the same time,  
 this someone can think about this place like this:  
 "the *gia* [M: 'top'] of this place is near to the *gua* [M: 'bottom']"

## 4.2 *Bokun*

Another Makasai word which can be used in a classificatory sense is *bokun*. While this word can be used in a wide variety of contexts in colloquial Makasai,

there seem to be some usages which are “more correct” and preferred by my informant. I will be focusing on five of these usages in this chapter.

To begin with, *bokun* is frequently used with a meaning of something like ‘round (like an orange)’. On closer inspection, however, one sees that this concept is quite different to English *round*; it has more a meaning of ‘three-dimensional, with none of the three dimensions extending much further than another’. *Bokun* can be used to describe the shape of an unknown object (working like a classifier: *bokun*<sub>1</sub>), but can also be used comparatively, to distinguish between objects of the same kind (*bokun*<sub>2</sub>).

Both of these ways of using *bokun* have an opposite: *leben*, roughly ‘flat’ (discussed below). For example, beginning with the comparative sense of *bokun* (*bokun*<sub>2</sub>), a normal (20cm diameter, 6cm high) cake would be described as *leben*, while a cake which is very high (roughly the same height as width) would be described as *bokun*. This comparative sense of *bokun* can be explicated as follows, with the third component detailing that the object in question (the cake) only seems to be *bokun* when compared to other items of its kind (other cakes):

- [L] something *bokun*<sub>2</sub> (e.g., a cake) =
- if someone sees this thing on all sides,  
this someone can know something about it
  - if this someone thinks about other things of this kind at the same time,  
this someone can think about it like this:  
“no part of this thing is far from another part”
  - if someone’s hands [M] touch this thing on all sides,  
this someone can know the same about it
  - because of this, this someone can think about it in the same way

For the classificatory sense of *bokun*, as used to describe an unknown object which looks or feels as if no dimension extends further than another, the third component in the explication above (‘if this someone thinks about other things of this kind at the same time’) would be omitted, and replaced by a component which details that the speaker is simply thinking about the object itself:

- [M] something *bokun*<sub>1</sub> (e.g., an orange) =
- if someone sees this thing on all sides,  
this someone can know something about it
  - if this someone thinks about all the parts of this thing at the same time,  
this someone can think about it like this:  
“no part of this thing is far from another part”
  - if someone’s hands [M] touch this thing on all sides,  
this someone can know the same about it
  - because of this, this someone can think about it in the same way

A third meaning of *bokun*, again used in the classificatory sense, is shown in the following sentence, elicited as a description of a deep bowl:

- (2) *Gi-atugu'u bokun.*  
 3.POSS-bottom round  
 'Its bottom is round.'

In this case, the 'bottom' of the bowl was not spherical but hemispherical—or simply 'like a part of something spherical (*bokun*<sub>1</sub>)'. For this meaning, I propose the following explication (based on an explication of *round* (*round*<sub>2</sub>) in Wierzbicka 2003):

- [N] something *bokun*<sub>3</sub> (e.g., a *bokun* bottom of a bowl) =  
 if someone sees this thing on all sides,  
     this someone can know something about it  
 because of this, this someone can think about it like this:  
     "it is like a part of something *bokun*<sub>1</sub> [M]"  
 if someone's hands [M] touch this thing on all sides,  
     this someone can know the same about it  
 because of this, this someone can think about it in the same way

A fourth sense of *bokun*, also classificatory, but quite different from those discussed above, can be used to describe *asan* objects such as a carrot, an egg or a jar. Unlike *bokun*<sub>1</sub> objects, these objects cannot be considered spherical—in fact, they have obvious ends (*tapu*<sub>1</sub>). They can, however, still be considered *bokun* in some sense. I imagine that this attribution of *bokun* to *asan* items may have come about by virtue of the fact that *bokun*<sub>1</sub> items (oranges, marbles, apples), which by definition have no one dimension extending further than another, tend to look and feel as if they have no 'edges'; and the main part of the *asan* objects in question (the part between the *tapu*) is also notable for lacking edges. As shown in the explication [O] below, the *bokun i asan* (*bokun*<sub>4</sub>) object is considered to have *tapu*<sub>1</sub>, yet, at the same time, it is thought to be 'like something *bokun*<sub>1</sub>' because it lacks 'edges' (Makasai *wali*):<sup>3</sup>

- [O] something *bokun*<sub>4</sub> (*bokun* and *asan*; e.g., a jar, an egg, a carrot) =  
 if someone sees this thing on all sides,  
     this someone can know something about it  
 because of this, this someone can think about it like this:  
     "it has two *tapu*<sub>1</sub> [M]"  
 at the same time this someone can think about it like this:  
     "the other parts of this thing have no *wali* [M: 'edges']"  
 because of this, this someone can think about it like this:

"it is like something *bokun*<sub>1</sub> [M]"  
 if someone's hands [M] touch this thing on all sides,  
 this someone can know the same about it  
 because of this, this someone can think about it in the same way

Finally, there is a fifth meaning of *bokun*, which, like the third meaning of *round* in Wierzbicka (2003), is dependent on sight but not touch—as in a description of a noticeably round face or large round ears, which, although flat rather than spherical, look from one angle as if they might be spherical. Unlike *round*<sub>3</sub> (Wierzbicka 2003), *bokun*, when used in this function, has a comparative meaning (similar to *asan*<sub>3</sub> and *digar*, above) 'if this someone thinks about other things of the same kind at the same time, this someone can think about it like this ...'. This sense of *bokun*, then, can be explicated as follows:

[P] *bokun*<sub>5</sub> (e.g., a *bokun* face) =  
 if someone sees this thing on one side,  
     this someone can know something about it  
 if this someone thinks about other things of the same kind at the same time,  
     this someone can think about it like this:  
     "it is like something *bokun*<sub>1</sub> [M]"

### 4.3 *Leben*

*Leben* has a similar meaning to English *flat*. It is probably related to the verbs *lobe* 'spread', *lebe* 'spread out, open', and possibly *lo'e* 'open (eyes, mouth, door, etc)'. In my data, *leben* is used to describe a bowl (with low edges) and a coaster (a thin, round piece of metal).

As mentioned above, *leben* is considered to be an opposite of *bokun* (*bokun*<sub>1</sub> and *bokun*<sub>2</sub>).<sup>4</sup> Presumably, this has to do with the components in *bokun*<sub>1+2</sub> 'no part of this thing is far from another part'. In contrast to a *bokun* object, in which all three dimensions are roughly equal, *leben* refers to something that has one dimension (the vertical dimension) which is noticeably smaller than the other two. The object's other pairs of opposing sides may then be considered (comparatively) 'far' from each other. For example, the height of the *leben* bowl is considerably less than its width (its diameter), and the edge of the bowl on one side seems 'far' from the edge on the other side.

Like *bokun*, *leben* can be used in a classificatory sense; that is, it is not only used to describe an object which is unusual by virtue of its being "more" *leben* than others, but also may be used in a description of an unknown object (as in the sentence *na'i u leben* 'something *leben*'). This usage can be explicated as follows:



- [Q] something *leben*<sub>1</sub> (e.g., a cake, a bowl) =
- if someone sees this thing on all sides,
  - this someone can know something about it
  - if this someone thinks about the parts on all sides of this thing at the same time,
  - this someone can think about this thing like this:
  - “the *gia* [M: ‘top’] of this thing is near to the *gua* [M: ‘bottom’]”
  - if someone’s hands [M] touch this thing everywhere on all sides,
  - this someone can know the same
  - because of this, this someone can think about it in the same way

*Leben* can also be used comparatively, to describe, for example, a noticeably wide face or bowl. As with the explications of other adjectives which are used comparatively, the following explication specifies that the person describing an object as *leben*<sub>2</sub> must be ‘thinking about other things of the same kind at the same time’:

- [R] *leben*<sub>2</sub> (e.g., a *leben* cake, bowl, face) =
- if someone sees this thing on all sides,
  - this someone can know something about it
  - if this someone thinks about other things of the same kind at the same time,
  - this someone can think about this thing like this:
  - “the *gia* [M: ‘top’] of this thing is near to the *gua* [M: ‘bottom’]”
  - if someone’s hands [M] touch this thing everywhere on all sides,
  - this someone can know the same
  - because of this, this someone can think about it in the same way

Like English *flat* (see Wierzbicka 2003), *leben* can also be used to describe a surface such as a tabletop or the ground. In these cases, *leben* describes a place rather than an object (hence, the top of the lid of a drink bottle cannot be described as *leben* although it is *flat*), and is typically concerned with the lack of bumps (that is, with no part being above another part). Like *flat*<sub>1</sub> (Wierzbicka 2003), this meaning does not include the usual “shape” components which refer to touching with hands (as one doesn’t usually touch the ground or a tabletop to discern its “flatness”, but simply looks at it). This use of *leben* in this sense can be explicated as follows:

- [S] *leben*<sub>3</sub> (e.g., *leben* ground, tabletop) =
- if someone sees this place,
  - this someone can know something about it
  - because of this, this someone can think about this place like this:
  - “no parts of this place are above the other parts”

#### 4.4 *Nipi'i and aba'a*

The words *nipi'i* and *aba'a* are given as glosses of English *thin* and *thick*. *Nipi'i* has a classificatory sense: it can be used to describe something like a sheet of paper, as in the sentence *gi-asa nipi'i kilakila* 'its sheet is very thin'. The meaning of this sense of *nipi'i* is similar the English usage of *thin* in 'something thin and flat', and can be explicated as follows:

- [T] something *nipi'i*<sub>1</sub> (e.g., a sheet of paper) =
- if someone sees this thing,
  - this someone can know something about it
  - because of this, this someone can think about it like this:
  - 'all the parts on one side are very near to parts on another side'
  - if someone's hands [M] touch this thing on these two sides,
  - this someone can know the same about it
  - because of this, this someone can think about it in the same way

Although *nipi'i* and *leben* can each be used to describe something which has two sides close together, a comparison of the explications given above reveals the three main differences. First, the explication of *leben* makes use of the molecules 'top' and 'bottom' (which have Makasai equivalents *gia* and *gua*), whereas the object's orientation is not relevant to the meaning of *nipi'i*, and so these terms are not used in the explication. Secondly, two sides of something *leben* can be described as 'near' to each other, whereas the two sides of something *nipi'i* are considered to be 'very near' to each other. Thirdly, the two sides of a *leben* object seem near to each other in relation to the distance between other pairs of sides (as reflected in the component 'if this someone thinks about the parts on all sides of this thing at the same time'), and so *leben* can refer to something large; however, the 'nearness' of the two sides of something *nipi'i* is absolute rather than relative, and hence *nipi'i* cannot refer to something like a cake, which is only 'thin' in one dimension in comparison to the other dimensions of the cake.

Like *asan*, *bokun* and *leben*, there is a second sense to *nipi'i*, not a classificatory sense but a comparative sense. In this case, the usage is again very similar to that of English *thin*, being used, for example, to describe a fragile-looking bowl or a book with few pages. It can be explicated as follows:

- [U] *nipi'i*<sub>2</sub> (e.g., a *nipi'i* book) =
- if someone sees this thing,
  - this someone can know something about it
  - if this someone thinks about other things of the same kind at the same time,
  - this someone can think about this thing like this:
  - 'all the parts on one side are very near to the parts on another side'
  - if someone's hands [M] touch this thing on these two sides,
  - this someone can know the same about it
  - because of this, this someone can think about it in the same way

This comparative use of *nipi'i* has an opposite in *aba'a*—used to describe a book with many pages, a piece of cardboard (in comparison to a piece of paper), or a relatively strong-looking bowl. *Aba'a*, then, has an explication similar in structure to *nipi'i*<sub>2</sub>:

[V] *aba'a* (e.g., an *aba'a* book) =

if someone sees this thing,  
     this someone can know something about it  
 if this someone thinks about other things of the same kind at the same time,  
     this someone can think about this thing like this:  
         “all the parts on one side are far from the parts on another side”  
 if someone's hands [M] touch this thing on these two sides,  
     this someone can know the same about it  
 because of this, this someone can think about it in the same way

## 5. Conclusions

This chapter has explored the worldview of Makasai speakers in relation to their perception of shape, and the way in which differently shaped objects are described and referred to. A set of Makasai adjectives salient to shape have been defined and clarified through the use of an established set of natural language universals (the NSM), thus not only enabling the proposed definitions to be clearly understood and tested by native speakers' intuitions, but also allowing for fruitful and clear cross-linguistic comparison.

While Makasai does not have a word for 'shape' in general, the concept of shape is salient to Makasai culture, as demonstrated by Makasai's many shape terms, which are found in a variety of word classes and are frequently used in everyday conversation. Although salient and ubiquitous, Makasai shape terms appear to be very complex in their reference. This is in accord with Friedrich's (1979[1970]: 398) observation that the semantics of shape (among other spatial concepts) is “handled in some way at a fairly deep level in the semantics of every language system”.

Several of Friedrich's other generalisations, however, do not seem to fare so well under such cross-linguistic investigation. For example, while the universality of the “complex concept of orifice(-curved) edge” may find some degree of support in some Makasai posture verbs (not discussed here), Friedrich's use of the English word 'edge' to describe his proposed universal is clearly in need of revision, because 'edge' itself can only be defined using other English words such as *long* (see Wierzbicka 2003), which, as I have shown in this paper, do not have exact equivalents in Makasai, and therefore cannot be upheld as universal. The same is true for Friedrich's other proposed universals: 'flat' and 'round' are also both English concepts which have been shown to have (albeit

sometimes slight) semantic inequalities with their closest Makasai counterparts (*leben* and *bokun*).

It is also very important to note that other shape words which play an important role as building blocks in English shape concepts (such as the concept of 'ends') can be shown to differ in specificity and meaning (even if only slightly) from the Makasai building blocks for complex shape concepts. These words, therefore, cannot be considered to be universals.

On the other hand, this chapter has reinforced the universality and importance of the spatial concepts included in the NSM set of primes (such as FAR, NEAR, ABOVE, BELOW, SIDE, PART, and so on). These primes have been shown to be not only fundamental building blocks for the analysis and description of complex shape and space concepts in Makasai as well as English, but essential semantic tools for fruitful cross-linguistic (and cross-cultural) comparisons. As suggested by Goddard (1998b), the future of universal semantic primes of shape is, after all, looking bright.

## Notes

1. The symbol [M] refers here to a semantic molecule; that is, a term used in an explication which is not itself a prime, but is used for clarity in complex explications.
2. The Makasai words *gia* and *gua* can be explicated as follows:

*na'i gi-gia* (the top of something) =  
a part of something  
this part is above all the other parts

*na'i gi-gua* (the bottom of something) =  
a part of something  
this part is below all the other parts

This usage of *gia* and *gua* is semantically identical to that of the English 'top' and 'bottom', as explicated in Wierzbicka (2003).

3. In regards to this explication, it is important to discuss the Makasai word, *wali*, in relation to English *edge* (explication taken from Wierzbicka (2006)):

*edge* =  
a part of something  
when someone sees this thing, they can think about this part like this:  
"this part is not like the other parts of this thing  
it is like something long [M]  
on one side of this part there are other parts of the same thing  
on the other side of this part there are no more parts of the same thing"  
if someone's hands [M] are touching this part they can think the same

*wali* =  
a part of something  
when someone sees this thing, they can think about this part like this:  
"this part is not like the other parts of this thing  
it is like something *asan*, [M]  
on one side of this part there are other parts of the same thing  
on another side of this part there are no more parts of the same thing"  
if someone's hands [M] are touching this part they can think the same

Although the Makasai concept of *wali* refers back to the Makasai concept of *asan* (*asan<sub>1</sub>*), whereas English *edge* includes a reference to *long*, there is no practical difference between the use of *edge* and *wali* in explication [P]. The difference between *long<sub>1</sub>* and *asan<sub>1</sub>* concerns how far apart the ‘ends’ are, but *edge* and *wali* both include the component ‘it is like something *long/asan<sub>1</sub>*’, allowing for the two concepts to function in essentially the same way. In explication [P] I have used *wali* as a molecule (rather than *edge*) to reflect the fact that Makasai words are built on Makasai, rather than English, concepts.

4. In fact, the closest Makasai equivalent to English *What shape is it?* is *Ne talapu, bokun di leben?*, literally, ‘What is it like, *bokun* or *leben*?’

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## **The semantics of “inalienable possession” in Koromu (PNG)**

Carol Priestley

This chapter examines the semantics of “inalienable possession” constructions in Koromu, a Madang language of Papua New Guinea. Person and number suffixes or enclitics mark head nouns in possessive nominal constructions and indicate the person and number of the “possessor”. Inanimate, animate and partially animate nominal constructions describe relationships between two inanimates, two animates, or an animate and an inanimate referent, respectively. The key relationship between the two entities varies across these subtypes but rather than “possession” in the sense of ownership, it commonly involves the concept ‘part of’; for example, in ‘parts of things’, ‘parts of the same thing’ and things which are ‘like a part of something’. The natural semantic metalanguage is used to explicate the meaning of these constructions.

### **1. Introduction**

Koromu is a language of the Madang branch of the large Trans New Guinea family. It is spoken in the mid Ramu valley, in southeastern Madang Province, Papua New Guinea.<sup>1</sup> This study examines the meanings expressed by “inalienable possession” constructions in Koromu, with a view to increasing the understanding of this category, which is employed in the grammars of many Australian, African, American and Pacific languages (cf. Chappell and McGregor eds 1996).

As noted by Lichtenberk (1983: 148), among others, the standard linguistic terminology about “possession” is potentially misleading, because part-whole and kinship relations are commonly included as “possessive constructions”:

The terms ‘possessive construction’, ‘possessor’ and ‘possessed’ are to be understood as technical terms. A possessive construction need not express true possession, i.e. ownership, as in *my house*, meaning ‘the house I own’, but many other types of relationship between two entities.

**Table 1.** Semantic primes: Tok Pisin

Substantives:	MI <i>I</i> , YU <i>you</i> , WANPELA <i>someone</i> , MANMERI <i>people</i> , SAMTING <i>something/thing</i> , BODI <i>body</i>
Relational substantives:	KAIN <i>kind</i> , HAP <i>part</i>
Determiners:	DISPELA <i>this</i> , WANKAIN <i>the same</i> , NARAPELA <i>other</i>
Quantifiers:	WANPELA <i>one</i> , TUPELA <i>two</i> , SAMPELA <i>some</i> , OLGETA <i>all</i> , PLANTI <i>much/many</i>
Evaluators:	GUTPELA <i>good</i> , NOGUT <i>bad</i>
Descriptors:	BIKPELA <i>big</i> , LIKLIK <i>small</i>
Mental predicates:	TINGTING <i>think</i> , SAVE <i>know</i> , LAIK <i>want</i> , BEL/PILIM <i>feel</i> , LUKIM <i>see</i> , HARIM <i>hear</i>
Speech:	TOK <i>say</i> , TOK <i>words</i> , TRU <i>true</i>
Actions, events, movement, contact:	WOKIM <i>do</i> , KAMAP <i>happen</i> , I GO <i>move</i> , I PAS <i>touch</i>
Location, existence, possession, specification:	I STAP <i>be (somewhere)</i> , I STAP <i>there is</i> , I GAT <i>have</i> , I be <i>(someone/something)</i>
Life and death:	I STAP (LAIP) <i>live</i> , DAI <i>die</i>
Time:	WANEM TAIM/TAIM <i>when/time</i> , NAU <i>now</i> , BIPO <i>before</i> , BIHAIN <i>after</i> , LONGTAIM TRU <i>a long time</i> , LIKLIK TAIM <i>a short time</i> , LONGTAIM LIKLIK <i>for some time</i> , ?WANPELA TAIM <i>moment</i>
Space:	WE/PLES <i>where/place</i> , HIA <i>here</i> , ANTAP <i>above</i> , DAUNBILO <i>below</i> , LONGWE <i>far</i> , KLOSTU <i>near</i> , SAIT <i>side</i> , INSAIT <i>inside</i>
Logical concepts:	NO <i>not</i> , ATING <i>maybe</i> , INAP <i>can</i> , LONG DISPELA <i>because</i> , SAPOS <i>if</i>
Intensifier, augmentor:	TUMAS <i>very</i> , MOA <i>more</i>
Similarity:	OLSEM <i>like/how/as</i>

? indicates a provisional identification

In response to this situation, some scholars prefer a purely syntactic characterisation. For example, Nicholls (1988: 557) refers to a “two-member syntagmatic unit” consisting of “an endocentric NP with the possessed noun as head and the possessor as its modifier or dependent”.

Certainly in Koromu a large number of “possessive constructions” denote kinship, body-parts, part/whole relationships, personal attributes and conditions that do not involve the concept of “ownership”. Even many nouns which refer to personal items and occur with person-number enclitics are not necessarily considered as “owned” property, as discussed later. The standard terms “alienable” and “inalienable” are also problematic. In regard to these terms Nicholls (1988: 561), in her survey of a number of languages, states that “their reference is highly variable”, and goes on to describe a “broad range of structural types”

and “a considerable range of semantic properties, some of them irreducible to any common denominator”.

Section 2 below gives an overview of the Koromu forms that represent person and number, and of the grammatical constructions in the syntactic category of “inalienable possession”. This is followed in sections 3–5 by a closer examination of the usage and meaning of the three nominal constructions with person-number suffixes or enclitics (inanimate, animate and partially animate) and of how variations are influenced by the semantic nature of the head noun. Concluding remarks form section 6.

The meanings of the Koromu constructions are explicated in the natural semantic metalanguage (Wierzbicka 1996; Goddard and Wierzbicka eds 2002) in its English and Tok Pisin versions (cf. Priestley 1999a, 1999b). The NSM semantic primes are presented in both languages in Table 1 on the previous page. Tok Pisin is a lingua franca of Papua New Guinea and a language spoken by many Koromu speakers.<sup>2</sup>

## 2. Koromu person-number forms

Person and number are represented in Koromu by independent personal pronouns and verbal suffixes (representing object/person/number or tense/subject. person/number). The following sentence illustrates the third person plural forms:

- (1) *Yene sopo-neka-e.*  
bird strike-O.3PL-3PL  
‘They struck the birds.’

Person-number marking is also found in nominal suffixes/enclitics with the head noun of possessive nominal constructions, as in (2). This “inalienable” type of possessive typically involves the notion of ‘part of something’ expressed by a head-marked construction. The “alienable possession” construction, in contrast, is dependent-marked, via the genitive suffix *-o*. When the possessor is a pronoun, the suffix fuses with the pronoun, giving rise to person-number marked genitive pronouns, as in example (3).

- (2) *esame wai-ne*  
dog teeth-POSS.3SG  
‘the dog’s teeth’ (or: ‘teeth of a dog, dog teeth’)
- (3) *Io weini, Napiri.*  
GEN.1SG name Napiri  
‘My name is Napiri.’



The following tables summarise person-number morphology. Comparing Tables 2 and 3, it can be seen that tense-subject.person-number forms begin with a vowel or with *h*, while (except for certain first-person singulars) other person-number forms tend to have initial consonants. As will be evident from Table 4, verbal object suffixes and nominal person-number suffixes or enclitics show the greatest similarity in form. The same phenomenon has been found in many other languages; cf. Sapir (1917: 89), Seiler (1983: 22).

**Table 2.** Koromu personal pronouns

Person-number	Personal Pronouns	Genitive personal pronouns
1SG	<i>i</i>	<i>io</i>
2SG	<i>ne</i>	<i>no</i>
3SG	<i>ni</i>	<i>nio</i>
1PL	<i>sene</i>	<i>sono</i>
2PL	<i>te</i>	<i>to</i>
3PL	<i>nene</i>	<i>nono</i>

**Table 3.** Koromu tense-subject.person-number verbal suffixes

Person/number		Non-future	Future
Singular	1	<i>-i</i>	<i>-hi</i>
	2	<i>-i</i>	<i>-amu</i>
	3	<i>-a</i>	<i>-hera</i>
Plural	1EXCL	<i>-ia/-ie</i>	<i>-hia</i>
	1INCL	<i>-ia/-ie</i>	<i>-aho</i>
	2	<i>-ia/-ie</i>	<i>-amua</i>
	3	<i>-e</i>	<i>-here</i>

**Table 4.** Other person-number suffixes/enclitics

Person-number	Verbal object.person-number	Nominal person-number
1SG	<i>-se</i>	<i>-ima/-mai/-mei</i>
2SG	<i>-ne</i>	<i>-name</i>
3SG	<i>-Ø</i>	<i>-ne((ra)ma)</i>
1PL	<i>-seka</i>	<i>-sikama</i>
2PL	<i>-teka</i>	<i>-tapa</i>
3PL	<i>-neka</i>	<i>-napa</i>

It should be noted that the first-person singular suffix/enclitic varies depending on the type of noun it occurs with. With kinship nouns it is *-ima*, but with other nouns it may be *-mai* or *-mei*, owing to a rule of progressive vowel harmony. More details of Koromu morphology are given in Priestley (forthcoming).

### 3. Inanimate nominal constructions: ‘Parts of things’

Inanimate nominal constructions consist of an optional, dependent noun (possessor) without a genitive enclitic which denotes an inanimate entity and a head noun (possessed), also denoting an inanimate referent, with the suffix *-ne*. Formally the suffix is third-person singular, but it occurs even when a head noun has a plural referent, as in (4) (there is no nominal number-marking in Koromu). In this construction *-ne* can be interpreted as an index or indicator of the presence of the semantic prime PART. (Suffix *-ne* sometimes appears as *-no* owing to a rule of progressive vowel harmony.)

- (4) *Wau ne re-pe oru-nama tan*  
 banana eat PUT-SR insides-POSS.2PL strong  
*ta-r-a-ne nahe tumu-ne pu-ae!*  
 END-NEAR-3SG-DR.IR.CS yam shoot-POSS.3SG plant-IMP.2SG  
 ‘Eat the bananas and when your insides are strong, plant the yam shoots.’

Linguists frequently refer to ‘parts’ of a whole in their descriptions of “inalienable possession”, and of course the concept PART is one of the semantic primes in the natural semantic metalanguage.<sup>3</sup> As noted by Wierzbicka (1996: 61), it has an important role in the semantics of possessive constructions:

The label “possessive”, frequently used in grammatical descriptions, has no constant semantic content, but it is usually used with respect to constructions whose meaning involves the concept of PART. For example, the so-called “inalienable possession” is usually based on the notion of ‘a part of a person’ or ‘a part of a person’s body’ (often extended to things which are seen as ‘like a part of a person’; see Chappell and McGregor 1996).

The prime PART is expressed in Koromu by *mo* in substantive phrases, for example, *mo aere* ‘two parts’ (the form *mo* is also commonly used for ‘this’ and for ‘here’). When describing parts of things *asao* is the exponent, as in *kamene mete asao* ‘the liver is part of the body’ (The form *asao* is also used for ‘some’). However, in inalienable possession constructions a nominal suffix or enclitic occurs with the head noun.

When a syntactic relationship between two nominals consists of an initial noun with an inanimate referent, the final noun (with the suffix *-ne*) represents a PART of the initial referent. This can be expressed in an explication as follows, using English and Tok Pisin exponents, respectively:

[A1] thing (X) thing (Y)-*ne*:

I think about thing (Y) like this:  
 “it is a part of something (X)”

[A2] mi tingting long samting (Y) olsem dispela:  
 "em i wanpela hap long samting (X)"

Some nouns that represent parts of plants and other things, such as fires and rivers, obligatorily take suffix *-ne*, because they always refer to 'parts' of things; for example *tumu-ne* 'shoots' in example (4) above. Other nouns may be used either to refer to parts, or to separate entities. For example, *tiri ya-ne* refers to the 'sap of a tree' (i.e., to part of a tree), while the unmarked noun *ya* 'water' refers to rain, rivers and so on.

Inanimate nominal constructions can be grouped under several headings. Perhaps the most prominent grouping is parts of plants. Some examples follow:

*tiri sere-ne* 'fruit of a tree (cf. *sere* 'give birth/remove')', *tiri ya-ne* 'sap of a tree (cf. *ya* 'water')', *tiri kini-ne* 'roots/stump of a tree (cf. *kini* 'rope')', *ihi sisi-ne* 'peelings/waste of sugar cane', *ihi suhu-ne* 'head of sugar cane', *nau tomu-ne* 'juice of coconut', *wau ao-ne* 'milk of banana tree', *tiri mohu-no* 'top of tree', *tiri amkoru-no* 'middle of tree (cf. *amkoru* 'middle')', *sarene pe-ne* 'vine of the Flame of the Forest (cf. *pe* 'neck, long thin thing?')', *koia tumu-ne* 'shoots of the sweet potato'

Some part nouns, such as *tumu-ne* 'shoot' and *sere-ne* 'fruit (seed)', can occur with a great variety of different plant types. They consistently occur with the suffix *-ne*, i.e., even when physically separated from the "parent" plant they are referred to as part of the parent plant, the part that reproduces or supplies food.

- (5) *Mere tumu-ne pu-hi=mo.*  
 melon shoot-POSS.3SG plant-FUT.1SG=DEC  
 'I will plant the melon shoots.'
- (6) *Esere wene uo, yakuti sere-ne.*  
 cassowary food LNK yakuti fruit-POSS.3SG  
 'Cassowary food, it is *yakuti* fruit.'

Some plant terms occur with *-ne* when they indicate parts of a plant but are unsuffixed when they represent a separate entity such as an implement; for example, *tiri mati-ne* refers to 'leaves of a tree', but unsuffixed *mati* 'leaf' is used when referring to leaves as 'plates', 'covers', 'paper' or 'pages'. Plant terms<sup>4</sup> which refer to either a plant or a "plant product" are not marked as parts e.g., *pesike* 'bean', *koia* 'sweet potato', *nahe* 'yam'.

A second grouping includes parts of place-based entities, such as fires and rivers. For example: *hisai-ne* 'glowing ash (of fire)', *mea-ne* 'light/glow (of

fire’), *hekeni kusi-no* ‘light of the fire’, *hekeni ami-no* ‘eye of the fire’. In contrast, dead ashes and the smoke of a fire are generally referred to with a sequence of two unmarked nouns (*hekeni aho* ‘ashes’, *hekeni pera* ‘smoke’). Cold ashes and smoke can be seen separate from the fire (when it is dead or hidden from sight), and therefore do not occur with *-ne*. They are also not something that one can ‘do something’ with, as one can with a separate entity like *mati* ‘leaves’. Parts of rivers can also occur with the suffix *-ne*, for example: *ya pe-ne* ‘the head (lit. neck) of the river’, *ya ehi-ne* ‘the branch (lit. leg) of the river’.

Parts of artefacts or manufactured items represent a third grouping, e.g., *tike kumu-ne* [knife point-POSS.3SG] ‘the point of a knife’. Physical “oriented parts” such as sides, tops and bottoms also occur with the suffix *-ne*. For example, *tiri ta-ne* [tree side-POSS.3SG] may refer to a slab of wood or to the side of a tree trunk. It can also refer to a location (roughly, ‘beside the tree’), but this is presumably a different construction, which would not fall under explication [A].

#### 4. Animate nominal constructions: Kinship

By animate nominal constructions, I refer to a set of constructions potentially involving two nouns, both referring to animate beings and describing their kinship relationship. The initial dependent noun (which can be omitted) is followed by a head noun carrying a person-number suffix.

- (7) *Taukate aha-ne hare mere are ta-te ...*  
 Taukate mother-POSS.3SG ANIM move.up arrive END-DR  
 ‘He went up and arrived near Taukate’s mother.’

It is necessary to distinguish several related constructions: kinship terms with no dependent noun, inflected head and inflected dependent noun kinship constructions, and inflected head noun kinship constructions. People can also be referred to by personal names and titles without suffixation. These possibilities are briefly described in turn.

If a kinship term appears with a first-person or second-person number suffix, the meaning is clear without a preceding dependent noun, as in (8). A third-person dependent noun can also be omitted if the referent is clear from context, as in (9).

- (8) *Pa-ima wuri-hi-mpe.*  
 father-POSS.1SG see-FUT.1SG-INT  
 ‘I intend to see my father.’

- (9) *Wera, 'Ya hes-apesi', u-a-te aha-nema=te*  
 child water wash-WANT say-3SG-DR mother-POSS.3SG=NF  
*te eme te-pe yare-r-a.*  
 NF hold.on.shoulder get-SR go-NEAR-3SG  
 'The child said, "I want to wash," her mother put her on her shoulder  
 and went.'

The dependent noun and the person-number nominal suffix can both be omitted if a kin word is being used as a term of address marked by the suffix *-ya*, as in *Naki-ya!* [sister-ADD] 'older sister (ego is male)!', or as a vocative/exclamative term with the enclitic *=o*. A nominal suffix can also be retained prior to the address suffix, as in *Naki-ma-ya!* [sister-POSS.1SG-ADD] 'My older sister!'.

Generally speaking, when an overt dependent noun with a genitive enclitic occurs, it provides extra detail and clarifies the identity of the subject, or it provides emphasis in an initial or introductory utterance.

- (10) *Weau=te, Punt-i-o pa-ne, Weau=te hoko her-a.*  
 Weau=NF Punt-i-GEN father-POSS.3SG Weau=NF make PUT-3SG  
 'Weau, Punt-i's father, Weau, made it.'

- (11) *Io ah-ima=te, "Nau topi-ae!" u-a.*  
 1SG mother-POSS.1SG=NF coconut climb-IMP.2SG say-3SG  
 'My mother said, "Climb the coconut tree!"'

A kinship construction with a dependent noun that has no genitive enclitic and an inflected head noun forms a term of reference, or title. This term of reference can be substituted for a name when the name is "taboo" to a speaker owing to the relationship between the participants. It can also be substituted for a kinship term if there are several people that the kinship term could refer to.

- (12) *Makani pa-ne yo-i.*  
 Makani father-POSS.3SG call-1SG  
 'I called Makani's father.'

#### 4.1 The semantic nature of marked kinship terms

Kin relationships are said to be "inseparable" on the basis of the unchangeable, physical link between mother and child: "[they] cannot be undone, and they cannot be established in any other way" (Scheffler 1973: 750). The people involved are "necessarily associated" (Lyons 1968: 301). Fortes proposes an "axiom of amity" which "reflects biological and psychological parameters of

human social existence” (1969: 251). In addition, Freeman (1973: 110) argues that kinship behaviour builds bonding between infants and mothers. Keesing defines kinship as a “network of relationships created by genealogical connections, and by social ties (e.g., those based on adoption) *modelled on* the “natural” relations of genealogical parenthood” (1975: 12).

Nevertheless, the choice of which kin terms are marked as inseparable varies across languages. In Koromu, kinship constructions refer to relationships by birth, marriage or initiation, suggesting that people think of themselves as belonging to fairly distinct social groups. In the following cultural script ‘everyone in this place thinks like this’, gives the standard view. This is a first-person perspective embedded in a larger social perspective about relationships by birth, marriage and initiation:

[B1] *Cultural script for Koromu kinship bonds*

everyone in this place thinks like this about some people:  
 “these people are all parts of one thing  
 I am part of the same thing”  
 they don’t think like this about other people

[B2] *olgeta long dispela ples i tingting olsem dispela long sampela manmeri:*

“dispela manmeri em i olsem hap bilong wanpela samting  
 mi i hap bilong wankain samting”  
 ol i no tingting olsem dispela long narapela manmeri

Cultural explanations of why people think of themselves as ‘parts of’ kinship groups are not part of the meaning of the constructions as such, but they aid understanding and highlight the importance of Koromu kinship ties, in contrast with modern western individualism. The kin terms are based on age, birth order, sex, and generation.

In Koromu society, people who are related by birth (consanguineal kin, including adopted members; see Table 5) generally live together and they garden, hunt and do many other things together as a familial group. In NSM terms, they ‘live in the same place for a long time’ and they ‘do many things’, as if they were all ‘parts of one thing (i.e., a family)’.

Likewise, after marriage, affinal kin (see Table 6) usually live and work in the same place together for a lifetime. Rights, obligations and social bonding between a man, a woman and their families include a ‘bride price’ of pigs, (Finisterre) pots, shells and money, given by the man’s family to the bride’s mother, brothers and other kin. The mother, who gave birth to, cared for and trained the girl, receives the best meat. People who eat this food must use kin terms or terms of reference as substitutes for the personal names of their affines. The marriage is established when the families gather, speeches are

made and the wife gives food to her new husband. Later a woman from the groom's kin must marry one of the bride's male kin. If a woman leaves her husband, she must leave her children, and the other woman must leave hers, a situation people strive to avoid.

**Table 5.** Consanguineal kinship terms

Kin Term	Sex of ego	Sex of referent	Closest English gloss
Kin one generation above ego			
<i>pa-</i>	M/F	male	father
<i>ahe-</i>	M/F	female	mother <sup>5</sup>
<i>yei-</i>	M/F	male	mother's brother
<i>asine-</i>	M/F	M/F	firstborn sibling of the mother
Kin two generations above ego			
<i>asi-</i>	M/F	M/F	grandparent
<i>asuahi-</i>	M/F	male	grandfather
<i>asinai-</i>	M/F	female	grandmother
Kin three generations above ego			
<i>yapa-</i>	male	male	great grandfather
<i>hena-</i>	male	female	great grandmother (cf <i>hena-</i> 'wife')
<i>e-</i>	female	male	great grandfather (cf <i>e-</i> 'husband')
<i>potu-</i>	female	female	great grandmother
Kin in same generation: siblings, father's siblings and mother's sisters offspring			
<i>naki-</i>	male	female	older sister/female cousin
<i>moto-</i>	female	male	older brother/male cousin
<i>ai-</i>	M/F	same sex	firstborn/older sibling/cousin
<i>nonu-</i>	M/F	same sex	younger sibling/cousin
<i>ainaki-</i>	male	female	firstborn sibling
<i>aimoto-</i>	female	male	firstborn sibling
Kin in same generation: mother's brother's offspring			
<i>wa-</i>	M/F	M/F	older cousin by MB
<i>wanaki-</i>	male	female	older female cousin by MB
<i>wamoto-</i>	female	male	older male cousin by MB
Kin one generation below ego			
<i>ori-</i>	M/F	M/F	children of <i>naki-</i>
<i>wera-</i> <sup>6</sup>	M/F	M/F	all children except <i>ori-</i>
Kin two generations below ego (cf grandparents)			
<i>asi-</i>	M/F	M/F	grandchildren
Kin three generations below ego (cf paternal great grand parents)			
<i>hena-</i>	M/F	female	great granddaughter (cf <i>hena-</i> 'wife')
<i>yapa-</i>	M/F	male	great grandson

**Table 6.** Affinal kinship terms

Kin term	Sex of ego	Sex of referent	Closest English gloss
<i>e-</i>	female	male	husband
<i>hena-</i>	male	female	wife
<i>meni-</i>	female	male	brother's wife
<i>ya-</i>	male	M/F	brother/sister-in-law
	female	male	older sister's husband
<i>tani-</i>	male	M/F	wife's parents
	female	male	younger sister's husband
<i>piti-</i>	female	M/F	husband's parents

Some affines of different ages or generations can be referred to by consanguineal kin terms, which reinforces the notion that the people concerned are considered ‘part of one thing’; for example: *ai-* ‘elder’ for the husband or wife of an older same sex sibling; *nonu-* ‘younger one’ for the husband or wife of a younger same sex sibling; *wera-* and *ori-* for the generation below and *asi-* for the second generations above and below. In the generation above ego, men and women can be referred to as *pa-* for males, and *ahe-* for females.

Aside from birth-related and marriage-related kin, another important set of Koromu social relationships are “age-mate/initiation” *ohu-* relationships. Starting at about the age of eleven, men traditionally experienced a series of physically and emotionally challenging rituals. They learnt important cultural information, progressed toward manhood and established key relationships with *ohu-* ‘age-mate/fellow initiates’. The closest concept in English is ‘blood-brothers’:

- (13) *Ohu-ma*                      *yar-a-te*    *oru*        *meri-se-r-a*.  
 agemate-POSS.1SG   go-3SG-DR   insides   move.up-O.1SG-NEAR-3SG.  
 ‘My age-mate is going and I am sorrowing (lit. my insides move up).’

In summary, Koromu marriage and initiation ceremonies establish long-lasting, indivisible relationships similar to relationships established by birth.<sup>7</sup> Suffixes on the head noun indicate that the people concerned are ‘part of one thing’. As Sapir (1917: 88) said of comparable constructions in North American languages: “MY FATHER is not one who is owned by me, but rather one who stands to me in a certain relation”. The essential semantic content is “personal relation, not possession”.

Some human relationships are not marked by suffixes: *awe* ‘child’, *herari* ‘initiate of another generation’, *namu* ‘namesake’, *namuka* ‘woman of similar age to female ego’. They are not regarded as ‘part of one thing’ in the same way as a person’s blood, marriage or age-mate kin. For example, *namuka* refers to women of similar age, who come of age individually at the time of their first menstruation. Separate ceremonies and taboos occur for each of them.



## 5. Partially animate nominal constructions

Partially animate nominal constructions have an optional marked or unmarked dependent noun followed by an enclitic marked noun phrase or postpositional phrase. The optional dependent noun has an animate referent but the head noun can consist of a common noun, an inanimate part noun or an inanimate nominal construction. Head nouns are unmarked in other contexts.

- (14) *Pororo Enai pa mene-pu-r-a. Wene=ne aine.*  
 Little Egret Ramu G/L stay-HAB-NEAR-3SG food=POSS.3SG fish  
 'The Little Egret lives at the Enai/Ramu River. Its food is fish.'
- (15) *Esame nupu=mai, nupu tiri pa son-te ...*  
 dog many=POSS.1SG all<sup>8</sup> tree G/L flow-DR  
 'My many dogs, all poured out to the tree ...'
- (16) *Tamaite io sere-ne=mai sei oro te-pe ...*  
 man GEN.1SG egg-POSS.3SG=POSS.1SG PURP dig GET-SR  
 'Men dig for my eggs ...'

The nominal enclitic can also follow a postpositional phrase.

- (17) *ehi pa=name*  
 leg G/L=POSS.2SG  
 'on your leg'

Partially animate nominal constructions can refer to physical things such as body-parts, secretions, products and conditions, or personal resources and places. They can also refer to intangible things such as personal attributes, expressions, experiences and activities. These will be dealt with in turn.

### 5.1 Parts of the body

Sapir's (1917: 86) possession "of an inseparable nature", included mainly "terms of relationship and nouns denoting parts of the body". Body-parts are, obviously, not owned possessions.<sup>9</sup> Like 'parts of things' in inanimate nominal constructions, they refer to 'parts of a whole'. The body-part is indicated by a head noun with an enclitic. The first-person singular enclitic is =*mai*/= *mei*, not =*ima* (see Table 2). A dependent noun is omitted unless it refers to an animal.

- (18) *Oru=mai tare-se-r-a.*  
 insides=POSS.1SG hurt-O.1SG-NEAR-3SG  
 'It hurts my stomach (my insides hurt).'

A conceptual link between ‘parthood’ and ‘ownership’ has been suggested by Wierzbicka (1996: 61) in an explication for *my hand*: ‘a part of my body, if I want I can do many things with it’ (Tok Pisin: ‘wanpela hap long bodi bilong mi, sapos mi laik, mi inap wokim planti samting wantaim dispela’).

- (19) *Wapi=name      mana=te?*  
 hand=POSS.2SG    what=NF  
 ‘What have you done to your hand?’

An animal body-part can be referred to with a construction consisting of a dependent noun and a head noun with a person-number enclitic:<sup>10</sup>

- (20) *Usu ahare-ne      heri      pa    yo    n-a.*  
 pig   ear-POSS.3SG   stringbag   G/L   fill   STAY-3SG  
 ‘A pig’s ear is in the stringbag, where I put it.’

A dependent noun is only marked when it refers to a specific referent:

- (21) *Usu=o    ahare=no      era    t-a.*  
 pig=GEN   ear=POSS.3SG   lift   END-3SG  
 ‘The pig’s ears lifted.’

The inanimate nominal constructions: *wapi toko=no* ‘elbow (lit. bone of the arm)’, *ehi toko=no* ‘knee (lit. bone of the leg)’, *toko=no* ‘hip’, contrast with unmarked *toko* ‘bone’ which refers to an implement for splitting root crops into small pieces for cooking.

- (22) *Toko    te    k-ae!*  
 bone   get   come-IMP.2SG  
 ‘Bring the bone!’

Body-parts used to indicate instrument or manner do not have an enclitic expressing ‘part of something’, as shown in (23) and (24). Generic nouns are also unmarked: compare *kami=ne* ‘his/her liver’ with *kami* ‘liver’ in (25).

- (23) *Wapi    te    ehi    te    maupu-pe ...*  
 arm    INS   leg    INS   hold.down-SR  
 ‘We held it down with our hands and feet and ...’
- (24) *Sene    ehi    pate    ka-ia=mo.*  
 1PL   leg    MAN   come-1PL=DEC  
 ‘We came on foot.’

- (25) *Tamaite ahare oru pa kami men-a.*  
 man ANIM inside G/L liver STAY-3SG.  
 'The liver is inside the man.'

In contrast, some body-parts always represent 'parts', for example, *amine* 'breast', 'breastmilk' or 'milk', and *sere=ne* 'its egg', 'seeds' or 'fruit'.

The meaning represented by marked body-parts can be explicated as follows:

- [C1] I think about thing Y like this:  
 "it is a part of person X's body"
- [C2] Mi tingting long samting Y olsem dispela:  
 "em i wanpela hap long bodi bilong man X"

## 5.2 Body secretions, products and conditions

A nominal enclitic is optional with nouns representing body secretions, products and conditions. For example, *sipi=ne* 'his/her excrement', *yai=ne* 'his/her urine', *petai=ne* 'his/her blood' are 'like a part of the body' when a child has just messed his/herself or when 'blood' is running down a person's leg. On the other hand, *sipi* 'excrement' on the forest floor and *petai* 'blood' collected as a sample at cattle yards are not 'parts' since they are perceived as distinct objects, as in (26). Likewise, body conditions, such as *sehea* 'saliva', *mesiri* 'perspiration', *weri* 'sore', *sepa* 'sickness', can be considered as separate entities and denoted by nouns without enclitics, as in (27).

- (26) *Kau nupu uo, yare-pe u pate petai te here=mo.*  
 cow many LNK go-SR that S/I blood get PUT=DEC  
 'All the cows, they go there and put blood.'
- (27) *Weri arene men-a.*  
 sore big stay-3SG  
 'It's a big sore.'

In contrast with example (27), when a noun denotes a condition's real effect on a person it occurs with a person-number enclitic, as in (28):

- (28) *Ne=te weri=ne oso-r-i.*  
 you=NF sore=POSS.3SG bind-NEAR-1SG  
 'You are binding up her sores.'

The following is an explication for head nouns such as *sipi=ne*, *yai=ne*, *petai=ne* and *wer=ne*:

[D1] I think about thing Y like this:

“it is like a part of person X’s body at this time  
it is not part of person X’s body  
(it is not part of some other person’s body)”

[D2] mi tingting long samting Y olsem dispela:

“em i olsem wanpela hap long bodi bilong man X  
em i no wanpela hap long bodi bilong man X  
(em i no wanpela hap long bodi long sampela narapela man)”

### 5.3 Personal resources

Personal resources are denoted by a nominal construction with an optional dependent noun and an inanimate head noun with a person-number enclitic. Head nouns can represent manufactured things, natural resources, places, and things that people do many things with in order to live. In Koromu life, these things are not usually owned as a result of financial purchase. They are part of the “personal domain ... associated with a person in an habitual, intimate or organic way” (Bally 1996[1926]: 33).<sup>11</sup>

Manufactured artefacts are usually made from local products by the person who uses them; for example, *wesese* ‘trap’, *heri* ‘stringbag’, *wesike* ‘purple dye’. Introduced mass-produced items also occur in this category:

- (29) *Heri=mai*                      *yo-se*                      *te-r-a*.  
string.bag=POSS.1SG    carry.on.forehead-O.1SG    get-NEAR-3SG  
‘She carried my bag for me.’

When a person has the right to do something with an object, it can be compared with the exclusive ability to do things with parts of his/her own body. This concept is part of the following explication for such items as *heri=mai* ‘my stringbag’, *wesese=mai* ‘my trap’ and *wesike=mai* ‘my dye’:

[E1] I think about thing X like this:

“I did something, because of this I have this thing  
I can do many things with this thing  
like I can do with a part of my body  
(other people cannot do the same)”

[E2] mi tingting long samting X olsem dispela:

“mi wokim samting olsem, na mi gat dispela samting  
mi inap wokim planti samting wantaim dispela samting  
olsem mi ken wokim wantaim wanpela hap long bodi  
(narapela manmeri i no inap wokim wankain samting)”

Nouns denoting natural resources which can be farmed, raised, hunted or collected (such as plants for food and seeds for crops) can also occur with a

person-number enclitic. People can do things with these resources. The explanation below applies to expressions such as *wene=mai* ‘my food’, *usu=mai* ‘my pig’, *ya=mai* ‘my water’, *hekeni=mai* ‘my fire’ and *esame=mai* ‘my dog’.

[F1] I think about thing X like this:

“I can do many things with this thing  
like I can do with a part of my body  
(other people cannot do the same)  
(because of this I live)”

[F2] mi tingting long samting X olsem dispela:

“mi inap wokim planti samting wantaim dispela samting  
olsem mi ken wokim wantaim wampela hap long bodi  
(narapela manmeri i no inap wokim wankain samting)  
(bilong dispela mi stap laip)”

- (30) *Me=te wene=mai aharo ne-pe te here-r-a?*  
who=NF food=POSS.1SG bite stay-SR get PUT-NEAR-3SG  
‘Who bit into my food and then left it?’

A noun denoting ‘pig’ or ‘wild game’ occurs with a person-number enclitic when it refers to an item such as food (thereby qualifying as ‘something a person can do something with’), but there is no enclitic otherwise.

- (31) *Usu=name ia.*  
pig=POSS.2SG no  
‘You have no pig.’

- (32) *Mo usu ma mo te-pe te-r-i=e?*  
this pig what this get-SR get-NEAR-1SG=Q  
‘How did you get this pig?’

The nominal enclitic indicates who has the right to do things with an item; for example, *ya=napa* ‘their water’ is water for them to wash in; *hekeni=mai* ‘my firewood’ is firewood for me to cook with.

- (33) *I=te ya=napa poho re-pe ...*  
1SG=NF water=POSS.3PL sit PUT-SR  
‘I put down their water and ...’

- (34) *Hekeni=mai hehero-se te-r-a.*  
firewood=POSS.1SG carry.on.back-O.1SG get-NEAR-3SG  
‘She carried my firewood for me on her back.’

People use *esame* ‘dogs’ to do many things, for example, tracking and hunting. When the noun is used in such a context, it occurs with a nominal enclitic, as in (35). Compare with (36), where no enclitic is used.

- (35) *O esame=mei si weti pa k-apesi.*  
 oh, dog=POSS.1SG then house G/L come-WANT  
 ‘Oh, then my dogs wanted to come back to the village.’

- (36) ... *esame sa mere-pe* ...  
 dog place move.up-SR  
 ‘... the dogs moved up to the place and ...’

## 5.4 Personal places

*Weti* ‘house’ is a place where the inhabitants, not other people, lie down and sleep. They prepare and cook food outside or beneath the house. Animals also make places where they do things: *sisi weti=ne* ‘ant’s house’, *nakua so pa=ne* ‘at the bandicoot’s den’. These places were constructed by or have a long association with the inhabitants. In the following examples, *weti* ‘house’ occurs both without and with a person-number enclitic:

- (37) *Eno weti arene aire pe n-e.*  
 over.there house big two stand STAY-3PL  
 ‘There are two big houses standing over there.’

- (38) *Weti arene=sekama haru-r-ia.*  
 house big=POSS.1PL make-NEAR-1PL  
 ‘We are building our big house’

A village name with a person-number enclitic implies that the inhabitants can do many things there, but other people cannot:

- (39) *Saipa=napa yar-aho=mo.*  
 Saipa=POSS.3PL go-FUT.1INCL=DEC  
 ‘Let’s go to their Saipa.’

A basic explication is as follows:

- [G1] I think about place X like this:  
 “I can do many things in this place (because I live in this place)  
 other people cannot do the same”

- [G2] Mi tingting long ples X olsem dispela:  
 "mi inap wokim planti samting long dispela ples  
 narapela manmeri i no inap wokim olsem"

## 5.5 Personal attributes

Personal attributes include *onu* 'shadow, spirit, picture' and *weini* 'name'.<sup>12</sup> When the noun *onu* refers to a person's visible shadow or invisible spirit it has a nominal enclitic indicating person and number, as in (40). When it refers to a separate thing, such as a photo or carving, it does not.

- (40) *Poho n-ia-te onu=sekama ato poho n-a.*  
 sit STAY-1PL-DR shadow=POSS.1PL one sit STAY-3SG  
 'We are sitting and our shadows are sitting, too.'
- (41) *Aharopu onu haru-r-a.*  
 person carving make-NEAR-3SG  
 'He is making a carving of a person.'

A person's name is introduced with a dependent noun, genitive enclitic and *weini* 'name'. In contrast, a head noun and person-number enclitic indicate that *weini* 'name' is a long term aspect of a person that 'people can do things with':

- (42) *Io weini uo, Yoronasi. Mo weini=mei hei-am paimo.*  
 GEN.1SG name LNK Yoronasi this name=POSS.1SG find-2SG APP  
 'My name, it is Yoronasi. You might find this name of mine.'

An explication for head nouns and enclitics such as *onu=ne* and *weini=ne* is:

- [H1] I think about thing Y like this:  
 "it is like a part of person X  
 it is not part of person X  
 (it is not part of some other person)"
- [H2] mi tingting long samting Y olsem dispela:  
 "em i olsem wanpela hap long man X  
 em i no wanpela hap long man X  
 (em i no wanpela hap long bodi long sampela narapela man"

## 5.6 Personal expressions, experiences and activities

Personal expressions, experiences, and activities include utterances, thoughts, feelings and actions which can be "associated" with a person. They are indicated by nominal person-number enclitics:

- (43) *Yo=name tai ese-r-a.*  
 shout=POSS.2SG not hear-NEAR-3SG  
 ‘He doesn’t hear your call.’
- (44) *Sai=mai tai es-e.*  
 words=POSS.1SG not hear-3PL  
 ‘They didn’t hear (or listen to) my words.’
- (45) *Urunu=mae ne haru men-a=mo.*  
 thought=POSS.1SG 2SG ANIM stay-3SG=DEC  
 ‘My thoughts are with you.’
- (46) *Mahe=name ia.*  
 shame=POSS.2SG no  
 ‘You have no shame.’

*Mahe* ‘shame’ has no enclitic when referring to something the hearer does not yet have:

- (47) *Mahe te-r-i=mo.*  
 shame get-NEAR-2SG=DEC  
 ‘You must get shame.’ i.e., ‘You should be ashamed.’

*Aie* ‘work’ can also occur with a person-number enclitic:

- (48) *Aie=mae eme here-r-i.*  
 work=POSS.1SG die PUT-NEAR-1SG  
 ‘I’ve finished my work completely.’ (lit. I have put my work to death.)

These transient, intangible things (sometimes seen in mouth or body movements) are ‘like a part of a person’, and are things people THINK, FEEL, SAY or DO (predicates in NSM). Constructions such as third-person *yo=ne*, *sai=ne*, *urunu=ne*, *mahe=ne*, and *aie=ne* can be explicated roughly as follows:

- [I1] I think about thing Y like this:  
 “if someone says/thinks/feels/does something  
 this thing is like a part of person X,  
 it is not part of this person X  
 (it is not part of some other person)”
- [I2] *mi tingting long samting Y olsem dispela:*  
 “samting wanpela em i tok/tingting/pilim/wokim samting  
 dispela samting em i olsem wanpela hap long man X,  
 em i no wanpela hap long man X  
 (em i no wanpela hap long sampela narapela man)”



Partially animate nominal constructions refer to physical things that are ‘part of’ or ‘like part of a body’, as well as ‘things X can do things with, like X can do with parts of the body’. Even less tangible things can be like a part of a person.

### 6. Conclusions

Koromu inalienable possession constructions involve a noun with a suffix or enclitic indicating person and number of the possessee. The referent of the head noun can in a general sense, “be viewed either as being a **part of** the self or as being detached from the **person**” (Bally 1996[1926]: 34). These constructions vary in structure where different levels of animacy are involved—inanimate, animate or partially animate.

The range of possessive relationships expressed in languages varies, since elements that are subjective across and within languages are linked to the “social function of language” (Bally 1996[1926]: 34) and forms can differ for historical and phonological reasons (Ameka 1996). Koromu inanimate nominal constructions with nominal suffixes indicate ‘parts of things’. Some parts have obligatorily suffixes, others can occur without suffixes to denote separate uses, and others never express ‘part of something’. Animate nominal constructions with nominal suffixes indicate birth, marriage and initiation relationships as ‘part of the same thing’. Partially animate nominal constructions with enclitics vary in their semantic nature according to the semantic nature of the head nouns. These include physical things such as: ‘part of a body/person’; body secretions and conditions which are ‘like a part of a body’; personal resources: ‘I can do many things with this thing like I can do with a part of my body’, personal places: ‘a person (animal) can do many things in this place, other people cannot’. Less tangible things include personal attributes which are ‘like a part of a person’; and personal expressions, experiences and activities: ‘if someone says/thinks/feels/does something this thing is like a part of a person’; In short, Koromu possessive constructions have distinctive forms and meanings which provide insights into a semantic system that in many instances mirrors aspects of the speakers’ lives and concepts.

### Abbreviations

Conventions: Small Caps are used for glosses of grammaticised verbs: NEAR, WANT, PUT, END, STAY, GET.

ADD	address	DEC	declarative
ANIM	animate (locative, benefactive, referential) postposition	DR	different referent
APP	apprehensive	DR.IR.CS	different referent irrealis close succession

EXCL	exclusive	NEAR	near tense (now or earlier on the present day)
FUT	future	NF	nominative focus
GEN	genitive	O	object
G/L	locative	POSS	possessive/part
HAB	habitual	PL	plural
IMP	imperative	PURP	purpose
INCL	inclusive	Q	interrogative
INS	instrument	SG	singular
INT	intensive	S/I	source/inessive
LNK	link (topic-like expression)	SR	same referent
MAN	manner		

## Notes

1. Data was collected while living in a Koromu village in the late 1970s, 1980, 1986, and during linguistic fieldwork for two months in 2000 and three months in 2004. Trans New Guinea (TNG) languages are sometimes referred to in the larger, rather vague grouping of Papuan languages.

2. Koromu is a previously unwritten language. My PhD research is concerned with the grammar and semantics of the language. A detailed study of Koromu exponents of the NSM primes and their syntax is a task which remains to be completed therefore it is not possible to write full Koromu explications at this stage.

3. It has to be understood though, that the English word *part* has a broader range of use than the semantic prime PART. Wierzbicka (1996: 60) argues that the semantic prime PART coincides with the use of the English word *part* when it refers to things that are identifiable “within larger things”; for example, ‘A petal is a part of a flower’. Of the English-specific uses of *part*, one refers to a “piece” of something, or “something which cannot be thought of as an identifiable thing before it gets detached from a larger thing”; for example, *a piece of melon*. Another English-specific use refers to “a subset of a group of discrete entities, including people”; for example, *Part of them (a group of people) went to the right*. These last two uses of *part* are regarded as exemplifying SOME OF, rather than PART.

4. The following forms are possibly derived forms with incorporated final *ne* ‘3SG inalienable suffix’: *tepane* ‘plate (of wood)’ and *tahane* ‘forested area’. Both refer to something that can be considered as a ‘part of something’. The wooden plate is part of a tree, while *tahane* ‘forest’ is part of *naurupa* ‘the bush’ which includes both forests and grassland areas.

5. Additional terms are *ahimama* ‘my young mother’ or *paimama* ‘my young father’ for these kin if they are younger than the birth father or mother.

6. The general noun used to refer to babies is *wera*. Children are generally referred to as *werane*. Babies and children can be addressed as *auya*.

7. Personal names can occur with the first singular person-number suffix *-mai* and the affectionate suffix *-e*; for example: *Arikao mai-e* ‘Oh, my Arikao.’ In this context, they denote a close relationship: ‘I am part of something; this person is part of the same thing’.

8. *Nupu* is a polysemous word which can mean ‘many’ or ‘all’ depending on the context.

9. Lévy-Bruhl (1914: 98) commented on Melanesian inalienable constructions: “When I talk about my head, I do not intend to say that it belongs to me, but that it is me” (Bally 1926, translated by Christine Béal and Hilary Chappell (Chappell and McGregor 1996: 33)).

10. The analysis and organisation of data in this study is concerned with the meaning of inalienable possessive constructions. Therefore it is somewhat different to the analysis in my

forthcoming PhD thesis which includes a description of the form and meanings associated with dependent nouns.

11. Things like this participate in “inalienable possession” constructions in many languages; for example, Tolai (Austronesian): ‘hut’, ‘sleeping place’, ‘entrance’ (Mosel 1984: 44); Wayan (Oceanic, Austronesian): ‘loin cloth’, ‘sleeping place’, ‘nest’, ‘place of residence’, ‘cargo/luggage’ (Pawley and Sayaba 1990: 159).

12. Many languages in Papua New Guinea, Australia and elsewhere include some personal attributes, such as ‘shadow’, ‘name’ and ‘footprint’, in their “inalienable possession” category (e.g., Tauya in MacDonald 1990: 129).

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## CHAPTER 12

# **Tolerance: New and traditional values in Russian in comparison with English**

Anna Gladkova

This chapter examines the recent trend in contemporary Russian of increasing lexical borrowing from English. In particular, it compares and contrasts the meanings of a recently borrowed value term *tolerantnyj* with its English equivalent *tolerant* and the traditionally closest Russian equivalent *terpimyj* ‘tolerant/indulgent/forbearing’. A detailed contrastive semantic analysis demonstrates that although *tolerant* and *terpimyj* are translational equivalents, their meanings do differ and reflect different cultural attitudes across the two societies involved. The work also shows that the meaning of the new Russian term *tolerantnyj* does not fully coincide with the meaning of the English *tolerant*, as it reflects the Russian value system. This study applies the methodology of the Natural Semantic Metalanguage in conducting semantic analysis.

### **1. Introduction**

Almost a century ago a prominent Russian philosopher Nikolay Berdyaev, reflecting on the future of Russia, wrote about the need for a transformation of the Russian character. He suggested the following: “We should adopt some Western virtues and remain Russian at the same time” (Berdyaev 2000[1915]: 270). These words of Berdyaev proved to be prophetic: Russia’s opening to the world in the 1980s led to considerable changes in the lifestyle, mentality, attitudes and values of the people. These changes also had a significant impact on the Russian language. During the last two decades the process of borrowing new words from other languages and the use of previously borrowed words notably increased in Russian (Krysin 2002; Ryazanova-Clarke and Wade 1999). The majority of the recently acquired words denote new artifacts and realia which have become attributes of the changing lifestyle influenced by Western standards (e.g., *press-reliz* ‘press-release’, *butik* ‘boutique’, *brifing* ‘briefing’). More importantly, among the new words there is also a small number of value terms which provide evidence of the change in the value system and ways of thinking.

The most significant current examples of borrowings in the domain of value terms are the words *tolerantnost'* (n.) and *tolerantnyj* (adj.). They originate from Latin *tolerare*, but nowadays can be regarded as counterparts of English *tolerance* and *tolerant* due to the widespread influence of English as a global language. The story of these words in the Russian language is fascinating and bound up with the history of the country. According to several authors, *tolerantnost'* and *tolerantnyj* began to be used as value terms in Russian in the middle of the 19th century (Lara 2001; Mixajlova 2003). However, already in those days the attitude towards this linguistic innovation was not unanimous among representatives of different political movements: pro-Westerners actively supported it, while Slavophiles rejected these words and encouraged the use of traditional Russian value words. After the Revolution in 1917 *tolerantnost'* and *tolerantnyj* were discredited and put out of use because they were associated with the dangerous influence of the capitalist West. During the reforms of the 1980–90s they were rehabilitated and became “in” words of political discourse, signifying Russia becoming an open society that shares democratic values with the West. The introduction of these words is a part of the language policy of the Russian government: in 1999 President Putin launched a federal program “Tolerantnost’”, which was aimed at the development of *tolerantnost'* in the society by means of educating young people about this attitude. Indeed, *tolerantnost'* is vitally important for contemporary Russia with its multiethnic population.

The assimilation of these new concepts is influenced by the fact that as new members of the linguistic system they compete with traditional Russian value terms *terpimost'* ‘tolerance/indulgence’, *terpimyj* ‘tolerant/indulgent/forbearing’ and *terpet'* ‘bear/endure/suffer/put up with/tolerate’. In fact, the new words are often identified with these traditional terms even though their meanings are by no means identical. Given that the history of the words *tolerantnost'* and *tolerantnyj* is relatively short in Russian, it might be too premature to study their meanings in detail now. However, it would be interesting to discuss the meanings of the English words *tolerant* and *tolerate* as sources of borrowings and to compare them with the meanings of the traditional Russian value terms *terpimyj* and *terpet'*. I believe that such analysis can be a valuable objective contribution to the ongoing discussion about the meanings of the new terms because it will be based on the study of linguistic data and aimed at reconstruction of the “naïve axiology”, rather than providing a subjective philosophical interpretation of the terms. After conducting this analysis I will conclude with some observations about the use of *tolerantnost'* and *tolerantnyj* in Russian and some already noticeable differences in meanings between them and their English counterparts.

As a tool of semantic comparison I will use the Natural Semantic Metalanguage developed by Anna Wierzbicka and Cliff Goddard (Goddard and

Wierzbicka eds 1994, 2002). This approach distinguishes a set of universal primary meanings in certain canonical combinations that can be used to explicate more complex linguistic phenomena. The goal of this contrastive semantic analysis is to create explications of the concepts under consideration in these simple universal concepts. The use of such concepts in their specified combinations will make the semantic structure of these concepts transparent and easy for comprehension. The use of the natural semantic metalanguage as a neutral methodology which is devoid of any linguistic or cultural bias will also make the comparison between concepts vivid and clear.

**Table 1.** Semantic primes: Russian

Substantives:	JA <i>I</i> , TY <i>you</i> , KTO-TO <i>someone</i> , LJUDI <i>people</i> , ČTO-TO/VEŠČ' <i>something/thing</i> , TELO <i>body</i>
Relational substantives:	ROD <i>kind</i> , ČAST' <i>part</i>
Determiners:	ÉTOT <i>this</i> , TOT ŽE <i>the same</i> , DRUGOI <i>other</i>
Quantifiers:	ODIN <i>one</i> , DVA <i>two</i> , NEKOTORYE <i>some</i> , VSE <i>all</i> , MNOGO <i>much/many</i>
Attributes:	XOROŠIJ <i>good</i> , PLOXOI <i>bad</i>
Descriptors:	BOL'ŠOI <i>big</i> , MALEN'KIJ <i>small</i>
Mental predicates:	DUMAT' <i>think</i> , ZNAT' <i>know</i> , XOTET' <i>want</i> , ČUVSTVOVAT' <i>feel</i> , VIDET' <i>see</i> , SLYŠAT' <i>hear</i>
Speech:	GOVORIT'/SKAZAT' <i>say</i> , SLOVA <i>words</i> , PRAVDA <i>true</i>
Actions, events, movement, contact:	DELAT' <i>do</i> , PROISXODIT'/SLUČAT'SJA <i>happen</i> , DVIGAT'SJA <i>move</i> , KASAT'SJA <i>touching</i>
Location, existence, possession, specification:	BYT' (GDE-TO) <i>be (somewhere)</i> , BYT'/EST' <i>there is</i> , BYT' <i>have</i> , BYT' (KEM-TO/ČEM-TO) <i>be (someone/something)</i>
Life and death:	ŽIT' <i>live</i> , UMERET' <i>die</i>
Time:	KOGDA/VREMJA <i>when/time</i> , SEIČAS <i>now</i> , DO <i>before</i> , POSLE <i>after</i> , DOLGO <i>a long time</i> , KOROTKOE VREMJA <i>a short time</i> , NEKOTOROE VREMJA <i>for some time</i> , MOMENT <i>moment</i>
Space:	GDE/MESTO <i>where/place</i> , ZDES' <i>here</i> , NAD <i>above</i> , POD <i>below</i> , DALEKO <i>far</i> , BLIZKO <i>near</i> , STORONA <i>side</i> , VNUTRI <i>inside</i>
Logical concepts:	NET/NE <i>not</i> , MOŽET BYT' <i>maybe</i> , MOČ' <i>can</i> , POTOMY ČTO <i>because</i> , ESLI <i>if</i>
Intensifier, augmentor:	OČEN' <i>very</i> , EŠČE <i>more</i>
Similarity:	KAK/TAK, KAK <i>like</i>



Some very insightful research in the domain of cross-cultural and cross-linguistic study of value terms has been already successfully implemented within this framework (e.g., Goddard 2001; Travis 1998; Wierzbicka 1992, 1997). For the purpose of this study examples of the use of the words under consideration were retrieved from two representative online corpora—*Nacional'nyj Korpus Russkogo Jazyka* [The National Corpus of the Russian Language] (140 m. words) for Russian and *The Collins COBUILD Bank of English* (56 m. words) for English.

The Russian language, being an East Slavic language, determines some grammatical peculiarities of its NSM version. It shares many of the features of the Polish NSM described by Wierzbicka (2002). If compared with the English version of the metalanguage, the main differences offered by the Russian language would be aspect, that is, the distinction between “perfective” and “imperfective”, the highly developed case system (six cases) and a system of agreement based on case, number and gender (cf. Gladkova 2007).

The explications of the analysed words will be given in the English version of NSM; one of the explications will also be presented in the Russian version of NSM and its peculiarities will be discussed.

## 2. *Terpet'* and *terpimyj*

### 2.1 The cultural significance of *terpet'* in Russian language and culture

The semantics of the words *terpimyj* and *terpimost'* cannot be discussed without reference to the word they derive from, that is, the verb *terpet'*. *Terpet'* is a very common verb of attitude which reflects, roughly speaking, a culturally valued patient and stoic acceptance of hardship and suffering. Due to its salience and commonality it can be regarded as a cultural key word in Russian.

*Terpet'* is morphologically very productive and gives rise to numerous derivatives, most of which reflect culturally valued attitudes:

- terpet'* (v.): *terpelivyj* (adj.) ‘patient’, *terpelivost'* (n.) ‘patience/endurance’  
*terpenie* (n.) ‘patience/perseverance’  
*terpimyj* (adj.) ‘tolerant/indulgent’, *terpimost'* (n.) ‘tolerance/indulgence’  
*terpež* (n., coll.) ‘patience’, *nevterpež* (adv., coll.) ‘impossible to bear anymore’

These words are parts of numerous common collocations and expressions. Interestingly, in Russian the words *terpimost'* ‘tolerance/indulgence’ and *terpenie* ‘patience’ are related both derivationally and semantically, whereas English

**Table 2.** Frequency of occurrence of *terpet'* and nearest English equivalents per 1 million words (data from The National Corpus of the Russian Language and COBUILD Bank of English).

<i>terpet'</i>	50
<i>bear</i>	70.6
<i>endure</i>	7.3
<i>put up with</i>	7
<i>tolerate</i>	11.1

*patience* and *tolerance* have only some semantic relationship, but no derivational relationship. This fact also supports the idea of the salience of *terpet'* in the Russian language.

*Terpet'* does not have an exact equivalent in English, but several near-equivalents—*suffer*, *endure*, *stand*, *bear*, *put up with*, *tolerate*. The cultural importance of this word in Russian in comparison with its English equivalents can be illustrated by its relatively high frequency (see Table 2 above). As the data from the corpora suggest, *terpet'* is several times more frequent than most of its English equivalents, except *to bear*. However, *to bear* has several meanings which are not related to *terpet'*. Therefore, the polysemy of *to bear* and its high idiomaticity do not make it possible to provide a clear picture of comparative frequencies of *terpet'* and *to bear* in the meaning that is close to *terpet'*. It can be noted, however, that *to bear* is culturally less salient in English than *terpet'* is in Russian.

The salience of the *terpet'* attitude in Russian culture and mentality is not very surprising. Frequent military invasions from outside, and a long history of oppressive rule, in combination with a severe climate, might well have led to the realisation that the ability to accept suffering without protest was the only way to survive. Many Russian proverbs, a common source and repository of folk wisdom, emphasise the importance of *terpet'* as an attitude to life (Dal' 1957):

- (1) *Bog terpel i nam velel.*  
god.NOM.SG endure.3SG.PST.M.IMPERF and 1PL.DAT order.3SG.PST.M.IMPERF  
'God endured/suffered [*terpet'*] and so told us.'
- (2) *Terpi, kazak, atamanom budeš'.*  
endure.SG.IMP cossack.NOM.SG ataman.INST.SG be.2SG.FUT  
'Suffer/endure [*terpet'*], Cossack, you will become an *ataman* (a gang leader).'
- (3) *S bedoju ne perekorjajsja, terpi!*  
with misfortune.INST.SG NEG argue.SG.IMP.IMPERF endure.SG.IMP.IMPERF  
'Don't argue with misfortune, suffer/endure [*terpet'*]!'

- (4) *Čas terpet', a vek*  
 hour.ACC.SG endure.INF.IMPERF but century.ACC.SG  
*žit'.*  
 live.INF.IMPERF  
 'An hour to endure/suffer [*terpet'*], a century to live.'
- (5) *Terpja, v ljudi*  
 enduring.GER.IMPERF into people.ACC.PL  
*vyxodjat.*  
 turn out.3PL.PRS.IMPERF  
 'By suffering/bearing [*terpet'*], one becomes a person.'

Interestingly, it is difficult to find a good way of translating these proverbs into English, as well as existing similar examples among common English proverbs or sayings.

The cultural significance of *terpet'* can be associated with the attitude to life and hardships taught by the Russian Orthodox Church which has significantly influenced the development of the Russian character and way of life. *Terpet'* is semantically and ideologically very close to another Russian cultural key word and an Orthodox Christian virtue—*smirenje* (roughly, 'humility') (Shmelev 2002; Wierzbicka 1992). According to Wierzbicka (1992: 189), "the word *smirenje* denotes a religious attitude of serene acceptance of one's fate, achieved through moral effort, through suffering, and through realisation of one's total dependence on God, an acceptance resulting not only in an attitude of non-resistance to evil but also in profound peace and a loving attitude toward one's fellow human beings". *Smirenje* is about developing a peaceful attitude towards misfortunes, hardships and life as it is. Like *smirenje*, *terpet'* reflects an attitude of accepting the existing unpleasant situation, not having bad feelings towards other people and not wanting to do bad things to other people. Shmelev (2003) calls the Russian culture-specific attitude that unites these and some other words "*primirenje s dejstvitel'nost'ju*" 'reconciliation with the reality'.

The significant place of the attitude *terpet'* among other virtues can be illustrated with one famous prayer, which was written in the second half of the 19th century by a group of monks from a small remote Russian monastery Optina Pustyn'. This place attracted numerous Russian thinkers by its spiritual power and wisdom, among whom were Leo Tolstoy and Fedor Dostoevsky. The prayer addresses God with the following words:

- (6) *Gospodi, rukovodi Sam Ty moeju*  
 lord.NOM.SG direct.SG.IMP.IMPERF yourself 2SG.NOM my.INST

*voleju*            *i*        *nauči*                            *menja*    *molit'sja*,  
 will.INST.SG and teach.SG.IMP.PERF 1SG.ACC pray.INF.IMPERF  
*nadejat'sja*,        *verit'*,                            *ljubit'*,  
 hope.INF.IMPERF believe.INF.IMPERF love.INF.IMPERF  
*terpet'*                            *i*        *proščat'*.  
 endure.INF.IMPERF and forgive.INF.IMPERF  
 'Lord, Yourself guide my will and teach me to pray, to hope, to believe,  
 to love, to endure [*terpet'*] and to forgive.'

In this prayer *terpet'* is mentioned along with the other most important virtues. Nowadays this prayer is still known and treasured by Russian believers and its text can be seen distributed for free in major cathedrals.

I will now look at the semantics of *terpet'* in more detail.

## 2.2 The semantics of *terpet'*

*Terpet'* is a polysemous word. In this section I will discuss two meanings of *terpet'*—*terpet'*<sub>1</sub> as a culturally valued attitude and *terpet'*<sub>2</sub> as derivationally related to the value words *terpimyj* and *terpimost'*. *Terpet'*<sub>1</sub> is a transitive verb which can be used with or without an object. The object used in this meaning usually signifies a state related to experiencing physical or mental pain—*bol'* 'pain', *muki* 'suffering', *stradanija* 'suffering'. *Terpet'*<sub>2</sub> expresses an attitude towards people and takes another person as its object. *Terpet'*<sub>2</sub> has an extended use in which the object represents actions of other people—for example, *terpet' ee kaprizy* 'to put up with her whims'.<sup>1</sup>

*Terpet'*<sub>1</sub> as a culturally valued attitude towards suffering

*Terpet'*<sub>1</sub> denotes the attitude of a person towards a difficult physical or moral condition which this person consciously accepts and makes no attempt to stop. To refer to situations of enduring physical pain, *terpet'*<sub>1</sub> collocates with the noun *bol'* 'pain', as in the following examples:

- (7) *Éto*                            *byl*                            *čelovek*                            *s*        *poistine železnoj*  
 this.NOM.SG.NEUT be.3SG.PST person.NOM.SG with truly iron.INST.SG  
*volej.*                            *On*                            *mog*    *terpet'*  
 will.INST.SG he.NOM can.3SG.PST.M.IMPERF endure.INF.IMPERF  
*ljubye*                            *nevzgody,*                            *bol'*                            *i*        *stradanija*,  
 any.ACC.PL hardship.ACC.PL pain.ACC.SG and suffering.ACC.PL  
*nikogda ne žalujas'*    *pri étom.*  
 never NEG complain.GER.IMPERF at this.LOC.SG  
 'He was a person with a truly iron will. He was able to bear [*terpet'*]  
 any hardships, pain and sufferings and never complained.'

- (8) *Utrom,                      kogda Zina                      perevjazyvala*  
 morning.INST.SG    when Zina.NOM.SG    bandage.3SG.PST.F.IMPERF  
*emu    nogu,              Fedor                      staralsja                      ne*  
 he.DAT    leg.ACC.SG    Fedor.NOM.SG    try.3SG.PST.M.IMPERF    NEG  
*smotret'                      na ranu—                      stisnuv                      zuby,*  
 look.INF.IMPERF    at    wound.ACC.SG    clench.GER.PERF    tooth.ACC.PL  
*terpel.*  
 endure.3SG.PST.M.IMPERF  
 'In the morning when Zina was bandaging his leg, Fedor was trying  
 not to look at the wound—with his teeth clenched, he bore it [*terpet'*].'
- (9) *Ja    nokogda ...    ne    sčitala                      sebja*  
 1SG    never                      NEG    consider.1SG.PST.F.IMPERF    myself.ACC  
*sil'nym                      čelovekom,                      s                      detstva                      ne*  
 strong.INST.SG    person.INST.SG    from    childhood.GEN.SG    NEG  
*umela                      terpet'                      fizičeskoj*  
 can.1SG.PST.F.IMPERF    endure.INF.IMPERF    physical.GEN.SG  
*boli.*  
 pain.GEN.SG  
 'I have never considered myself a strong person; since my childhood I  
 haven't been able to bear [*terpet'*] physical pain.'

It is evident from these examples that the ability to bear physical pain—*terpet' bol'*—is positively valued, whereas a person who cannot do it can be regarded as weak.

As example (7) illustrates, the use of *terpet'*<sub>1</sub> can extend to conditions wider than physical pain; it can apply to other types of hardship and suffering. The following examples further illustrate this point:

- (10) *I              nikakie    durnye                      obstojatel'stva,                      kazalos',*  
 and    none    bad.NOM.PL    circumstance.NOM.PL    seem.PST.REFL  
*ne    mogli                      pridavit'                      ego.    On*  
 NEG    can.PL.PST.IMPERF    press.INF.PERF    he.ACC    he.NOM  
*mog                      kvartirovat'                      xot'    na    kryše,*  
 can.3SG.PST.M.IMPERF    lodge.INF.IMPERF    even    on    roof.LOC.SG  
*terpet'                      adskij                      golod                      i*  
 endure.INF.IMPERF    hellish.ACC.SG    hunger.ACC.SG    and  
*neobyknovennyj                      xolod.*  
 extraordinary.ACC.SG    cold.ACC.SG  
 'It seemed that no bad circumstances could influence him. He was  
 able to lodge even on a roof, endure [*terpet'*] intolerable hunger and  
 unbearable cold.'

- (11) *V tot period ja často zadaval*  
 in that.ACC.SG period.ACC.SG 1SG often ask.1SG.PST.M.IMPERF  
*sebe vopros: za kakoj grex ja*  
 myself.DAT question.ACC.SG for what.ACC.SG sin.ACC.SG 1SG  
*nesu tjažkuju karu; vot*  
 carry.1SG.PRS.IMPERF heavy.ACC.SG penalty.ACC.SG here.PART  
*uže god, kak terplju etu*  
 already year.NOM.SG as endure.1SG.PRS.IMPERF this.ACC.SG  
*nevynosimuju muku, kotoroj net*  
 unbearable.ACC.SG torment.ACC.SG which.DAT.SG NEG  
*konca?*  
 end.GEN.SG  
 'During that period I often asked myself the question: for what sin was  
 I bearing this heavy penalty? I had already been enduring [*terpet*'] this  
 unbearable torment for a year and it had no end.'
- (12) *Xotja, dumaju v Moskve*  
 although think.1SG.PRS.IMPERF in Moscow.LOC.SG  
*najdetsja ešče desjatok tysjač*  
 find.3SG.FUT.PERF.REFL another tens.ACC.SG thousand.GEN.PL  
*čelovek, terpjaščix te že*  
 people.GEN.PL endure.PTCP.IMPERF.PL that.ACC.PL PART  
*samye stradanija, čto i my.*  
 same.ACC.PL suffering.ACC.PL that and 1PL  
 'Although, I think that in Moscow there can be tens of thousands more  
 people who endure [*terpet*'] the same suffering.'

As some of these examples illustrate, the ability to *terpet*' can be associated with difficulties that a person encounters in everyday life. For instance, example (12) is taken from a Moscow citizen's letter to the mayor of the city. In this letter the person complains about the terrible noise that garbage trucks produce in the very early morning, which disturbs people's sleep. It is interesting that the person chooses to label his and other people's experience as *terpet*' *stradanija* 'endure suffering' in a situation of everyday life.

In this meaning *terpet*' can be used without an object, as in the following examples, as well as examples (1–5). In such cases *terpet*'<sub>1</sub> expresses a stoic attitude to life.

- (13) *V Rossii nado žit' dolgo i umet'*  
 in Russia.LOC.SG need live.INF.IMPERF long and can.INF.IMPERF  
*terpet'.*  
 endure.INF.IMPERF  
 'In Russia one should live long and be able to endure [*terpet*].'

- (14) *V žizni moej mne prišlos' mnogo*  
 in life.LOC.SG my.LOC.SG 1SG.DAT come.SG.PST.REFL much  
*terpet', no nikogda ne imela ja*  
 endure.INF.IMPERF but never NEG have.1SG.PST.F.IMPERF 1SG  
*nedostatka v sebe duxa i nedostatka v*  
 lack.GEN.SG in myself.LOC spirit.GEN.SG and lack.GEN.SG in  
*upovanii na Boga.*  
 hope.LOC.SG on God.ACC.SG  
 'I had to endure [*terpet'*] a lot in my life, but I never lacked will or  
 belief in God.'

To summarise, *terpet'*<sub>1</sub> is the conscious attitude of a person who encounters trouble in life. This attitude builds up due to a certain cognitive scenario which allows the person to remain in the same state. A certain way of thinking rejects a possible (more logical and natural) scenario of interrupting this state by performing some action. The essence of this way of thinking is that the person realises his or her capacity to remain in this state longer and decides to do so. The quoted examples show that this attitude is valued in Russian culture. It is valued as a temporary attitude towards pain or discomfort, as well as a general attitude to life.

In simple universal concepts the explication of *terpet'*<sub>1</sub> can be presented along the following lines:

- [A] *čelovek X terpit<sub>1</sub> Ø /bol' /muki/stradanija*  
 (person X *terpit<sub>1</sub> Ø /pain/sorrow/suffering*)
- a. something very bad has been happening to someone (X) for some time
  - b. this someone feels something very bad because of this
  - c. this someone can think about it like this:
  - d. "I don't want it to be happening
  - e. maybe if I do something, this bad thing will not be happening to me anymore
  - f. because of this, I will not feel like this anymore"
  - g. this someone doesn't want to think like this, this someone thinks like this:
  - h. "it will be good if I don't do anything
  - i. I can feel like this for some time more
  - j. I will not do anything because of this"
  - k. because this someone (X) thinks like this, this someone doesn't do anything
  - l. people think: it is good if someone can think like this
  - m. it is good if someone can live like this

This explication shows that *terpet'*<sub>1</sub> is the attitude of a person towards unpleasant conditions which happen against the person's will and which lead to this person's negative emotional state (components a and b). This person

decides not to act in this situation because he or she thinks that it is good not to try to change it and that it is possible to continue to bear it (components c–k). This kind of attitude has a positive social evaluation (components l and m).

*Terpet’<sub>2</sub> as an attitude towards people*

It is important to discuss this meaning of *terpet’<sub>2</sub>* in order to explain the meaning of *terpimyj*. Here are some examples of the use of *terpet’<sub>2</sub>* with another person as an object:

- (15) *Kapitan ne progonjal Il’ju,*  
 captain.NOM.SG NEG dismiss.3SG.PST.M.IMPERF Ilja.ACC.SG  
*terpel, budto invalida.*  
 endure.3SG.PST.M.IMPERF like invalid.GEN.SG.  
 ‘The captain didn’t dismiss Ilja, but put up [*terpet’*] with him like with an invalid.’
- (16) *A čto, esli ty terpiš’ menja— vdrug*  
 and what if 2SG endure.2SG.PRS.IMPERF 1SG.ACC suddenly  
*spxovatilsja d’javol— čto by v slučae*  
 bethink.3SG.M.PST.PERF.REFL devil.NOM.SG for in case.LOC.SG  
*provala tvoego zamysla v konce*  
 failure.GEN.SG your.GEN.SG design.GEN.SG in end.LOC.SG  
*vekov vse svalit’ na menja?*  
 century.GEN.PL everything shift.INF.PERF on 1SG.ACC  
 ‘And what if you endure [*terpet’*] me—the Devil said suddenly—so that in the case of failure of your design at the end of time to shift the blame on me?’
- (17) *Ona žalela Vadima: pokupala*  
 she.NOM pity.3SG.PST.F.IMPERF Vadim.ACC.SG buy.3SG.F.PST.IMPERF  
*v “Norde” ego ljubimyj tort s*  
 in nord.LOC.SG his.GEN favourite.ACC.SG cake.ACC.SG with  
*merengami, igrala dlja nego*  
 meringue.INST.PL play.3SG.PST.F.IMPERF for him.GEN  
*Mocarta i daže terpela ego*  
 Mozart.ACC.SG and even bear.3SG.PST.F.IMPERF his.GEN  
*zakadyčnogo druga Alika.*  
 bosom.ACC.SG friend.ACC.SG Alik.ACC  
 ‘She pitied Vadim: bought his favourite cake with meringues in “Nord”, played Mozart for him and even put up with [*terpet’*] his bosom-friend Alik.’



- (18) *Ja terpeła* *tebja tol'ko dlja togo, što by v*  
1SG bear.1SG.PST.F.IMPERF 2SG.ACC only for that for in  
*dome ne bylo tišiny, kotoŕoj ja*  
house.LOC.SG NEG be.SG.NEUT.PST silence.GEN.SG which.GEN 1SG  
*tak bojuŕ'.*  
so fear.1SG.PRS.IMPERF  
'I put up [*terpet*'] with you only so that there would be no silence in  
the house which I am so afraid of.'
- (19) *Vasilise kazalos', što nikto ee bol'se*  
Vasilisa.DAT.SG seem.SG.PST.REFL that noone she.ACC more  
*ne zamečaeť, nikto s nej ne*  
NEG notice.3SG.PRS.IMPERF no one with she.INST NEG  
*sčitaetsja, a tol'ko terpjat.*  
consider.3SG.PRS.IMPERF.REFL but only bear.3PL.PRS.IMPERF  
'It seemed to Vasilisa that no one noticed her any longer, no one took  
her into consideration, but only put up [*terpet*'] with her.'

*Terpet'*<sub>2</sub> is the attitude of a person towards another person in a situation when they have to be together for some reason—living or working. The experiencer of *terpet'*<sub>2</sub> does not like the other person for some objective or subjective reason, but expresses no dissatisfaction with that person and continues to be in the same situation with the other person. *Terpet'*<sub>2</sub> presupposes some kind of dissatisfaction with another person which is not expressed. There can be different reasons why the person chooses not to express this dissatisfaction; moral principles (as in (15)), a desire to please someone else (17), or reasons of personal benefit (16, 18 and 19). Unlike *terpet'*<sub>1</sub>, *terpet'*<sub>2</sub> does not have the component of a positive social evaluation because this kind of attitude can serve selfish needs and be perceived as humiliating.

My proposed explication of *terpet'*<sub>2</sub> is as follows:

- [B] *čelovek X terpit<sub>2</sub> čeloveka Y* (person X *terpit<sub>2</sub>* person Y)
- a. someone (X) has to be with another someone (Y) for some time
  - b. someone Y has been doing something for some time
  - c. someone X thinks something like this about it:
  - d. "this someone is doing something bad
  - e. because of this, something bad is happening to me when I am with this someone"
  - f. someone X feels something bad when someone X is with someone Y
  - g. because of this, someone X doesn't want to be with someone Y anymore
  - h. someone X wants to do something because of this
  - i. someone X doesn't do it because someone X thinks like this at the same time:
  - j. "it will be good if I don't do anything

- k. I can feel like this for some time more  
 l. I can be with this someone for some time more  
 m. I will not do anything because of this"  
 n. because someone X thinks like this, someone X doesn't do anything

### 2.3 The semantics of *terpimyj*

*Terpimyj* derives from *terpet'*<sub>2</sub> and shares some semantic components with it. However, unlike *terpet'*<sub>2</sub> it is a virtue and has a positive evaluative component. *Terpimyj* expresses the characteristic of a person who is capable of being patient and not hostile towards the views, opinions and behaviour of other people. *Terpimyj* can characterise an attitude towards people of different religious beliefs or views:

- (20) *Požiloi pan Juzef byl*  
 old.NOM.SG.M pan.NOM.SG Juzef.NOM be.3SG.PST.M  
*bolee terpim k moemu s trudom*  
 more tolerant.NOM.SG.M towards my.DAT with difficulty.INST.SG  
*skryvaemomu ateizmu.*  
 conceal.DAT.SG atheism.DAT.SG  
 'The old Pan Juzef was more tolerant [*terpimyj*] towards my hardly concealed atheism.'
- (21) *Pri étom avtor "Zapisok iz Mertvogo*  
 at this.LOC author.NOM.SG note.GEN.PL from dead.GEN.SG  
*doma" v vysšej stepeni terpim*  
 house.GEN.SG in high.SUPER.LOC.SG level.LOC.SG tolerant.NOM.SG.M  
*k inoveriju.*  
 towards dissidence.DAT.SG  
 'At the same time the author of "Memoirs from the House of the Dead" is highly tolerant [*terpimyj*] towards dissidence.'

*Terpimyj* can also denote an attitude towards other people's more general opinions or views:

- (22) *Golovin byl mjagkij, isključitel'no delikatnyj*  
 Golvin.NOM.SG be.3SG.PST.M soft.NOM.SG extremely tactful.NOM.SG  
*čelovek, pokladistyj v rabote, terpimyj*  
 person.NOM.SG agreeable.NOM.SG in work.LOC.SG tolerant.NOM.SG.M  
*k inakomysljaščim tovariščam po iskusstvu.*  
 towards otherwise-minded.DAT.PL comrade.DAT.PL in art.DAT.SG  
 'Golvin was a soft, extremely tactful person, agreeable in work, tolerant [*terpimyj*] towards otherwise-minded colleagues in art.'

- (23) *Pili malo, sporili mnogo.*  
 drank.PST.PL.IMPERF little argue.PST.PL.IMPERF much  
*Sporili, kak vseгда, neistovo i bestolkovo.*  
 argue.PST.PL.IMPERF like always furiously and senselessly  
*Sam A.Ė. byl terpim v*  
 himself.NOM A.Ė. be.3SG.PST tolerant.NOM.SG.M in  
*sporax, no molodye doxodili*  
 argument.LOC.PL but young.PL.NOM come.PST.PL.IMPERF  
*do glupostej, krajnostej.*  
 to stupidity.GEN.PL extreme.GEN.PL  
 'They drank little, but argued a lot. Argued, as usual, furiously and senselessly. A.Ė. himself was tolerant [*terpimyj*], but the young ones took it to foolish extremes.'
- (24) *Daže terpigogo Pavla Alekseeviča on*  
 even tolerant.ACC.SG.M Pavel.ACC.SG Alekseevič.ACC.SG he.NOM  
*umel vyvesti iz sebja, i ix*  
 can.3SG.PST.M.IMPERF take out.INF.PERF from himself.GEN and their  
*vstreči obyknovenno končalis' ssorami,*  
 meeting.NOM.PL usually end.PST.PL.IMPERF quarrel.INST.PL  
*krikami, xlopan'em dverjami.*  
 shout.INST.PL slamming.INST.SG door.INST.PL  
 'He could make even a tolerant [*terpimyj*] Pavel Alekseevič lose his temper and their meetings usually ended with quarrels, shouts, slamming doors.'

Mostly important, *terpimyj* is regarded in the Russian naïve axiology as an essential quality in interpersonal relationship, especially between relatives within a family. The National Corpus contains numerous examples of contemporary use of *terpimyj* as a necessary virtue in family relationships. The following two examples are taken from an internet chat room where people, especially women, share their experience of family life:

- (25) *Esli tak, to dajte mužu šans*  
 if so then give.PL.IMP.PERF husband.DAT.SG chance.ACC.SG  
*dovospitat'sja! Postarajtes ponjat' ego ešče*  
 rear.INF.PERF.REFL try.PL.IMP understand.INF.PERF he.ACC even  
*bol'se, posočuvstvujte emu, bud'te terpimee,*  
 more sympathise.PL.IMP he.DAT be.PL.IMP tolerant.COMP  
*ton'se, gibče, xitree esli xotite.*  
 subtle.COMP flexible.COMP shrewder.COMP if want.2PL.PRS  
 'If so, give your husband a chance to improve himself! Try to understand him even more, sympathise with him, be more tolerant [*terpimyj*], subtle, flexible, even shrewder.'

- (26) *Čtoby razobrat'sja, sleduet byt' terpimee,*  
 for understand.INF.PERF.REFL need be.INF tolerant.COMP  
*časče stavit' sebja na mesto*  
 often.COMP put.INF.IMPERF oneself.ACC on place.ACC.SG  
*muža (ženy) i pytat'sja*  
 husband.GEN.SG wife.GEN.SG and try.INF.IMPERF  
*ponjat' čužie problemy.*  
 understand.INF.PERF alien.ACC.PL problem.ACC.PL  
 'In order to achieve understanding, one should be more tolerant [*terpimyj*] and imagine oneself more often in the shoes of one's husband (wife) and try to understand his or her problems.'

Interestingly, several examples show that this quality is more often associated with women than with men, and that women with such a quality can be highly valued by their partners. The following quote is a record of a greeting which was sent by a boyfriend to his girlfriend over the radio:

- (27) *Ljublju tebjja po-prežnemu, i čuvstvo èto*  
 love.1SG.PRS 2SG.ACC as.before and feeling.NOM.SG this.NOM.SG.NEUT  
*navsegda, vot tak vot. Ostavajsja*  
 forever here.PART like here.PART remain.IMP.SG.IMPERF  
*takoj že prekrasnoj i terpimoj.*  
 same PART wonderful.INST.SG and tolerant.INST.SG  
 'I love you now as before, and this feeling is forever, indeed. Remain as wonderful and tolerant [*terpimyj*] as you are.'

Even more convincing examples illustrating the importance of this attitude among Russian people can be found on a web-site of single people looking for partners (A&B Service). Many women providing information about themselves write that they are *terpimyj* (along with qualities like optimistic, outgoing, joyful) presenting it as one of their virtues. Apparently, they do so because they think that this quality will be attractive to men and it will convey their ability to accept the weaknesses and faults of men like drinking, rough treatment or relationships with other women.

Contextual examples from The National Corpus of the Russian Language suggest that *terpimyj* is a positively evaluated quality, because it is usually named among other human virtues, as in the following examples:

- (28) ... *otca sčitali dobrym i*  
 father.GEN.SG consider.PL.PST.IMPERF kind.INST.SG and  
*terpimym čelovekom, mnogie ego ljubili ...*  
 tolerant.INST.SG man.INST.SG many.NOM he.ACC love.PL.PST.IMPERF  
 '... my father was considered a kind and tolerant [*terpimyj*] man, many people loved him ...'

- (29) *Prezident—           korrektnyj,       terpimyj,           vnimatel'nyj*  
 president.NOM.SG tactful.NOM.SG tolerant.NOM.SG attentive.NOM.SG  
*čelovek.*  
 person.NOM.SG  
 'The President is a tactful, tolerant [*terpimyj*], attentive person.'
- (30) *On       byl           terpim           i       čutok.*  
 he.NOM be.3SG.PST.M tolerant.NOM.SG.M and sensitive.NOM.SG.M  
 'He was tolerant [*terpimyj*] and sensitive.'
- (31) *Ėto                   menja       naučilo                   tomu,*  
 this.NOM.SG.NEUT 1SG.ACC teach.3SG.PST.NEUT.PERF that.DAT.SG  
*čto   umnye           ljudi                   terpimy           i*  
 that smart.NOM.PL people.NOM.PL tolerant.NOM.PL and  
*samokritičny.*  
 self-critical.NOM.PL  
 'It taught me that smart people are tolerant [*terpimyj*] and self-critical.'

These examples suggest that *terpimyj* is a quality of those people who develop a conscious attitude towards other people whom they do not like, but with whom they have to be together. They consciously reject the possibility of bringing the unpleasant situation to an end and accept the other person as he or she is. Such an attitude is made possible by the subject's realisation that he or she is capable of remaining in such a situation longer. This quality has a positive social evaluation.

My proposed explication of the word *terpimyj* is as follows:

[C] *terpimyj čelovek (k drugim ljudjam)*  
 (*terpimyj* person (towards other people))

- a. sometimes when a person has to be with some other people,  
     this person thinks about these people like this:
- b.       these people are doing bad things
- c.       this person feels something bad because of this
- d.       this person can think about it like this:
- e.       maybe if I do something, these people will not do these bad things anymore
- f.       because of this, I will not feel like this anymore
- g.       this person doesn't think like this, this person thinks like this:
- h.       it will be good if I don't do anything
- i.       I can feel like this for some time more
- j.       I will not do anything because of this
- k.       because this person thinks like this, this person doesn't do anything
- l.       people think: it is good if someone can be like this

This explication shows that *terpimyj* is the quality of a person which exhibits itself when dealing with other people who behave in a bad way from that person's point of view (components a and b) and cause negative emotional feelings (component c). Instead of that person thinking of doing something to put a stop to the bad behaviour (components d–f), the person adopts a different attitude, according to which he or she thinks that it would be better not to do anything in this situation, since it is possible to remain in this negative emotional state longer (components g–j). This way of thinking results in the person's not doing anything (component k). The positive social evaluation of this quality is captured in component (l).

### 3. *To tolerate and tolerant in English*

In comparison with Russian, the English language has a different story of the development of the concepts 'tolerance', 'toleration', 'tolerant' and 'tolerate'. The noun *tolerance* started being used in English in the 15th century and the verb *tolerate* and the noun *toleration* in the 16th under the influence of French and Latin (*Oxford English Dictionary*). Since that time these words have been salient terms in English and had a significant impact on shaping the attitudes and the way of thinking of English-speaking countries. In this work I will focus only on the contemporary use of the verb *to tolerate* and the adjective *tolerant* because they are important in terms of providing comparison with the developing Russian concepts.

#### 3.1 The semantics of *tolerate*

To uncover the semantics of the word *tolerant* it is important to comment on the meaning of the verb *tolerate* which it derives from. In analysing the meaning of the verb *tolerate* it is worth distinguishing three frames: 1) in relation to other people: *to tolerate* someone else's behaviour; 2) in relation to unpleasant physical and mental sensations: *to tolerate* pain/frustration/ambiguity; 3) in relation to the sensations of edible substances taken into the body, as in *to tolerate* spicy/salty food. In this section I will comment on the first meaning (*tolerate*<sub>1</sub>) because it is most culturally-significant and because the adjective *tolerant* and the noun *tolerance* derive from it.

The verb *to tolerate*<sub>1</sub> expresses an attitude towards the behaviour of other people that somehow interferes with the normal and balanced condition of a person. It can apply to people who affect one personally:

- (32) *Perhaps, I thought, I am solid enough to tolerate his extraordinary and naive arrogance ...*

- (33) *My mother tried to talk me out of getting a divorce, using the argument that women have to tolerate the immaturity of men.*
- (34) *Steven says he could only tolerate his brother's serpent handling up to a point.*
- (35) *Maybe if we put a stop to ignorance, people like yourself would be able to look beyond your tight personal morality and learn to accept and tolerate those that do not fit into your ideals.*

However, unlike *terpet*'<sub>2</sub>, *tolerate*<sub>1</sub> can equally express an attitude towards a group of people whose behaviour is divergent from the norm:

- (36) *India could get control of it because for centuries India has been a society that has been able to tolerate diversity, particularly religious diversity.*
- (37) *The country itself is known to tolerate a wide variety of views across the political spectrum.*
- (38) *Maybe if we put a stop to ignorance, people like yourself would be able to look beyond your tight personal morality and learn to accept and tolerate those that do not fit into your ideals.*
- (39) *Oh well it's all about ... how the college won't tolerate any sexism or racism or comments about people if they're disabled or anything like that and will deal with them.*

As these examples illustrate, a person who *tolerates* other people's behaviour allows these people to behave in the way they want. This person realises that there is a possibility of terminating these people's behaviour by saying or doing something to them, however, the person chooses not to do so. The mechanism that prevents the person from interfering with another person's behaviour is the Anglo idea of "non-imposition" which allows each person to behave and live in the way he or she wants (Wierzbicka 2006a, 2006b).

It is interesting to note that among the occurrences of *tolerate* in the CO-BUILD corpus there is a significant prevalence of *tolerate*<sub>1</sub> used in negation, as in the following examples:

- (40) *They're not going to tolerate the indifference ...*

- (41) *Stroh doesn't tolerate discrimination*
- (42) *Anti-abortion activists won't tolerate tyranny or oppression*
- (43) *I have never been able to tolerate hypocrisy*
- (44) *... he could not tolerate violence*

In these cases the attitude is directed towards other people's socially unacceptable behaviour (discrimination, blackmail, tyranny, hypocrisy, etc.). This suggests that the ability to *tolerate* other people's bad behaviour is not a very respected and valued quality in contemporary Anglo culture.

I suggest the following explication for *tolerate*<sub>1</sub>:

[D] *Person X tolerates*<sub>1</sub> *person Y's behaviour*:

- a. sometimes someone (X) has to be with another someone (Y)
- b. someone Y has been doing something bad for some time
- c. something bad is happening to someone X because of this
- d. someone X feels something bad because of this
- e. someone X doesn't want Y to do this bad thing
- f. someone X knows that if someone X does/says something to someone Y,  
    someone Y will not be able to do this bad thing anymore
- g. someone X thinks about it like this:
- h.     if someone Y wants to do something, someone Y can do it
- i.     I don't want to say to this someone (Y): "you can't do this"
- j.     because of this, I will not do anything to someone Y
- k.     because someone X thinks like this, someone X doesn't do anything

The analysis and explications written in simple universal concepts make the representation of differences in meaning between *terpet*'<sub>2</sub> and *tolerate*<sub>1</sub> as attitudes towards another person very vivid. In both cases a person has to experience the influence of some action by another person. In the case of *tolerate*<sub>1</sub>, this action is objectively evaluated as bad, whereas in *terpet*'<sub>2</sub> what is at issue is the effect on the experiencer. In both cases the experiencers want to terminate the other person's bad behaviour, but decide not to do so. There is a significant difference in their reasons. In *tolerate*<sub>1</sub> this decision is influenced by the idea of 'not imposing one's views on other people'; that is, the person realises that it is not good to say something to another person in order to stop an action of that person. The mental scenario in *terpet*'<sub>2</sub> shows that it is more self-oriented: a person recognises his or her ability to remain in this unpleasant condition longer. Thus, although the two verbs have someshared semantic features which allow them to be used as translational equivalents in certain



contexts, they are nevertheless distinct attitudes, influenced by different cultural norms.

### 3.2 The semantics of *tolerant*

Being *tolerant* is a virtue in English. It is the quality of a person who is capable of accepting other people's behaviour when it diverges from what is considered normal and acceptable in a given society or milieu. In the majority of examples from COBUILD, the object of this attitude is represented by a group of people. Most prototypical examples of such groups are people of a race or nationality, or people whose sexual behaviour is different from the mainstream. If it is used in relation to people of a different nationality or race, it implies that these people do something in a different way. The following examples can illustrate such cases:

- (45) *One was a visit to the synagogue of La Griba where an ancient Jewish community continues to flourish in the midst of these most tolerant of Arab peoples.*
- (46) *Flamboyant alternative performer and founder of the German-language Deutsches Theater Down Under, Wolfgang Kreuzer says Australia has become far more tolerant of ethnic cultures in the 30 years since he arrived here.*
- (47) *We've become more tolerant of minority groups such as homosexuals, Aborigines and the ethnic population: and that's reflected in our films.*
- (48) *Australian films like Priscilla Queen of the Desert were not creating a nation of cross-dressers but rather a society more tolerant of minority groups, it was claimed yesterday.*
- (49) *People are still remarkably tolerant of gays.*
- (50) *Prof Schewe cited an analysis of three decades of surveys that seem to show that older people are becoming more tolerant of homosexuals, premarital sex, and other sexual alternatives.*

A *tolerant* attitude can also apply toward representatives of other political movements—that is, people doing some kinds of things in a different way from the group that the experiencer belongs to:

- (51) *The days of the splinter groups, Toll busters, Gold Coast motorway protesters and law and order groups are numbered if they vote for the Nationals and Liberals. The Goss Government has been very tolerant of these groups in their protests.*
- (52) *And John Selwyn Gummer, the Minister for Agriculture, once proposed to the Federation of Conservative Students the abolition of immigration controls. Small wonder then that their colleagues are tolerant of the excesses of the new generation of young Tories.*

Other examples mention a *tolerant* attitude towards people whose behaviour is different from the mainstream in other ways:

- (53) *Society is less tolerant of behavioral disabilities than any other form of handicap, and Ted's outbursts could result in more rejection and social isolation as he grew older.*
- (54) *It's worth thinking about that before he becomes known as a prodigy who's having problems fitting into a society that isn't always very tolerant of people who are different.*

Some examples of the use of *tolerant* refer to the attitude of parents towards misbehaving children. In a way such cases can be also considered as examples in which a group of people (children in this case) deviate from acceptable behaviour.

- (55) *I would think I'm more of a nurturing parent. That means: I would give more positive strokes and be a little more tolerant of mistakes.*
- (56) *One hypothesis is that adults are simply more tolerant of disruptive or difficult behavior in boys than in girls.*

These examples show that a *tolerant* attitude can be directed towards people whose behaviour is divergent from what is considered normal and acceptable. The point of view of a *tolerant* person is to a certain degree determined by him or her being a representative of a society and respecting certain societal norms. A *tolerant* person recognises differences in other people, differences which could potentially result in them saying something intended to stop these people from doing those things. However, a *tolerant* person chooses not to say this, being driven by the culturally important idea of 'not imposing one's point of view on other people'. Therefore, the meaning of *tolerant* contains reference to an Anglo cultural rule of "non-imposition". Unlike *tolerate*<sub>1</sub>, *tolerant* does

have a component of positive social evaluation. I would suggest the following explication:

[E] *Person X is tolerant of people Y*

- a. someone (X) thinks about some other people (Y) like this:
- b.     these people are not like me
- c.     these people do some things
- d.     people like me don't do these things
- e.     people like me can think that it is bad if someone does these things
- f.     because of this, when someone is doing these things  
        people like me can want to say to this someone:  
        "you can't do these things"
- g.     I don't want to say something like this to these people because I know that if someone wants  
        to do something, it is not good if someone else says something like this to this someone
- h.     because this someone (X) thinks like this,  
        this someone doesn't say anything like this to these people (Y)
- i.     people think: it is good if someone can be like this

In this explication component (a) explains that the attitude of a *tolerant* person is determined by a certain cognitive scenario which is represented in components (b–g). According to this mental scenario, a *tolerant* person recognises that another group of people is different from the group this person is a member of due to their behaviour, that is 'doing some things' (components c–d). Component (e) explains that such behaviour can be evaluated negatively from the point of view of the group that the experiencer belongs to and which could result in a verbal attempt to stop this behaviour (component f). Component (g) stands for the person's decision not to say these things to these people, governed by the idea that it is not good to stop other people from doing what they want. Component (h) states that this mental scenario leads the person to not saying anything to these people. Component (i) is a positive evaluative component.

The use of simple universal terms as constituents of explications makes the representation of differences in meaning very vivid. It is possible to distinguish two major differences in meaning between *tolerant* and *terpimyj*. *Terpimyj* is an attitude that a person develops towards someone whose behaviour he or she considers bad, and thinking about it causes this person's negative emotional feeling (components b and c of explication [C]). The attitude of a *tolerant* person is aimed mostly at people deviating from social norms and not necessarily affecting the experiencer personally. Therefore, *terpimyj* is more "personal" in its attitude, whereas *tolerant* is more "social". The in-action of a *terpimyj* person is caused by the understanding of the possibility of experiencing this negative emotional state for some time more (component j). A *tolerant* person is significantly influenced by the idea of "non-imposing" and the right of each person to behave and think in the way he or she wants (components g–j).

The word *tolerant* is the source of the borrowing of the word *tolerantnyj* into Russian, therefore developing a comprehensive explication can help in the acquisition of this term. The use of simple universal concepts makes the explication easy to translate into any language. I am going to show that the explication of the word *tolerant* can be translated into Russian without any loss or addition of meaning. The explication of *tolerant* in the Russian version of the natural semantic metalanguage is presented as [E'] below.

[E'] *Person X is tolerant of people Y*

- a. kto-to (X) dumaet o nekotoryx drugix ljudjax (Y) tak:
- b. éti ljudi ne takie, kak ja
- c. éti ljudi delajut nekotorye veščí
- d. ljudi kak ja ne delajut éti x veščej
- e. ljudi kak ja mogut dumat', čto ploxo, esli kto-to delaet éti veščí
- f. poétomu, kogda kto-to delaet éti veščí,  
ljudi kak ja mogut zaxotet' skazat' étomu komu-to:  
"ty ne možeš' delat' éti veščí"
- g. ja ne xoču skazat' čto-to takoe étim ljudjam, potomu čto ja znaju, čto esli kto-to xočet  
delat' čto-to, nexorošo, esli kto-to drugoj gorovit čto-to takoe étomu komu-to
- h. potomu čto étot kto-to (X) dumaet tak,  
étot kto-to ne govorit ničego takogo étim ljudjam (Y)
- i. ljudi dumajut: xorošo, esli kto-to možeš' byt' takim

Explication [E'] is semantically equivalent to explication [E], however, it has certain peculiarities determined by the Russian language. The major difference is due to differences in aspect and case systems: Russian has two aspects—perfective and imperfective—and a system of six cases. The choice of the case accounts for several instances of inflectional allomorphy. For example, in component (a) the exponent of the prime SOMEONE is a pronoun *kto-to* in the nominative case. *Ljudjax*—the exponent of PEOPLE—is in the locative case. The pronoun *nekotoryx* and the adjective *drugix* agree with the noun *ljudjax* in number and case (plural, locative case). The choice of aspect is less straightforward. The verbs in the present tense in the explication are in the imperfective aspect, because perfective aspect is not used in the present (for example, *delajut* 'do.PL.PRS.IMPERF' in components (c) and (d), *dumaet* 'think.3SG.PRS.M.IMPERF' (component h)). However, the choice of the form in the infinitive is determined by the context (for example, the imperfective *dumat'* in component (e) and the perfective *skazat'* in components (f) and (g)). There are also several examples of portmanteaus. The English combination LIKE THIS is represented by two allomorphs which are also portmanteaus. In components (a) and (h) LIKE THIS is translated as an adverb *tak*, and in components (g), (h) and (i) as a demonstrative pronoun *takoj* which agrees in gender, number and case with the determiner. BECAUSE OF THIS is represented by an adverb *poétomu* (component f). In component (i) the combination IT IS GOOD is represented by an adverb *xorošo*.

#### 4. *Tolerantnyj* and *tolerantnost'* in contemporary Russian

The proposed explication of English *tolerant* formulated in simple universal concepts allows us to make a first estimate of whether the meaning of Russian *tolerantnyj* differs from that of English *tolerant*. In some cases Russian *tolerantnyj* is used in a similar way to the English word and refers to an attitude towards people who are different from the majority:

- (57) *Naibolee tolerantnyj rossijane k migrantam*  
 most tolerant.NOM.PL Russian.NOM.PL towards migrant.DAT.PL  
*iz Belorussii, s Ukrainy i voobščë*  
 from Byelorussia.LOC.SG from Ukraine.GEN.SG and altogether  
*k slavjanam.*  
 towards Slav.DAT.PL  
 'Russians are most tolerant [*tolerantnyj*] towards migrants from Byelorussia, Ukraine and Slavs in general.'

However, there are some uses of *tolerantnyj* in Russian which are different from the use of *tolerant* in English. As the data suggest, *tolerantnyj* can be used to refer to an attitude towards other people who do not deviate from social norms or standards, but are simply disliked by a *tolerantnyj* person for some reason:

- (58) *Vpročem, budem tolerantnyj k našim činovnikam—*  
 however be.1PL.FUT tolerant.NOM.PL towards our.DAT official.DAT.PL  
*popytaemsja ponjat', čto oni zatejali.*  
 try.1PL.FUT understand.INF.PERF what they.NOM decide.3PL.PST.PERF  
 'However, let's be tolerant [*tolerantnyj*] towards our officials and try to understand what they have in mind.'
- (59) *Javlinskij i Ivanenko otpravili lideram*  
 Javlinskij.NOM and Ivanenko.NOM send.3PL.PST.PERF leader.DAT.PL  
*SPS pis'mo, v kotorom izlagajut*  
 SPS.GEN.SG letter.ACC.SG in which.LOC.SG explain.3PL.PRS.IMPERF  
*principy tolerantnogo povedenija dvux*  
 principle.ACC.PL tolerant.GEN.SG behaviour.GEN.SG two.GEN  
*partij v xode vyborov.*  
 party.GEN.PL in course.LOC.SG election.GEN.PL  
 'Javlinskij and Ivanenko sent a letter to the leaders of SPS with an explanation of the principles of a tolerant [*tolerantnyj*] behaviour of the two parties during the elections.'

There are also several instances of use of the noun *tolerantnost'* which differ from the use of *tolerance* in English:

- (60) *Davit modnaja tolerantnost',*  
 press.3SG.PRS.IMPERF fashionable.NOM.SG tolerance.NOM.SG  
*mnogotrudnyj socium ljubit terpet'.*  
 tough.NOM.SG society.NOM.SG like.3SG.PRS.IMPERF suffer.INF.IMPERF  
 'The fashionable tolerance [*tolerantnost'*] puts pressure on us; the  
 tough society likes to suffer [*terpet'*].'
- (61) *Ne men'see udivlenie vyzyvaet passivnaja*  
 NEG smaller.ACC.SG surprise.ACC.SG cause.3SG.PRS.IMPERF passive.NOM.SG  
*reakcija naselenija ... na povsemestnuju tolerantnost'*  
 reaction.ACC.SG population.GEN.SG on universal.ACC.SG tolerance.ACC.SG  
*po otnošeniju k kriminalizacii obščestva.*  
 in relation.DAT.SG towards criminalisation.DAT.SG society.GEN.SG  
 'The passive reaction of people towards the prevalent tolerance  
 [*tolerantnost'*] to the criminalisation of society causes astonishment.'
- (62) *... problema tolerantnosti segodnja javljaetsja*  
 problem.NOM.SG tolerance.GEN.SG today be.3SG.PRS.IMPERF.REFL  
*važnejšej dlja Rossii.*  
 important.SUPER for Russia.GEN.SG  
 '... the problem of tolerance [*tolerantnost'*] is the most acute one for  
 Russia today.'
- (63) *Pokolenčeskaja tolerantnost' vozrastaet, a*  
 generational.NOM.SG tolerance.NOM.SG grow.3SG.PRS.IMPERF but  
*tolerantnost' po otnošeniju k vlasti,*  
 tolerance.NOM.SG in relation.DAT.SG towards power.DAT.SG  
*naoborot, umen'shaetsja.*  
 conversely decrease.3SG.PRS.IMPERF.REFL  
 'Tolerance [*tolerantnost'*] between generations is growing, but toler-  
 ance [*tolerantnost'*] towards the authorities, on the contrary, is de-  
 creasing.'

The following is an interesting example of use of the adverb *tolerantno*:

- (64) *Treningi budut ustraivat'sja i dlja*  
 training.NOM.PL be.3PL.FUT organise.INF.IMPERF.REFL and for  
*sotrudnikov milicii: kak tolerantno proverit'*  
 employee.GEN.PL militia.GEN.SG how tolerantly check.INF.PERF  
*u čeloveka dokumenty.*  
 at person.GEN.SG document.ACC.PL  
 'Training sessions will be organised for policemen: how to check a  
 person's documents in a tolerant way [*tolerantno*].'

These examples show that the meaning of the words *tolerantnost'* and *tolerantnyj* in Russian have possibly acquired some culture- and language-specific features which make them different from the meaning of the words *tolerance* and *tolerant* in English. For example, can *tolerance* be called a problem in English? Do people speak about *tolerance* towards the authorities? Why should a policeman *tolerantly* check people's documents? Why does *tolerance* put pressure on Russian people? According to the Russian way of thinking, a person can be *tolerantnyj* towards officials, members of another political party; policemen can be *tolerantnyj* towards drivers when checking their documents. These examples show that there is some emerging variance in meaning between *tolerant* and *tolerantnyj* in the way that a *tolerantnyj* person develops this attitude towards someone he or she does not like personally even though this person is not violating any social norms. Thus, the semantic component (d-f) in the explication of *tolerant* (F) cannot be justified for the Russian *tolerantnyj*. This fact suggests that the Russian word *tolerantnyj* reflects a world view encoded in the Russian language, which has some differences from the world view encoded in the English language. According to this view, one's likes and dislikes in developing an attitude towards other people are more important than societal norms and order. In this way *tolerantnyj* becomes similar to *terpimyj*, whose attitude is aimed at people who are disliked by someone personally. On the basis of these examples it is possible to suppose that the new concepts have become influenced by the Russian reality and mentality as well as by similar (but nonetheless different) traditional concepts of the Russian language, as discussed below.

## 5. Concluding remarks

This work in cross-linguistic semantics allows us to show and explain semantic and cultural differences between two virtues in Russian and English—*terpimyj* and *tolerant*. *Tolerant* has a more “social” character because it is an attitude towards something seen as different from social norms. *Terpimyj* is more “personal” in its attitude because it is a reaction towards personal offence. These two attitudes are influenced by different cultural ideas that are prevalent in the two societies. *Tolerant* is related to the recognition of the idea of ‘not imposing one's views on others’ as well as the idea of social harmony as an opportunity for people to behave and think in the way they want. *Terpimyj* is linked to the value of *smirenje*; it is about not developing bad feelings and negative reaction to those seen as doing bad things and about maintaining the social harmony of positive feeling among people. Thus, *tolerant* is more “rational” and “liberal” and *terpimyj* is more “emotional” and “moral”. This kind of comparison leads to understanding that some virtues which might seem

similar in different languages and cultures are governed by different social rules and understanding and are, therefore, different.

Contrastive semantics can tell us a great deal about differences between cultures in which particular words are used. Linguists can contribute to social sciences and to the investigation of values prevailing in different cultures and societies by detailed semantic analysis, which in turn can be successful if the appropriate methodology is used. The natural semantic metalanguage is able to record subtle differences in the meaning of value words and proves to be an adequate tool for this kind of task. This kind of research is particularly relevant in situations of linguistic change like in contemporary Russia.

Such work in cross-linguistic semantics is also important in the light of the development of the research area of bilingualism in general and the intriguing question of conceptual representation in bilinguals in particular (Altarriba 2003; Pavlenko 1999, 2005; Wierzbicka 2005). Work in cross-linguistic semantics can help first to analyse the meanings of concepts in two or more target languages and then to relate these findings to the representation of these concepts in the minds of bilinguals. Again, it is a set of universal human concepts that can help us to answer this question with precision and clarity (Wierzbicka 2005).

To conclude, research in cross-linguistic semantics can have a significant contribution to linguistics and numerous related disciplines.

## Abbreviations

1	first person	IMP	imperative	PART	particle
2	second person	IMPERF	imperfective	PST	past
3	third person	INF	infinitive	PERF	perfective
ACC	accusative	INST	instrumental	PL	plural
COMP	comparative	LOC	locative	PRS	present
DAT	dative	M	masculine	PTCP	participle
F	feminine	NEG	negation	REFL	reflexive
FUT	future	NEUT	neuter	SG	singular
GEN	genitive	NOM	nominative	SUPER	superlative
ger	gerund				

## Notes

1. *Terpet'* also has two other meanings. *Terpet'*<sub>3</sub> is used in collocations to refer to experiencing a negative condition—for example, *terpet' poraženie* 'to experience defeat'. Shmelev (2003) also distinguishes another meaning and rightly states that *terpet'* as such is not used in this meaning, but only its derivatives *terpenie*, *terpelivost'* 'patience', *terpelivyj* 'patient'. For a detailed discussion of these words see Uryson (2003).



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## Two “virtuous emotions” in Japanese: *Nasake/joo* and *jihi*

Rie Hasada

This study applies the Natural Semantic Metalanguage methodology in order to explicate the meaning of two Japanese “virtuous emotions” which express the idea of ‘wanting good things to happen to other people’. *Nasake/joo* and *jihi* have been selected for detailed semantic analysis. *Nasake/joo* is a very important concept in Japanese society. Anada (1982: 83) says it refers to one’s consideration or compassion for others. Another “virtuous emotion” word is *jihi* which Sagara (1984: 10) states has often been used as a complement of *joo*. However, this chapter shows *jihi* can be completely distinguished from *nasake/joo*. The apparent meaning of these two “virtuous emotion” words is spelled out in an NSM framework, which clearly shows their similarities, as well as their differences.

### 1. Introduction

In this chapter, we examine and propose detailed NSM analyses for the meanings of a pair of Japanese “virtuous emotions” which express or imply the idea of wanting good things to happen to other people. The words in question are *nasake/joo* (*nasake* is the Japanese way of reading the Chinese character *joo*)<sup>1</sup> and *jihi*.

“Virtuous emotions” have been studied by NSM researchers in various languages (cf. Goddard 1995, 1996, 1997, 2001, 2002, to appear, and others; Wierzbicka 1997, 1998a, 1998b, 1999, 2003, 2005; Wierzbicka and Enfield 2002; Harkins and Wierzbicka eds 2001; and others). NSM semantic studies have been undertaken on various aspects of the Japanese language by Onishi (1994, 1997), Hasada (1997, 2000, 2001, 2002a, 2002b, 2005a, 2005b, 2006), Travis (1996, 1998), Asano (2003), Otomo and Torii (2006).

From a typological point of view, according to Shibatani (1990: 94), “Japanese is the only major world language whose genetic affiliation to other languages or languages families has not been conclusively proven”. However, students of Altaic languages claim that there is a connection between the Japanese language and the Altaic family of languages (Shibatani 1990: 97).

**Table 1.** Semantic primes: Japanese

Substantives:	WATASHI <i>I</i> , ANATA <i>you</i> , DAREKA <i>someone</i> , NANIKA/MONO/KOTO <i>something/thing</i> , HITO/HITOBITO <i>people</i> , KARADA <i>body</i>
Relational substantives:	SHURUI <i>kind</i> , BUBUN <i>part</i>
Determiners:	KORE <i>this</i> , ONAJI <i>the same</i> , HOKA <i>other</i>
Quantifiers:	HITO-/ICHI- <i>one</i> , FUTA-/NI- <i>two</i> , TAKUSAN <i>many/much</i> , IKUTSUKA <i>some</i> , MINNA <i>all</i>
Evaluators:	II <i>good</i> , WARUI <i>bad</i>
Descriptors:	OOKII <i>big</i> , CHIISAI <i>small</i>
Mental predicates:	OMOU <i>think</i> , SHIRU <i>know</i> , HOSHII/-TAI/NOZOMU <i>want</i> , KANJIRU <i>feel</i> , MIRU <i>see</i> , KIKU <i>hear</i>
Speech:	IU <i>say</i> , KOTOBA <i>words</i> , HONTOO <i>true</i>
Action, events, movement, contact:	SURU <i>do</i> , OKORU/OKIRU <i>happen</i> , UGOKU <i>move</i> , FURERU <i>touch</i>
Location, existence, possession, specification:	(DOKOKA) NI IRU/ARU <i>be (somewhere)</i> , IRU/ARU <i>there is</i> , MOTSU <i>have</i> , (DAREKA/NANIKAI) DE ARU <i>be (someone/something)</i>
Life and death:	IKIRU <i>live</i> , SHINU <i>die</i>
Time:	ITSU/TOKI <i>when/time</i> , IMA <i>now</i> , MAE <i>before</i> , ATO <i>after</i> , NAGAI AIDA <i>a long time</i> , MIJIKAI AIDA <i>a short time</i> , SHIBARAKU NO AIDA <i>for some time</i> , SUGUNI <i>moment/in one moment</i>
Space:	DOKO/TOKORO <i>where/place</i> , KOKO <i>here</i> , UE <i>above</i> , SHITA <i>below</i> , CHIKAI <i>near</i> , TOOI <i>far</i> , MEN <i>side</i> , NAKA <i>inside</i>
Logical concepts:	-NAI <i>not</i> , TABUN <i>maybe</i> , DEKIRU <i>can</i> , -KARA <i>because</i> , MOSHI (BA) <i>if</i>
Intensifier, augmentor:	SUGOKU <i>very</i> , MOTTO <i>more</i>
Similarity:	YOO/DOO/YOO NI <i>like/how/as</i>

Current NSM semantic primes and their corresponding Japanese words (although some primes are still under investigation) are listed in Table 1.

**2. Nasake/joo**

A Japanese aphorism has it that *Hito wa nasake* [lit. as for people (there is) *nasake*]. This has been rendered into English by Tokona (1982: 117) as: “In this world human beings exist under the protection of humanity [*nasake*]”. As one might suspect from this, the concept of *nasake/joo* occupies a very high place in Japanese thinking about society, and has done so for many centuries. By the Muromachi era (1336–1603 A.D.) the phrase *Tada hito wa nasake are*

‘Usually human beings should have *nasake*’ was in common use. It was held that because the world is filled with uncertainty, as transient as dew on a flower, *nasake* was necessary to balance uncertainty with warm-hearted consideration (Sagara 1984: 8–9). Anada (1982: 84) also says that it used to be believed that the true *samurai* (Japanese warrior) should know the concept of *nasake*.<sup>2</sup>

Indeed, in Japan *nasake/joo* is considered indispensable for a good human relationship (Saitoo 1986: ii). A person who has no *nasake/joo*, however intellectual or talented, is considered too cold or heartless. It has been said that after WWII, with the greater influence of Western thought, Japanese people were inclined to devalue the worth of *nasake/joo* because in Western thought a more realistic mind is valued over concepts such as *nasake/joo* (*Shuukan Asahi* July 15 1997: 161). However, Japanese people and society have never completely lost their positive estimation of the concept of *nasake/joo*.

The high value placed on *nasake/joo* in present-day Japan is shown in the contemporary examples below translated from Japanese.<sup>3</sup> All these examples suggest that a person who has *nasake/joo* is valued as a warm-hearted person.

- (1) *The way of nasake does not imply that we go for the tear-jerking solution, but it implies that we should live deferring to human psychology. (...) It implies that what is important is not the mind, but the heart. I mean, whether one chooses one thing or another, in the end humans are not just a mind, but they live with nasake, as you have said.*  
[MT: Utsumi 1996: 203]<sup>4</sup>
- (2) *As parents, we felt uncomfortable about young worrisome people camping out in our son’s room in the basement. But when I tried to intervene, my second son reacted furiously. “You should not judge people by their appearances. When you know them better, you will find they are all very good people and have joo”.*  
[MT: Yoshiko Mita (actress) in *Fujin Kooron* March 22 1998: 52–53]
- (3) *If you take a woman in marriage, she should be talented, beautiful, and have nasake.* [MT: Tekkan Yosano “Hito o kouru uta” in *Kindaichi* and Anzai 1977: 238]
- (4) *Therefore, for example, by helping people who are in serious trouble, Osaka people reveal quite a delicate joo.* [MT: Madoka 1991: 170]

*Nasake* differs from another somewhat similar Japanese keyword *on* (cf. Wierzbicka 1997: 254–262). Mitsubishi-shoji-kohoshitsu (1983: 158) explains both *nasake* and *on*, and highlights the difference between them as follows:

“*On* is the act of bestowing on another person something (usually goods) which makes the receiver feel grateful and arouses in him a sense of obligation. If the thing bestowed is spiritual it is called *nasake* or *joo* (compassion)”. Kaneko (1961: 166, 168) says that in a relationship such as that between parents and children, parents usually give *nasake/joo*, rather than *on*; and equally what human beings are appreciative of, is not *on*, but *nasake*, since *nasake/joo* has no relation to one’s merits or demerits while *on* does.

There are many idiomatic expressions using *nasake/joo*. For example, *joo ni moroi* [sensitive to *joo*] means that a person can sympathise with the sorrows of other human beings and show consideration to others (cf. Misawa n.d.: 242); see examples (5) and (6). People with *joo ga atsui/fukai* [thick/deep *joo*] or *nasake-bukai* [deep *nasake*] are evaluated positively, and people with *joo ga usui* [thin *joo*] or *haku-joo* [thin-*joo*] are perceived negatively, as being too cold; see examples (7)–(9).

- (5) *Chokings and nervous jerking, however, are nothing new to me when I think with anxiety of those I love. If I could be less affectionate [joo ni moroi] and sensitive, I should have a better digestion and an iron set of nerves. I am sure I wish it could be so.*

[E-->J: Dickens 1965: 84, Dickens Vol. 1 1966: 141]

- (6) *—I want to go away next week for a week, but I cannot think of a good excuse. —If you say your parent is sick the section chief will give you the time off; he’s pretty sentimental [joo ni moroi].*

[B [J-->E]: Araso and Moore 1989: 331]

- (7) *—What kind of boss do you have where you work?  
—Well, he can be strict, but he’s a warm-hearted [joo no atsui (lit. having thick joo)] person. When I work overtime, he always sends me home by taxi. What about yours?  
—Unfortunately, he’s just the opposite. I’ve never known a more cold-hearted [joo ni usui (lit. thin joo)] person.*

[B [J-->E]: Araso and Moore 1989: 331]

- (8) *Love’s a strange thing, Miss Eyre. You can know that a person’s worthless, without heart [haku-joo (lit. thin-joo)], or mind, or scruple ... and yet suffer to the point of torture when she betrays you.*

[B [J-->E]: Kita 1954: 144]

- (9) *I lost my parents in an accident, but I grew up in a good home where I basically had everything I could want, thanks to my foster parents. They were really good [nasake-bukai (deep nasake)] to me.*

[B [J-->E]: Murakami 1997: 16]

Other idiomatic expressions are *joo ga utsuru* [being soaked in *joo*] and *joo ga waku* [*joo* flows out]. These describe feeling emotionally attached to something/someone, as in examples (10) and (11). Occasionally one hears *joo* used in a negative sense like *joo ni hodashareru* [lit. be overcome with *joo*], as in example (12), meaning that one’s freedom, feelings or actions, are restricted because of *joo* (Harada and Koo 1987: 95; Iguchi 1988: 48).

- (10) *“I don’t want my girlfriend to have contact with her ex-boyfriend either by phone or by letter, because if she contacts him, she will remember the past, and her joo will move [*joo ga utsuru*] to him”.*

[MT: *Can Cam* 1994 January: 247]

- (11) *“But if I take care of the lower part of the body (nappies/baths etc.) even if it’s only one, however wrinkly an old woman it may be, joo will come up [*joo ga waku*]. After all, I am happiest when they leave the hospital”.*

[MT: Sakai 1996: 18]

- (12) A: *He says his mother is sick and he’s had to quit his job to take care of her. I couldn’t help feeling sorry [*joo ni hodashareta*] for him, and gave him what little savings I had.*

B: *Well, you know what they say—pity [*joo*] can be like quicksand. Don’t go jumping in too deep.* [B [J-->E]: Murakami 1997: 18]

- (13) —*You sure want to marry that poor guy, don’t you?*  
—*Yes, ever since I heard about his terrible childhood I’ve felt a deep sympathy [*joo ni hodashareta*] for him.*

[B [J-->E]: Araso and Moore 1989: 331]

No single English word corresponds to the meaning of *nasake/joo*. Consider, in examples (12), (13), and (14), how *nasake/joo* is translated into English, and which English words are translated as *nasake/joo* in Japanese. *Nasake/joo* can be rendered in English as ‘sympathy’ or ‘pity’, as seen in examples (12) and (13) above, or ‘request’, as in (14) below.

- (14) *“But if you would grant me one request [*joo*], I ask that you delay the execution for three days. I wish to see my only sister wed. Grant me three days to go back to my village and attend to the wedding festivities. I shall, without fail, return here before the third day is ended.”*

[J--> E: Dazai 1967: 136–137, 1988: 117–118]

On the other hand, English expressions such as *to have no heart*, *have no sympathy*, *heartless*, and the like, are frequently translated into Japanese using *nasake/joo* as: ‘without *joo*’ or ‘without *nasake*’.



Often *joo/nasake* is used to describe an emotional state equally important to, or of greater importance than, ‘love’. In these circumstances it may be seen to derive from an emotional attachment or relationship to another person, as illustrated in the following examples. In example (15), the subject says he cannot separate from his partner because *joo*, which has been created over many years, exists between them. Example (16) shows that *joo* may arise between a couple while they are living together, even if they don’t love each other. Equally, however, *joo* can grow from *ai* ‘love’, and *awaremi* ‘sympathy’ can grow from *joo*.

- (15) *One day Ryooko asked. “Who do you like better, your wife or me? If you like me better, will you divorce her?” “I like you better, but I won’t divorce her.” “Why not?” “I have joo, which the months and years have created, maybe as well as duty. I won’t break my promise that I would make her happy for the rest of her life.”*

[MT: “Otto no rikon-soodan” in *Katei Gahoo* July 1994: 297]

- (16) *Men expect that joo will be born and affection will deepen between them and women as they live together, even if they do not have an overwhelming sense of love at the beginning.*

[MT: *Fujin Kooron* May 1995: 298]

The word *nin-joo* [human-*joo*] is derived from the word *nin* (Chinese reading of *hito* ‘human being’) and *joo*. Example (17) shows a context where this word is used. Araso and Moore (1989: 212) suggest that “Japanese personal relations are determined by *giri* and *ninjoo*” and that “*Ninjoo* is the natural affection that one feels for people, such as friendship, sympathy, and parental love”. Lebra (1976: 46, 161) defines *ninjoo* as “human feeling” or “an indulgence in sentimental desires”. Doi (1981: 38) says *ninjoo* exists as “spontaneous arising feelings”.

- (17) *Nin-joo and nasake are two key concepts in considering not just family relations, but all human relations in contemporary Japan. (...) By nature, nasake functions, primarily, when there is ambiguity, or excess play. Although I could say something is fundamentally ‘no good’, after considering your circumstances, you merit pity, so okay; I will judge it ‘good’; this is how nasake functions.*

[MT: Munenori Harada (writer) in *Fujin Kooron* 1998 March: 96]

On the basis of all the discussion above, the meaning of *nasake/joo* can be explicated in the following way. The explications are presented in parallel English [A1] and Japanese [A2] versions, illustrating that the natural semantic

metalanguage can be utilised to explicate the meaning of *nasake/joo* in both languages.

[A1] *nasake/joo* (*X wa nasake/joo ga aru* (X has *nasake/joo*))

- a. someone (X) often thinks like this about someone else:
- b. “I don’t want something bad to happen to this someone
- c. I don’t want this someone to feel something bad
- d. if I can do something good for this someone, I want to do it”
- e. when this someone (X) thinks like this about someone else, X feels something
- f. because X feels something like this, X does something
- g. it is very good if people can be like this

[A2] *nasake/joo* (*X wa nasake/joo ga aru* (X has *nasake/joo*))

- a. dareka (X) wa hoka no dareka ni tsuite yoku kono yoo ni kangaeru:
- b. “watashi wa kono dareka ni nanika warui koto ga okite hoshikunai
- c. watashi wa kono dareka ga iya na kimochi ga suru koto o nozomanai
- d. moshi watashi ga kono dareka ni nanika ii koto o suru koto ga dekireba,  
watashi wa sore o shitai”
- e. kono dareka (X) ga hoka no dareka ni tsuite koo kangaeru toki, X wa nanika o omou
- f. X wa koo kangaete, X wa nanika o suru
- g. hitobito ga kono yoo de areba totemo ii (koto da)

*Nasake* is directed towards another individual person (component (a) ‘someone (X) often thinks like this about someone else’). Components (b) and (c) show the subject’s internal motivations: they wish bad things not to happen to that person so that the person will not feel bad. As we have seen in some of the examples above, *nasake* is something that can exceed something like ‘love’.

Component (d) ‘if I can do something good for this someone, I want to do it’ suggests that the person who has *nasake* is ready to do something good for another particular person. The resultant feeling is neutral ‘something’ rather than ‘something good’ or ‘something bad’, as seen in component (e). The person who gives *nasake* to another person does not expect this other person to do something good for him/her in return. If the person is doing something good for another person for personal gain, he/she might feel ‘something good’ as a result, but in such a case, we would say the person was not acting out of *nasake*. A person who has *nasake* wants to do something for another person genuinely for the benefit of the person.

The social evaluation component, (g), is also necessary since a person who has ‘thick’ or ‘deep’ *nasake* (*joo ni atsui/joo ga fukai* (*nasake-bukai*)) is highly valued in Japanese society, while a person who lacks *nasake/joo* would fail to fit into society or relationships in Japan.

### 3. *Jihi*

The word *jihi* (roughly ‘compassion’) is often used as a complement or natural counterpart of *joo*. Sagara (1984) says that while *joo* is the affection which is unexpectedly given to an individual person, *jihi* is the affection that one constantly feels towards people in general (cf. Hiro 1988: 19–20).

As Nara (in Nakamura and Nara 1978: 324) remarks, the word *jihi* is often used in daily life in Japan: e.g., *mu-jihi na hito* [a person who has no *jihi*], *o jihi de/o jihi o* [Please give me *jihi*], as seen in the following examples:

- (18) *You should not say such a cruel [mu-jihi na] thing in front of a person who is troubled.* [MT: Hayashi and Tsuruoka 1992: 462]
- (19) *Please have mercy on me [O jihi o]!* [B [J-->E]: KNJED 1993: 1198]
- (20) *Please have jihi on me [O jihi desu] and let me go/pass over this in silence!* [MT: Matsumura 1993]
- (21) *People working here are lucky, since both their master and his wife are people with ‘Deep-jihi’ [jihi-bukai].* [MT: Hayashi and Tsuruoka 1992: 463]
- (22) “... Buddha had preached to people “Trying to put oneself into the other person’s place, and empathising with him/her is the first step of the action of jihi”. Thinking in this Way could be the only and best ‘good medicine’ to heal mental illness of lonely people Today—it is not only me who would think like this”  
[MT: Daisaku Ikeda in *The SG’s Spiritual Renaissance* June 11 1992: 23]

Just as in the Christian religion ‘love’ is the most important concept, in Buddhism ‘*jihi*’ is the most important key concept. Consider the following comment by Peccei and Ikeda (1984: 62):

The human mind is capable of love and compassion—probably the most beautiful attitudes in the animal kingdom. Christ emphasised *love* and elevated it to the level of religious psychology. European philosophers have pondered and argued the nature of love, which secularisation has reduced to an ordinary relation between man and woman. I believe that, though he certainly used it to imply the bond between man and God, Christ meant the word *love* to stand for the most beautiful and powerful tie possible between and among human beings.

Buddhists employ the concept of compassion to mean something like the Christian idea of love. The Japanese word signifying this concept *jihi* is a rendition in Chinese

characters of two ancient Indian terms: *Māṇsī*, the giving of pleasure; and *karuṇa*, the elimination of suffering.

From ancient times the Japanese have been influenced by foreign thought, and of all foreign influences it is Buddhism that has had the longest and most far-reaching effects. As Hajime Nakamura (1959: 1) put it: “Japanese thought in general has been greatly influenced by Buddhism”. Buddhism came to Japan through Korea in the latter half of the 6th century. Although Japan is far from India geographically, the two countries are closely related in cultural and other aspects. In China uniformity was established in Buddhism. In Japan, on the other hand, there still exist many traditional sects that can no longer be found in China or India. The Buddhist scholar Watanabe (1964: 11) states that Japanese Buddhists read the sutras in Chinese and came to understand Buddhist thought in Chinese translation. Consequently, it is common to interpret Buddhist doctrine and faith within a framework of Chinese characters. *Jihī* is one example of a Chinese character being used to express a Japanese idea.

The character *ji* in *jihī* refers to the giving of pleasure, while *hi* refers to the elimination of sufferings (Umehara 1980: 63). Nakamura and Nara (1978: 374) further say that *hi* (*karuṇa*) refers to the feeling of sympathising with another person, and the action of assimilating oneself to another’s sadness or suffering. This kind of action is linked to the concept of *jita-funi* [lit. oneself (*ji*) and others (*ta*) are two integral phases of the same entity].

Moreover, in Buddhist thought, the “other” does not have to refer to human beings: it could be any animate thing, e.g., animals, birds, insects, plants, trees, or even inanimate things in nature, such as mountains and rivers. This way of thinking comes from the concept of *eshoo-funi* [lit. oneself and one’s environment are two integral phases of the same entity; *eshoo* means that life is dependent on its environment for survival] (cf. NSIC 1990: 231–232).

In considering the meaning of *jihī*, the following quotation from Ikeda (1997: 154–155) gives us an illuminating comment:

The Japanese word for compassion, *jihī*, includes the meaning of suffering together or crying out in sympathy with others. The Buddha firstly shares other’s sufferings.

Take the case of a mother whose child has died, who is sitting in a daze on the roadside. Probably no words can heal her heart. ...

What would the Buddha do in such an instance? He would probably sit down at the mother’s side. Moreover, he might simply continue sitting there, not saying a word. Even if no words were exchanged, the mother would sense the warm reverberations of the Buddha’s concern. She would lift up her face, and before her eyes would be the face of the Buddha who understands all her sorrows. The Buddha would nod and the mother would nod in reply.

Even without words, there is no greater encouragement than heart-to-heart exchange. On the other hand, even if a million words are spoken, nothing will be communicated in the absence of heartfelt exchange.

Itsuki (1994: 214) mentions that simply encouraging a sufferer to fight their suffering, or to be patient, is not humane. Furthermore, it is unlikely to be helpful, especially when the person is in such great despair that they have neither the will to speak nor to live. It is more valuable for a person in this kind of situation, who may only be able to groan out of agony, for someone else to stay beside them, even without speaking, but with heartfelt concern and try to understand the other person's suffering as though their own. The attitude of the person caring for the sufferer (called *dooku* [suffer together]) is the sufferer's indispensable factor in the meaning of *jihi*.

Sometimes by holding the sufferer's hands, sometimes with a warm and gentle touch, the person with *jihi* tries to assimilate himself/herself to the person's sadness or suffering. Itsuki's (1994: 211–214) comment supports the meaning of *jihi* (cf. also Nakamura and Nara: 1978: 342):

*Hi in jihi* refers to the attitude whereby one simply sits beside a person who is suffering and tries to share their pain. One feels the person's suffering as one's own. A person who has *jihi* thinks that if the suffering of others does not disappear, they themselves will not be happy; they regard others' suffering as their own, and others' pleasure as their own as well.

For the suffering person, having a person who is trying to listen sincerely, sometimes with a “nodding” gesture of understanding, is invaluable (Itsuki 1996: 59, 1997: 187).

Therefore, as the psychiatrist Saitoo (2004: 44) also mentions, for a very depressed person, sympathetic words like “Tsurakatta ne (I see that was very painful for you)”, rather than the encouraging words “Ganbaroo ne (Cheer up! Let's make an effort to make things better together)”, would make the depressed person feel better and help heal their psychological pain.<sup>5</sup> Other expressions showing signs of empathy or compassion (e.g., *Soo na no ne* ‘I understand it’) can reduce the other person's suffering.

An additional important connotation of *jihi* is that the person who feels *jihi* towards other people wants those people to be free from their suffering. The person acting on *jihi* may seek to relieve the suffering by helping a sufferer to recover from emotional distress, and to behave normally again. The aim of *jihi* is not only the giving of comfort, but also taking action to help people draw out their inner strength and “stand up by themselves”.

Thus, the ultimate purpose of the person with *jihi* is to remove the sufferer's pain. By helping them find their inner reserves of strength, whilst giving heartfelt, continuous, but non-obtrusive encouragement, a person with *jihi* waits patiently until the suffering person is able to regain their inner resolve so that they can stand up and face up squarely to the actual situation by themselves.

From the above observations, we can see that although the Japanese concept of *jihi* is often glossed as ‘love’ or ‘compassion’, the exact meaning of *jihi*

cannot be captured appropriately by means of such complex and English-specific words. It can, however, be captured by means of the language-independent NSM.

[B1] *jihi* (*X wa jihi ga aru* (*X has jihi*))

- a. when X is in a place where there is someone else,  
X often thinks about this someone else like this:
- b. “this someone is someone like me
- c. something bad happened to this someone
- d. this someone is thinking about it all the time
- e. this someone feels something very bad
- f. I don’t want this someone to feel like this
- g. I know that this someone cannot live well when it is like this
- h. I want this someone to know that it doesn’t have to be like this
- i. I want to feel the same as (like) this someone feels for some time
- j. if I am with this someone for some time when I feel like this  
this someone can think like this because of this:
- k. “there is someone else near me
- l. this someone is thinking about me all the time”
- m. because of this, this someone can think like this after some time:
- n. “I know now that I don’t have to feel like this”
- o. when this someone thinks like this, this someone can not feel something very  
bad like before
- p. because of this, after this, this someone can live well”
- q. it is very good if someone can think like this about all people
- r. it is good if someone can think like this about all living things

The person with *jihi* wants to do something so that he/she can reduce or heal the other person’s pain. Component (b) ‘this someone is someone like me’ is the reflection of the important part of the meaning of *jihi*; that is *jita-funi* [lit. one and others are two integral phases of the same entity].

As discussed at the beginning of this section, approaching a person who is undergoing terrible psychological suffering with both sympathy and empathy is the first step of *jihi*, and a very important factor in it. The person with *jihi* firstly tries to put himself/herself into another person’s place and empathises with their sadness or suffering so that they can feel the person’s suffering as their own. This way of thinking is described in component (i). The purpose is to understand how the sufferer is feeling, which is necessary in order to look after sufferers with empathy. Thus, with this constant empathetic, yet non-obtrusive attitude, the person with *jihi* wishes to eliminate or reduce another’s suffering.

The suffering person can come out of a bad situation by drawing on his/her own inner power by him/herself. This is different from simply passively waiting for something good to happen to him/her by chance. The ultimate purpose

of the person with *jihī* is to help the suffering person so that he/she can again lead a normal life, getting out of a terribly bad psychological condition.

It might take a while before the sufferer can reach a healthy way of thinking and a wholesome life condition, but the first thing to trigger the healing of a suffering person is his/her recognition of the existence of the person with *jihī* (especially the sufferer's psychological component parts (k), (l), and (n)).

Similarly with *nasake/joo*, in Japanese society, a person who can have *jihī* and help people who are suffering is highly evaluated, yet being able to conduct *jihī* completely is not easy. The initial action of *jihī*, that is, dealing with the suffering person with empathy as well as trying to listen and understand what is making the person so sad or distressed as if it were one's own problem, is considered a crucial part in calming others down. Therefore, *jihī* is highly valued in Japanese society (as reflected in component (q) 'it is very good if someone can think like this about all people').

Unlike *nasake/joo*, where affection is given to an individual person ('X often thinks something like this about someone else'), the object of *jihī* does not have such a limit and it concerns anybody who is alive, that is, human beings in general. *Jihī* is the affection that the subject constantly tries to give towards, not only human beings, but anything which can be considered to be alive (e.g., animals, trees, and even mountains or rivers). But in the case where the object is not a human being, the object is personalised and considered equal to living human beings. This is deeply linked to the Buddhist concept of *eshoo-funi* [lit. oneself and its environment are two integral phases of the same entity]. Therefore, *jihī* is highly evaluated in Japanese society (as reflected in the last component (r) 'it is good if someone can think like this about all living things'). Because of this way of thinking, the action of terminating the life of anyone or anything is regarded as the biggest crime or sin in Buddhism, no matter what the reasons or justifications may be.

The following is the description of the meaning of *jihī* in Japanese NSM.

[B2] *jihī* (X wa *jihī* ga aru (X has *jihī*))

- a. X ga dareka hoka no hito to aru basho ni iru toki,  
X wa kono hito ni tsuite kono yoo ni omou:
- b. "kono dareka (Y) wa watashi to onaji yoo na hito de aru
- c. nanika totemo warui koto ga kono dareka ni okotta
- d. kono dareka wa sore ni tsuite zutto kangaeteiru
- e. kono dareka wa sugoku iya na kimochi ni natteiru yoo da
- f. watashi wa kono hito ni sono yoo ni kanjite hoshikunai
- g. watashi wa kono hito ga kono yoo de aru to umaku ikirarenai koto ga wakaru
- h. watashi wa kono dareka ni soo aru beki de wa nai to shitte-hoshii
- i. watashi wa kono dareka ga kanjiteiru koto o shibaraku no aida onaji yoo ni kanjitai
- j. moshi watashi ga kono yoo ni omoi, kono hoka no dareka (Y) no chikaku ni ireba  
kono dareka wa, kono tame, koo kangaeru koto ga dekiru kamo shirenai:

- k.                    “dareka hoka no hito ga watashi no chikaku ni iru
- l.                    kono dareka wa zutto watashi no koto o kangaete kurete iru”
- m.                  dakara, shibaraku ato ni kono dareka (Y) wa koo kangaeru koto ga dekiru:
- n.                    “watashi wa kono yoo de aru beki de wa nai to ima wakatta”
- o.                    kono hito ga kono yoo ni omou toki, mae no yoo ni hidoi kimochi wa shinaku naru
- p.                    dakara, kono ato, kono dareka wa yori yoku ikiru koto ga dekiru”
- q.                    moshi subete no hito ni tsuite kono yoo ni kangaeru koto ga dekireba totemo ii koto da
- r.                    moshi ikiteiru mono subete ni tsuite kono yoo ni kangae-rarereba sore wa ii koto da

#### 4. Conclusions

The two “virtuous emotions” discussed in this chapter—*nasake/joo* and *jihi*—give important clues to how ‘wanting good things for other people’ can arise in people’s thinking in Japan. *Nasake* is something like warm-hearted consideration for other people. *Jihi* is a compassionate attitude of wanting to share the suffering of others (or any living thing), while at the same time wishing them well. Of course, these aspects do not represent the whole character of the Japanese people, because on some occasions Japanese people can act violently without any consideration of other people’s feelings, as in World War II under the justification of serving the Japanese nation and the Emperor.<sup>7</sup>

In my view, the cross-cultural study of “positive” human attitudes like those treated in this chapter is very important, since although the core idea of ‘wanting something good to happen to someone else’ is available in people’s minds throughout the world, how it is expressed and treated differs across cultures. Understanding these cultural differences can help improve communication and mutual understanding, and both these things are urgently required for the peace and happiness of all people in today’s world.

#### Notes

1. *Joo* and *nasake* are not exact semantic equivalents however, as there are some cases in which they are not mutually intersubstitutable.
2. The meaning of *nasake* has changed throughout Japanese history. According to Negoro (1982), in the classic poetry of the *Kokin Wakashuu* (914 A.D.) *nasake* was widely used for ‘emotions’ in general. Then in one of the most famous works of Japanese literature, the *Genji Monogatari* (1001 A.D.), Murasaki-Shikibu used *nasake* as a fundamental concept for understanding the complex relationship between a man and woman, as well as sexual passion. The main character in the novel, Hikaru-Genji, was the most representative person in this sense. At the time when *Tsurezuregusa* (Kenkoo Yoshida, 1331 A.D.) was written, *nasake* began to be used to mean ‘warm-hearted’ or ‘humane’ (Iizumi 1963: 294). Negoro (1982) points out that a person who was called *nasake-nashi* [lit. without *nasake*] referred to a person who had no consideration or sentiment.



3. When examples are taken from literature, full details are given in the Index of sources at the end of this chapter. In this case, only the author's name and the year of publication are provided with each example. When the example comes from other sources (magazines, TV or radio programs, popular songs, advertisements), the details are given in the brackets just below each example.)
4. All translations are my own except where indicated otherwise. In these cases I have shown which part of the English sentence corresponds to a Japanese emotion word/expression by inserting the Japanese emotion word/expression in square brackets [ ]. I have marked the gloss for each referenced examples as follows: MT: My translation; J-->E: Translation from Japanese into English; E-->J : Translation from English to Japanese. (The translator's details of these two symbols are cited in the list of sources.); B: English translation of a Japanese sentence is given in the same book/text. (The translator is unknown or possibly the author or editor of the book.)
5. The mothers who lost their children in the Hanshin earthquake in 1995 reportedly thought the worst word they received from others and which made them depressed was the encouragement *Gambatte, hayaku genki ni natte* 'Cheer up! Get better as soon as possible'. ["Hanshin daishinsai kara 4-nen" pp. 36–40 in *Shuukan Josei* February 23rd 1999: 40].
6. Tokoro (1977: 76) notes, however, although one could have the feeling of *jihi* towards limitless objects, the actual possibility of whether he/she can really help them through action cannot always be limitless. Although our desire to help is limitless, actual, helpful actions cannot be without limit.
7. During World War II, the Japanese government coerced the Japanese people to participate in the war under the name of the Emperor, persuading the Japanese people to believe that the emperor was a God. This way of thinking was based on Shintoism. During World War II, the government subjugated other religions, including Buddhism which strictly prohibits killing people; cf. also Benedict (1989[1946]).

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