Goddard, Cliff. 2010. The Natural Semantic Metalanguage approach. In Bernd Heine and Heiko Narrog (eds.) *The Oxford Handbook of Linguistic Analysis*. Oxford: Oxford University Press. 459-484.

CHAPTER 18

THE NATURAL SEMANTIC METALANGUAGE APPROACH

CLIFF GODDARD

18.1 GOALS, ASSUMPTIONS, AND PRIORITIES

THE basic conviction behind the NSM approach—bolstered by scores of empirical studies—is that meaning is the key to insightful and explanatory descriptions of most linguistic phenomena, phonetics and phonology excepted. Meaning is also the bridge between language and cognition, and between language and culture. Compartmentalizing language (or linguistic analysis) into syntax, morphology, semantics, and pragmatics therefore makes little sense. In linguistics, meaning is everybody's business.

The Natural Semantic Metalanguage (NSM) is a decompositional system of meaning representation based on empirically established universal semantic primes, i.e., simple indefinable meanings which appear to be present as word-meanings in all languages (Wierzbicka 1996*a*; Goddard 1998; Goddard and Wierzbicka 2002*b*; Peeters 2006; Goddard 2008). Originating with Wierzbicka

(1972), the system has been developed and refined over some 35 years. There is a large body of descriptive-analytical work in the framework, not only about English but Russian, Polish, French, Spanish, Malay, Japanese, Chinese, Korean, Ewe, East Cree, and other languages.[1] 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 Catherine Travis, Rie Hasada, Marie-Odile Junker, Uwe Durst, Kyung-Joo Yoon, Zhengdao Ye, Jock Wong, Anna Gladkova, Adrian Tien, and Helen Bromhead.

The NSM approach grew out of lexical semantics, and it still accords much greater importance to lexical semantics than many rival approaches, but the approach has long since extended into grammatical and illocutionary semantics, and (with the theory of cultural scripts) into cultural pragmatics. Adopting a uniform method of meaning description across these domains allows for the integration of areas of linguistic structure that often appear disparate and disconnected in other models.

The NSM metalanguage can be thought of as a highly disciplined and standardized subset of natural language: a small subset of word-meanings (63 in number, see Table 18.1 and also Appendix A), together with a subset of their associated grammatical properties. The NSM metalanguage itself represents a very substantial set of claimed findings about language universals: the existence of a specifiable set of fundamental lexico-semantic primes shared by all languages, with their shared combinatorial (syntactic) properties constituting a universal grammar. In tandem with this claim about linguistic universals there is a corresponding claim about universals of cognition, because the mini-language of semantic primes embodies the fundamentals of linguistic cognition, i.e., cognition as it can be carried out with and expressed through language (Whorf 1956). The NSM metalanguage is not just, however, an object of study in its own right. It is an invaluable descriptive tool for the analysis and contrastive study of meaning-related phenomena in all languages: a *tertium comparationis* for cross-linguistic study and language typology.

The attractions of an approach to meaning representation based on simple word-meanings in ordinary language can be itemized as follows. First, any system of representation has to be interpreted in terms of some previously known system, and since the only such system shared by all language users is natural language itself, it makes sense to keep the system of semantic representation as close as possible to natural language. Second, clear and accessible semantic representations enhance the predictiveness and testability of hypotheses. Most other systems of semantic analysis are hampered by the obscurity and artificiality of the terms of description. Third,

[1] A bibliography of NSM publications, along with a number of downloadable papers, is available at the NSM Homepage [www.une.edu.au/bcss/linguistics/nsm].

the system is intended to represent the cognitive reality of ordinary language users, so it would be problematical to employ symbols whose meanings are completely opaque to language users themselves.

The formal mode of meaning representation in the NSM approach is the semantic explication. This is a reductive paraphrase—an attempt to say in other words (in the metalanguage of semantic primes) what a speaker says when he or she utters the expression being explicated. As far as I am aware, NSM is the only approach to employ paraphrase in a strict sense. Many systems seek to describe meaning in decompositional terms, but decompositional or not, there is an enormous difference between paraphrase and description. For one thing, paraphrase attempts to capture an insider perspective (with its sometimes naïve first-person quality, rather than the sophisticated outsider perspective of an expert linguist, logician, etc.). Equally, paraphrase requires formulation in terms which are accessible and intelligible to the speakers concerned. The ready intelligibility of NSM explications to native speakers and the close relationship between the metalanguage and the language being described makes it easy to generate and test hypotheses: by direct or indirect substitution into natural contexts of use, and by direct accessibility to native speaker intuition.

A distinctive aspect of the NSM approach is the close attention it pays to the metaterminology of grammatical description, and in particular the need to achieve greater clarity and greater consensus about the meanings and operational criteria for grammatical terms such as "agent", "dative", "causative", "relative clause", "adverbial clause", and so on. The NSM approach seeks to identify for each such term a semantic prototype which can be used as a standard for the cross-linguistic identification of constructions of a given kind. In this way, the practice of linguistic typology can be "anchored" in semantic terms. Within a single language, NSM research indicates that any given grammatical construction is likely to be polysemous, i.e., to constitute a family of interrelated lexico-grammatical constructions with a prototype-plus-extensions structure.

Whether or not one is convinced of the universality of the NSM primes, many linguists would agree that there is heuristic value in plain language paraphrase in terms of a small standardized set of simple words. The long shelf life of many NSM studies would seem to confirm this. Furthermore, analyses framed in plain language paraphrase are available for later re-formulation in more technical terms, if required. Notwithstanding its simple mode of representation, the NSM approach has developed a fairly sophisticated suite of theoretical constructs, including the following, which will be explained and illustrated in the main body of this chapter: semantic primes, allolexy, syntactic frames and valency options of primes, semantic templates, semantic molecules, semantic prototypes for grammatical constructs, grammatical polysemy, ethnosyntax, and cultural scripts.

Table 18.1. Semantic primes, grouped into related categories

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

Notes: (i) Primes exist as the meanings of lexical units (not at the level of lexemes) (ii) Exponents of primes may be words, bound morphemes, or phrasemes (iii) They can be formally complex (iv) They can have combinatorial variants (allolexes) (v) Each prime has well-specified syntactic (combinatorial) properties.

18.2 Universal Semantic Core

The inventory of semantic primes is listed (using English exponents) in Table 18.1. They are simple and intuitively intelligible meanings grounded in ordinary linguistic experience. The exponents of primes can be formally complex. The English words SOMBONE and SOMETHING, for example, consist of two morphological elements, and A LONG TIME and FOR SOME TIME are phrasemes. The NSM claim is that these expressions each represent unitary meanings. Not surprisingly, in many languages their equivalents are morphologically simple. Exponents of primes can also have multiple realizations (allolexes) in a single language. The "double-barreled" items in Table 18.1, such as SOMETHING/THING and OTHER/ELSE, indicate meanings which, in English, are expressed by means of different allolexes in different grammatical contexts. *Something* and *thing*, for example, express the same meaning, except that *something* is not normally used in combination with a specifier. Compare (a) *Something happened*, (b) *The same thing happened again*, (c) *I don't know when this thing happened*. Patterns of allolexy can vary from language to language.

Semantic primes exist, not at the level of whole lexemes, but as the meanings of lexical units. Language-specific polysemy can therefore obscure the identification of individual primes. A great deal of empirical research exists in the NSM literature on how semantic primes manifest themselves across languages. In particular, "whole metalanguage" studies have been carried out for English, Amharic, Polish, Russian, Malay, Lao, Mandarin, Mbula, Spanish, Korean, and East Cree, and more selective studies on French, Italian, Japanese, Bunuba, Ewe, Yankunytjatjara, Hawaiian Creole English, among others. On the basis of these studies, semantic primes appear to be lexical universals in the sense of having an exact translation in every human language (though the term "lexical" is used here in a broad sense, since it includes phrasemes and bound morphemes, as well as words proper).

It is not possible here to account in detail for how the primes were identified in the first place, but an example may be helpful. Consider the word *say*, in sentences like *Mary said something to me*. How could one paraphrase the meaning of *say* in this context, using simpler words? An expression like *verbally express* will not do, because terms like *verbally* and *express* are more complex and difficult to understand than *say* is in the first place. The only plausible line of explication would be something like 'Mary did something, because she wanted me to know something'; but this fails because there are many actions a person could undertake because of wanting someone to know something, aside from saying. On the other hand, if one takes a word like *ask*, as in *Mary asked me something*, it seems readily paraphrasable in simpler terms, including SAY, WANT, and KNOW: 'Mary said something to me, because she wanted to know something; she wanted me to say something because of this.' On account of its resistance to paraphrase, SAY is a good candidate for the status of semantic prime. Furthermore, SAY is clearly required for the explication of many other lexical items involving speaking and communication, especially speech-act verbs, as well as many discourse particles. Upon checking in a range of languages, one finds that all languages appear to have a word with the same meaning as English *say*. For example: Malay *kata*, Yankunytjatjara *wangkanyi*, Japanese *iu*.

As mentioned, polysemy is frequently a complication when trying to identify primes and match them up across languages. Often the range of use of exponents of the same prime do not coincide because, aside from the identical shared meaning, the words in question also have additional meanings which differ from language to language. After some 15 years of research, NSM researchers have accumulated a lot of data about common patterns of polysemy. Some widely attested patterns are summarized in Table 18.2. In NSM studies language-specific evidence is always adduced to support claims for semantic primes which depend on a polysemy analysis.

A complete outline of the natural semantic metalanguage of course calls for a specification of its grammar, as well as its lexicon, but we will defer this till section 18.4, and proceed straight to lexical semantics.

Table 18.2. Some common polysemies involving exponents of semantic primes

SAY	'speak', 'make sounds'	Thai, Mandarin, Yankunytjatjara, Kalam
THINK	'worry', 'long for', 'intend'	Mandarin, Swedish
WANT	'like', 'love'	Spanish, Ewe, Bunuba
HAPPEN	'arrive', 'appear'	French, Ewe, Mangaaba-Mbula
DO	'make'	Spanish, Malay, Arrernte, Samoan, Kalam, Amharic
BEFORE	'first', 'go ahead', 'front'	Lao, Samoan, Kayardild, Ewe, Mangaaba-Mbula
FEEL	'taste', 'smell', 'hold an opinion'	Malay, Acehnese, Ewe, French, Mandarin
WORDS	'what is said, message', 'speech, language'	Yankunytjatjara, Korean, Mangaaba-Mbula, Malay

Source: studies in Goddard and Wierzbicka 1994; 2002*b*; Goddard 2008.

18.3 Lexical semantics

There is a large body of descriptive empirical work in the NSM framework on many aspects of lexical semantics, with literally hundreds of published explications. Some lexicon areas that have been explored in great depth are emotions and other mental states, speech acts, causatives, cultural values, natural kind words, concrete objects, physical activity verbs, and discourse particles.

Doing NSM analysis is a demanding process and there is no mechanical procedure for it. Published explications have often been through a dozen or more iterations over several months. The validity of NSM explications can be tested on the basis of two main conditions. The first is substitutability in a broad sense: explications have to make intuitive sense to native speakers when substituted into their contexts of use, and to generate the appropriate entailments and implications. The second condition is well-formedness: they have to be framed entirely in semantic primes or molecules, and to conform to the syntax of the natural semantic metalanguage. In addition, explications have to conform to a coherence condition, i.e., they have to make sense as a whole, with appropriate chains of anaphora, co-reference, causal links, etc. In relation to the substitutability condition, NSM semantics makes extensive use of linguistic corpora, and (more recently) of internet searches using the Google search engine (though these have to be undertaken with due caution).

Over the 35 years since Wierzbicka's (1972) *Semantic Primitives*, the NSM program has developed new models of semantic explication capable of representing remarkable semantic detail and complexity. The "look and feel" of NSM

explications can be illustrated with a series of thumbnail examples from English: first, with words that can be explicated directly in terms of semantic primes, and then with more complex examples that call for the use of intermediate-level "semantic molecules".

18.3.1 Explicating directly into semantic primes

Verbs *kill* and *break*. The causative verbs *kill* and *break* are frequently analyzed in the general linguistic literature as CAUSE TO DIE (or, CAUSE TO BECOME NOT ALIVE) and CAUSE TO BECOME BROKEN, respectively. NSM explications are given below. Aside from the fact the NSM system recognizes BECAUSE (rather than CAUSE) as its basic exponent in the causal domain, it can be seen that the explications give a more articulated and nuanced account of the event structure. In both cases, the explications depict an action by the agent X with an immediate effect on the patient Y, and, consequently the cessation of a prior state which otherwise would have continued. In the case of *kill*, an intermediate event is also involved, namely, something happening to person Y's body.

[A] *Someone X killed someone Y*:

someone X did something to someone else Y
because of this, something happened to Y at the same time
because of this, something happened to Y's body
because of this, after this Y was not living anymore

Break is both more complex than *kill*, and more polysemous. The explication below applies only to one sense of the word, as found in examples like *to break* a stick, an egg, a lightbulb, a vase, or a model plane. There is an aspectual component, namely, that the immediate effect on thing Y 'happened in one moment', and a final "subjective" component indicating that the result (i.e., 'Y was not one thing anymore') is seen as irrevocable or irreversible. It is an interesting fact, and one consistent with the somewhat schematic nature of this explication, that many languages lack any comparably broad term which would subsume many different manners of "breaking" (Majid and Bowerman 2007).

[B] *Someone X broke something Y*:

someone X did something to something Y
because of this, something happened to Y at the same time
it happened in one moment
because of this, after this Y was not one thing anymore
people can think about it like this: "it can't be one thing anymore"

Adjectives *sad* and *unhappy*. According to NSM research, the meanings of emotion terms involve feelings linked with a characteristic or prototypical cognitive

scenario involving thoughts and wants (Wierzbicka 1999; Harkins and Wierzbicka 2001). The scenario serves as a kind of "reference situation" by which the nature of the associated feeling can be identified. For example, *joy* is linked prototypically with the thought 'something very good is happening now', *remorse* is linked with the thought 'I did something bad'. Consider the explication for English *to feel sad*.

[C] *X felt sad*:

someone X felt something bad
someone can feel something like this when this someone thinks like this:
"I know that something bad happened
I don't want things like this to happen
I can't think like this: I will do something because of it now
I know that I can't do anything"

The prototypical cognitive scenario involves an awareness that 'something bad happened' (not necessarily to me) and an acceptance of the fact that one can't do anything about it. This is compatible with the wide range of use of *sad*; for example, that I may feel *sad* when I hear that my friend's dog died, or when I think about some unpleasant bickering in my workplace.

This format of explication enables subtle meaning differences to be modeled across languages and within a single language. Consider some of the ways in which being *unhappy* differs from being *sad*: (i) Being *unhappy* requires the experiencer to have certain real thoughts (while one can say *I feel sad, I don't know why*, it would be a little odd to say *I feel unhappy, I don't know why*). (ii) *Unhappy* conveys a stronger negative evaluation, as implied by the fact that it is less readily combinable with minimizing qualifiers like *a little* or *slightly*. (iii) *Unhappy* has a more personal character: one can be saddened by bad things that have happened to other people, but if one is *unhappy*, it is because of bad things that have happened to one personally. (iv) *Unhappy* does not suggest a resigned state of mind but rather focuses on some thwarted desires. The attitude is not exactly active, because one doesn't necessarily want anything to happen, but it is not passive either. (v) *Unhappy* suggests a state extended in time. All these differences are modeled in the differences between the two explications.

[D] *X felt unhappy*:

someone X felt something bad
someone can feel something like this when this someone thinks like this for some time:
"some very bad things happened to me
I wanted things like this not to happen to me
I can't not think about it"
this someone felt something like this
because this someone thought like this

18.3.2 Semantic molecules

According to NSM research, some kinds of concept (emotions, values, speech acts, and interpersonal relations) are semantically much simpler than others (artifacts, animals and plants, and many human activities), because the former can be explicated directly in terms of semantic primes, while the latter can only be explicated in stages using intermediate-level semantic molecules. For example, the concept of 'animal' is necessary in the explications of *cat*, *mouse*, *dog*, *horse*, etc.; body-part concepts are required in verbs like *eat*, *punch*, and *run*; and almost all concrete vocabulary items require concepts such as 'long', 'round', 'flat', 'hard', among others.

A semantic molecule is a packet of semantic components which exists as the meaning of a lexical unit. Semantic molecules have a special cognitive significance in that they allow a conceptual chunking which makes it possible to manage concepts of great semantic complexity. It must be said immediately that there are many recurrent components that are not semantic molecules, because they are not encapsulated as the meanings of lexical items. For example, top-level categorical components for nouns such as 'one part of someone's body' (for body-part terms), 'living things of one kind' (for natural kind terms), and high-level verb components related to semantic roles, such as 'something happened in a place', 'someone did something', and 'something happened to something else because of it'. Such recurrent components can be extremely significant for the interface between lexical and grammatical semantics, and for the creation of lexical classes, but they are simple enough to be spelled out in relatively short strings composed purely of primes.

Now consider these examples of body-part words (Wierzbicka 2007*a*). The notation [M] indicates a semantic molecule. The claim is that *head* (in the sense of a human person's *head*) requires the shape descriptor 'round [M]', and that words like *legs*, *arms*, and *tail* require 'long [M]'.

[E] *head (someone's head)*:

one part of someone's body
this part is above all the other parts of the body
this part is like something round [M]
when someone thinks about something, something happens in this part of this someone's body

[F] *legs (someone's legs)*:

two parts of someone's body
these two parts are below all the other parts of the body
these two parts are long [M]
these two parts of someone's body can move as this someone wants
because people's bodies have these parts, people can move in many places as they want

It would be incorrect to assume that shape descriptors are more basic than all body-part terms, however, because one human body-part, namely *hands*, is necessary in the explication of shape descriptors themselves. This is because shape descriptors designate properties which are both visual and "tangible", and to spell out the nature of the latter concept requires the semantic prime TOUCH (contact) and the semantic molecule 'hands [M]'. For example:

[G] *something long (e.g., a tail, a stick, a cucumber)*:
when someone sees this thing, this someone can think about it like this:
"two parts of this thing are not like any other parts,
because one of these two parts is very far from the other"
if someone's hands [M] touch this thing everywhere on all sides,
this someone can think about it in the same way

From an experiential point of view the importance of the semantic molecule 'hands [M]' is perhaps not surprising. The experience of "handling" things, of touching them with one's hands and moving the hands in an exploratory way plays a crucial role in making sense of the physical world, and in our construal of the physical world. It turns out that, unlike many other body-part words, 'hands' can be explicated directly in terms of semantic primes, though space prevents us demonstrating this here (Wierzbicka 2007*b*: 47).

How many productive semantic molecules are there? At the current early stage of research, the answer is not very clear. For English, perhaps 150–250. It is known that productive molecules in English are drawn from at least the following categories (examples given are non-exhaustive): (a) parts of the body: 'hands', 'mouth', 'legs'; (b) physical descriptors: 'long', 'round', 'flat', 'hard', 'sharp', 'straight'; (c) physical activities: 'eat', 'drink', 'sit'; (d) physical acts: 'kill', 'pick up', 'catch'; (e) expressive/communicative actions: 'laugh', 'sing', 'write', 'read'; (f) ethnogeometrical terms: 'edges', 'ends'; (g) life-form words: 'animal', 'bird', 'fish', 'tree'; (h) natural environment: 'the ground', 'the sky', 'the sun', 'water', 'fire', 'day', 'night'; (i) materials: 'wood', 'stone', 'metal', 'glass', 'paper'; (j) mechanical parts: 'wheel', 'pipe', 'wire', 'engine', 'electricity', 'machine'; (k) basic social categories and kin roles: 'men', 'women', 'children', 'mother', 'father'; (l) important cultural concepts: 'money', 'book', 'color', 'number'.

On current evidence it seems likely that some semantic molecules are universal, especially those which are foundational for many other concepts and/or for large lexical classes. 'Hands' is a prime candidate once language-specific polysemy is taken into account, and the same can be argued for 'eyes' (Goddard 2001; Wierzbicka 2007*a*; 2007*b*), for basic social categories like 'men', 'women', and 'children' (Goddard and Wierzbicka to appear), and for the sociobiological concept 'mother', given its foundational status for kinship semantics (Wierzbicka 1992). It is of course clear that many semantic molecules are highly

language-specific. In the structure of most complex concepts there are multiple levels of nesting: molecules within molecules. Complex artifact words like *spoon*, *chair*, and *bed*, for example, include physical activity words like 'eat', 'sit', and 'lie' as molecules; they in turn contain body-part concepts, which in turn contain shape descriptors, and they in turn contain the molecule 'hands'.

The concept of semantic molecules appears to have multiple ramifications for our understanding of the overall structuring of the lexicon, for lexical typology, for language acquisition, and for language and cognition studies.

18.3.3 Semantic templates

A semantic template is a structured set of component types shared by words of a particular semantic class—often applicable across many languages. The concept was first employed in explications for artifact and natural kind terms (Wierzbicka 1985), but has recently been elaborated and applied to adjectives (Goddard and Wierzbicka 2007; Wierzbicka 2007*b*; 2008*a*) and to verbs (Goddard and Wierzbicka 2009; Wierzbicka 2009; Wong, Goddard and Wierzbicka to appear). There are affinities with work on lexical templates in other frameworks, e.g., Rappaport Hovav and Levin (1998); Mairal Usón and Faber (2002). Semantic templates vary greatly across semantic domain and word-class. To see this, it is useful to compare templates from two very different domains and word-classes: natural kind terms and physical activity verbs.

Explications for animal terms follow a semantic template with the following sections: [a] CATEGORY, [b] HABITAT, [c] SIZE, [d] BODY, [e] BEHAVIOR, [f] SOUND, [g] RELATION TO PEOPLE. The following is a partial explication—sections [a]–[d] only—for *cats*. The (a) component establishes *cats* as 'animals [M] of one kind'. The (b) components claim that *cats* are conceptualized primarily as domestic animals. The size component (c) is defined in relation to the human body, a kind of anthropocentrism which recurs in countless words of diverse types. The components in (d) identify the distinctive physical features of *cats* as soft fur, a round head with pointy ears, a special kind of eyes, whiskers, a long tail, and soft feet with small sharp claws.

[H] *cats* =>
a. animals [M] of one kind — CATEGORY
b. animals [M] of this kind can live with people — HABITAT
sometimes they live in places where people live
sometimes they live near places where people live
c. they are not big — SIZE
someone can pick up [M] one with two hands [M]

d. they have soft [M] fur [M] BODY
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]

It is important to point out that even the descriptive components of an explication such as [H] are not intended as an external, objective description of the referents. Rather they are aimed at "capturing what is psychologically real and linguistically relevant (from the point of view of native speakers of English)" (Wierzbicka 1996*a*: 344). Terms for most natural kinds and artifacts encapsulate tremendous amounts of cultural knowledge. For example, for *cats* a full explication will include that they chase, catch, and eat small creatures, that they can climb well and move quietly, that they can see in the dark, and that they often sleep for short periods in the day. For animal species with which people have close relationships, such as *cat* (*dog*, *horse*, or *mouse*), the 'behavior' and 'relation with people' sections can run to 10–20 lines of semantic text. Again, these components are not encyclopedic in the sense of representing objective facts about the class of referents. Rather they represent general folk knowledge, encoded in the meaning of the word itself, and in its web of associated phraseology and endonyms (cf. Fillmore's "frame" concept).

> Basic level concepts, including biological ones, are indeed information-rich bundles of perceptual and functional (or better, cultural) features, the two kinds of features being inextricably bound together... In fact, the whole folk-generic concept usually has an internal logic to it, so that most, if not all, of its components hang together, and explain and complement one another. (Wierzbicka 1985: 177–8)

We look next at some recent work on the semantic template for verbs. In recent studies, NSM researchers have developed proposals for the structure of several subclasses of physical verbs, including (a) routine bodily processes, like *eating* and *drinking*, and verbs of locomotion, such as *walking*, *running*, *jumping*, (b) verbs of physical contact, such as *hit*, *punch*, *slap*, *kick*, and (c) complex physical activity verbs (typically involving instruments), such as *cutting* and *chopping* (Wierzbicka 2009; Wong, Goddard and Wierzbicka to appear; Sibly 2008; Goddard and Wierzbicka 2009). The overall template structures are very similar, as shown in Table 18.3.

Lexico-syntactic frame refers to the topmost component, with different macro-classes having different frames. For example, intransitive verbs of bodily motion like

Table 18.3. Semantic templates for physical activity verbs of three subclasses

• LEXICO-SYNTACTIC FRAME		
• PROTOTYPICAL MOTIVATIONAL SCENARIO		
routine physical activities, e.g., *eating, drinking, walking, running* • MANNER	physical contact, e.g., *hit, kick, kiss* • HOW THE PERSON USES THE BODY PART	complex physical activities, e.g., *cutting, chopping, grinding, digging* • INSTRUMENT • HOW THE PERSON USES THE INSTRUMENT • WHAT IS HAPPENING TO THE OBJECT
• POTENTIAL OUTCOME		

walking and *running* have the lexico-syntactic frame in (a) below, while complex physical activity verbs like *chopping*, *cutting*, etc. have the frame in (b). The details in the frame determine the mapping from lexical semantics to morphosyntactic expression. The frames define core argument structure, inherent aspect, causal notions, and the controlled nature of the activities.

(a) someone X was doing something somewhere for some time
because of this, this someone's body was moving at the same time in this place, as this someone wanted
(b) someone X was doing something to something Y with something Z for some time
because of this, something was happening at the same time to thing Y, as this someone wanted

A notable feature of these frames is that they are phrased in the imperfective. Most treatments in other frameworks assume without discussion that perfective uses (*walked*, *ran*, *cut*, *chopped*, etc.) are basic, but NSM analysts agree with the tradition in Russian lexicology that, for physical activity verbs, the imperfective forms and uses are semantically simpler than their perfective counterparts. Perfective uses involve extra semantic components, such as the specification that the potential outcome has been achieved. Though we cannot go through the details here, the claim is that this analytical strategy enables a solution to the so-called imperfective paradox and to the problem of how to specify the semantic relationships between constructional variants (syntactic alternations) of a single verb (Levin and Rappaport Hovav 2005).

A distinctive claim of NSM research is that speakers conceptualize human activities by reference to their prototypical motivations. For example, the prototypical motivational scenario for English *walking* states that to say that *someone is walking*

is to say that this person is doing as people do when they do something with their legs, etc. because they want 'to be somewhere else after some time'. This does not imply that people only ever *walk* with this motivation; obviously, one can walk for exercise or pleasure, or for other reasons. The claim is that the concept of *walking* makes reference to this particular motivation. Prototypical motivation components can differ considerably in complexity. Complex physical activity verbs (such as *chopping, grinding, kneading*) have a richer cognitive structure than routine activities, because the former involve a prototypical actor forming a "preparatory thought" directed toward changing the current state of some object. For example, for English *chopping*:

people do something like this when they do something to something hard [M]
for some time because a short time before they thought about this something
like this:
"I want this something not to be one thing anymore, I want it to be many
small things"

Given the goal-directed nature of human action, it is natural that many aspects of the meanings of individual verbs are linked to their prototypical motivation. For example, the prototypical motivation for *chopping* has implications for the kind of instrument needed (something with a sharp edge) and for the manner in which it is used (repeatedly). The NSM approach is unusual in drawing attention to the "intentional" aspects of physical activity verbs, which are sometimes linked with cultural practices and preoccupations. In other approaches such verbs are typically characterized solely in terms of the external, behavioral aspects of situations (e.g., Majid and Bowerman 2007).

For reasons of space, I can illustrate with a full explication for only a single example: *eating* (Wierzbicka 2009). It is important to recognize that, although *eating* is a pretty basic verb in the English lexicon, it is far from being a lexical universal. Languages differ considerably in the precise semantics of verbs for concepts akin to eating, drinking, and so on. Some languages cover both with a single general verb, e.g., Kalam *ñib* 'eat/drink'.

[I] *Someone X was eating something Y*:

LEXICO-SYNTACTIC FRAME

a. someone X was doing something to something Y for some time
because of this, something was happening to this thing Y at the same time

PROTOTYPICAL MOTIVATIONAL SCENARIO

b. people do something like this to something for some time
if this something is something not like water [M]
when they do something to this something with their mouth [M]
because they want this something to be inside their body

c. when someone does something like this to something for some time, MANNER
the same thing happens many times
it happens like this:
this someone does something to this something with their hands [M]
at the same time this someone does something to it with their mouth [M]
because of this, after this, part of this thing is for a short time inside this
someone's mouth [M]
when this part is inside this someone's mouth [M], this someone does
something to it with some parts of their mouth [M]
because of this, something happens to it at this time
after this, this someone does something else to it with their mouth [M]
because of this, after this, it is not inside this someone's mouth [M] anymore
it is inside another part of this someone's body for some time

POTENTIAL OUTCOME

d. if someone does something like this to something for some time,
after some time, all parts of this something can be inside this someone's body

In order to illustrate the basic techniques, the examples in this section have been fairly simple words from English. Much NSM work deals with more complex and deeply culturally embedded words, in many languages; in addition to references already cited, see Wierzbicka (1992; 1997; in press), Gladkova (2007*b*), Hasada (2008), Ye (2004; 2007), Bromhead (2009).

18.4 NSM APPROACH TO GRAMMATICAL SEMANTICS

18.4.1 Grammar of semantic primes

As mentioned, semantic primes have an inherent grammar—a "conceptual grammar"—which is the same in all languages. Or to put it another way, each semantic prime has certain combinatorial properties by virtue of the particular concept it represents (Goddard and Wierzbicka 2002*a*: 41–85). The formal realizations (marking patterns, word order, constituent structure, etc.) may differ from language to language without these underlying combinatorial properties being disturbed. The syntactic properties of semantic primes are literally universals of syntax. They can be seen as falling into three kinds: (i) basic combinatorics: for example, that substantive primes and relational substantives can combine with specifiers to form semantic units: THIS THING, SOMEONE ELSE, THE SAME PLACE,

Table 18.4. Some morphosyntactic construction types and associated semantic primes

ONE, TWO, SOME, MUCH/MANY	number-marking systems (incl. duals, paucals)
THE SAME, OTHER	switch-reference, obviation, reflexives, reciprocals
WANT	imperatives, purposives, "uncontrolled" marking
KNOW, SEE, HEAR, SAY	evidential systems
WORDS	delocutive verbs, logophoricity, proper nouns
DO, HAPPEN	case marking and transitivity, passive voice, inchoatives
FEEL, THINK	experiencer constructions, interjections
GOOD, BAD	benefactives, adversatives
BIG, SMALL	diminutives, augmentatives
VERY	superlatives, expressives
NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT	tense (incl. degrees of remoteness), aspect
HERE, ABOVE, BELOW, SIDE, NEAR, FAR	elaborate locational deixis
PART	inalienable possession
KIND	classifier constructions

ONE PART, MANY KINDS, and so on; (ii) an account of basic and extended valencies (see below); (iii) the propositional complement possibilities of primes like KNOW, THINK, and WANT; for example, that KNOW can occur in frames such as I KNOW THAT SOMETHING HAPPENED IN THIS PLACE or I WANT SOMETHING TO HAPPEN NOW. Primes vary widely in the number of alternative valency frames and complementation options available to them. Although groups of primes share particular properties and can be regarded as falling into natural classes, it is equally true that virtually every prime has some idiosyncratic properties, giving each prime a distinctive syntactic signature.

Typological research in the NSM framework indicates that the full set of semantic primes is necessary to capture the semantic content of language-specific grammatical categories and constructions in the world's languages. See Table 18.4 for summary details. This finding runs counter to the claim advanced by some authors that only a subset of the conceptual primes implied in the lexicon are needed for grammatical purposes, or even that the semantic fundamentals of lexical and grammatical semantics are disjoint (Talmy 1988).

In addition to their minimal frames, predicate primes typically allow extended frames in which additional arguments—termed "valency options"—identify or fill out aspects of the situation implied by the predicate. For example, 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 labeled an "undergoer"

valency option. Likewise, with DO it is possible to add an 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" option. This frame can be further extended to speak of 'doing something to something with something', and the additional argument can be labeled as "instrument". Another option for DO is the comitative option.

a. someone DOES something	[agent]
b1. someone DOES something to something	[patient$_1$]
b2. someone DOES something to someone else	[patient$_2$]
c. someone DOES something to someone/something with something	[instrument]
d. someone DOES something with someone	[comitative]

Many linguists accept notions of undergoer, agent, patient, and instrument, but typically they are thought of as independent entities of some kind (semantic or thematic roles), rather than as argument slots of basic 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. (Jackendoff (1990*a*: 127) explicitly identifies semantic roles as the argument slots of basic predicates, but his basic predicates are abstract conceptual functions, such as AFF "affect", not ordinary word-meanings.)

In relation to patient, the NSM metalanguage forces us to be a little more explicit than a typical definition, such as that offered by Andrews (2007: 137): "a participant which the verb describes as having something happen to it, and as being affected by what happens to it". The technical term 'participant' glosses over the conceptual distinction between persons and things, but when someone *smashes* a plate, for example, we can only describe it in ordinary language as 'someone smashed something', whereas if someone *kills* another person this can only be described as 'someone killed someone else'. This explains why two separate patient frames are shown in (b1) and (b2) above. Recognizing this distinction leads to improved descriptive accuracy. For example, Andrews' characterization of patient could refer to a man who killed *himself*, as well as to a person who killed *someone else*, but in fact most languages distinguish sharply between the two possibilities, treating reflexive sentences as intransitive rather than transitive. Furthermore, many languages have different case marking patterns for the two types of patient (see, for example, Moravcsik 1978; Naess 2007). For further discussion, and discussion of "degrees of transitivity", see Wierzbicka (2002*a*).

In some cases, NSM researchers propose valency options which are seldom recognized in mainstream grammars and which may have no standard labels. For example, it is claimed that semantic prime THINK universally allows a "cognitive topic" option, such that one can say, in all languages, the semantic equivalent of

a sentence like 'I was thinking about this someone (this thing, this place, etc.)'. The full valency array for THINK is shown below. Notice that the third and fourth frames show sentential complements: ways in which an expression analogous to a full sentence can be embedded inside the scope of THINK. In many languages the propositional frame is rather restricted in its distribution and range of application (Goddard 2003*a*).

a. someone THINKS about someone/something [cognitive topic]
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 [– –]$_S$ [propositional complement]

More details about the syntax of predicate primes can be found in Wierzbicka (1996*a*), Goddard and Wierzbicka (2002*b*), Goddard (2008).

18.4.2 Anchoring typological categories in semantic prototypes

That typological comparison rests ultimately on semantic judgments has long been recognized. As Greenberg (1966a: 74) put it: "variation in structure makes it difficult if not impossible to use structural criteria, or only structural criteria, to identify grammatical categories across languages." Greenberg did not shrink from admitting that to identify different category types across languages, in order to compare them, one must rely essentially on semantic criteria. One may also appeal to functional criteria, but on closer inspection functional criteria also depend on semantic judgments, and the same applies to efforts to base cross-linguistic comparison on inventories of situation types, basic domains, conceptual spaces, or whatever. Many grammarians and typologists would agree with Wierzbicka's (1998) summary:

> ... the grammatical resources of any language are limited. Often, therefore, a grammatical construction is centred around a prototypical meaning, and has also various extended uses, accommodating other meanings (usually related to the prototype). Often, the same prototypical meanings recur in different languages, whereas the extensions are language-specific. (Wierzbicka 1998: 143)

In most typological work, the details of presumed prototypes are stated in complex, English-specific terms. To give a clearer idea of how complex categories can be treated from an NSM prototype-theoretic point of view, we will look at two examples—one from morphology (cases) and one from syntax (relative clauses).

Cases. As early as her 1980 *The Case for Surface Case*, Wierzbicka (1980) was arguing that inflectional cases are best dealt with by way of a prototype-with-extensions analysis (rather than, for example, with an abstract "general meaning"

(*Gesammtbedeutung*) along the lines proposed by Roman Jakobson in his celebrated analysis of Slavic cases). In recent work focused on Polish (Wierzbicka 2008*b*), she reiterates her claim that each of the four cases traditionally labeled nominative, accusative, instrumental, and dative has a semantic prototype concerned with a scenario of human action.

In one prototypical scenario, the speaker is talking simply about someone doing something. In a second scenario, the speaker is talking about someone who did something to something and who wanted something to happen to this thing. The doer is still marked by the nominative, and the target object by the accusative. If the speaker is talking about someone who was doing something to something with some other thing, the "other thing" is marked by the instrumental. In a fourth prototypical scenario, the speaker is talking about someone who did something to something because he or she wanted something to happen to someone else, in which case the affected person is marked with the dative. The lexical semantics of the verb 'give' make it a natural candidate for a dative-marked recipient. Using NSM, one can formulate these four prototypical scenarios as follows:

Scenario I: a semantic prototype for the nominative

someone is doing something

Scenario II: a semantic prototype for the accusative

someone did something to something
  because this someone wanted something to happen to this thing
something happened to this thing because of it

Scenario III: a semantic prototype for the instrumental

someone was doing something to something with something else for some time
  because this someone wanted something to happen to this thing

Scenario IV: a semantic prototype for the dative

someone did something to something
  because this someone wanted something to happen to someone else
something happened to this other someone because of it

These scenarios can be used as stable conceptual reference points in deciding whether a particular noun marker in a given language warrants being identified as a nominative, an accusative, an instrumental, or a dative.[2] The simple and language-independent wording is much preferable to perennially contested, and

[2] The scenarios differ in tense and aspect in the interests of psychological and linguistic plausibility. For example, the past tense of Scenario II (accusative) is connected with the speaker's interest in the result on the object, implied by the final component; the durative component in Scenario III (instrumental) is connected with speaker's likely interest in the process, implied by the mention of the instrument. For a full explanation, see Wierzbicka (2008*b*).

English-specific, terms such as "instigator", "affected", "volitional", "experiencer", "beneficiary", and the like.

In any given language a particular case will be used not only in its prototypical context, but also in a set of extended uses with interrelated semantics. For example, Polish nominative–dative constructions with a verb of 'doing' can be divided into five major classes (Wierzbicka 2008*b*). All five share the idea of someone doing something, wanting something to happen to someone else, but they differ in the nature of the "potential effect", i.e., whether because of the subject's action the dative-marked referent (i) 'can have something', (ii) 'can do something', (iii) 'can see/hear/know something', (iv) 'can feel something good/bad', or (v) 'can feel something in his/her body'. It is possible here to mention only a couple of the many subtleties captured and explained by these analyses. First, the construal under (i) allows not only for transfer of ownership (as in *sprzedać* 'sell') or physical transfer (as in *rzucić* 'throw') but also for 'buying', 'making', or 'sewing' something for someone, and the like. Second, because it mentions only potential 'having', it does not absolutely guarantee that the other person did have something as a result (for example, one can *send* something and it can go astray). Nonetheless, and this is the third point, the potential must be real, intention alone is not enough. This explains a contrast with the near-paraphrase with preposition *dla* 'for'. For example, sentence (1a) with *dla* 'for' can be expanded with 'not knowing that he had died'; but the dative sentence in (1b) cannot be expanded in this way. The construal under (ii) might seem identical to that implied by the English "internal dative", but English sentences like *Peter opened Paul a tin of sardines* always imply a tangible effect on the object, whereas the Polish construction only requires that it be clear what the person designated by the dative can do as a result. Hence a sentence like (2), about opening a door for someone, is fine in Polish with the dative, though it can scarcely be translated with an English internal dative.

(1) a. *Kupiła dla niego sweater.*
buy.PAST.3SG.FEM for he.GEN sweater.ACC
'She bought a sweater for him.'

b. *Kupiła mu sweater.*
buy.PAST.3SG.FEM he.DAT sweater.ACC
'She bought him a sweater.'

(2) *Piotr otworzył Pawłowi drzwi.*
Peter.NOM open.PAST.3SG.MASC Paul.DAT door.ACC
'Peter opened the door for Paul.'

Technical descriptors like "beneficiary", "experiencer", or "affected" do not provide enough clarity or simplicity to match the predictiveness of the NSM explications.

Relative clause. The most influential functional definition for a relative clause is that of Keenan and Comrie (1977: 63–4). They say that any "syntactic Object" is a relative clause if "it specifies a set of objects ... in two steps: a larger set is specified, called the domain of relativisation, and then restricted to some subset of which a certain sentence is true. The domain of relativisation is expressed in the surface structure by the head NP, and the restricting sentence by the restricting clause".

Despite its canonical status in discussions of relative clauses, this characterization is highly implausible from a cognitive point of view (Wierzbicka 1998). For example, for a sentence such as the following (adduced by Keenan 1985: 142): *I picked up two towels that were lying on the floor*, it would hardly be plausible to suppose that the speaker has in mind the set of possible pairs of towels and that the function of the relative clause consists in narrowing this set down to just one such pair. Rather, what the speaker appears to be doing is providing some additional information about the two towels referred to in the main clause. Wierzbicka proposes the following schema:

[J] *I picked up two towels that were lying on the floor:*
I say: I picked up two towels
I want to say something more about these two towels at the same time:
[I say] they were lying on the floor

Pursuing her critique of the "subset" characterization further, Wierzbicka (1998: 186) adduces the following sentences (from a contemporary novel): (a) *Snow that was drowning the city* ... (b) *How could he trust even this circle of elastic on the sleeve of the girl's frock that gripped her arm?* In relation to (a) she comments: "It seems really beyond belief that the speaker is thinking here about the set of all snows and delimiting the subset of snow that was drowning the city". In relation to (b), it is not very plausible that the function of the relative clause is one of identification, since the preceding phrase "on the sleeve of the girl's frock" would seem to provide adequate identification: "Rather, the clause *that gripped her arm* provides additional information about the elastic in question—information that the speaker sees as relevant to the content of the main clause and wants to integrate with it."

The semantic formula 'I want to say something more about this thing at the same time' seems to capture the intended meaning of these relative clauses adequately.[3] Wierzbicka goes further to suggest that it constitutes a clear and appropriate characterization of the prototypical concept of a relative clause. (This proposal assumes that prototypical relative clauses are unspecified with respect to the distinction between restrictive and non-restrictive ones—a distinction which very few languages seem to draw in any consistent way, and which is often vague in English; cf. Fox and Thompson (1990).)

[3] It is not being claimed that the formula in [J] applies to all English relative clauses. For example, it does not exactly fit relative clauses with indefinite or generic NP heads, e.g., *It's the only place that carries this book*; also, there are some relative clauses which, in combination with a determiner, do seem to indicate a subset reading, e.g., *Those who went east found water and survived.*

18.4.3 Grammatical polysemy and ethnosyntax

Two NSM concepts in grammatical semantics which cannot be fully illustrated here for reasons of space are grammatical polysemy and ethnosyntax. The idea behind grammatical polysemy is simply that grammatical constructions may exhibit polysemy which can be independent (to some extent) of the lexical items involved in the construction. The Polish dative, outlined above, is one example. Some other examples explored at length in the NSM literature include Wierzbicka (1988) on the English *have a VP-INF* construction (*have a chat, have a look*, etc.) and the Japanese adversative passive, Wierzbicka (2002*b*) on English *let*-constructions, and Goddard (2003*c*) on the Malay dynamic *ter-* prefix. Given the date of the earliest of these studies, Wierzbicka deserves to be seen as one of the precursors of construction grammar.

The term "ethnosyntax" (Wierzbicka 1979) refers to inquiry into phenomena at the intersection of grammar, semantics, and culture. Wierzbicka argued that the natural semantic metalanguage promised to bring new rigor into an area of study anticipated by von Humboldt, Bally, Baudoin de Courtenay, Boas, Sapir, and Whorf; namely, the study of the "philosophies" (or ethnophilosophies) built into the grammar of different languages. Examples of NSM studies in ethnosyntax include Wierzbicka's (1992) studies of fatalism in Russian dative-subject constructions (cf. Goddard 2002; 2003*b*), Travis's explorations of the semantics of the diminutive and ethical dative in Spanish (2004; 2006),Wong (2004) on nominal reduplication in Singapore English, and Priestley (2008) on inalienable possession in Koromu (Papua New Guinea). Of particular interest, given the rise of English as a global lingua franca, are studies of the ethnosyntax of English; for example, English epistemic adverbs (Wierzbicka 2006*a*), wh-imperatives (Wierzbicka 2003 [1991]), and tag questions (Wong 2008).

18.5 Cultural scripts and ethnopragmatics

The NSM approach has a "sister theory" in the form of the theory of cultural scripts. Studies of communicative style usually assume that in any particular speech community there are certain shared understandings (norms of interpretation, rules of speaking, discourse strategies, etc.) about how it is appropriate to speak in particular, culturally construed, situations. How can such norms be stated in a clear, testable, and non-ethnocentric fashion? Conventional labels such as "directness", "formality", "involvement", "politeness", etc. are useful up to a point but

are somewhat vague and shifting in their meanings, in the sense that they are used with different meanings by different authors and in different contexts. Furthermore, such terms bring with them an element of ethnocentrism (specifically, Anglocentrism), because the relevant concepts are not usually found in the cultures being described and cannot be translated easily into the languages involved. The NSM solution is to formulate hypotheses about culture-specific norms of communication using the metalanguage of universal semantic primes. A cultural norm formulated in this way is referred to as a "cultural script" (Wierzbicka 2003 [1991]; 1996*b*; Goddard and Wierzbicka 1997; 2004).

To see what cultural scripts look like, we will consider two cultural scripts proposed in the *Ethnopragmatics* collection (Goddard 2006*b*). Their most notable feature is their intelligibility and the simplicity of the phrasing of individual phrases and sentences, but taken as a whole each script captures a highly specific and quite complex configuration. Script [K] comes from Ye's (2006: 152–3) study of the semiotics and associated cultural norms of Chinese facial expressions. The script captures a social proscription against allowing others to detect in one's face any sign that one is feeling 'something very good' or 'something very bad' on account of some personal good fortune or ill fortune.

[K] *A Chinese cultural script for concealing displays of 'feeling very good/bad'*

[people think like this:]
when someone feels something very good/bad because something very good/bad happens to this someone,
it is not good if other people can know this when they see this someone's *liǎn* ('face') [M]

The script in [L] is proposed (Wong 2006: 116) to capture a Chinese Singaporean attitude (no doubt widespread across the "Sinosphere") which underlies the use of honorific kin terms such as *Auntie* and *Uncle*. The first part of the script indicates that people are, so to speak, "tuned" to thinking of other people in terms of relative age. The second part prescribes a certain attitude toward such people (roughly, thinking of them as different from oneself and as "above" oneself) and also mandates some positive views about them.

[L] *A Singapore English cultural script for "respectful" attitude toward someone older*

[people think like this:]
I can think about some other people like this:
"I have lived for some time, these people have lived for some time more"
if I think like this about someone, I have to think about this someone like this because of it:
"this someone is not someone like me, this someone is someone above me"
I have to think something good about this someone because of this

This script is only one of a suite of age-related Chinese cultural scripts, some of which articulate more specific attitudes linked with generational differences. These scripts enable much more detail than the normal simplistic description in terms of "respect for age", which glosses over important differences, between, for example, Chinese and Korean norms (Yoon 2004) in regard to age.

It is important to stress that despite the possible connotations of the word 'script', cultural scripts are not binding on individuals. They are not proposed as rules of behavior, or as descriptions of behavior, but as normative rules of interpretation and evaluation. It is up to individuals in concrete situations whether to follow (or appear to follow) culturally endorsed principles and, if so, to what extent; or whether to defy, manipulate, or subvert them, play creatively with them, etc. Whether or not cultural scripts are being followed in behavioral terms, however, the claim is that they constitute a kind of shared interpretive background. It also has to be stressed that a few simple examples cannot give an accurate impression of the complex inter-relationships between and among the large number of scripts operative in any culture, including various forms of intertextuality, e.g., some being more general than others, some taking priority over others, some competing with others. Equally, it is clear that many scripts must be tailored to particular types of interlocutors, settings, and discourse genres.

One of the key concerns of much work in the cultural scripts framework is to "de-naturalize" the pragmatics of English, which is often taken (or, mistaken) as culturally unmarked; cf. Wierzbicka (2003 [1991]; 2006*a*), Peeters (2000); Goddard (2006*a*). It therefore seems important to adduce at least one cultural script of mainstream Anglo culture. In doing so we also take the opportunity to show how ethnopragmatics is not solely a matter of usage conventions but can exert an influence on language structure. A wide range of sociological, historical, and culture-analytical literature indicates that something like "personal autonomy" is one of the primary ideals of Anglo culture. Script [M] is intended to capture an important aspect of this ideal.

[M] *Anglo cultural script for "personal autonomy"*

[people think like this:]
when someone does something, it is good if this someone can think about it like this:
"I am doing this because I want to do it"

It is not difficult to see that this ideal can inhibit speakers of mainstream English from using the bare imperative when they want someone to do something (because a bare imperative includes a message like: 'I want you to do this; I think that you will do it because of this'). It is well known that in most social situations Anglo speakers prefer to frame their directives in a more elaborated fashion, using "interrogative directives" (wh-imperatives) such as *Will you...?*, *Would you...?*, *Can you...?*, *Could you...?*, *Would you mind...?*, and the like. Although these constructions

clearly convey the message 'I want you to do this', they acknowledge the addressee's autonomy by embedding the potentially confronting message into a question form, as if inviting the addressee to say whether or not he or she will comply. Another favored strategy is the use of "helpful suggestions", such as *Perhaps you could...*, *You might like to...*, and *I would suggest...* (Wierzbicka 2006*b*: 51f).

In a similar fashion, Wierzbicka and others have argued that Anglo cultural values encourage speakers to express something like epistemic reserve when saying what they think, and to routinely acknowledge the possible existence of differing opinions (Wierzbicka 2003 [1991]; 2006*a*). This, it is argued, is linked with the high-frequency English formula *I think*, phrases like *in my opinion* and *as I see it*, hedges such as *kind of* and *a bit*, and also with the frequency and grammatical elaboration of tag questions in mainstream Anglo English (Wong 2008).

Explaining these ways of speaking in terms of culture-specific Anglo values, such as personal autonomy, is quite different to attributing them to "universals of politeness", in the style of Brown and Levinson (1987) and later versions of neo-Griceanism. Wierzbicka has long been a strong critic of neo-Gricean pragmatics, charging it with semantic naivety, explanatory inadequacy, and thinly disguised Anglocentrism (evident both in its individualist orientation and in its key terms, such as "imposition").

Culture-specific pragmatic norms tend to spawn semantically specialized constructions which are tailor-made to meet the communicative priorities of the culture, as routinized patterns of usage "harden" into fixed morphosyntactic constructions (Traugott and König 1991; Evans and Wilkins 2000: 580–5). Because it uses the same metalanguage to depict meaning in both semantics and pragmatics, the NSM approach allows for a particularly clear account of how the semanticization of pragmatic implicature works as a process of language change.

18.6 Concluding remark

The NSM approach offers a comprehensive and versatile approach to meaning analysis: highly constrained and systematic, non-ethnocentric, and capable of producing representations with high cognitive plausibility. Given the pervasiveness of meaning-based and meaning-related phenomena in languages (in lexicon, morphology, syntax, prosody, and pragmatics), the approach surely has a tremendous amount to offer linguistics at large. Of course, NSM is not a complete theory or methodology of linguistic analysis. If languages can be thought of as systems for correlating meanings with forms, NSM's strengths lie on the meaning side of the equation. There can be little argument, however, that the linguistics of the twentieth

century concentrated predominantly on form, at the expense of meaning, and that it was the poorer because of it. Hopefully the twenty-first century will see the balance restored, so that meaning can re-assume a central place in linguistics.

Appendix A

Semantic primes in two additional languages—Japanese (Hasada 2008) and Russian (Gladkova 2007*a*)

WATASHI *I*, ANATA *you*, DAREKA *someone*, NANIKA/MONO/KOTO *something/thing*, HITO/HITOBITO *people*, KARADA *body*	JA *I*, TY *you*, KTO-TO *someone*, ČTO-TO/VEŠČ' *something/thing*, LJUDI *people*, TELO *body*
SHURUI *kind*, BUBUN *part*	ROD/VID *kind*, ČAST' *part*
KORE *this*, ONAJI *the same*, HOKA *other*	ÉTOT *this*, TOT ŽE *the same*, DRUGOJ *other*
HITO-/ICHI- *one*, FUTA-/NI- *two*, IKUTSUKA *some*, MINNA *all*, TAKUSAN *much/many*	ODIN *one*, DVA *two*, NEKOTORYE *some*, VSE *all*, MNOGO *much/many*
II *good*, WARUI *bad*	XOROŠIJ/XOROŠO *good*, PLOXOJ/PLOXO *bad*
OOKII *big*, CHIISAI *small*	BOL'ŠOJ *big*, MALEN'KIJ *small*
OMOU *think*, SHIRU *know*, HOSHII/-TAI/NOZOMU *want*, KANJIRU *feel*, MIRU *see*, KIKU *hear*	DUMAT' *think*, ZNAT' *know*, XOTET' *want*, ČUVSTVOVAT' *feel*, VIDET' *see*, SLYŠAT' *hear*
IU *say*, KOTOBA *words*, HONTOO *true*	GOVORIT'/SKAZAT' *say*, SLOVA *words*, PRAVDA *true*
SURU *do*, OKORU/OKIRU *happen*, UGOKU *move*, FURERU *touch*	DELAT' *do*, PROISXODIT'/SLUČAT'SJA *happen*, DVIGAT'SJA *move*, KASAT'SJA *touch*
(OOKOKA) IRU/ARU *be (somewhere)*, IRU/ARU *there is*, MOTSU *have*, (DAREKA/NANIKA) DEARU *be (someone/something)*	BYT' (GDE-TO) *be (somewhere)*, BYT'/EST' *there is*, BYT' U *have*, BYT' (KEM-TO/ČEM-TO) *be (someone/something)*
IKIRU *live*, SHINU *die*	ŽIT' *live*, UMERET' *die*
ITSU/TOKI *when/time*, IMA *now*, MAE *before*, ATO *after*, NAGAI AIDA *a long time*, MIJIKAI AIDA *a short time*, SHIBARAKU NO AIDA *for some time*, SUGUNI *moment*	KOGDA/VREMJA *when/time*, SEJČAS *now*, DO *before*, POSLE *after*, DOLGO *a long time*, KOROTKOE VREMJA *a short time*, NEKOTOROE VREMJA *for some time*, MOMENT *moment*
DOKO/TOKORO *where/place*, KOKO *here*, UE *above*, SHITA *below*, TOOI *far*, CHIKAI *near*, MEN *side*, NAKA *inside*	GDE/MESTO *where/place*, ZDES' *here*, NAD *above*, POD *below*, DALEKO *far*, BLIZKO *near*, STORONA *side*, VNUTRI *inside*
-NAI *not*, TABUN *maybe*, DEKIRU *can*, KARA *because*, MOSHI (BA) *if*	NE *not*, MOŽET BYT' *maybe*, MOČ' *can*, POTOMU ČTO *because*, ESLI *if*
SUGOKU *very*, MOTTO *more*	OČEN' *very*, BOL'ŠE/EŠČE *more*
YOO/DOO/YOONI *like/how/as*	KAK/TAK *like*