Manner, result and Aktionsart in English physical activity verbs (NSM approach)
Cliff Goddard, University of New England, Australia & Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany
University Leipzig Semantics Colloquium 10 June 2010

1. The issues ahead

• articulating the full lexical-conceptual content, adequate for cross-linguistic comparison
• lexical polysemy, lexical-constructional frames
• “event structure” for complex physical activities
• imperfective paradox (relation between Progressive and Simple Past)
• manner/result complementarity

2. Main features of the NSM approach

• The NSM approach is an intensional decompositional approach to lexical and grammatical semantics. It is based on reductive paraphrase in natural language: paraphrase (‘saying the same thing’), reductive (‘with simpler words’). This prevents definitional circularity and allows maximal clarity, explicitness, and intuitive accessibility.
• Semantic primes are the terminal elements of reductive paraphrase analysis, discovered over a 30-year program of semantic experimentation. The 63 semantic primes and their inherent syntax comprise a mini-language: the Natural Semantic Metalanguage. Evidence suggests that semantic primes can be expressed as words or word-like elements in all languages.
• There are hundreds of published journal articles and book chapters using the NSM approach, and over 20 books. Well-described NSMs exist for Russian, Chinese, French, Japanese, Spanish, Korean, Amharic, East Cree, Malay, Mbula (PNG), Polish, and Lao, among other languages. Key recent references are Goddard and Wierzbicka eds. (2002), Goddard ed. (2008), and Wierzbicka (2010).

Table 1: Semantic primes (English exponents), grouped into related categories

<table>
<thead>
<tr>
<th>Substantives</th>
<th>Determiners</th>
<th>Quantifiers</th>
<th>Evaluators</th>
<th>Speech</th>
<th>Actions</th>
<th>Location</th>
<th>Time</th>
<th>Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>I, YOU, SOMEONE, SOMETHING</td>
<td>THIS, THE SAME, OTHER</td>
<td>ONE, TWO, SOME, ALL, MUCH, MANY</td>
<td>GOOD, BAD</td>
<td>BIG, SMALL</td>
<td>KNOW, THINK, WANT, FEEL, SEE, HEAR</td>
<td>SAY, WORDS, TRUE</td>
<td>DO, HAPPEN, MOVE, TOUCH</td>
<td>BE (SOMEWHERE), THERE IS, HAVE, BE (SOMEONE/SOMETHING)</td>
</tr>
</tbody>
</table>

Notes: • Primes exist as the meanings of lexical units (not at the level of lexemes) • Exponents of primes may be words, bound morphemes, or phraseemes • They can be formally complex • They can have combinatorial variants or “allolexes” (indicated with ~) • Each prime has well-specified syntactic (combinatorial) properties.
• NSM explications can also include semantic molecules. These are a well-defined set of non-primitive lexical meanings (decomposable into combinations of primes) which function as units in the structure of complex concepts in a given language. In this presentation, I will use the following semantic molecules: ‘hands [m]’, ‘mouth [m]’, ‘long [m]’, ‘hold [m]’, ‘sharp [m]’, ‘hard [m]’, ‘heavy [m]’, ‘edge [m]’. These are drawn from a set of about 100 semantic molecules known to be productive across various areas of the English lexicon (Goddard 2010). Productive molecules are marked in explications with the notation [m].

• In addition, many complex lexical meanings function as semantic molecules in a much more limited and circumscribed fashion – for example, in derivational processes or in a set of polysemic meanings of a single lexeme. For instance, the word illness employs ‘ill’ as a semantic molecule (Goddard and Wierzbicka to appear), but this appears to be its only use as such. Molecules (or quasi-molecules) of this kind are marked in explications with the notation [m*].

3. Semantic templates for physical activity verbs
An NSM 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 nouns and natural kind terms, but has since been elaborated and applied to adjectives of emotion, shape, colour, and physical qualities, and more recently to verbs.

Physical activity verbs follow a consistent semantic template (Goddard and Wierzbicka 2009, Ye 2010). In the progressive/imperfective, the template has the following structure:

LEXICO-SYNTACTIC FRAME (see examples below)
PROTOTYPICAL MOTIVATIONAL SCENARIO
MANNER [•INSTRUMENT• USING THE INSTRUMENT •WHAT IS HAPPENING TO THE OBJECT]

The simplest frame to explicate is the progressive (imperfective) – the activity-in-progress:

[W]e concur with the standard view in Russian lexicology that the imperfective uses of physical activity verbs are semantically prior to their perfective uses. [...] This is because it is impossible to formulate an account of the semantics of cutting (chopping, grinding, digging, mowing, cooking, etc.) without analyzing the “event structure”, and in so doing, one necessarily has to describe the internal temporal structure of the event. [...] To attempt to proceed in the opposite direction ... leads to circularity and confusion. Why? Because cutting presents a certain action-in-progress but it does not presuppose a final result, only a potential final result. Perfective cut, on the other hand, presupposes the previous action-in-progress (cutting) and adds to this the notion of an accomplished result. For this reason, analyses which take the non-durative (eventive) cut as basic usually end up with blatantly circular definitions such as ‘to cut = to produce a cut (on something)’ (cf. Guerssel et al., 1985; Hale and Keyser,1986). The question ‘What does a cut mean?’ is then not asked, and the meaning of the durative form cutting is not discussed either. Presumably, few would claim that He was cutting meat means ‘he was producing a cut on some meat’. (Goddard and Wierzbicka 2009: 67-68)

LEXICO-SYNTACTIC FRAME for progressive/imperfective eating and drinking:
someone X is doing something to something Y (with the mouth [m]) for some time because of this, something is happening to this something Y at the same time

LEXICO-SYNTACTIC FRAME for progressive/imperfective cutting, chopping, and many other complex physical activity verbs:
someone X is doing something to something Y with something else Z for some time because of this, something is happening to this something Y at the same time as this someone wants
more elaborate and lengthier actions inside the mouth for 'eat'

Detailed explanations for four English verbs, of two similar-yet-different subclasses.

- someone X is eating something Y
- someone X is drinking something Y

**LEXICO-SYNTACTIC FRAME**

- someone X is doing something to something Y with the mouth [m] for some time
  - because of this, something is happening to this something at the same time

**ROTOTYPICAL MOTIVATIONAL SCENARIO**

- at many times someone does something like this because it is like this:
  - this someone wants something to be inside their body
  - this something is something like water [m]

**MANNER**

- when someone does something like this, this someone does the same thing many times
  - it happens like this:
    - this someone does something to something with the hands [m]
    - at the same time, this someone does something to it with the mouth [m]
    - because of this, after this, part of this something is for a very short time inside this someone's mouth [m]
    - after this, this someone does something else to it with the mouth [m]
    - because of this, after this, it is not inside this someone's mouth [m] anymore.

- someone X is drinking something Y

**LEXICO-SYNTACTIC FRAME**

- someone X is doing something to something Y with the mouth [m] for some time
  - because of this, something is not inside this someone's mouth [m] anymore.

**ROTOTYPICAL MOTIVATIONAL SCENARIO**

- at many times someone does something like this because it is like this:
  - this someone wants something to be inside their body
  - this something is something like water [m]

**MANNER**

- when someone does something like this, this someone does the same thing many times
  - it happens like this:
    - this someone does something to something with the hands [m]
    - at the same time, this someone does something to this something with the mouth [m]
    - because of this, after this, part of this something is for a very short time inside this someone's mouth [m]
    - after this, this someone does something else to it with the mouth [m]
    - because of this, after this, it is not inside this someone's mouth [m] any more, it is somewhere else inside this someone's body for some time

Someone X is cutting something Y

**Lexico-Syntactic Frame**

someone X is doing something to something Y with something else Z for some time

**Motivational Scenario**

- a short time before, this someone thought like this about this something:
  - 'I don't want this thing to be one thing anymore, I want it to be two things
  - because of this, I want to do something to it for some time when I do this,
  - I want something to happen to it all the time as I want

**Instrument**

- when someone does something like this with something, this someone holds part of this thing with one hand
  - this something has two parts: one of these two parts has a sharp edge, the other part is a long part
  - when someone does something like this with something, this someone holds the long part with the hands

**USING THE INSTRUMENT**

when someone does something like this with something to something else, it happens like this:

- the sharp parts of this thing touch this other thing for some time
- during this time this someone's hand moves as this someone wants
- because of this, during this time the sharp parts of this thing touch this other thing in some places as this someone wants

**WHAT IS HAPPENING TO THE OBJECT**

- because of this, something happens to this other thing in these places as this someone wants
- because of this, after this, this other thing is not like it was before
4. Semantic template for Simple Past of physical activity verbs – canonical uses

Note that the progressive activity-in-progress meanings (‘is eating’, ‘is cutting’, ‘is chopping’) function as semantic molecules in the Simple Past explications. This limited, quasi-derivational role is marked as \([m^*]\).

*(1)* *(While I was waiting) I ate a banana:*

- **LEXICO-SYNTACTIC FRAME**: I did something to something (a banana) at this time
- **PROCESS**: I did it to this something like this:
  - I was eating \([m^*]\) it for some time
- **EFFECT**: because of this something happened to the banana at the same time
- **RESULT**: because of this, after this all parts of this thing were somewhere inside my body

*(2)* *She cut the apple into four pieces:*

- **LEXICO-SYNTACTIC FRAME**: she did something to something (the apple) with something else at this time
- **PROCESS**: she did it to this something like this:
  - she was cutting \([m^*]\) it for some time
- **EFFECT**: because of this something happened to the apple at the same time as she wanted
- **RESULT**: because of this, after this the apple wasn’t one thing anymore, it was four things (pieces)

*(3)* *He chopped the wood (at this time):*

- **LEXICO-SYNTACTIC FRAME**: he did something to the wood with something else at this time
- **PROCESS**: he did it to this something like this:
  - he was chopping \([m^*]\) it for some time
- **EFFECT**: because of it something happened to the wood at the same time as he wanted
- **RESULT**: because of this, after this, the wood wasn’t many big things anymore, it was many small things

*(4)* *He ate the banana slowly:*

- **LEXICO-SYNTACTIC FRAME**: he did something to something (a banana) at this time
- **PROCESS**: he did it to this something like this:
  - he was eating \([m^*]\) it for some time
- **EFFECT**: because of this something happened to it at the same time
- **RESULT**: because of this, after this all parts of this thing were somewhere inside his body
- **MANNER MODIFICATION**: when he did it, he did it slowly \([m]\)

5. Semantic template for Simple Past of physical activity verbs – extended uses

The following are two examples of sentences which cannot be based on ‘cutting \([m^*]\)’ or ‘chopping \([m^*]\)’ in their literal senses. Both are non-durational (not compatible with ‘for some time’, but rather compatible with ‘in one moment’). In addition, the situation described in (5) does not allow for much sustained ongoing control (as expected for literal ‘cutting’) and that in (6) is not iterative (as expected for literal ‘chopping’).

*(5)* *(He cut the thread (at this time))*

- **LEXICO-SYNTACTIC FRAME**: he did something to something (the thread) with something else at this time
- **PROCESS**: he did it to this something like someone does something to something
  - when this someone is cutting \([m^*]\) this something
- **EFFECT**: something happened to the thread at the same time because of it
  - it happened in one moment
- **RESULT**: because of this, after this, the thread was not one thing anymore,
  - it was two things
She chopped the onion in two at this time:

**LEXICO-SYNTACTIC FRAME**: she did something to something (the onion) at this time

**PROCESS**: he did it to this something like someone does something to something
when this someone is chopping [m*] this something

**EFFECT**: something happened to this thing at the same time because of it
it happened in one moment

**RESULT**: because of this, after this, this thing was not one thing anymore,
it was two things

6. “Quirky” syntactic alternations of English cut (and scratch)

In addition to its normal transitive frame, the English verb *cut* can appear in a number of other constructional frames, each expressing a different and specialised meaning. These frames are language-specific. The following concern body-parts.

Note that in all cases: (i) The constructions do not normally occur in the progressive at all, cf. *He was cutting his face while shaving*, *He was cutting his foot on a rock*, *The glass was cutting her hand*. (ii) The actions being described are non-volitional. (iii) They do not imply any separation.

(7) **He (X) cut his face while shaving:**

**LEXICO-SYNTACTIC FRAME**: someone X was doing something for some time with something sharp [m]
at some time during that time, this sharp [m] thing touched part of this someone’s body not as this someone wanted

**EFFECT**: because of this, something happened to this part of this someone’s body at this time
it happened in one moment

**MANNER OF EFFECT**: it happened to it like something happens to something
when someone is cutting [m*] this something

(8) **He (X) cut his foot on a rock:**

**LEXICO-SYNTACTIC FRAME**: someone X was doing something for some time in a place
where there was something sharp [m]
at some time during that time, part of this someone’s body touched this sharp [m] thing not as this someone wanted

**EFFECT**: because of this, something happened to this part of this someone’s body at this time
it happened in one moment

**MANNER OF EFFECT**: it happened to it like something happens to something
when someone is cutting [m*] this something

(9) **The glass cut her (X’s) hand:**

**LEXICO-SYNTACTIC FRAME**: something sharp [m] touched part of this someone’s (X’s) body
not as this someone wanted

**EFFECT**: because of this, something happened to this part of this someone’s body at this time
it happened in one moment

**MANNER OF EFFECT**: it happened to it like something happens to something
when someone is cutting [m*] this something
Select references


