

FrameNet and Pattern Grammar

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This paper compares two approaches to consistency of form and meaning in naturally-occurring text. Framenet begins with groups of words that share meaning, examines their recurrent co-text, identifies frame elements and notes the mapping of element on to co-text. Pattern Grammar begins with recurring co-occurrences (colligation) and identifies shared meaning among the node lexical items. A further development (referred to here as Local Grammar) maps pattern elements on to meaning elements. Both projects, therefore, are concerned with the relationship between meaning and form, and both use corpora as their source of information. With so much in common, it makes sense to explore further the similarities and differences, and their consequences, and to propose ways in which the two projects might assist each other.

The differences might be illustrated with the pattern *RECOVER from*, which according to Francis et al (1996) shares a meaning group with *SUFFER from*. The two word-pattern combinations are identified as similar because they share the pattern **V from n**. Framenet identifies a frame ‘recovery’, with the core semantic roles ‘patient’, ‘affliction’ and ‘body part’, whereas *SUFFER* belongs to the ‘Catastrophe’ frame with semantic roles ‘undergoer’ and ‘undesirable event’.

Each approach identifies the following:

- a set of words with a semantic congruence
- a set of patterned co-texts (e.g. prepositional phrase with *from*) identified from a corpus
- semantic roles appropriate to the set
- a mapping of the roles on to the patterns

What is interesting is that starting from either end of the process, that is from the pattern or from the semantic frame, leads to results that overlap to some extent but that are far from identical. *RECOVER* and *HEAL* are grouped together in Framenet terms and treated quite differently in pattern terms. *RECOVER from* and *SUFFER from* are treated as similar by pattern grammar and as quite different by Framenet. The difference is that whereas Framenet treats word meaning as largely independent of pattern (e.g. *suffer from* is a variant of *suffer*), pattern grammar assumes that meaning belongs more to pattern than to word (e.g. *suffer from* is more similar to *recover from* than it is to *suffer*). What pattern grammar prioritises, (and Framenet treats as less significant) is the mutability of semantic categories. The placing together of *recover* with *recuperate* and *bounce back*, let alone with *suffer*, *reel* and *die* can only be an ad hoc suggestion based on an intuitively perceived congruence, and that perception is, of course, in turn based on the formal similarity of *recover from*, *bounce back from*, *reel from* and *suffer from*.

Examples of similarity and difference are highlighted when we look at evaluative language. I use the terms Affect, Judgement and Appreciation from Martin and White (2005). For example, the word *difficult* is said by Hunston and Francis (1999) and Hunston and Sinclair (2000) treated to express evaluation and according to Martin's (2003) test most probably construes Appreciation. Framenet allocates the word to the 'difficulty' frame. There is therefore a considerable difference in the degree of generalisation being employed here, but the identification of patterns is, unsurprisingly, similar except in detail. The mapping of meaning on to pattern is also similar except in nomenclature. Where Framenet identifies two core elements: 'Activity' and 'Experiencer', Hunston and Francis suggest 'Evaluated Entity' and 'Affected Entity'. Detailed examination to be set out in the paper suggests that some Framenet analyses are more convincing than the Local Grammar ones, others possible vice versa, but that there is overall agreement in approach.

In other examples, some disparity between Framenet and a Local Grammar approach is caused because the starting point for a Local Grammar is the pattern rather than the meaning. The example that will be taken here is the pattern **ADJ to-inf**. It is well known that this pattern is susceptible to contrasting analyses, depending on the choice of adjective, because of the famous distinction between 'easy to please' and 'eager to please'. Hunston and Francis (1998: 405) identify 16 main meaning groups, divided into two 'types'. In one type, the understood subject of the to-infinitive clause is different from the subject of the main clause, as in *Fish can be fiddly to cook* (ibid: 405, cf 'John is easy to please'). In the other type, the two subjects are the same, as in *We would be foolish to ignore them* (ibid: 405, cf 'John is eager to please'). In terms of evaluation, however, and particularly relating to the Martin and White model, there are further distinctions.

Five meaning groups express Affect; in each case an Evaluator (or Experiencer) is reported as feeling an emotion about or reaction to a situation.

Evaluator		Reaction	Situation
They	were	puzzled	to find the kitchen door locked
She	was	very angry	to find him still with the circus
You	've got to be	very thankful	to win once
A spokesman	was	reluctant	to reveal the actual figures
He	is	most anxious	to avoid appearing weak

In three groups, an action or situation is expressed by both the subject of the main clause and the to-infinitive clause, with the evaluation occurring between them. The evaluation is either Judgement or an assessment of probability or ability.

Action...		Evaluation	...Action
People	are	slow	to learn
The Labour Party	looks	increasingly certain	to win the next election
The lion	had not been	able	to escape

For the other meaning groups, competing analyses are possible, one from Local Grammar, the other from Framenet. These are shown in the tables below. It might be noted that the first analysis brings the analysis closer to Appreciation (of a person or thing) and the final one brings it closer to Judgement (of an action).

Entity		Evaluation	Limiter / Specification
Horses	are	pretty	to look at
..the place	is	fit	to live in
The printing	is	easy	to read
Such matches	are	boring	to watch
Children's homes	are	difficult	to staff
Action...		Evaluation	...Action

Entity		Evaluation	Limiter / specification
You	are	right	to say we are dealing with people who are feeling emotional
He	was	lucky	to escape with his life
Action...		Evaluation	...Action

The upshot of this is: whether we start with a semantic frame or pattern there is considerable consistency in mapping semantic and pattern elements but also some interesting discrepancy depending on the starting point of pattern or frame. In the paper I shall argue that in many respects the Framenet approach would appear to work better, but the early decision concerning semantic frame limits its scope. A complementary attention to enables a wider focus and the inclusion of other kinds of evaluation in the same frame. It is becoming clear that the main challenge to the concept of either local grammar or semantic frame is the level of generality of the frame adopted.

An illustration of a level of generality that seems to work is the local grammar of Affect (Hunston 2003; Bednarek 2008: 65-99). This is partly because Affect itself is relatively self-contained. Bednarek's version is probably the most successful. It builds on and considerably extends work by Hunston (2003) and builds on common ground with Framenet by borrowing some terminology from it, notably 'Emoter', 'Emotion' and 'Trigger' as the core semantic elements associated with Affect. Another point of commonality with Framenet is that Bednarek considers all word classes, to considerable advantage. Some of Bednarek's examples, with their parsing, are:

- *Everyone / loves / compliments* Emoter / Emotion / Trigger (Example from Framenet)
- *I / 'm / happy / for / him* Emoter / Emotion / Empathy target (Example from Hunston 2003)
- *He / has impressed / as stand-in for the injured Tommy Wright* Trigger / Emotion / Trigger (Example from BNC)

Bednarek (2008: 95) notes that analyses depend on the presence or absence of either the Emoter (*He hates days like that* vs *He has impressed as a stand-in*), the Trigger (*He still hankers after office* vs *I don't mind*), or an overt expression of Emotion (*I yearned for something new* vs *It came as a surprise*).

References

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