

## Cognitive grammar as a connectionist alternative: A parametrized account of the Polish reflexive pronouns

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The paper examines Ronald Langacker's (1991a: 533) claim that "[...] cognitive grammar has a natural affinity to connectionism, which makes no use of explicit rules and claims that they are unnecessary for a viable account of mental processing." In particular, we argue, in the "connectionist spirit", that no linguistic structure can be adequately described unless the "local" *patterns of activation* exploiting the parametric characterization of the structure are brought to light.

Take, for example, the Polish reflexive pronoun *się/siebie*, which can be described using a number of specific parameters, including the following (cf. Kardela 2008):

(i) the *Deagentivisation Parameter*, where the use of the pronouns signals the departure from a prototypical transitive construction (with a (human) agent and a patient). Thus out of the following examples: (a) *Jan uderzył Piotra* 'John hit Peter', (b) *Mężczyźni pozdrawiali się/siebie nawzajem* 'The men greeted each other', (c) *Piotr widział siebie/się w lustrze* 'Peter saw himself in the mirror', (d) *Lód się topił* 'The ice melted-refl', the (d) example represents a "fully deagentivised" construction, i.e. a construction which codes the patient — the last profiled element of the energy chain in the sense of Langacker, with the agent and instrument being present in the base, but remaining unprofiled (cf. Langacker 1991b);

(ii) the *Causation Parameter*, where the pronominal forms *się/siebie/sam* mark the *causation process* involved in the so-called *Absolute Construal* of events. (cf. Langacker 1991a) Thus the following examples mark the increasing presence of the external participant which adds a "conceptually dependent layer of causation, in which an additional participant is portrayed as inducing the previously characterized event by supplying either a physical or an abstract force" (cf. Langacker 1991b: 292): (a) *Lód topił się* 'The ice melted', (b) *Lód stopił się pod wpływem ciepła* 'The ice melted under the influence of heat', (c) *Jan sprawił, że lód pod wpływem ciepła zaczął się topić* 'John caused the ice to melt under the influence of heat';

(iii) the *Personal Sphere* parameter, where the distribution of the reflexive *sobie/się* found in the *Ethical Dative* is determined by the *personal sphere*. (Dąbrowska 1997) Thus of the following two examples (a) *Piotr zrobił sobie krzywdę* 'Peter harmed himself' and (b) *Piotr poszedł sobie na spacer* 'He went away-refl for a walk', the (b) example represents the weaker influence of the objects or situations (here: spacer 'walk') on the target person (here: Peter). That is, the situation/object 'spacer' ('walk, going for a walk'), described in (b), influences the target person, Piotr, to a much weaker extent than the situation/object *krzywda* ('harm'), which Piotr brought (consciously or unconsciously) on himself.

The affinity of cognitive grammar to the PDP system is particularly striking once it is realized that

- (i) *się/siebie* opens up access to the network of the pronoun's interrelated senses, i.e. to
  - (a) the "inchoative *się*", appearing very often with prefixed verbs such as *za-palić się* 'catch fire', *wy-palić się* 'burn out',
  - (b) the ethical dative with *siebie/się*,
  - (c) the reciprocal *się/siebie*,
  - (d) other instances of *się/siebie*;
- (ii) the "full" description of the reflexive *się/siebie* consists of "dispersed local descriptions" of the pronoun clustering around specific parameters;
- (iii) the activation of a specific parameter sends a signal to the parameters "latent" in the system thus activating other parametrized chunks of cognitive structure. For example, the presence in an

expression of the “inchoative *się*” activates not only *Causation Parameter*, but also the *Bounded/Unbounded Parameter* underlying the perfective/ imperfective distinctions in verbs. Thus we have the following contrast: (a) *Padło*-imperf. ‘it was raining’ vs. (b) *Roz-padało*-perf. *się* ‘it started to rain.’

#### Bibliography

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