1. Introduction

Goal: To provide a constructional account of verbal prefixation. In particular, we deal with verbal prefixation in Polish and cases of so-called ‘valence creation’ and ‘valence augmentation’.

(1) Valence creation
a. Jan wy-chwascił ogród.
   Jan out-weeded garden-ACC
b. Nasi wychowankowie za-drzewili teren wokół szkoły.
   our pupils behind-treed area-ACC around school
c. Biała herbata od-młodziła jej skórę.
   white tea away-younged her skin-ACC

(2) Valence augmentation
a. Wy-jeździliśmy całą benzynę.
   out-we-drove all fuel-ACC
b. Na-jadłem się.
   on-I-ate myself-ACC
c. Nikt mnie nie prze-krzyczał.
   nobody me-ACC not across-cried
• Valence-creation: not valence-taking element acquires an argument-structure, when combined with a prefix.

(3)
  a. *Jan chwascił ogród.
     Jan weeded garden-ACC
  b. *Nasi wychowankowie drzewili teren wokół szkoły
     our pupils treed area-ACC around school
  c. *Biała herbata młodziła jej skore.
     white tea younged her skin-ACC

• Valence-augmentation: the prefixed verb allows arguments that are not part of the theta frame of the unprefixed verb.

(4)
  a. *Jeździliśmy całą benzynę.
     we drove all fuel
  b. *Jadłem się.
     I ate myself
  c. *Nikt mnie nie krzyczał.
     nobody me not cried

An adequate explanation of valence creation and valence augmentation involves drawing the important distinction between “verbal meaning” and “constructional meaning” (e.g., cf. Goldberg 1995, Michaelis & Ruppenhofer 2001).
2. A constructional approach to ‘verbal elasticity’

A lexical approach cannot provide an adequate explanation of so-called “verbal elasticity” (cf. Goldberg 1995).

(5) “Verbal elasticity”
   a. Pat kicked Bob black and blue. (Resultative Construction)
   b. Pat kicked the football into the stadium. (Caused-Motion Construction)
   c. Pat kicked at the football. (Conative Construction)
   d. Pat kicked Bob the football. (Double-Object Construction)
   e. The horse kicks. (Intransitive Construction)
   f. Pat kicked his way out of the operating room. (Way Construction)

(6) Unselected Object Construction
   He sneezed the napkin off the table.

(7) CG Analysis of (6) (Goldberg 1995: 54)

<table>
<thead>
<tr>
<th>Sem</th>
<th>CAUSE-MOVE</th>
<th>&lt; cause</th>
<th>goal</th>
<th>theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>R: means</td>
<td>SNEEZE</td>
<td>&lt; sneezer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Participant roles: roles corresponding to verb’s frame semantics
- Argument roles: roles corresponding to the construction

(8) The Semantic Coherence Principle: Only roles which are semantically compatible can be fused.

(9) The Correspondence Principle: Each participant role that is lexically profiled and expressed must be fused with a profiled argument role of the construction.
   (Goldberg 1995:50)
3. A Construction Grammar-based approach to verbal prefixation in Polish

3.1. Two transitive patterns

- Caused Motion Construction: the direct object is the Figure

  \((10)\) Caused-Motion Construction pattern
  
  Jan wypisał tusz (z długopisu).
  
  Jan out-wrote ink-ACC (out of the pen)

- Transitive Motion Construction: the direct object is the Ground

  \((11)\) Motion-Construction pattern
  
  Jacek przebiegł park.
  
  Jacek across-ran park-ACC

\[(12)\] Caused Motion Construction

\[
\begin{array}{|c|c|c|c|c|}
\hline
\text{Sem} & \text{CAUSE-MOVE} & \text{OUT} & \text{cause} & \text{theme} & \text{goal} \\
\hline
\text{R: means} & \text{WRITE} & < \text{writer} > & \text{writer} & \text{theme} & \text{goal} \\
\hline
\text{Syn} & \text{V} & \text{SUBJ} & \text{OBJ} & \text{OBL} \\
\hline
\end{array}
\]

\[(13)\] Motion Construction

\[
\begin{array}{|c|c|c|c|}
\hline
\text{Sem} & \text{MOVE ACROSS} & \text{theme} & \text{goal} \\
\hline
\text{R: means} & \text{RUN} & < \text{runner} > & \text{runner} \\
\hline
\text{Syn} & \text{V} & \text{SUBJ} & \text{OBJ} \\
\hline
\end{array}
\]
• The core schema of each construction is associated to a prefixed satellite, which involves an image-schema: wy- (out) in (12) and prze- (across) in (13).

• Analysis of (12):
  - image-schema: Figure leaving a spatially bounded Ground
  - verb integrated in the construction: write
  - profiled participant role: the writer; it fuses with the argument role cause
  - the argument roles theme and goal (which is optional) are contributed by the construction.
  - relation between verb semantics and construction semantics: means
  - meaning of the construction: “Jan caused the ink to move out of the pen”

• Analysis of (13):
  - image-schema: Figure crossing a Ground
  - verb integrated in the construction: run
  - profiled participant role: the runner; it fuses with the argument role theme
  - the argument role goal is contributed by the construction
  - relation between verb semantics and construction semantics: means
  - meaning of the construction: “Jacek moved across the park running”

Both types of constructions are related to each other by a Subpart Link: the syntactic and semantic specifications of the motion construction (theme and goal) are a subpart of the syntactic and semantic specifications of the caused-motion construction.

3.2. Polysemy
Following Janda (1986), Pasich-Piasecka (1993) and Dąbrowska (1996) among others, we reject the idea that there is an abstract meaning associated with prefixes (cf. Spencer & Zaretskaya 1998). Instead, we propose to capture the commonalities among usages through an associative network of senses. We will concentrate on constructions whose core-schema is the prefix prze- (across).
3.2.1. Prototype

The conceptual archetype with which the *prze*-pattern associated is a trajector moving physically from one edge of a landmark to the other:

(14) Conceptual archetype of the *prze*-pattern

(taken from Pasich-Piasecka 1993:12)

There are more specific context-bound spatial instantiations of this central category:

(15) Context-bound spatial instantiations of the *prze*-pattern

a. Magda *prze-jechała* granicę.
   Magda *prze-drove* border-ACC.

b. Magda *prze-skoczyła* płot.
   Magda *prze-jumped* fence-ACC.

(16) Graphical representations of the image-schemas involved in (15)

a. image-schema corresponding to (15a)

b. image-schema corresponding to (15b)

(taken from Pasich-Piasecka 1993:12)
• Meaning of the predications in (15)

- image-schema: Figure crossing a spatially bounded Ground
- verbs integrated in the constructions: *walk* (15a), *jump* (15b)
- profiled participant role: the *walker* (15a), *jumper* (15b); they fuse with the argument role *theme*
- the argument role *goal* is contributed by the construction
- relation between verb semantics and construction semantics: means
- meaning of the construction: “Magda moved across the border driving” (cf. 15a), “Magda moved across/over the fence jumping” (cf. 15b)

There is another, more peripheral instantiation of the conceptual archetype of the *prze-* pattern:

(17) Magda prze-płynęła rzekę.
    Magda prze-swam river-ACC.

(18) Graphical representation of the image-schema involved in (17)

(taken from Pasich-Piasecka 1993:12)
3.2.2. Metaphorical links

The image-schema associated with the basic (spatial) usages of the *prze*-pattern is compatible not only with concrete physical situations but also abstract ones. Various metaphorical links allow its use in the domains of time, change of state, transfer of ownership, communication, and others. Here we follow Lakoff’s (1990) *Invariance Hypothesis*, in accordance with which ontological components of the source domain are preserved in the target domain.

3.2.2.1. TIME IS SPACE

(19) TIME IS SPACE metaphor in the *prze*-pattern

a. Prze-tańczyliśmy całą noc.
    Prze-we-danced all night-ACC
b. Prze-spali cały film.
    Prze-they-slept all movie-ACC

[examples from Dąbrowska 1996: 470]

- Type of Construction: Motion Construction
- Image-schema involved: (18)
- Meaning: we moved across all night dancing (19a); they moved across all movie sleeping (19b); movie states metonymically for its duration time

3.2.2.2. CHANGE OF STATE IS CHANGE OF LOCATION

(20) CHANGE OF STATE IS CHANGE OF LOCATION metaphor in the *prze*-pattern

a. Babcia prze-topiła słoninę (na smalc).
    Grandmother prze-melted bacon-ACC (into lard)
b. Burmistrz prze-naturał zamek (w centrum kultury).
    Mayor prze-natured castle-ACC (into culture center)
• Type of construction: Caused Motion / Resultative Construction

(21) Metaphorical mapping between Caused Motion Construction and Resultative Construction

Caused Motion Construction

```
Sem CAUSE-MOVE ACROSS < cause theme goal >
PRED <  >
Syn V SUBJ OBJ OBL
```

Resultative Construction

```
Sem CAUSE-BECOME < agt pat result-goal >
PRED <  >
Syn V SUBJ OBJ OBL
```

- Image-schema involved: (16a)
- Meaning: “the grandmother caused the bacon to become lard” (cf. 20a); “the mayor caused the castle to become a culture center” (cf. 20b)
A subtype of the Resultative Construction is constituted by predications denoting an excessive action:

(22) Excess-meaning in the *prze*-pattern
   a. Jan *prze-*karmił dziecko.
   Jan *prze-*fed child-ACC
   b. Jan się *prze-*pracował.
   Jan REFL-ACC *prze-*worked
   c. Jan się *prze-*pil.
   Jan REFL-ACC *prze-*drank

• Image-schema involved: (16a)
• Metaphors implied in the meaning of the predications in (22): THE BODY IS A CONTAINER and PROPERTIES ARE CONTENTS. The borderline the Figure crosses is metonymically understood not as the body (container), but as a property (a content within the container). In particular, the property is the capacity of the Figure of eating in (22a), working in (22b) and drinking in (22c).
• Meaning: “Jan caused the child to cross his/her capacities of eating” (cf. 22a); “Jan caused himself to cross his capacities of working” (cf. 22b); “Jan caused himself to cross his capacities of drinking” (cf. 22c).

3.2.2.3. TRANSFER OF OWNERSHIP IS PHYSICAL TRANSFER and the CONDUIT metaphor

(23) TRANSFER OF OWNERSHIP IS PHYSICAL TRANSFER in the *prze*-pattern
    Halina *prze-*słała mi paczkę.
    Halina *prze-*sent me-DAT parcel-ACC

• Type of Construction: Caused Motion Construction
• Image-schema involved: (18)
• Meaning: “Jan caused the parcel to go to me” (cf. 23)
There is another extension of the *prze*-pattern related to the examples discussed in this section. It is motivated by the CONDUIT metaphor of communication:

(24) CONDUIT metaphor in the *prze*-pattern

a. Marek prze-telefonował babci życzenia
   Marek prze-phoned grandmother-DAT greetings-ACC
b. Marek prze-mailował mi wiadomość.
   Marek prze-mailed me-DAT message-ACC

- Image-schema involved: (18)
- Meaning: “Marek caused the greetings to move to the grandmother by phoning” (cf. 24a); “Marek caused the message to move to me by mailing them” (cf. 24b)

3.2.2.4. CONTROL OVER ACTION IS CONTROL OVER MOTION

There is another meaning of the *prze*-pattern, labelled by Pasich-Piasecka as “unsatisfactory performance” (Pasich-Piasecka 1993: 17):

(25) Unsatisfactory meaning of the *prze*-pattern

a. Hania prze-oczyła ważną informację.
   Hania prze-eyed important information-ACC
b. Hania prze-słyszała się.
   Hania prze-heard REFL-ACC
c. Hania prze-języczyła się.
   Hania prze-tongued REFL-ACC

- Type of construction: Motion Construction
- Image-schema involved: (16a)
- Metaphor: CONTROL OVER ACTION IS CONTROL OVER MOTION
- Meaning of (25a): “Hania moved across an important information by watching it” (but because of her lack of control over her motion, she went beyond the Ground without seeing it)
- Meaning of (25b) and (25c): in (25b) and (25c) the Ground is the so-called fake reflexive. Similarly to (22), here we argue that the body states metonymically
for the capacity of the subject to hear (in 25b) and spell (in 25c), by means of the metaphors THE BODY IS A CONTAINER and PROPERTIES ARE CONTENTS. Thus, the Figure crosses its capacities, but it does not control its motion and fails to hear or spell correctly.

3.2.2.6. ECONOMICAL RESOURCES ARE PATHS

(26) ECONOMICAL RESOURCES ARE PATHS metaphor in the przę-pattern

a. Hania przegrała pieniądze.
   Hania prze-played money-ACC

b. Hania przejadła cała pensję.
   Hania prze-ate all salary-ACC

c. Hania prze-piła dom.
   Hania prze-drank house-ACC

- Type of construction: Motion Construction
- Image-schema involved: (18)
- Meaning: “Hania moves across the money playing” (cf. 26a); “Hania moves across the salary eating” (cf. 26b); “Hania moves across the house drinking” (cf. 26c), here the “house” is to be understood metonymically as the amount of money it is worth.

4. Concluding remarks

- We argue that our cognitive constructional account of verbal prefixation in Polish is theoretically and empirically superior over Spencer & Zaretskaya’s (1998) generative projectionist analysis of verb prefixation in Russian.

- Although our present Construction Grammar account is compatible with Pasich-Piasecka’s (1993) and Dąbrowska’s (1996) Cognitive Grammar approaches, we argue that our proposal of so-called “unselected object constructions” in Polish is more appropriate than theirs due to our making Goldberg’s (1995f) important distinction between ‘constructional meaning’ and ‘verbal meaning’.
Selected references