SEMANTIC CONFIGURATION OF THE SPATIAL CONCEPT "BEHIND" IN ENGLISH

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Abstract

The paper shows the proposal of semantic structure for the English preposition *behind*, on the grounds of a semantic model based on three meaning dimensions of the spatial relationship, namely, topology, force-dynamics, and function. The proposal derives from data analysis on 1000 examples drawn from the BNC. The examples were analysed manually, and the senses were worked out taking different contextual parameters into account. The resultant semantic structure shows a core set of meanings and a peripheral set of extended meanings[1].

Keywords: semantic structure, idiomatic structure, polysemy, landmark, pattern

0. Introduction

The polysemy of prepositions is traditionally looked at as a chaotic list of idiomatic and abstract senses that are assumed not to have anything to do with one another. Language teachers have generally despaired of giving a reasoned account of prepositions, arguing that prepositional usage is idiosyncratic. Nevertheless, in the past two decades, Cognitive Linguistics has provided a theoretical framework which provides diverse proposals for showing the organisation of spatial meanings. Three kinds of model have been used in order to explain prepositional polysemy, namely radial networks (Brugman 1981; Lakoff 1987), hierarchical networks (Langacker (1987) and multidimensional structures (Deane 1993, 2005; Feist 2004). Cognitive linguists have centred their attention on those prepositions that display an obviously rich polysemy like *over*, *on*, *in*, *at*, *off*, etc. Our aim here is to account for the polysemy of a unit such as *behind* that does not seem to have such an enriched semantic structure, but that utilises the same semantic mechanisms to deploy an array of senses. At any rate, the basic dimensions of meaning and the semantic extension mechanisms offer a basis for the explanation of the extended meanings of *behind*. The model used is based on three dimensions of meaning, topology,

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dynamics and function, which define the nature of the relationship between the antecedent and the complement of the preposition.

1. The three dimensions of spatial relations

The semantics of spatial relations has been recently described in terms of a multidimensional radial network (Navarro i Ferrando 1998, 2000, 2002, 2006; Silvestre López, 2009), in a proposal that encompasses the advantages of radial, hierarchical and multidimensional networks (see also Geeraerts, 2007). According to that view, the meaning of prepositions is utterly independent from any geometric configuration of trajector (localised entity) or landmark (localising entity). What is focussed on, however, is the spatial relationship itself. That relationship shows three configurational aspects which contribute to the construal of the situation, and which have to do with perception, action and interaction (sensory-motor and functional experience). In addition, the functional configuration of trajector or landmark may be relevant –for instance the fact of having a functional front–, given that such configuration determines the relationship between the entities involved.

The semantic structure of spatial relations involves, firstly, a **dynamic** axis determined by the functional disposition and orientation of trajector and landmark with respect to each other, so that their relationship can adopt a particular directionality. That axis may be prototypically the horizontal, the vertical or other axis relative to the human canonical position as standing on the ground. Secondly, trajector and landmark are construed as bearing a **topological** relationship (contiguity, contact, inclusion, proximity, etc.) whose conceptualisation has its origin in human perceptual patterns, and in turn offers a scheme for conceptualisation of perceived situations. Finally, **functional** interaction implies that the spatial relation has some perceived consequence or causes an effect on the entities involved (control, support, link, concealment, company, etc). The degree of animicity of the participants may play a crucial role as far as relative function is concerned.

For example, the preposition *on* defines a prototypically vertical **dynamic** axis. The force exerted by the trajector is prototypically exerted downwards. Therefore, the direction of movement, if any, follows that downwards pattern. In the expressions *a fly on the ceiling*, or *a fly on the wall*, the axis has been rotated, but the relative position of the fly still remains with its resting side towards the ceiling or the wall. The entities involved bear a **topological** relationship of contact. The trajector holds **functional** control of the situation. It may be prototypically self-control, motion control, or landmark control.

The three dimensions may be enriched with senses motivated by shifts in the conceptualisation pattern, in a process called specialisation of meaning. This scheme provides a framework for the human conceptualisation of spatial relationships between entities in the physical domain. That domain is the typical source domain in metaphorical thinking that brings about further uses of prepositions in abstract or social domains in order to enable conceptualisation of relations between entities in those domains.

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2. Methodology and procedure

A corpus of 1000 examples from the BNC was analysed manually. For each example a context of one previous sentence was included. A set of parameters that might influence on construal was observed. First, a characterisation of the entities participating in the relation, trajector and landmark, was carried out in terms of animicity conditions – according to a scale including human, animal, mobile objects (including all the non-physical abstract objects such as ideas, experiences, actions, etc.), organisms, artefacts and fixed objects. Secondly, the type of domain for conceptualization was determined making such distinctions as physical versus abstract or social domain. As a separate distinction, metaphorical uses were distinguished from literal uses in those instances were a source and a target domain could be identified. Metonymic uses were also identified, though on the whole only a few examples turned out to be accepted as metonymic.

Those examples expressing construed situations referred to the physical domain were analysed in terms of topology, dynamics and function of the entities involved, so as to arrive at a proposal for a primary meaning of *behind*.

3. Results and discussion

As for a characterization of the entities involved in a relation expressed by *behind* there is no clear difference between the typical animicity of trajectors as compared with that of landmarks. Table 1 shows the percentages found.

Table 1. Animicity of trajector and landmark entities in a *behind* relation

	human	**animal**	**Other organisms**	**Mobile objects**	**Fixed objects**
Trajector	39.5%	3%	< 1%	36%	20%
Landmark	36%	3%		40%	20%

The results show that the entities involved in the relation expressed by *behind* are as a general rule animate or, at least, mobile. That suggests that dynamics can be a relevant factor for determining the primary meaning of the preposition. According to the frequencies of animate participants as trajector or landmark found in our corpus, there appear no clear tendencies in favour of any of them to be characterized as controller or agentive.

As far as the distribution of use among physical or abstract/social domains, *behind* is used to express physical domain construals in a 66% of the instances, which indicates that it will probably not show many metaphorical extensions of meaning. The more domains a lexical item is used to refer to, the more metaphorical extensions of meaning it tends to display.

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In the physical domain the topological construal of situations tends to depict the Trajector as situated at the rear of the Landmark or beyond/*on the other side of* Lm with respect to Z, being Z an observer or vantage point. About 20% of instances imply contact of the participants, that is, there is often a room or space between the participants. This provides an index that extended or metaphorical meanings will not typically express control or constraint, given that prepositions which have these extensions usually express contact in the physical domain (in, on, under). In addition, the most frequent axis of interaction between the participants is the horizontal axis, which suggests that the relation between the participants will probably not express dominance or hierarchy.

As for dynamic patterns of interaction, *behind* is also used with verbs of movement. Usually, the trajector moves from a position at the rear of the Landmark, or beyond the Landmark with respect to Z, to another position (A3A-222 "producing sackfuls of cannabis from behind the furniture"[2]). In these cases, *behind* is always combined with "from". The movement can also be the other way round, from the front or other position to a position at the rear of, or beyond the Landmark, (C8E-336 "She closed her sketch-book quickly and slipped it behind her chair"). Or the trajector moves to a position at the rear of the Landmark, or beyond the Lm with respect to Z, (AHK-754 "Thompson's initial corner was headed behind goal"). In terms of force-dynamics the landmark may be construed as a constraint that bars the trajector's movement and determines its position (CC9-221 "it is stuck behind a pile of mail"), or restricts its movement (CAS-591 "builders find themselves behind bars").

The construal of functional interaction between the participants shows that the trajector uses the landmark for hiding or for self-protection, a pattern that suggests an agentive role associated to the trajector (C8P-1789 "you lift your hands behind your ears and switch your fingers, so hiding the piece of paper"). Actually, there is **almost always** an element of **concealment**, intentional/meaningful or not. Either the trajector is hidden from the Landmark itself, or by the landmark from an (implied) observer Z, as in AOL-3834 "running as the street collapsed behind her", which implies that she has to turn around to see it, otherwise it is hidden from her eyes; or C86-3608 "The windows skulked behind their black wrought-iron grilles" implies the vantage point of an observer Z, who sees the trajector beyond/on the other side of the landmark, partly hidden by the landmark.

As for metaphorical extensions, *behind* is often used in expressions of the time metaphor in construals where past events or moments are understood as points on a (time)-line situated at the rear, whereas the future is in front of people (as in CEH-2795 "The baptism of fire behind her, Lucinda had found her lost appetite"). That metaphor allows for various extensions like to forget/overcome a past experience (as in CB4-44 "looking to put the disappointment of the World Championships in Tokyo last year behind her"; BMR-2280 "my present lifestyle and the one I had left behind me in East Oxford"), to be delayed (A6X-1432 "months behind schedule"), to be old-fashioned (BNP-322 "The entire island is 20 years behind the rest of us").

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Another usual metaphor derives from the functional pattern of concealment. The trajector is understood as a hidden cause/motive/reason and the landmark as its effect or consequence. Abstract concepts like ideas, plans, experiences, feelings, thoughts as objects in space that exert a force on each other; they are invisible (often unknown) but have a visible influence on other "objects" (ABA-428 "The actual driving force behind American thinking"; C8U-608 "the reasons behind her aggressive behaviour"). From this sense of hidden cause, an extension to hidden control is operated by language speakers (Tr controls Lm) as in AHD-188 "power behind his throne".

We also find the metaphor of support with metaphorical meaning perhaps based on the physical script of a battlefield, with the leader in front of his soldiers. (A66-895 "President Reagan would …throw his weight behind his old ally")

Another less usual metaphorical pattern implies that the trajector is inferior in performance/achievement/quality compared to the landmark. The meaning might be based on the script of a race, where the slower participants follow at the rear of the faster ones, as in ABA-1169 "Britain was slipping too far behind the superpowers".

4. Conclusions

As an attempt at a primary meaning or protoconcept, as used in physical domain construals, we can describe the relation expressed by *behind* as follows:

-topology:
-x is at the rear of y, or
-x is on the other side of y, with respect to z
-dynamics: (if motion)
-x moves to the rear of y, or
-x moves to a position *beyond/over/on the other side of* y with respect to z
- projective axis: horizontal
-functional interaction:
- x uses y for concealment from y or from z, or
- x is perceived by z as concealed by y

Our corpus has evidenced that different contexts focus on topological, dynamic, or functional aspects of meaning. What is interesting here is the identification of metaphorical sources. The dynamic construal offers a source domain schema for the "time" metaphor. The functional construal of concealment provides a source schema for the "hidden cause" and the "hidden control" metaphors. Finally, the topological configuration maps onto the "support" and "inferior achievement" metaphors. These conclusions may contribute to better understand the figurative use of *behind* and to a contrastive analysis with figurative uses of assumingly equivalent spatial concepts in other languages.

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Notes:

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[2] We use the BNC standard notation: [text code]-[line number]

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