Lexical pragmatics and types of linguistic encoding: evidence from pre- and postpositions in Behdini-Kurdish

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Abstract

Lexical pragmatics starts from the assumption that the meaning communicated by a word is underdetermined by its semantics, and lexical pragmatists usually study the processes involved in bridging the gap between the encoded and the communicated meaning of words. This paper studies a different but related question: wether different types of linguistic encoding can play empirically distinguishable roles in lexical pragmatics. Carston (2002) suggests that some words may encode templates for concept formation whereas others encode fully-fledged concepts that provide inputs to pragmatic processes. Blakemore (1987) argued that some words encode constraints on inferential processes rather than concepts. But if some words might encode nothing more than concept-formation templates, and others procedural constraints, then both types of words appear to be highly context dependent and their linguistic semantics rather abstract in nature. Is it possible to distinguish these different types of encoding empirically? In this paper I want to argue that the answer to this question is positive. In Behdini-Kurdish, there is a class of four fundamental prepositions *di* 'in', *li* 'at', *ji* 'from', *bi* 'with'. Furthermore, there is a larger class of simple prepositions such as *ser* 'on', *nav* 'within', *ber* 'in front'. These simple prepositions can be added to one of the fundamental prepositions to form compound ones: *diser* 'on top of', *dinav* 'inside', *diber* 'in front of, in sight of'. Any fundamental, simple or compound preposition can be used together with one of three postpositions *da*, *ra* and *ve*. Postpositions are morphologically and syntactically simple, in contrast to prepositions. Though overlapping in meaning with prepositions, they are not redundant. Fundamental prepositions have a wider range of meaning than simple prepositions and compound prepositions. Finally, there are grammaticalisation paths from nouns through compound preposition to simple prepositions, but none involving the postpositions. My thesis is that these properties of the Behdini-Kurdish system of pre-and postpositions can be explained

on the assumptions that the class of fundamental prepositions encodes templates for ad-hoc concept construction, the class of simple prepositions encodes concepts that allow the construction of ad-hoc concepts, and that the class of postpositions encode procedures constraining ad-hoc concept construction. This thesis gets additional support from German prepositional phrases. I conclude that the different types of linguistic encoding discussed do indeed lead to distinct effects in lexical pragmatics and are therefore empirically distinguishable. Thus, while there is reason to think that a unified account of the pragmatic processes involved in lexical pragmatics is possible (Wilson to appear), the different types of inputs to these processes need to be recognised.

1. Introduction

Lexical Pragmatics (Blutner 1998; Wilson to appear) starts from the thesis that the meaning of words in use is underdetermined by the semantics of the lexical items involved and has to be pragmatically inferred in context. This means that the meaning communicated by the use of a word is context-dependent to greater or lesser degrees. In cognitive pragmatic approaches to Lexical Pragmatics, the basis for contextual enrichment of lexical meaning in context is the meaning that is specified in the concept encoded in the word (Sperber and Wilson, 1998).

Blakemore (1987) studied a class of words that are particularly context-dependent: discourse particles. She argued that many of these particles encode not concepts, but cognitive processing procedures. This amounts to saying that the meaning import of those particles is completely dependent on the context accessible at the time the particle is encountered, the semantics of the particle doing nothing more than specifying a procedure to pick out the intended context.

But if not only words encoding procedural meaning are heavily context dependent, but also words encoding concepts, then the question arises whether there is indeed a reason to keep these phenomena apart. A first answer might be: even though words encoding concepts may be used in a highly context-dependent way, at least in some uses they do communicate their encoded concepts, and it is possible to describe those. However, Carston (2002) goes a step further and considers whether words such as *happy* or *open* do not encode fully-fledged concepts at all. 'But when we try to think about the general concept open and to have a thought in which such a general concept features, as opposed to any of the more specific concepts that we grasp in understanding 'open one's mouth, 'open the window', 'open a can', 'open a discussion', etc., the experience is an odd one, as we seem to have no definite thought at all.' (p. 361) She suggests, therefore, that *happy* and *open* encode a concept-forming schema, perhaps a pointer to a certain conceptual space in memory.

At this point more questions arise: if some words encode concept schemas and are thus pretty much as context-dependent as words encoding procedural meaning, is there any need to distinguish these types of meaning? Can one distinguish between words encoding concepts and words encoding concept-schemas? Are any of the distinctions between procedural-conceptual encoding, and concept-encoding and concept-schema-encoding real?

In this paper I want to approach these questions from an empirical point. I want to argue that the system of pre- and postpositions in Behdini-Kurdish does in fact suggest that all these distinctions are real and realized as follows: fundamental prepositions encode concept-schemas, simple prepositions encode concepts, and postpositions encode procedural meaning.

First I will outline the system of pre- and postpositions in Behdini. Then I will review arguments for analysing postpositions as encoding procedural information. Next I turn to a discussion of various types of prepositions asking whether there is evidence to analyse them as encoding concepts or concept-schemas. Finally, I review the conclusions in the general context of Lexical Pragmatics.

2. Behdini-Kurdish pre- and postpositions

2.1. Prepositions

2.1.1. Fundamental prepositions

Kurdish has an elaborated system of simple and compound prepositions. There are four fundamental prepositions: *di* 'in', *li* 'at', *bi* 'with', *ji* 'from' (see Bedir Khan and Lescot, 1986). The glosses given in this short list are only rough approximations: each of these fundamental prepositions has a broad range of meaning. These prepositions may occur alone or as first elements of a compound preposition (such as *diser*; see below).

- *di* 'in'

    (1) *di dar-ek-ê sist*
        in tree-IDF-ZM loose
        'at a weak tree' (Xec 053)

    (2) *tarm-ê xo kir-e di telîsek.*
        cadaver-of self made-IOM in sack
        'he put his cadaver into a sack'(Dost 111)

- *li* 'at'

  (3) *li dikan-ê*
      at store-OF
      'in the store' (Dost 064)

- *bi* 'with'

  (4) *ew dar-a ne bi qewat in*
      those trees-OP not with strength are
      'those trees are not very strong' (Xec 054)

- *ji* 'from'

  (5) *Ev ber-êt pir-a ji çiya-ê sipî îna-n-e*
      these stones-of bridges-OP from mountain-of white brought-3P-IOM
      'they brought these stones for the bridges from the White Mountain'
      (Piradelal 071)

2.1.2. Simple prepositions

Apart from fundamental prepositions there are simple prepositions such as *ser*, *nav*, *ber*. These prepositions can be used in their own right as simple prepositions, but they can also function as the second part in a compound preposition such as *diser*, but not as the first one. Also, several of these can morphologically and etymologically be traced back to nouns (or other words), such as *ser* 'head' or *ber* 'front'. Here are some examples:

(6) *u keft-e ser küsel-ek-î*
    and fell-IOM on tortoise-IDF-OM
    'and fell on a tortoise' (Mendê Tirsinok)

(7) *cih-ê xwe di-nav wan da girt u rünişt-e ber tenişt-a*
    place-of self in-among them took and sat.down-IOM near side-of
    yê mezin..
    of.the big.one
    'he took his seet amont them and sat down at the side of the biggest one'

(8) *u tîr-ek vewaşand nav pez-ek ji wana*
    and arrow-IDF shot among animal-of from them
    'and he shot an arraw into one of animals of them [=a herd of wild goats]' (Xec 034)

2.1.3. Compound prepositions

Finally, there are compound prepositions such as *liser, linav, liber*. Here are some examples based on the fundamental preposition *li* 'at':

(9)   *min ... li-ser cih-ên   hewe   nivistî-m.*
       I   ... at-on places-of yours slept-1S
       'I slept ... on your beds' (Mendê Tirsinok)

(10) *her   kes-ê   li-nav   wî   baxçe-y   b-ît çu   car-a   pîr*
       every person-of at-amongst that garden-OM is-3S any time-OP old
       na-b-ît,
       not-become-3S
       'anyone who is in that garden will never get old' (Mendê Tirsinok)

(11) *Li-ber   der-ê   mal-a   wan   beten-ek-a   dirêj hebû*
       at-front door-of house-of them blanket-IDF-of long was
       'at the door of their house there was a long blanket'

And here some example based on *ji* 'from': jinav, jiser, jiber

(12) *dirrinde   na-hê-n-e   min ji-ber   agir-î*
       wild.animals not-come-3P-IOM me from-before fire-OM
       'wild animal will not get at me because of the fire' (Mendê Tirsinok)

Some compound prepositions based on *di*: diser, dinav, diber

(13) *ev   pir-a   he   ya hat-î   avakir-in di-ser wext-ê   Abasiya.*
       this bridge-of here ZF came-3P built-INF in-on time-of Abassides
       'this bridge has been built in the time of the Abassides' (piradelal 038)

While the simple prepositions usually can function as a second element in a compound preposition, there are few simple prepositions that do not form compounds, such as *bu* 'for' and *nik* 'at'.

2.1.4. Summary overview: fundamental, simple and compound prepositions

This table summarizes the compound preposition forms attested in the small corpus that was the basis of this study. The left-hand column lists the fundamental prepositions, and the first row the simple prepositions that can be used to form compound prepositions.

	gel 'together'	ser 'on'	düf 'behind'	def 'with'	nav 'inside'	ber 'in front'	bin 'between'
li 'at'	ligel	liser	lidüf	lidef	linav	liber	libin
di 'in'	digel	diser	-	-	dinav	diber	dibin
ji 'from'	-	jiser	-	jidef	jinav	jiber	?
bi 'with'	-	biser	-	-	-	?	-

2.2. Postpositions

All fundamental prepositions and many simple and compound prepositions can be used together with postpositions. There are three postpositions: *da*, *ra* and *ve*. These modify the meaning of the prepositions in a systematic way. Here are examples for such combinations based on the fundamental preposition *di*:

(14) *di   bajêr-ê   da*
      in   city-of
      'in the city'

(15) *Di   wext-ek-ê   ra ber-ê   xwe dan-ê   kiç-a   hosta-yî*
      in   time-IDF-of   front-of self gave-to.them daughter-of master-ZM
      di-gel   sey-ê   xwe ji   wê   ve   t-ê-n
      in-with dog-of self from there   IAM-come-3P
      'after a while they saw that the daughter of the master with her dog came from yonder' (piradelal 092)

(16) *ev-e   çi   kes   e   serda-ye   di mal-a   me   ve?*
      this-SRM what person is   visited-3S   in   house-of us   ?
      'who is this person who visited our house?' (MendêTirsinok)

Similar combinations can be found with the other fundamental prepositions as well.

The following table gives an overview over the range of pre- and postposition combinations. The left hand column show prepositions that combine with one or other of the postpositions, layed out in the top row:

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	da	ra	ve
di 'in'	di... da	di... ra	di... ve
dinavbeyna 'in between'	dinavbeyna... da		
diber		diber... ra	
diser 'on top'	diser... da		
dinav 'inside'	dinav... da		
li 'at'	li... da		li... ve
liser 'on'	liser... da		
libin 'under'	libin... da		
lidüf 'with'			lidüf... ve
bi 'with'	bi... da		bi... ve
biser 'over'	biser... da		
nav 'inside'	nav... da	nav... ra	
navbeyna 'in between'	navbeyna... da		
düf 'behind'	düf... da		
ji 'from'		ji... ra	ji... ve
ser 'on'		ser... ra	
def 'at'			def... ve
bu 'for'			bu... ve
(none)		... ra	

3. Postpositions and procedural encoding

3.1. Criteria for the identification of procedurally encoded meaning

Several criteria have been used and discussed in Wilson and Sperber (1993) to distinguish procedural and conceptual information:

- **Truth-conditional status**: early studies used the criteria of truth-conditionality heavily (Blakemore 1987; Blass 1990). The idea was that procedurally encoded meaning typically makes no contribution to truth conditions. Once it was recognized that this is not necessarily the case (Wilson and Sperber, 1993), the criterion lost its power. Carston (2002) points out that truth-conditionality is not a relevant property of linguistic semantics in general.

- **Optionality**: procedural meaning encoded in connectives or particles can usually also be inferred without their presence. Since the reason for using semantic constraints on relevance is to minimize processing effort, this seems to be a natural behaviour. However, pronouns (in non-pro-drop languages not allowing implicit objects as well as implicit subjects) are not optional and encode procedural mean-

ing. Wharton (2003) even takes pronouns to be more prototypical for the notion of procedural encoding than the discourse connectives discussed in Blakemore (1987). Thus, this criterion is not decisive.

- **Context dependence**: since words or morphemes encoding procedural meaning encode directions of inferential paths, not the content of contextual assumptions to be used, the import of those lexical items is extremely context dependent. However, words encoding conceptual schemas are also highly context dependent. It seems that this criterion alone is not very reliable. (cf Iten 2003)

- **Paraphraseability**: native speakers are able to paraphrase or describe the meaning of words encoding concepts reasonably well, although some words may cause more difficulty than others. However, cognitive processing procedures are typically subconscious: people cannot descirbe them. native speakers are usually not able to paraphrase their meaning. They can only provide examples of use and perhaps rough descriptions of their *use*. This criterion is developped in Wilson and Sperber (1993). It seems that it is applicable to all so far established cases of procedural encoding. However, with the recognition that even words such as *happy* may encode not more than an abstract schema for concept formation,it may be difficult to differentiate these from words encoding procedural meaning on this criterion alone.

- **Semantic compositionality**: words encoding concepts can be semantically extended in a compositional way. Not so words encoding procedural meaning. This criterion fits all known cases of procedurally encoded meaning. I take it to be the most important one.

- **Logical redundancy**: since morphemes encoding procedural meaning do not contribute to the logical form of an utterance, they do not cause intuitions of logical redundancy when used together with another, similar expression encoding conceptual meaning. Consider the following example (adapted from (Carston, 2002)):

(17) A: Is it raining in London?

    (a) B: It is.

    (b) B: Yes.

    (c) B: Yes, it is.

    (d) B: It is, it is.

The assumption IT IS RAINING IN LONDON ON 3 AUGUST 2005 AT 8 PM can be communicated with either (17a) or (17b), or with (17c). The expression in (17d),

on the other hand, does seem redundant, and B would be understood to communicate something different, perhaps a strong emphasis. If *yes* encodes procedural meaning, it would explain why this redundancy impression is not given in (17c). This criterion also seems to be a robust one.

In summary, it is best to use a set of criteria to determine whether a given morphemes encodes procedural or conceptual meaning, since some criteria may not apply to all kind of morphemes. Some criteria do not seem to be important any more: truth-conditionality, context dependence, optionality. I do not use them in this analysis.

3.2. Some basic properties of postpositions in Behdini-Kurdish

The overview over the pre- and postposition system given above shows clearly that the postpositions cannot be compositionally extended. Thus, by perhaps the most important criterion, it appears that postpositions encode procedural meaning.

This conclusion is supported by observations on the Logical Redundancy criterion: postpositions do not lead to intuitions of logical redundancy if used with prepositions overlapping in meaning with prepositions. Perhaps the most obvious example for this is the expression of the idea of something being in something: apart from expressions such as in example (2) above, where only the preposition 'di' is used, the preposition *di* is most often used in combination with the postposition *da*.

(18) *di   telîs-ê   da*
     in   sack-ZF
     'into the sack'

3.3. Supporting cross-linguistic evidence from German

Consider the following example from German:

(19) A: Wo ist der Hund hingerannt?
     'Where did the dog ran to?'
     B: Er ist vor mir weggerannt, erst dorthin in Richtung zum Teich, dann weg von diesem Haus zum Wald hin.
     'It ran away from me, first in direction to the lake, then away from that house into the direction of the forest.'

Words such as *hin* 'towards', *her* 'from ... where', *weg* 'away from' are not prepositions themselves. These words have the following properties very similar to the Behdini-

Kurdish postpositions:

- They do not cause intuitions of logical redundancy. [1]

- Intuitively, their effect is to put sort of an emphasis on the relation that has been established by the preposition.

- Their meaning appear to be more specific than that of the prepositions. [2]

Thus it appears that the occurance of morphemes in the prepositional phrase that encodes procedural information interacting with the semantics of the prepositions is attested in different languages and not confined to the Kurdish or Indo-Iranian language family.

3.4. A procedural semantics for the postpositions

Having established that tests for procedural encoding indicate that postpositions in Behdini encode procedural meaning, the task is to come up with a plausible analysis. A plausible analysis is one that explains the attested uses of these morphemes on the basis of the 'vocabulary' (conceptual notions) that a procedural analysis allows. Although there remain many open questions about the nature of procedurally encoded meaning (Blakemore 2002; Wharton 2003), some constraints on analysis can be given:

- The analysis must be explicable in terms of a Representational Theory of Mind. The very idea of procedural information that tells the pragmatic processer what to do with the content of the representation comes from this framework, see Wilson and Sperber (1993).

- Procedural meaning seems to fall into two broad categories: those that put constraints on the type or content of cognitive effects and/or the processing effort involved, and those that restrict the search space for accessing information that needs to be contextually inferred. [3]

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[1] These words can sometimes replace prepositions. But then there is a strong feeling that something has been left out, that is, there is an ellipsis.

[2] Although these words can form compounds such as *hinein, herein, hinweg,* it is not clear that these compounds indicate semantic compositionality. Not that variants of this example such as *Er ist vor mir weggerannt, erst dorthin in Richtung zum Teich, dann weg von diesem Haus zum Wald hinein* or *Er ist vor mir weggerannt, erst dorthin in Richtung zum Teich, dann hinweg von diesem Haus zum Wald* have questionable acceptability status and give a different meaning.

[3] Breheny (1998) makes a further distinction between procedural information that constrains the content of interpretive hypotheses and procedural information that constrains the accessiblity of interpretive hypotheses. However, it seems to me that the vast majority of attested cases of encoding of procedural information falls into the former category, and only focus phenomena fall into the latter one. This looks suspicious to me.

- The reason for procedural meaning to become encoded is to facilitate successfull comprehension following the relevance-theoretic procedure of accessing interpretations in order of accessibility (least effort). This implies that procedurally encoded information saves the hearer processing effort (Blakemore 1987). Thus, a plausible procedural analysis of a given linguistic item must specify in which way the encoding of the suggested procedure saves processing effort.

I would like to suggest the following analysis of the postpositions in Behdini:

(20) The postposition *da*: *da* contextually strengthens a conceptual enrichment of the preposition in its domain to a relation that involves no motion on the part of the entities involved

(21) The postposition *ra*: *ra* contextually strengthens a conceptual enrichment of the preposition in its domain to a relation that involves motion on the part of the entities involved

(22) The postposition *ve*: *ve* contextually strengthens a conceptual enrichment of the preposition in its domain to a relation that involves a movement of the trajector away from a default position (in space or time or state) to something new.

Let us see how these processing procedures affect the on-line processing of utterances containing pre- and postpositions: Encountering a preposition, the addressee needs to contextually enrich the conceptual schema or concept encoded in the preposition to an ad-hoc concept specifying the relation that the communicator intends to extablish between the entities involved. This should be possible following the relevance theoretical comprehension procedure. However, there may be cases where different interpretive hypotheses may remain relevant to similar degrees. The meaning encoded in the postposition strengthens a certain type of interpretion, thereby helping the addressee to settle on a particular interpretation, making it possible to cut certain parallel interpretive paths and thus minimizing processing effort. This analysis may also explain why postpositions in Behdini are not always optional: not using them may lead to a situation where the relevance heuristics can not easily decide on an interpretation. This would require the addressee to invest an unreasonable amount of processing effort.

4. Fundamental and simple prepositions: concepts and conceptual schemas

The criterion of compositionality also strongly suggests that prepositions in Behdini do encode conceptual meaning. As is clearly shown in the above survey of prepositions in

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Behdini Kurdish, prepositions can combine in many ways to form compound prepositions.

The question remains whether the prepositions encode concepts or merely conceptual schemas, if there is indeed an empirical difference between these cases. I would like to suggest that there is one. Notice that simple prepositions appear to be much easier to define and gloss in a different language than the fundamental prepositions. This holds true even more so for the compound prepositions (many of which are not used with postpositions). So it seems that the fundamental prepositions have a wider 'polysemy range' than simple or compound prepositions.

There is also another observation that supports this view: in many cases, grammaticalization paths can be established from nouns to (simple) prepositions (as observed in many languages):

(23) *ser* 'head' → *li ser-ê mêzê* 'on the head-of the.table' → *liser mêzê* 'on the.table'
       → *ser mêzê* 'on the table'

Notice the presence or absence of Izafe (-*ê* in this example) that indicates whether the word *ser* is treated as a noun (with Izafe) or a preposition (without Izafe).

No comparable grammaticalization paths can be observed in the case of the fundamental prepositions.

I conclude that this evidence indicates that the simple prepositions encode a richer conceptual structure than the fundamental prepositions. This is explained by an analysis of fundamental prepositions as encoding conceptual schemas and simple prepositions encoding fully fledged concepts (that usually communicate ad-hoc concepts in the general case as argued in Sperber and Wilson 1998 and Carston 2002)

5. Conclusion

The behaviour of Behdini-Kurdish fundamental prespositions, simple prepositions and postpositions receives a plausible explanation as follows: fundamental prepositions encode concept schemas, simple preposition (and compound ones) encode concepts, and postpositions encode cognitive processing procedures. This means that there is reason to take the tripartite division of linguistically encoded meaning into procedural information, concept schemas, and full concepts as real and empirically well founded.

This has consequences for the theoretical landscape of Lexical Pragmatics: while there is evidence that the processes involved in lexical pragmatic processes are uniform (Wilson to

appear), different types of linguistically encoded meaning needs to be taken into account. These different types of encoding correspond with different linguistic behaviour of the lexical items in question.

6. References

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A. List of Abbreviations

IAM	imperfective aspect marker
IDF	indefinite marker
INF	infinitive
IOM	indirect object marker
OF	oblique case feminine singular
OM	oblique case masculine singular
OP	oblique case plural
SRM	specific reference marker
ZF	Izafe feminine singular
ZM	Izafe masculine singular
3P	3rd person singular