

# DISCOURSE MARKERS IN THE LEXICAL CONSTRUCTIONAL MODEL: THE CASE OF THE 'SO WHAT X' CONSTRUCTION<sup>1</sup>

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**Abstract:** This article argues for an alternative analysis of discourse markers to that proposed within relevance-theoretic approaches, which attribute procedural (as opposed to conceptual) meaning to these words. This study provides a new perspective that brings together the main contributions of Relevance Theory (RT) and those that arise from the Lexical Constructional Model (LCM), thus shedding light on the role of discourse markers within sentence meaning. Rather than offering procedural information, discourse markers activate high-level conceptual mechanisms that help the hearer in his/her choice of the most appropriate interpretation of utterances. Furthermore, the present paper provides a fully-fledged analysis of discourse markers and their contribution to implicated meaning, filling the gaps observable in relevance-theoretic views. Specifically, *So* and *and* have been found to be determinant elements in the creation of a new construction, the *So Wh- X?* construction, which explains the uncompromising importance of discourse markers in utterance interpretation.

**Key words:** Discourse markers, conceptual meaning, procedural meaning, construction, inference.

## 1. INTRODUCTION

The present paper is a preliminary attempt to integrate work on discourse markers carried out within Sperber & Wilson's (1995) *Relevance Theory* (RT) into the *Lexical Constructional Model* (LCM), as outlined in Ruiz de Mendoza & Mairal (2008, 2010) and Mairal & Ruiz de Mendoza (2009). The LCM is a meaning construction model that combines insights from cognitive, functional and pragmatic approaches to language. It contains four descriptive layers, which deal with the argument structure, implicational, illocutionary and discursive dimensions of language. Each of these levels interacts in principled ways with the rest, thus giving rise to complex meaning representations.

A discourse marker is a grammatical or function word used to either create or enhance discourse connections. The analysis of discourse markers in relation to inferential pragmatics dates back to Grice's (1989) work. Such markers have been traditionally looked at as elements that contribute to the connectedness of discourse. Grice coined the term *conventional implicature* in an attempt to justify the fact that these discourse devices are part of the conventional meaning of an utterance rather than of its truth-conditional meaning. In this sense, Grice claimed that discourse connectives give rise to lower-order speech acts as opposed to higher-order speech acts (i.e. the acts that derive from each of the elements that have been connected by the marker). Thus, conventional implicatures do not *say* but *indicate*. More recently, Blakemore (2003) has rightly noted that this point poses a problem for Grice's assertion about the uncompromising matching of the truth-conditional content of an utterance and the conventional meanings of the words uttered. One solution to it has been proposed in the context of Relevance pragmatics (Sperber & Wilson, 1995), where so-called conventional implicatures are linked to the notion of *procedural* meaning (Wilson & Sperber, 1993), which is to be differentiated from *conceptual* (or 'truth conditional') encoding. In this approach, discourse connectives are cases of procedural

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encoding. They constrain the inferential phase of meaning derivation by allowing the hearer to discard possible meaning implications which are not consistent with the kind of connection established by the connective. However, this solution is not fully satisfactory since, as will be discussed below, it is not clear why discourse connections are a matter of procedural knowledge, i.e. knowledge about how to perform actions. Besides, hearers need to discard meaning implications in many, if not all, processing tasks. For example, interpreting the metaphor *He is a piglet* involves discarding some behavioural implications (e.g. 'He runs around the yard') in favour of others (e.g. 'He is dirty'). A more satisfactory solution will be provided in the present article.

The structure of this article is as follows: Section 2 provides an overview of the most relevant approaches in relation to the distinction between procedural and conceptual encoding, with special focus on the discourse markers *and* and *so*. It should be immediately emphasized that I do not attempt to recapitulate all the successive steps in the development of this matter, but rather to highlight those that are particularly relevant to illustrate our points. We will also discuss what Sperber & Wilson (1995) have termed *explicature and implicature derivation* and in this connection how these two kinds of inferential activity are addressed in the LCM. In Section 3 we will show the way in which the LCM deals with the issue of implicated meaning and low-level inferences. We will provide an overview of the model and discuss the main differences with Sperber & Wilson's approach. Section 4 presents a brief case study of the implicative *So What X* construction. We will show that discourse connectives such as *so* may become part of a constructional configuration through a process of form-meaning entrenchment (cf. Langacker, 1987, 1999), i.e. the highly frequent association of its formal constituents and a number of relevant meaning implications which, at some stage, were obtained on the basis of inference. We will analyse this construction in the light of the LCM approach, with special focus on the level 2 implicational level, and also propose a variant of this construction which presents different sets of implications, but which still clings to the idea that the contribution of a discourse connective as part of a construction to the meaning of the utterance may go beyond both conceptual and procedural meaning. In section 5 we present the main findings and conclusions of this study.

## 2. PROCEDURAL VS. CONCEPTUAL ENCODING

With a view to overcoming the problems inherent in Grice's concept of conventional implicature, Relevance theorists (e.g. Wilson & Sperber, 1993; Sperber & Wilson, 1995; Blakemore, 2003, 2007) have proposed to incorporate into inferential pragmatics the traditional distinction made in psychology between conceptual and procedural meaning. Conceptual meaning is structured information derived from world knowledge, while procedural knowledge consists in constraints on the way pragmatic information is processed. Long discussions have taken place trying to ascertain whether the contribution of discourse connectors such as *so* and *and* to the meaning of the utterance that contains them is conceptual or procedural. According to Wilson & Sperber (1993), Grice's analysis of the meaning conveyed by *and* as not being linguistically encoded but rather derived from the maxim of orderliness is, to my mind, not sufficient to account for the not only temporal but also causal relations between conjoined expressions as illustrated by (1) and (2) below, borrowed from Wilson & Sperber (1993: 98):

1. Peter got angry and Mary left.
2. Mary left and Peter got angry.

Wilson and Sperber propose further examples that prove that Grice's approach fails to account for the contribution of the conjunction. In their view, it is the existence of highly accessible

encyclopaedic schemas that leads the speaker to choose the most appropriate interpretation for an utterance, as is shown in (3), drawn from Wilson & Sperber (1993: 99):

3. Peter took out his key and opened the door.

It is not Grice's maxim of orderliness that makes the hearer establish the connection between the conjuncts of the utterance, but rather the mental schema that brings the logical order of taking out the key and then opening the door. Although other interpretations may be plausible, the most accessible interpretation is the one that abides by the principle of relevance, that is, the one that requires the least effort.

Blakemore (2003: 4) assumes that the information encoded within linguistic realizations can be either conceptual or procedural:

Given the assumption that pragmatic interpretation involves the construction of conceptual representations which enter into inferential computations, there is every reason to expect that linguistic form could encode two kinds of information: conceptual information (the constituents of conceptual representations) and what I have called procedural information - information about the inferential computations in which these representations are involved.

Blakemore (2007) further claims that conceptual encoding only determines the concepts expected to appear in explicatures, but does not provide any clue about the ways in which the inferential process works in order to recover the information encoded. She also argues that certain constructions, namely parenthetical constructions, are difficult to analyze in terms of whether their contribution to sentence meaning as constraints on interpretation is conceptual or procedural. Along similar lines and with respect to the analysis of discourse connectors, Blakemore (1987) had previously observed that *so* does not encode conceptual information, but rather represents a constraint on the process of making inferences which contributes to optimizing efforts in the interpretation process. Wilson & Sperber (1993) take sides with Blakemore's proposal to the detriment of Grice's claim that *so* conveys information that leads to a speech act with explanatory value. Blakemore demonstrates that there are examples of utterances introduced by *so* which convey a conclusion rather than an explanation:

4. So you've spent all your money. (After someone has entered the room laden with parcels).

Thus, *so* triggers the assumption that what follows after it is a conclusion. In this connection, Wilson & Sperber (1993) claim that *so* encodes an interpretive procedure, not a concept, and observe that conceptual representations can be brought to consciousness, while procedures cannot. They further note that a procedural analysis of discourse particles may account for our lack of direct access to the information they encode. However, following Ruiz de Mendoza (1999) (see also Ruiz de Mendoza & Mairal, 2008; Mairal & Ruiz de Mendoza, 2009), one may argue that Sperber and Wilson make a serious mistake in accepting that *so* codes a procedure. In Ruiz de Mendoza's view, *so* codes an abstract conceptual connection, which he refers to as the 'evidence-conclusion' high-level cognitive model. In addition, as we will see in the next section, there are cases of explicature and implicature derivation that cannot be explained in terms of relevance alone. These relevance-theoretic approaches lack an adequate level of lexico-syntactic integration to fully account for these processes. Consider examples (5) and (6) below (Otal & Ruiz de Mendoza, 2007: 119):

5. What's that metal taste in my mouth? – Maybe it's your silver fillings.

## 6. What's the child doing in the garden?

Relevance Theory (henceforth RT) cannot explain the mechanisms by which the hearer should infer that the speaker of (6) is bothered by whatever the child is doing in the garden (and even that he is asking for the hearer to take action to solve it), while the speaker of (5) merely wonders about the origin of that particular taste in his mouth. More specifically, as regards the dichotomy conceptual-procedural encoding discussed above, Otal Campo & Ruiz de Mendoza (2007) argue that neither conceptual nor procedural information is encoded in words; rather, words –and in fact all content-bearing linguistic expressions in any degree of complexity– function as clues to the activation of conceptual representations, as constrained by pragmatic and discourse factors. Thus, these authors shift the analysis of communication from an encoding-decoding perspective to a matter of interpretation in context aided by linguistic clues for conceptual representation. In next section, we will see they way in which this process works from the perspective of the LCM.

## 3. THE LCM'S APPROACH TO IMPLICIT MEANING

The LCM (Ruiz de Mendoza & Mairal, 2008; Mairal & Ruiz de Mendoza, 2009; see also Butler 2009 for an assessment) was born as an attempt to reconcile lexical projection accounts of language –such as Dik's (1997) *Functional Grammar* and Van Valin's (2005) *Role and Reference Grammar*– and constructionist approaches (e.g. Kay & Fillmore, 1999; Goldberg, 1995, 2006) with the aim of finding an explanation of meaning construction at all levels of linguistic description. While its initial aim (c.f. Ruiz de Mendoza & Mairal, 2006) was to account for the principles that constrain the integration of lexical structure into argument structure characterizations (e.g. the ditransitive (*Mary gave Peter a kiss*), resultative (*He hammered the metal flat*), and caused-motion (*She sneezed the napkin off the table*) constructions; cf. Ruiz de Mendoza & Luzondo, 2010), the LCM soon incorporated other meaning dimensions. At present, the LCM features a level 1 in which lexical items are built into constructional representations thereby giving rise to propositional meaning; this level is made up of argument constructions. Level 2 accounts for aspects of linguistic communication that have traditionally been handled in connection to conventional and non-conventional implicature; this is the level that will frame our case study. There is a level 3, or illocutionary module, dealing with traditional illocutionary force. Finally, a level 4, or discourse module, addresses the discourse aspects of the LCM, with particular emphasis on cohesion and coherence phenomena. Each level is either subsumed into a higher-level constructional configuration or acts as a cue for the activation of relevant conceptual structure that yields an implicit meaning derivation. The degree of idiomaticity increases as we move upwards from level 1 to level 4. While it is true that at level 1 we may find idiomatic expressions and constructions that are midway between being fully idiomatic and being fully argument structure constructions (e.g. give the sack *in* They/the boss, etc., gave me/him/her/my friend, etc., the sack), the degree of elaboration permitted by constructions belonging to levels 2, 3 and 4 will always be higher due to the possibility of combining idiomatic and/or fixed elements with highly parametrizable variables.

It is level 2, the implicational module, which mostly interests us in the present study. Before describing this level in more detail, it seems appropriate to point out that explicatures operate at level 1, whereas implicatures are part of the processes that take place at levels 2, 3 and 4. Explicatures have been considered by RT (Sperber & Wilson, 1995) to be conceptual developments of underspecified linguistic expressions (i.e. what is said). The development is done on the grounds of processes such as disambiguation, referent assignment and enrichment (completing the underspecified structure with contextual knowledge and/or enhancing scalar concepts such as 'some' into 'a lot', as in *some time* 'a long time'). Crucially, the LCM proposes a more refined approach in which referent assignment and enrichment take place at level 1, as processes that pertain not to morphosyntactic realization but rather to the interaction between predicates and

constructional elements (Ruiz de Mendoza & Mairal, 2008). On the other hand, disambiguation may take place at any level of interpretation.

At level 2 of the LCM we find a distinction between linguistically and pragmatically guided inference (*presupposition* and *implicature* respectively). In this respect, the LCM differs from RT since it assumes that explicatures do not depend on pragmatic inference but on the lexical/constructional properties of semantic descriptions. As regards implicatures, the LCM posits the importance of constructional elements as complementary to that of pragmatic inference aided by context. To deal with traditional implicatures, the LCM uses the term *cued inferencing*, which is essentially based on a metonymic inferential schema: we mention a relevant part of a low-level situational frame which provides access to the whole frame (Mairal Usón & Ruiz de Mendoza, 2009).

Going back to examples (5) and (6) above, we saw that RT lacks the necessary elements to account for the different implications that arise from both sentences. Example (5) calls for a metonymic response, that is, the speaker is not asking what the metal taste in his mouth is (he is already providing that information), but rather what is causing the taste. In (6) the presuppositions that arise from this utterance are that there is a child in the garden and that the child is doing something there. But the implications of the utterance –that is, that both the speaker and the hearer can see that the child is doing something inconvenient in the garden, and that the speaker is upset because the hearer is not doing anything to prevent this misbehaviour– cannot be reached on the basis of relevance alone. Nevertheless, since the hearer is aware of the fact that both the speaker and himself/herself can see what the child is doing, the hearer must, by virtue of the Principle of Relevance, infer that the actual meaning of the utterance has to be different from its propositional meaning. Further implications (as commented on above) are explained in terms of the reasoning schema proposed by Otal Campo & Ruiz de Mendoza (2007), in their discussion of the well-known *What's X doing Y?* construction, first discussed by Kay & Fillmore (1999):

#### Implicated premises

- X shouldn't be doing Y
- S knows that X is doing Y
- H knows that X is doing Y
- Both S and H believe that X shouldn't be doing Y

#### Reasoning schema

If H believes that X shouldn't be doing Y, H should have done something to prevent X from doing Y

Since X is doing Y, it follows that H has not prevented X from doing Y

*Implicated conclusion: S's request cannot be a request for information, since S knows what X is doing, but a way of calling H's attention to the fact that H should stop X from doing Y.*

The association of additional meaning to this construction stems from the high degree of entrenchment between the structure of the construction *What's X doing Y?* and the meaning implications derived from it. There is a correlation between the highly frequent use of a given

construction to express certain implications and the degree of entrenchment of the construction and its implicated meaning.

The degree of entrenchment of a construction –which is generally understood to be a matter of frequency– has consequences for its level of idiomaticity; that is, the more fixed the elements of the construction are, the higher the degree of entrenchment between the construction and its implicated meaning. Closely related to the idiomaticity of constructions we find the notions of parametrizable (variable) and non-parametrizable (unmodifiable) elements of the construction. In the case of *What's X doing Y?*, X and Y are parametrizable, while the *wh-* element and *doing* are fixed<sup>2</sup>.

#### 4. SO WH- X?

##### 4.1. Level 4 versus level 2

It might be argued that so constructions are level 4 configurations that exploit the 'evidence-conclusion' high-level cognitive model mentioned before. This is true of the X so Y construction:

He is rich [X; evidence]; so, he can pay the bill [Y; conclusion].

However, consider the use of so in the following example:

7. So what do you want me to do?

As is evident from this example, the *So What X* construction makes use of so in a different way. In (7) the speaker is asking the hearer to issue some kind of instruction as to what the speaker has to do in connection with an implicit situation which is manifest to both speaker and hearer. Rather than introduce a logical conclusion, so enhances this meaning implication. Compare:

8. What do you want me to do?

In the right context, (8) can be interpreted in much the same way as (7). For example, imagine that the speaker is aware that the hearer faces a problematic situation that is beyond his ability to cope with. In this context, sentence (8) is a clear call for the addressee to accept help from the speaker. But in other contexts, this may not be the case. Think of (8), for instance, as a way for the speaker to make manifest to the hearer his feeling that the hearer is about to ask him for help but does not have enough courage to do so. However, in this context sentence (7) would not be appropriate, since *So What X* seems to gear interpretation in only one possible direction: the hearer should have already made explicit his decision as to how to proceed but has not given any clues that he has done so. Rather than introduce a conclusion so works on the basic information-seeking meaning of the *wh-* question. This extended meaning of so is no longer one of creating discourse cohesion between X and Y, but rather one of enhancing the conclusion part of an implicit evidence-conclusion pattern while calling for some kind of verbal response to the situation depicted in X (which is thus both evidence of Y and the logical grounds for the required response). The construction can thus be argued to have a level 2 function. In other words, in (7) 'what do you want me to do' presupposes that there is a situation such that the speaker believes that the hearer would like him to react to it appropriately; so stresses this idea. It no longer has the meaning of 'by way of conclusion' but of 'given the mutually manifest circumstances and the shared conclusion that we have already reached'. The mutually manifest

<sup>2</sup> According to constructionist approaches (see Goldberg, 2003: 220), all types of lexico-grammatical units, including morphemes, words, and idioms –whether partially or wholly fixed– besides lexically filled and fully abstract or general phrasal patterns, regardless of their degree of fixation and degree of generality (or, conversely of specificity), have constructional nature.

circumstance is not taken as evidence but as a pragmatic context in connection to which the speaker believes the hearer wants him to react. This is a level-2 pragmatic operation, rather than a discourse cohesion one.

However, there is a connection between the 'evidence-conclusion' pattern in the *X so Y* construction and the implications that arise from the *So Wh- X?* construction. In order to illustrate our point, consider example (9) below:

- 9a. You have money [X; evidence], so you can pay your bills [Y; conclusion].
- 9b. [You have money but you have not paid your bills] So what are you going to do?

In (9b), but not in (9a), the conclusion part of the 'evidence-conclusion' pattern acts as a point of access to a more complex implicational scenario grounded in social convention according to which if a person can pay his bills, he should do so, and if he has not done so, he should be warned about it. According to this line of reasoning, Y (the conclusion) is metonymically expanded, leading the speaker to request information from the hearer that allows him to find a certain degree of compatibility between the stereotyped scenario (which provides a standard and expected conduct) and the hearer's actual behaviour. The evidence part of the 'evidence-conclusion' pattern may or may not be explicit. If it is not explicit, it may be recovered metonymically.

#### 4.2. The nature of the conclusion

As we have seen, a relevance-theoretic perspective would assume that in (7) *so* encodes procedural information in the sense that it serves as an indicator for the hearer to infer that the utterance after it encloses a conclusion that follows a previous sentence or exchange of information. This kind of approach must also consider that, in terms of relevance, the use of *so* on the part of the speaker, which involves an additional effort in the decoding process, cannot be gratuitous; that is, there must be a reason why the speaker chose to start the sentence with *so* instead of simply uttering *What do you want me to do?* The justification comes, according to Wilson & Sperber (1993), from the assumption that *so* places a constraint on the inferential process so the hearer is led to the intended meaning minimizing the effort required. However, this account does not seem to be accurate enough, but rather an approximation to that full range of implications that we can get for the utterance in (7): it is true that here the use of *so* places a relevant distinction with respect to an utterance like (8), but, contrary to what RT would predict, what follows is not a conclusion, but rather a request for further information. It may be argued that this request comes from the question itself instead of from the connective. In this respect consider (10) and (11) below:

- 10. So what's the problem?
- 11. So why are you so happy?

What is shared by examples (7), (10) and (11) is the fact that the speaker requires further explanation about previous information provided by the interlocutor. The speaker assumes, by means of an explicature obtained from a constructional presupposition, that there is something that needs to be done (at the hearer's demand) in (7), that there is a problem in (10) and that the hearer is happy in (11). Furthermore, (10) and (11) may also occur in contexts in which no linguistic exchange has taken place, for instance in view of a worried facial expression in (10) or a widely smiling interlocutor in the case of (11). In this respect, consider also examples (12) and (13) below:

- 12. So what can I do for you?

13. So what do you want now?

In connection to example (10), imagine an every-day life situation in which one goes to the bank and (12) is the first thing the bank clerk says. There has not been any exchange of linguistic information between speaker and hearer, and we can assume that the hearer is not providing any sort of non-linguistic information to the hearer. This context is part of a low-level situational model in which the bank clerk is supposed to do something for the customer. Therefore, the 'evidence-conclusion' pattern arises from the scenario in which clerk and customer are placed, and is based on the knowledge of this situational model of which they are part: 'The clerk works here, so he must be able to help me / The customer has come to the bank, so he presumably needs some help'. Thus, the background needed for this construction to work properly is provided by the model itself. In (13), though, the background is not straightforwardly provided by the associated low-level situational model at work. Think of a child telling his mother how well he has behaved lately, how good his marks have been in the final exams, and what an obedient son he is; then the mother utters (13). By mentioning the virtues he embodies as a son, the child is providing part of the low-level situational model in which children who behave well obtain a reward. The mother metonymically expands the information provided by the child, accessing immediately to the whole model, and assuming thus that there is something that the child wants from her. In this case, cued inferencing is the process that underlies the interpretation of the utterance. The final addition of 'now' reinforces the idea that the child uses this strategy quite often. The 'evidence-conclusion' pattern that underlies this exchange is as follows: 'I've been behaving very well, so my mother should reward me'. Note that in this case, it is the evidence part of the 'evidence-conclusion' pattern that provides us with the source of the metonymy. In addition, this example shows that the *So Wh- X?* construction may provide an offering to take action once the details of this action have been provided by the hearer (example (9b) presented a request for information about the action the hearer himself would take). The examples analysed so far do not offer the possibility of uttering a directive or commissive utterance indistinctly: it is unlikely that the bank clerk or the mother would ask the customer or the child about something they need to do, at least at the first stages of the interaction process. However, certain evidence-conclusion pairings may be suitable to trigger a request for information about both an offering or a request:

14. Zapatero is unable to fix Spain's economy, so he is certain to lose many votes.

- a. So what are you going to do?
- b. So how can I help you?

We can then assume that by uttering these sentences the speaker indicates to the hearer that he is aware of the background that precedes the exchange, whether this background is linguistic or contextual. In addition, the use of this construction reveals that there is a certain degree of expectation on the part of the hearer which is emphasized by the use of *so*. From this assumption follows the coinage of a construction *So Wh- X?* that arises from the highly frequent use of this structure to convey the meaning implications commented on above, that is, the pragmatic implications derived from the propositional structure of *So wh- X* sentences have become entrenched due to frequency of use. This construction, as we saw with respect to Kay & Fillmore's *What's X doing Y?*, follows a premise-conclusion pattern:

Implicated premises

- S and H have had a linguistic/non-linguistic exchange of information that is grounded in an evidence-conclusion pattern.



- X may arise from explicit linguistic information, non-linguistic information or metonymic access to low-level situational models.
- H captures S's attention by means of one or more of these processes.
- S assumes the relevance/veracity of X.

#### Reasoning schema

- S has some background information that leads him to think that further enquiries about X may be useful.
- S expects and prompts H to provide further details about X.

Implicated conclusion: S acknowledges H's circumstances and sympathizes with him, that is, S shows his interest in X, because he knows that X is considered important to H.

The application of this pattern to a particular expression, such as example (10) above (So what's the problem?), would be as follows:

#### Implicated premises

- S and H have had a non-linguistic exchange of information.
- X ('there is a problem') arises from the worried expression of the hearer.
- H captures S's attention by means of this facial expression.
- S assumes the relevance/veracity of the fact that H has a problem.

#### Reasoning schema

H's facial expression leads S to think that further enquiries about the problem may be useful.

S expects and prompts H to provide further details about the problem besides his facial expression.

Implicated conclusion: S infers from H's face that H is worried about something, and shows interest about H's problem, because he knows that it may be important to H.

Note that the main contribution to the interpretation of this utterance, which can be extended to the rest of examples, is not the assumption on the part of the speaker about the veracity of X (in this particular case, the veracity of the fact that there is a problem), but rather the acknowledgment of the relevance or importance that it has for the hearer. The assumed veracity of X arises from the inherent nature of *wh*-questions: the fragment which follows the *wh*-element is assumed to be true, so it is a case of explicature.

Taking up again the notions of non-parametrizable and parametrizable elements of a construction, note that in this particular case *so* and the *wh*- element are non-parametrizable, that is, they are fixed. Consider examples (12) and (13):

12. So what can I do for you? b.#So can I do anything for you?

13. So what do you want now? b. #So do you want anything now?

The acceptability contrasts in these examples show that the *wh*-sentence and the connective *so* are highly compatible. The assumption of veracity that stems from the nature of *wh*-sentences nicely fits the implications of the connective; in turn, it does not seem to match so well in the case of *yes/no* questions. We should assume, however, that part b in these pairings may occur in certain contexts, and cannot be said to be grammatically incorrect, but the association of *so* and the *wh*-sentence seems to be pragmatically more natural and frequent, which gives rise to the new construction.

It is also worth mentioning and analyzing a variant of the *So Wh- X?* construction that arises from the substitution of *so* for *and*. It is difficult to ascertain whether the *And Wh- X?* construction should be considered independent from the previous one: they follow the same structure and premise-conclusion pattern to a certain extent, but the meaning implications that arise may be significantly different. Let us recall examples (7), (10) and (11) above:

7. So what do you want me to do?  
10. So what can I do for you?  
11. So what do you want now?

As we observed in our previous discussion, (12) and (13) suggest that the speaker knows that the hearer expects some action on his part. Furthermore, there is also certain flavour of willingness to do so: "I know that there is something that you want me to do from the background (whatever it may come from) we share, and I ask you to be more specific in order to please you". Consider now the sentences we get from shifting *so* into *and*:

- 7'. And what do you want me to do?  
12'. And what can I do for you?  
13'. And what do you want now?

The implicated premises and the reasoning schema remain generally unaltered with respect to the one we proposed for the *So Wh- X?* construction. However, the implicated conclusions may be slightly different. Example (7') shows a certain degree of annoyance in view of the hearer's needs. This utterance suggests that the speaker sees himself unable to perform whatever s/he infers that the hearer demands from him/her. In similar ways, the speaker of (12') and (13') convey a certain feeling of reluctance on the part of the speaker that contrasts with that of sympathy and willingness to help that stemmed from sentences (12) y (13). It is not likely that a bank clerk utters (12') as the opening sentence of the exchange of information between customer and employee. It would rather follow the customer's complaints/demands and show the clerk's request for further details about what he is being asked to do, as the information given so far does not seem to be accurate enough to let him know how he is supposed to react. (12') necessarily follows a verbal explanation on the part of the customer, and states the inability of the speaker to fulfil the hearer's need, either because he is not sure about what he is being asked to do or because he feels himself unable to respond to the customer's demand. In any case, the 'evidence-conclusion' pattern in which we find the basis for the interpretation of the *And Wh- X?* construction works at a different stage than it did in the *So Wh- X?* construction: the low-level situational model (a customer going to the bank) provides the grounds for the uttering and interpretation of (12), but is not enough to fully interpret (12'), which calls for previous exchange

of information provided mainly by the customer. In the case of (13'), the 'evidence-conclusion' pattern that operated in (13) leads the mother to metonymically connect the remarks of his son about his plausible behaviour with his demand of some kind of reward. But the willingness of the mother to please his son in (13) gives way to her annoyance in (13'), probably because the child has used up this strategy. While (13) suggests that the mother will grant whatever the child asks for, (13') hints to the fact that the mother is fed up with that way of getting rewards is stronger than the low-level situational model that dictates certain guidelines.

## 5. CONCLUSIONS

Even though the relevance-theoretic approach to discourse markers takes a step forward from previous approaches by regarding these devices from the point of view of their role in inferencing, the solution provided is nonetheless insufficient. In this connection, in the present article, I hope to have been able to show that so-called discourse markers do not encode procedural information, but rather act as prompts that activate high-level conceptual mechanisms that lead the hearer to the preferred interpretation. One such case of high-level conceptual connection was preliminarily put forward by Ruiz de Mendoza (1999) in relationship to his discussion of the 'evidence-conclusion' conceptual pattern, which in the view of the present paper –and in consonance with later proposals in Ruiz de Mendoza (2007)– can be considered a propositional cognitive model, in Lakoff's (1987) sense of the term. The difference with Lakoff's proposal simply boils down to the recognition of the fact that abstract structure –derived from more concrete conceptual constructs– can be used to create cognitive models (see Ruiz de Mendoza, 2007; in this respect).

In connection with the LCM, the understanding of the ins and outs of the 'evidence-conclusion' pattern has allowed us to find the conceptual motivation for the level 2 implicational construction *So Wh- X?* We have argued that *so* has a stable status within the construction as a necessary pointer to the 'evidence-conclusion' high-level cognitive model, thereby becoming a non-parametrizable element. The 'evidence-conclusion' pattern thus serves as a metonymic source that is expanded to provide the necessary information for the interpretation of the sentence. Cued inferencing, as defined in the LCM, is the mechanism that gives access to a whole model by mentioning only a part of it. This is the case of the mother who utters *So what do you want now?* when her child mentions the part of the low-level situational model (the good behaviour) that takes her to the whole frame (children who behave well get a reward). We have also shown that the information that activates this reasoning process may also be provided by the frame itself (*So what can I do for you?*) or by non-verbal information (a worried facial expression leads the speaker to utter *So what's the problem?*).

Finally, we have discussed a variant of the *So Wh- X?* construction that arises when we substitute *and* for *so* (see González García, 2009), for other cases of constructional families). The *And Wh- X?* construction shares most of the implications analysed in the *So Wh- X?* construction, but it has been found to have its own peculiarities, mainly as regards implicated conclusions. These dissimilarities are exclusively provided by the discourse marker, which proves its uncompromising importance in the meaning of the construction.

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