Ad hoc concepts and the relevance heuristics

A false paradox?

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The idea that interpreting a lexeme typically involves a context-dependent process of meaning construction has in recent years become common ground in linguistic theory. This view is very explicit in relevance theory (Sperber and Wilson 1995), which posits that speakers systematically infer ad hoc concepts (Carston 2002). Such an approach raises theoretical issues, though. First, it directly poses a challenge for the exact nature of (and difference between) concepts and ad hoc concepts (Carston 2002, 249). In addition, as Wilson (2011, 2016) and Carston (2013, 2016) point out, this view also uncovers the following paradox: if speakers are assumed to follow a path of least effort (relevance heuristics), why should they so systematically infer ad hoc concepts rather than test the encoded concept first? The aim of this paper is to reflect on this theoretical puzzle. It will first be argued that the hypotheses formulated both by Wilson and by Carston seem rather post hoc and fail to fully resolve the apparent paradox. Attention will then be given to the assumed nature of (ad hoc) concepts to show that the problem can be resolved when an alternative (non-atomic) view of concepts in terms of meaning potential is adopted.

Keywords: relevance theory, ad hoc concepts, relevance heuristics, paradox, meaning potential.

1. Introduction

The idea that interpreting a lexeme typically involves a context-dependent process of meaning construction has in recent years become common ground in linguistic theory. One's exact stance on the matter mostly depends on one's theoretical and empirical commitments. In relevance theory (Sperber and Wilson 1995), it is argued that the creation of context-specific senses (called 'ad hoc concepts') mostly consists in an inferential process of conceptual adjustment triggered and guided by the search for optimal relevance (Carston 2002). This view is originally rooted in the assumption that lexical concepts never fully correspond to the speaker's intended meaning (Sperber and Wilson 1998). Consider the examples in (1) to (3). In Example (1), the noun human

being is not used to communicate the literal concept human being (i.e. 'a homo sapiens'), since it is mutually manifest that the hearer already belongs to that category, and the latter must therefore infer a more specific ad hoc concept human being* (e.g. 'a well-mannered person')[1].1 In Example (2), the verb bankrupt can be understood literally of course, but there might also be contexts in which it is loosely used to say that farmers will grow poor as a result of this policy (without necessarily going insolvent). Likewise, in Example (3), while the noun princess may be used literally (in the case Caroline turns out to be the member of a royal family), it can also be used metaphorically to credit Caroline with properties stereotypically attributed to princesses, such as good physical features.

(1) Either you become a human being or you leave the group.
(Wilson and Carston 2007, 240)
(2) This policy will bankrupt the farmers. (Wilson and Carston 2007, 234)
(3) Caroline is a princess. (Wilson and Carston 2006, 406)

In the domain of lexical semantics-pragmatics, the notion of ad hoc concepts has become a key component of the relevance-theoretic toolkit (cf. Wilson 2003), and it is not my goal to call it into question. The aim of this paper is to throw some light on a little discussed yet critical conflict between two of the underlying tenets in relevance theory that are essential to understanding the derivation of ad hoc concepts:

(i) the relevance heuristics and

(ii) the rejection of the 'encoded first' hypothesis.

As mentioned above, in relevance theory the derivation of ad hoc concepts consists in an inferential task guided by the search for optimal relevance. The technical term relevance, a cornerstone of the theory, refers to the value of an input to an individual. It is a comparative value determined by a processing cost-benefit balance: the more cognitive effort involved in processing the input, the less relevance; the more cognitive effects obtained in processing the input, the more relevance (Sperber and Wilson 1995, 125). While human cognition is generally geared towards the maximisation of relevance (i.e. towards stimuli that provide the most cognitive effects for the least processing effort), ostensive acts of communication are presumed to guarantee optimal relevance. That is, as hearers we expect to derive enough cognitive effects to justify the effort spent in processing the input (Sperber and Wilson 1995, 156). And this principle of relevance is argued to guide the interpretation process of an utterance. By definition, it indicates that the more cognitive effort, the less relevance. As a result, hearers do not consider all possible interpretations and

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[1] It is conventional in the relevance-theoretic literature to use an asterisk to differentiate adhoc concepts (e.g. human being*) from context-independent lexical concepts (e.g. human being)

then choose the most relevant one. This would require too much processing effort and therefore be self-defeating (see Sperber 2005, 64). Rather, it is argued in relevance theory that the principle of relevance naturally lays the foundations for the following comprehension procedure (Wilson and Sperber 2004, 613):

Relevance-theoretic comprehension procedure

a. Follow a path of least effort in computing cognitive effects. In particular, test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.

b. Stop when your expectations of relevance are satisfied.

That is, for a given utterance, hearers do not process all possible interpretations but only focus on those that are most salient and which they test (for optimal relevance) in order of accessibility. Once an interpretation provides them with enough cognitive effects to justify the amount of processing effort involved, they stop searching and consider this interpretation to be the one intended by the speaker[2]. What is important for the topic at hand is that when deriving ad hoc concepts, hearers are therefore assumed to follow a path of least effort. Why does this matter? Whichever concepts are intended exactly, it is argued that hearers routinely have to infer ad hoc concepts. Use of this term, Wilson and Carston (2007, 230) point out, can be traced back to the work of Lawrence Barsalou (1983, 1987, 1993) on 'ad hoc categories'. According to Barsalou, conceptual categories (i.e. concepts) are never just retrieved from memory. Rather, we systematically construct ad hoc categories, i.e. occasion-specific categorisations (or conceptualisations) that are tailored to the specifics of each situation. In keeping with Barsalou, relevance theorists argue that the interpretation of lexical items systematically requires the derivation of ad hoc concepts. From this perspective, in spite of their being associated with a specific concept, it is argued in relevance theory that "all words behave as if they encoded pro-concepts: that is, [...] the concept it is used to convey in a given utterance has to be contextually worked out" (Sperber and Wilson 1998, 185). This means for instance that the interpretation of the sentences in (1) to (3) does not consist first in testing (for relevance) the concepts human being, bankrupt and princess associated with the lexical items human being, bankrupt and princess and then in deriving the intended concepts. Rather, their interpretation directly requires the construction of the ad hoc concepts human being* in (1), bankrupt* in (2) and princess* in (3). In other words, relevance theorists reject the 'encoded first' hypothesis (cf. Sperber and Wilson 1995, 234; Wilson 1995), i.e. the hypothesis whereby the "encoded ('literal') meaning is the first to be tested, and is abandoned only if it fails to satisfy expectations of relevance" (Wilson 2011, 15). This view seems to receive support from experimental

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[2] As Wilson and Sperber (2004, 614) point out, this naturally requires that "a speaker who wants her utterance to be as easy as possible to understand should formulate it (within the limits of her abilities and preferences) so that the first interpretation to satisfy the hearer's expectation of relevance is the one she intended to convey."

evidence (relevance theorists usually refer to the work of Gibbs 1994 on figurative language), and, once again, it is not necessarily my goal to argue against it. Rather, what I want to focus on is the apparent paradox in relevance theory that ensues from adopting the two underlying assumptions just presented, namely the relevance-guided comprehension heuristics and the rejection of the 'encoded first' hypothesis. This paradox was first identified by Wilson (2011), who asks the following questions:

Why should a hearer using the relevance-theoretic comprehension heuristic not simply test the encoded ('literal') meaning first? What could be easier than plugging the encoded concept into the proposition expressed, and adjusting it only if the resulting interpretation fails to satisfy expectations of relevance? In other words, what is there to prevent the encoded concept being not only activated, but also deployed? (Wilson 2011, 12, original emphasis)

It does indeed seem more relevant (in the technical sense) to test the encoded concept first before trying to derive an ad hoc concept. The question therefore is to know whether arguing both for the relevance-guided comprehension heuristics and against the 'encoded first' hypothesis does not lead to a form of theoretical contradiction. It is the aim of this paper to tackle this issue. The contradiction has been discussed by Wilson (2011, 2016) and Carston (2013, 2016). Their accounts will be critically examined in Section 2, where it will be shown that neither account is fully conclusive. Then in Section 3, an alternative approach will be put forward. It will be shown that one's perception of this contradiction is largely determined by one's view on the nature of concepts (and ad hoc concepts) in the first place. I will argue that there is only a contradiction when concepts are considered to be atomic objects (a view that Wilson and Carston both share; cf. Sperber and Wilson 1995, 91; Carston 2002, 321) and that an alternative view, e.g. in terms of meaning potential that can be exploited in contexts, does not give rise to the same conflict.

Like the other contributions to this special issue, this paper is written in honour of the most inspiring work of Deirdre Wilson. Relevance theory, which grew out of her foundational collaboration with Dan Sperber, has become a respected landmark in the pragmatics scene in addressing questions relevant to domains such as philosophy of language, linguistics and cognitive psychology. While it takes a bit of courage to comment on other people's work, it surely takes a lot of humility to be critical of one's own assumptions. This paper bears witness to this. In addressing the paradox identified above, Deirdre Wilson overtly discusses a theoretical anomaly that needs to be resolved. As mentioned in the previous paragraph, this issue has not been widely discussed, and it is my goal in this paper to join in the discussion she started. As will be shown, this requires engaging seriously with many of the conceptual tools and assumptions

that she built or helped develop throughout the years. The critical discussion provided here is thus a small contribution to the further development of relevance theory.

2.   Dealing with the paradox

Wilson′s (2011, 2016) procedural account

As mentioned previously, Wilson (2011) is the first to have directly discussed the contradiction in adopting the relevance heuristics ('follow a path of least effort') and rejecting the 'encoded first' hypothesis. She puts forward the following solution. According to her, the reason why concepts are not directly accessed but ad hoc concepts are systematically derived is to be found at the level of lexical semantics (i.e. the level of the encoded meaning of a word). She argues that the systematicity involved in the derivation of ad hoc concepts might reflect much more complex semantics than previously assumed. Specifically, she argues that, in addition to being associated with a particular concept, lexemes might automatically "trigger a procedure for constructing an ad hoc concept on the basis of the encoded [one]" (Wilson 2011, 17). In relevance theory, 'procedures' consist of specific instructions for the processing of conceptual information which are directly meant to guide the hearer towards optimal relevance (Carston 2002, 162). In order to explain the paradox, Wilson thus suggests that lexical words are semantic hybrids that both activate a concept and trigger a procedure to construct an ad hoc concept. In this case, it is clear how Wilson gets rid of the issue she identifies in the first place. By virtue of encoding an instruction to construct an ad hoc concept, lexemes can never simply give access to the encoded concept. We observe the instruction and do so by following a path of least effort. Paradox resolved.

According to Wilson (2011, 2016), an account in procedural terms provides an elegant explanation both for the theoretical contradiction identified above and for the underpinnings of lexical pragmatics more generally. For a number of reasons, however, I share Carston′s (2013) skepticism about this proposal. First, an account in procedural terms makes the derivation of ad hoc concepts not only a systematic process but also a compulsory process. Yet, it is sometimes argued in relevance theory, as Carston (2013, 196) points out, that "the encoded concept can, on occasion, be the concept communicated (Sperber and Wilson 1998, 2008)." If the derivation of an ad hoc concept is viewed as obligatory, however, it is unclear whether it is ever possible to reconstruct the encoded concept or not (i.e. whether the procedure enables the recovery of the encoded concept). Assuming it is possible, then Wilson needs to account for the observation that reconstructing the original concept (arguably) takes more effort than simply testing it as such, which makes the overall interpretation less relevant than it could have been (since the more processing effort, the less

relevance). Assuming it is not possible to reconstruct the original concept, the challenge is to understand how that concept (and the associated procedure) was acquired in the first place, what exactly the function of that concept is, as well as what the relevance is of storing a concept that is never actually entertained and communicated by individuals. Second, this view also suggests that words that encode a concept therefore all encode exactly the same procedure, namely that of constructing an ad hoc concept. Yet, as Carston (2013) points out, this tremendously weakens the approach to procedural meaning developed in relevance theory. Just like no two words encode exactly the same concept, it is implicitly assumed in relevance theory that no two words encode exactly the same procedure. Yet, this assumption is seriously challenged here. In fact, third, Wilson's proposal is all the more surprising since it assumes that all words are thus (at least partly) procedural. Yet, there is growing consensus that procedural encoding is a property of grammatical units of the language and not of lexical items (cf. Carston 2016, 155; Leclercq 2019a). Finally, the challenge with Wilson's proposal also comes from the observation that the task she attributes to a particular procedure is in relevance theory originally supposed to be taken care of by the relevance-guided comprehension heuristics (cf. Carston 2013, 196; Escandell-Vidal 2017, 88). That is, individuals are said to adjust concepts in relevance theory because of their expectations of relevance. Adding a specific procedure is quite unnecessary since it is redundant with respect to one of the central claims of the theory. Wilson's proposal in terms of procedural meaning thus provides a heavy post hoc explanation which unnecessarily burdens the theory. Carston (2013, 196) in fact argues that this move "seems like overkill." For all these reasons, I believe that a different solution to the paradox might be preferable.[3]

Carston's (2013, 2016) underspecification account

In spite of disagreeing with Wilson's proposal, Carston shares the concern that rejecting the 'encoded first' hypothesis is inconsistent with arguing for the relevance-guided comprehension heuristics. Therefore, she puts forward an alternative solution. Carston (2013, 196) suggests that, maybe, the reason why encoded concepts are never tested first (and then adjusted only when they do not meet one's expectations of relevance) simply follows from the fact that words never actually encode full concepts but only conceptual schemas or templates (i.e. underspecific schematic meanings)[4]. In order to recover the full-fledged concepts intended by the speaker, these conceptual schemas thus have

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[3] Of course, this does not mean that the interpretation of lexical items never involves procedures. Meaning is largely compositional, and I have argued previously that the derivation of ad hoc concepts is directly guided by the procedural function of the grammatical constructions in which lexemes occur, thus sometimes giving rise to coercion effects (Leclercq 2019a, 2019b). However, I reject the idea that all lexical items themselves encode the same procedure of having to create an ad hoc concept.

[4] This is a suggestion that, for other reasons, she already made in Carston (2002, 360). Her solution thus comes across as slightly less post hoc than Wilson's.

to be contextually enriched. As in Wilson's proposal, this perspective makes the construction of an ad hoc concept necessary and hence explains why, while following a path of least effort, encoded concepts are not tested first (since there is no concept to start with; see below). Unlike Wilson's proposal, however, it has the advantage of not putting any additional burden on the lexicon. Nonetheless, I find Carston's proposal not entirely convincing either.

Carston argues that her account is as explanatory as Wilson's without sharing any of its limitations. She argues for instance that, unlike Wilson's account, hers "does not entail an obligatory process that is sometimes unnecessary (as when the encoded concept is the concept communicated)" (Carston 2013, 197). Two comments can be made about this observation. First, it is not clear in what sense her account does not require an obligatory process of concept construction. By virtue of being underspecific, concept schemas necessarily have to be enriched in context in order to arrive at a specific interpretation (i.e. to derive a specific proposition). This process is therefore precisely required by the type of semantics that Carston argues for. Second, she suggests that the reason why the construction of an ad hoc concept in this account is not necessary follows from the observation that the communicated concept might be the one which is encoded. It is difficult to reconcile what seem like two opposite hypotheses. On the one hand she argues that words do not encode concepts but concept schemas, while on the other she argues that the communicated concept might be the encoded one. Yet, either words encode full concepts or concept schemas, but the advantage of concept schemas cannot possibly be that they provide a full concept. In spite of what she might argue, Carston's account thus suffers from limitations similar to Wilson's.

This is not the only issue with Carston's proposal, however. There is at least one other critical theoretical implication that needs to be discussed. The relevance-theoretic approach to the semantics-pragmatics interface was developed on the assumption, called the underdeterminacy thesis (Carston 2002, 19), that words alone do not suffice to recover the speaker's intended meaning and that, besides implicatures, much inferential work is also needed at the explicit level of communication. Sperber and Wilson (1995, 182) coined the term explicature precisely to capture the hybrid nature (semantic and pragmatic) of explicit propositions. As I understand it, though, the standard argument within relevance theory has always consisted in highlighting some form of pragmatic underdeterminacy. That is, the sentences we use do carry a specific meaning (which occurs in the logical form of an utterance), and this meaning only has to be pragmatically enriched (e.g. disambiguation, reference assignment, conceptual adjustment) in order to derive the explicature. If one now assumes that words merely encode concept schemas, however, then one necessarily has to postulate some form of semantic underdeterminacy whereby language does not simply fail to provide the speaker's intended interpretation

but altogether fails to provide any meaning at all. This seems to be Carston's underlying assumption when she says that "while sentences encode thought/proposition templates, words encode concept templates; it's linguistic underdeterminacy all the way down" (Carston 2002, 360, emphasis mine). However, I find this perspective hardly plausible. For one, such a view generally seems to undermine the relevance-theoretic approach to the semantics-pragmatics interface and in particular to the notion of explicatures. Indeed, from this perspective explicatures are essentially pragmatic in nature, which means that they can never truly be explicit (cf. Sperber and Wilson 1995, 182), and which therefore adds confusion as to their role and status in utterance comprehension (cf. discussion in Borg 2016). As will become clear in the next section, I am convinced that individuals do have rather rich conceptual knowledge. Within relevance theory, Wilson (2011) also questions the plausibility of such an underspecification account. The idea that some words might not encode full-fledged concepts but simply act as pointers for the recovery of conceptual content can be found in Sperber and Wilson's (1998) discussion of pro-concepts. This notion (which is more of an assumption) only applies to a specific set of words, However (e.g. pronouns, gradable adjectives, etc.), and it is not Sperber and Wilson's intention to argue that all words encode such pro-concepts. Wilson specifically points out that "while the assumption that some words encode pro-concepts is quite plausible, the idea that all of them do is unlikely" (Wilson 2011, 16; see also Carston 2012, 619). Carston (2016) in fact identifies some of the limitations of her proposal herself:

Even if these abstract non-semantic lexical meanings could be elucidated, it is entirely unclear what role they would play in the account of language meaning and use. On the relevance-based pragmatic account of how ad hoc concepts/senses are contextually constructed in the process of utterance interpretation, the real work is done by the encyclopaedic information associated with a concept (a semantic entity) and there is no further constraining or guiding role to be played by a schematic (non-semantic) meaning. Nor does the schema appear to play any role in a child's acquisition of word meaning; in fact, the child's first 'meanings' for a word are the (fully semantic) concepts/senses grasped in communication, so the abstract (non-semantic) meaning could only be acquired subsequently by some process of induction. Even supposing we could give an account of how this is done, what would be missing is an explanation of why it would be done, what purpose it would serve.

(Carston 2016, 158)

Carston thus concludes that the underspecification hypothesis needs to be dropped (see also Carston 2019, 2021). While I fully support this move, it nonetheless raises the question of whether and how Carston still intends to explain the theoretical paradox that her underspecification account was meant to resolve in the first place: if words do have specific meanings attached to them,

then why aren't these tested first for relevance? Carston sketches an alternative approach:

> This requires making a distinction between the kind of lexicon that features in a narrowly construed I-language, with its focus on syntactic computations and constraints, and the lexicon of the broader public language system, which is a repository of communicative devices whose conceptual contents are what the inferential pragmatic system operates on. In the narrow I-lexicon, the words (or roots) listed have no meaning, conceptual or schematic, while in the C-lexicon of the broader communicational language system, words are stored with their polysemy complexes (bundles of senses/concepts that have become conventionally associated with a word and perhaps others that are not yet fully established as stable senses).
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> (Carston 2016, 159)

Carston, however, does not develop this account any further; the information in the quote only contains a basic hypothesis and is not yet developed into a full-fledged theory.[5] Unfortunately, it is not clear exactly in what sense distinguishing between I- and C-lexicon might help us deal with the issue identified above. Placing the conceptual network at a different level of representation simply pushes the issue to a different level of analysis but does not necessarily solve it. This is particularly true because Carston argues that it is the C-lexicon that "provides input to the pragmatic processes of relevance-based comprehension" (Carston 2019, 157). That is, it remains a challenge to understand why we should still systematically build an ad hoc concept and not try and test first for relevance any of the stored senses of the C-lexicon.

3.   Resolving the paradox: Concepts and meaning potential

I have shown in the previous section that neither Wilson's nor Carston's account is fully conclusive. Therefore, a plausible resolution of the theoretical paradox is yet to be found. The remainder of this paper aims to provide such a resolution. As mentioned in the introduction, I want to argue that the paradox can easily be resolved when lexical concepts are understood not as available 'linguistic senses' but as meaning potential that can be exploited in context. This view is outlined in the following paragraphs. The central issue addressed in this paper is how to reconcile two standard assumptions in relevance theory that seem conflicting or paradoxical, namely the relevance-guided comprehension heuristics ('follow a path of least effort') and the rejection of the 'encoded first' hypothesis. A naive intuition would be that conflicting assumptions cannot both be true at the same time and, therefore, that one's goal should simply be to

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[5] In more recent work, Carston (2019) shows how the distinction between I- and C-lexicon can be applied to issues in morphology (in particular in order to account for the use of crosscategorical words). However, in that chapter she does not address the issue discussed here.

determine which of these two assumptions is inaccurate. Neither Wilson nor Carston followed, let alone suggested, this particular course of action, however. The fear probably is that, even though this option seems more straightforward than either of the solutions they put forward, relevance theory might consequently end up weaker. (It is true that the two assumptions in question constitute key tenets of relevance theory.) From a theory-external viewpoint, though, it seems relatively sensible that one should want to challenge either of these assumptions first. Relevance theorists can rest easy, however, for it is not my aim to do so in this paper. Rather, I want to argue that there is in fact no contradiction between these two assumptions. Specifically, I will show that whether or not these assumptions are perceived as being in conflict largely depends on one's underlying stance towards the notions of 'encoded meaning' and 'conceptual content' in the first place, and that the contradiction discussed by Wilson and Carston is only a result of their own view of what these notions imply. In the standard relevance-theoretic approach, the meaning of lexical words is assumed to consist of (Fodorian) atomic concepts (cf. Sperber and Wilson 1995, 91). Although conceptual atomism is not a view I personally endorse, it is not my goal here to launch another endless theoretical crusade against it. In Leclercq (2019a), I have shown that conceptual atomism is in fact incompatible with many other key tenets of relevance theory. In the present paper, I am only arguing that this underlying assumption is responsible for the theoretical paradox identified by Wilson, and that, if an alternative approach to conceptual knowledge were to be adopted, this paradox would simply go away. There are a number of reasons why conceptual atomism (at least, the version defended in relevance theory) might be viewed as the source problem of the topic at hand. To begin with, this view is based on the belief that a clear distinction can and should be drawn between purely conceptual content on the one hand and encyclopaedic knowledge about that concept on the other (Fodor 1975; Sperber and Wilson 1995, 90). From this perspective, there is a stable (context-free) 'core' to each concept, and this 'core' fundamentally constitutes the meaning of the lexical item to which a concept is attached. Issues with this 'dictionary view' of meaning are manifold and have been discussed at length in the literature (cf. e.g. Reddy 1979; Haiman 1980; Fillmore 1982; Lakoff 1987; Langacker 1987; Murphy 1991; Pustejovsky 1995).[6] But what truly matters for the present discussion is that this view might be incompatible with the account of ad hoc concepts developed in relevance theory. As mentioned in Section 1, this relevance-theoretic construct was originally based on the work of Barsalou on ad hoc categories. What relevance theorists are careful not to mention, though, is that Barsalou's research is largely motivated by the idea that there is no categorical distinction between conceptual and encyclopaedic knowledge (cf. Barsalou 1983, 1987, 1993, 2000, 2012, 2016). In other words, Barsalou rejects

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[6] . See also Lemmens (2017), who challenges the relevance-theoretic approach to lexical semantics-pragmatics precisely by questioning its 'dictionary view' of meaning.

the dictionary view of meaning. According to him, (lexical) concepts are bodies of encyclopaedic knowledge that are exploited in context and that naturally induce processes of ad hoc categorisation. In Barsalou's account, ad hoc categorisation thus hinges on an encyclopaedic view of meaning. This is a crucial difference with relevance theory. Indeed, an encyclopaedic approach to meaning inherently waves off the possibility of an 'encoded first' interpretation since words simply do not encode such stable ('linguistic') senses to start with. It is only when presupposing a strict distinction between conceptual and encyclopaedic knowledge (as in relevance theory) that rejecting the 'encoded first' hypothesis becomes an issue. In this case, assuming that one indeed follows a path of least effort, it is unclear why one should not test the encoded concept first before trying to create an ad hoc concept. This is all the more true since in relevance theory concepts are supposed to be atomic. What could be easier than testing this atom first? Answering this question represents a real challenge for relevance-theorists, however, as it is left open exactly what role is played by atomic concepts and, more specifically, what constitutes their content. Sperber and Wilson (1995, 86) originally argue that atomic concepts (e.g. cat) give access to three entries: a lexical entry (e.g. the noun cat – /kæt/), a logical entry (that consists of deductive rules; e.g. {cat → animal}, {cat → mammal}, etc.), and an encyclopaedic entry (which contains associated 'world knowledge'; e.g. cats land on their feet, they don't like getting wet, etc.). These distinctions served specific explanatory purposes and enabled Sperber and Wilson to lay the grounds for their theoretical approach to meaning. The problem, though, is that these distinctions later gave rise to different interpretations as to what the actual content of a concept (i.e. lexical meaning) consists of. Groefsema (2007) and Leclercq (2019a) show that three distinct views have emerged in relevance theory:

(i) the meaning of a lexeme is determined by the irreducible, atomic concept itself (a view strongly defended by Carston 2002, 2010; see also Hall 2017),

(ii) lexical meaning consists of the deductive rules stored in the logical entry (cf. Sperber and Wilson 1987, 741; Horsey 2006; Falkum 2011, 118), and

(iii) lexical meaning is shaped by the information stored in the logical and/or the encyclopaedic entries (e.g. Sperber and Wilson 1995, 92; [7] Reboul 2000; Assimakopoulos 2008).

Groefsema (2007) and Leclercq (2019a) critically discuss each alternative and explain why the third one is the most appropriate for relevance theory generally. I will extend this discussion to the present issue. As mentioned above, the challenge of the first view, whereby the meaning of a lexical item

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[7] Sperber and Wilson (1995, 92) point out that the distinction between the concept and its associated entries is a "distinction between form and content."

consists of the atomic concept itself, is that it is difficult to understand what could be easier than testing this atom first for relevance (given that we follow a path of least effort). That is why Wilson (2011), who adopts this perspective, actually raised the issue in the first place. Regardless of which inferential processes are needed for the creation of ad hoc concepts, it seems comparatively effortless (and thus more relevant) to start from this atom. The only reason that would explain not doing so is if individuals all shared a presumption of irrelevance of the encoded concept, which would pressure them into systematically creating an ad hoc concept. It was shown in Section 2.1, however, that the idea of such internalised conceptual irrelevance (which is, though implicitly, foundational to Wilson's (2011) procedural account) faces a number of critical issues, the main one being its incompatibility with the cognitive principle of relevance. The second view, according to which conceptual content is defined by the deductive rules stored in the logical entry, is in that regard equally problematic. The challenge is to explain what, if not a 'presumption of irrelevance', could possibly prevent the deductive device (cf. Sperber and Wilson 1995, 93 ff.) to first compute the encoded rules before dropping some and/or adding new ones during the creation of ad hoc concepts (Carston 2002, 339). One could say that this is because the logical entry "generally [falls] far short of anything definitional" (Carston 2002, 321). Sperber and Wilson (1995, 92) indeed argue that some words might have empty logical entries. However, as mentioned in Section 2.2, an explanation in terms of semantic underspecification seems hardly plausible. So again it is doubtful whether an account of lexical semantics in terms of deductive rules is fully appropriate. This is particularly true since it is not clear in relevance theory what exactly those rules consist in. Sperber and Wilson (1995, 89) argue that the same piece of information can in principle function "now as part of the content of an assumption [i.e. the logical entry], now as part of the context in which it is processed [i.e. the encyclopaedic entry]." Such a view, however, raises the question of whether distinguishing between the two types of information is necessary. Carston (2002, 322) explicitly doubts that there is "really a clear logical/ encyclopaedic distinction." If this is correct, the remaining option is to consider that maybe the content of a concept is determined by the information stored in the encyclopaedic entry. Groefsema (2007) and Leclercq (2019a) discuss this possibility and argue that, though not popular in relevance theory, an encyclopaedic view of meaning in fact provides the most consistent approach with relevance theory generally. I want to argue that it is also the most promising alternative for the issue at hand.[8] Naturally, one could say that it is not necessarily clear in what sense adopting an encyclopaedic approach to conceptual content solves the problem discussed

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[8] When arguing against atomism, I only mean to argue that conceptual content (i.e. the meaning of lexical items) is not atomic. I make absolutely no claim regarding the form that concepts take when occurring in thoughts. They may well be atomic (say, a conceptual address), but I challenge the view that their content consists of this atom.

here: what is there to prevent this type of meaning to be tested first? But the answer to this question is rather straightforward. As mentioned above (see Section 3, para. 3), when conceptual content is defined in terms of encyclopaedic knowledge, the meaning of a linguistic unit can no longer be viewed as providing context-free packages (i.e. stable, linguistic senses) readily available to consciousness. Instead, the encyclopaedic information is to be understood as providing a vast network of meaning potential that, in different contexts, will contribute differently to the interpretation process. While the exact terminological load may vary from one author to the other, the terms 'meaning potential' or 'semantic potential' are in fact increasingly common (e.g. Halliday 1973; Bezuidenhout 2002; Allwood 2003; Fauconnier and Turner 2003; Croft and Cruse 2004; Recanati 2004; Evans and Green 2006; Norén and Linell 2007; Verschueren 2018). In this case, the underlying assumption is that meaning is not pre-determined or fixed but inherently contextual. [9] This type of approach corresponds to what Recanati (2004) calls the 'wrong format' view, namely the idea that

[i]ndividual word meanings themselves are such that they could not go directly into the interpretation. They don't have the proper format for that. They are either too abstract and schematic, in such a way that elaboration or fleshing out is needed to reach a determinate content; or they are too rich and must undergo 'feature-cancellation', or some other screening process through which some aspects will be backgrounded and others focused on.

(Recanati 2004, 140, original emphasis)

According to this definition, Carston's (2013) underspecification account is a good example of the (first) wrong format view, which, were it not for the critical limitations discussed in Section 2.2, would have provided an interesting solution to our problem. In this paper, I am arguing in favour of an alternative wrong format approach in terms of rich (context-sensitive) encyclopaedic knowledge which "words provide a 'point of access' to" (Evans and Green 2006, 207). It is interesting to note that similar descriptions are sometimes given in relevance theory (see e.g. Sperber and Wilson 1995, 86). Wilson (2009, 206) argues for instance that a concept "is merely a point of access to an ordered array of encyclopaedic assumptions from which the hearer is expected to choose in constructing an overall interpretation" (emphasis mine). [10] Therefore, an encyclopaedic approach in terms of meaning potential, although not standard in relevance theory, is perfectly reconcilable with the relevance-theoretic stance.

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[9] Naturally, as one of the reviewers rightfully pointed out, such a view blurs the line between semantics and pragmatics and, like Carston's account, somewhat questions the role of semantics (and whether such a notion can actually be maintained). As I explain in Leclercq (2020, 229), however, "the observation that the distinction is not clear-cut does nothing to diminish the fact that there are marked conventional and non-conventional aspects of meaning that can be conveyed." And in my account, unlike in Carston's, the rich body of information stored by an individual directly contribute to the interpretation process.

[10] At the same time, it is rather striking to note that – although the quote suggests otherwise – relevance theorists insist that it is not the encyclopaedic information made accessible by a concept that constitutes its content. In relevance theory, concepts are atomic. For lack of space, I will not address the details of this stance here (see Leclercq 2019a for a detailed discussion).

More importantly, this view can explain why it is that, while following a path of least effort, we systematically construct ad hoc concepts (instead of testing the encoded one(s) first). We do so because there is no strictly linguistic meaning to start with, only meaning potential to be exploited. From this perspective, there is therefore no paradox in positing the relevance heuristics while at the same time rejecting the 'encoded first' hypothesis. There is a paradox only when one adopts a dictionary view of meaning.

4.   Conclusion

The present paper does not provide a definite claim, let alone a full argument, about what solution provides the best answer to the issue raised by Wilson (2011), namely the contradiction in both adopting the relevance heuristics ('follow a path of least effort') and rejecting the 'encoded first' hypothesis. This paper probably best serves as an invitation to further reflect on this problem. The main thrust of my argument has been that one's understanding of the issue largely depends on one's underlying stance towards the nature of conceptual content in the first place. I argued that Wilson's observation is influenced by the dictionary view of meaning, largely adopted in relevance theory, whereby there is a properly linguistic meaning. In this case, however, it is indeed difficult to explain why the encoded concept is not tested first for relevance. Instead, extending the views developed in Groefsema (2007) and Leclercq (2019a), it was eventually argued that an encyclopaedic approach to meaning in terms of meaning potential is more capable of resolving the dilemma faced by relevance theory. This approach is an example of Recanati's (2004) wrong format view. In this perspective, the nature of conceptual content is such that it is simply not possible to test it as such. And that is what explains why, although we follow a path of least effort, the encoded concept is not tested first for relevance. It is most likely that this paper will not convince all relevance theorists, especially the most Fodorian at heart, among whom Deirdre Wilson herself. The theoretical ramifications of my proposal may appear to be too profound. Yet, I believvto have engaged seriously with the relevance-theoretic framework and, at least, to have shown that further discussion about Wilson's (2011) observation is necessary.

necessary to ensure that the culture of the ethnic minorities in the Central Highlands is preserved and passed on to future generations.

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