

The best architect designed this church: definite descriptions in Default Semantics

Abstract

Chapter 4 of Kasia Jaszczolt's *Default Semantics* (Jaszczolt 2005) examines the default semantic analysis of (1), uttered when standing in front of El Temple de la Sagrada Família in Barcelona.

(1) The best architect designed this church.

At first sight, Jaszczolt's conclusion that the cognitive default reading of (1) is 'Antoni Gaudí designed El Temple de la Sagrada Família, and the speaker believes him to be the best architect' looks right, I would guess that this is exactly what you and I would normally understand by such an utterance. But is it in fact an appropriate semantic analysis, even given Jaszczolt's pragmatics-rich approach? Whereas I think there are good grounds (following in the footsteps of Grice and many others) for assuming that, by default, (1) expresses the true opinion of the speaker that the architect of Sagrada Família is the (world's, Spain's, Catalonia's) best architect we cannot safely assume that the speaker, qua speaker, knows the architect's identity. Our knowledge of what the particular speaker is likely to know is our only guide here. We will make different assumptions for the speaker who is a four-year old child, George W Bush, or a native of Barcelona (and so on). The same goes for the addressee: an adult addressing a four-year old child will very likely follow up (1) by identifying the architect. We only know whether speaker and hearer correctly identify the architect from the co-text of (1), and so I don't think Jaszczolt's assumption that there is a cognitive default reference to Antoni Gaudí through the definite description "the best architect" in (1) is correct without considerably more inferencing from contextual and encyclopaedic data than she allows. This paper criticizes some of the assumptions of Default Semantics and suggests some emendations to the theory including additional machinery showing a mapping from the words uttered to the intended meaning in the case of (1).

Keywords: Common Ground, Context, Definite Descriptions, Default Semantics, Nonmonotonic inference, Pragmatic Inference, Reference (direct and indirect)

The aim of this paper¹ is to investigate and ascertain certain among the properties of merger representations in Default Semantics. The principal issue raised is the mapping from locution to illocutionary success, or more precisely to the referential success on which the illocutionary success depends. I also question what may count as a “cognitive default” (CD) and propose an extension to the scope of one of the components (WS) of merger representations.

The theory of Default Semantics (hereafter DS) was first proposed in Jaszczolt (1999a; b) and extensively described in Jaszczolt (2005; 2009). According to Jaszczolt, in the context of the interlocutors standing looking at la Sagrada Família in Barcelona, (1) means that Antoni Gaudí designed la Sagrada Família.

(1) The best architect designed this church.

As Jaszczolt assumes, (1) can legitimately be reported as referring to Gaudí, la Sagrada Família, and the fact that Gaudí designed la Sagrada Família. However, Jaszczolt’s assumption that there is an automatic (i.e. unconscious) cognitive default reference to Antoni Gaudí through the definite description “the best architect” in (1) depends on considerably more inferencing from contextual and encyclopaedic data than she seems to allow for. I don’t think there is any dispute over the recourse to pragmatic inference required in order to achieve referential success in an utterance of (1), only whether or not the inferring is “conscious” and whether the reference is direct or indirect in the sense of Reimer (1998). Unconscious reasoning is not grounded upon any preceding judgment, whereas conscious inference uses some preceding judgment as a premise. As the labels indicate, a person is either consciously aware of the reasoning or s/he is not. In my view it is impossible to convincingly demonstrate such a difference in conscious awareness when interpreting the language expressions discussed in this paper.² The matter of directness is taken up later.

There is a wide body of literature from several schools of linguistics and philosophy which concurs that most (if not all) natural language utterances underspecify meaning. For instance, a (male) colleague turns up late for a meeting and on entry immediately says *I’m sorry, my car broke down*. It will normally be understood that he is apologizing for being late, not for the fact that his car broke down, and that mention of the car break-down is intended to explain his being late because car-break-downs disrupt journey schedules. Even if none of his colleagues knew he was coming by car, he does not have to spell this premise out, it is

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1. I am grateful to Kasia Jaszczolt for comments on an earlier version of this paper. No one but myself is in any way to blame for its residual inadequacies.
 2. One can be more confident of identifying the consciousness of reasoning for non-expert players of games like chess and bridge, and for someone faced with a puzzle or a task such as learning a language or how to drive.

implicit in (and non-monotonically entailed by) what he has said. Such mundane enrichment of what is said rests upon knowledge of social and cultural conventions and the cognitive principles that govern our thinking, all of which need to be accounted for in a linguistic theory of utterance meaning. DS captures such inferences in merger representations (MRs).

Defaults are conceived of variously within Jaszczolt's DS, in Discourse Representation Theory (Kamp and Reyle 1993), Segmented Discourse Representation Theory (Asher and Lascarides 2003), the pragmatics of Bach (1994) and Recanati (2004), the presumptive meanings or generalized conversational implicatures of Levinson (2000), and in relevance theory, the presumption of optimal relevance in Carston (2002), Wilson and Sperber (2004) is not named a default, but to outsiders appears to function like one. All of these approaches assume some degree of semantic underdetermination identifiable from conceptual gaps in the output of lexicon and grammar. In other words, the logical form, which is the output of the grammatical processing of a sentence, typically does not provide the totality of meaning for the proposition expressed by the speaker, but leaves some modulation (see Cruse 1986; Recanati 2004) of the meaning to be inferred.

For DS “the domain of semantics [is] not the *semantics of sentences* but the *semantics of acts of communication*” (Jaszczolt 2005: 114, *sic*). DS subscribes to the view that truth conditions apply to the sentence enriched with information from pragmatic inference. That is, DS is a theory that equates semantics with representations of discourse processing by a model hearer of what is conveyed by the model speaker in the act of communication. Hence DS models a particular act of communication in a particular context on a particular occasion (*ibid.* 81, 85, 86, 109, 113) – which explains Jaszczolt's claim that (1) refers to Gaudí and la Sagrada Família. Important to the present discussion is Jaszczolt's belief that the default interpretation of definite descriptions is attributable to a property of the human mind/brain called “intentionality”, in virtue of which the mind targets a particular object of thought (see Jaszczolt 1999b Chapter 3 for extensive discussion)³. Successful reference is achieved when the speaker's labelling of the target is recognized as such by the hearer; for example, when the definite description directs the hearer's attention to the intended referent.

Intentionality cannot be called a process, it is an instantaneous ‘firing at’, ‘targeting’ objects. Hence, it is not a process of passing through sense to the referent. (Jaszczolt 1999b: 112)

3. See also Jacob (2003); Siewert (2006) on the varied views that exist of “intentionality”. The meaning is distantly related to the normal everyday use of *intention* but derives directly from Latin *intendere* ‘to stretch out or forth, to strain, direct, spread out, increase, turn one's attention, purpose, endeavour, maintain, assert’ via the medieval scholastics for whom it commonly meant ‘to understand, interpret’ and for whom *intentio* meant what philosophers and logicians nowadays call a *concept* or an *intension*.

I have nothing to say explicitly about whether or not intentionality is a process, but I shall show that direct reference cannot circumvent sense.⁴

In DS a “compositional merger representation” approximates content by presenting the most likely reconstruction by a model hearer of the event conveyed by the speaker in an act of communication (Jaszczolt 2005: 49, 78, 81). The merger representations of DS are based on the discourse representation structures (DRSs) of Discourse Representation Theory and consist of a set of discourse referents $\{v_{1...n}\}$ and a set of conditions $\{C_{1...n}\}$. In DS the conditions derive from the four sources shown in Figure 1.

Insert Figure 1 here

The term *primary meaning* [is] used as a theoretical term for the main meaning as intended by the model speaker and recovered by the model addressee and will be the object that is modelled in merger representations Σ . (Jaszczolt 2009: 128)

The distinction between primary meanings and secondary meanings is roughly that primary meanings comprehend not only literal meaning but what Bach (1994) would call “implicatures”, Carston (2002) “explicatures”, Asher and Lascarides (2003) “monotonic entailments”, and Recanati (2004) the results of “primary pragmatic processes”; some implicatures are also included because no temporal priority is given to syntax-based logical form (Jaszczolt 2005: 94). The secondary meanings are “implicatures” in the sense of Bach, Carston, Recanati, and non-monotonic entailments in Asher and Lascarides. However, instead of being outputs of processes such as enrichment, in DS the primary and secondary meanings are “a generalization over the speaker’s thought, as (re)constructed by the model hearer [...] representing the truth-conditional content. In other words, DS is a dynamic theory of meaning that has only those aspects of thought as its object that have been processed by the interlocutors in utterance interpretation” (Jaszczolt 2005: 239f). Thus DS extends Discourse Representation Theory to include truth-conditional pragmatics.

In the merger representations of DS, WS is the combination of word meaning and sentence structure. To my understanding, WS represents the locution, an identifiable expression e , consisting of a sentence or sentence fragment from language L , spoken with identifiable prosody, π , composed of the pattern of pause, pitch level, stress, tone of voice, and the like,

4. Sense is decontextualized meaning, abstracted from innumerable occurrences of the listeme or combination of listemes in texts; at the lexical level it is what is found in dictionaries, which leave the dictionary user to decide which of the senses given is relevant to a particular context in which the listeme is used.

such that the pair $\langle \pi, e \rangle$ has the sense ‘ μ ’ expressed via the logical form. One very significant difference between my conception of the locution and Jaszczolt’s conception of WS is that WS does not contain proper names. Since Mill 1843 there has been a tradition that names have no sense, they merely make direct reference, and this is the reason Jaszczolt excludes them from WS. Despite the fact that I mostly favour Kripke’s view of names as rigid designators (Kripke 1972) over the Fregean view that a proper name is a cluster of properties (Frege 1892), I argued in Allan (2001) that proper names do have senses of a peculiar kind which reflect facts such as that in most languages a majority of personal names are sex differentiated and almost as closely tied to language communities as the rest of its vocabulary (compare the names Agyeman, Chen, Cohen, Françoise, Giancarlo, Kwame, Lyudmila, Mei, Nguyen, Papadopoulos, Scheverdnadze, Tomiko, Wojciech⁵); furthermore, topographical names like Mount Disappointment, River Thames are normally inappropriate for human beings, and they have lexical links to topographical common nouns that are incorporated into the name; and so forth. Also, for a linguist, but perhaps not a philosopher, the (phonological/graphological) forms of names must somewhere be accounted for. In consequence, when writing of Jaszczolt’s WS, I retain her label unmodified, but when referring to the extended notion of WS (i.e. the locution that comprehends proper names and other “direct referents”) I shall use the trigraph WS+.

CDs, cognitive defaults, stem from the architecture and types of operations that the mind performs automatically; they react to the strongest intentionality. They are, by definition, unconscious; this is a theoretical postulate not supported by empirical evidence,⁶ and that raises issues that I discuss later.

CPI are conscious pragmatic inferences such as the example from Bach (1994: 134) of a child distressed by a minor cut whose mother says (2) and is understood to mean ‘you are not going to die from this cut’.

(2) You’re not going to die.

SCWD, social, cultural, and world-knowledge defaults, arise from previous experience and the cultural (cum societal) common ground. An example of a primary SCW default is

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5. These are respectively an Akan family name, Chinese family name (陈, also Romanized to Chan and Tan), Jewish family name, French name for a female, Italian name for a male, Akan name for a boy born on Saturday, Russian or Ukrainian name for a female (людмила), Chinese name for a female (měi 美 ‘beautiful’ [most common], méi 梅 ‘plum blossom’, méi 玫 ‘rose’, mèi 媚 ‘charming’, also mèi 妹 ‘sister’), Vietnamese family name (Nguyễn), Greek family name (Παπαδόπουλος), Georgian family name (შვერდნაძე), Japanese name for a female (富子), Polish name for a male.
 6. Despite the fact that Jaszczolt does refer to the metarepresentational hypotheses advanced in Bloom (2002); Happé and Loth (2002); Papafragou (2002); Sperber (2000) but they don’t have much bearing on and certainly don’t outweigh my objections.

recognizing that (3) refers, *inter alia*, to Leonardo da Vinci and the Polish city of Cracow. Secondary SCWD requiring more specialized encyclopaedic knowledge may identify the names of the painting (Lady with an ermine), the museum (Czartoryski), and when the theft and return took place (1940, 1945).

(3) A painting by Leonardo was stolen from a museum in Cracow.

The novelty of DS as compared with other contextualist, post-Gricean theories is that its merger representations model the most salient meaning, called “primary meaning”, rejecting the so-called syntactic constraint by allowing for other sources of meaning to override WS and thereby radically modulate the logical form of the uttered sentence.⁷ Compositionality is therefore postulated at the level of the merger representation as well as at prior levels such as the level of WS, in agreement with the proposal of pragmatic, Gestaltist compositionality by François Recanati and others.

According to Jaszczolt, in the context of the interlocutors standing looking at la Sagrada Família in Barcelona, (1), repeated below, means by default that Antoni Gaudí designed la Sagrada Família.

(1) The best architect designed this church.

The justification is given in Figure 4.3 of Jaszczolt (2005: 110), reproduced here as Figure 2. Note that the intended reference of “the best architect” is resolved to “Antoni Gaudí” and that of “this church” to “la Sagrada Família”. The references for variables x and y are said to be cognitive defaults (CDs) and that the propositional structure derives from a combination of word meaning and sentence structure (WS). I have no objection to the latter, but I would question the matter of cognitive defaults as presumed in Figure 2.

Insert Figure 2 here

Although Merger Representations in DS are inspired by the DRSs of Discourse Representation Theory, they are notably different as can be seen by comparing the MR in Figure 2 with the (simplified) DRS for (1) in Figure 3, which sticks closely to the WS in the locution.

7. The syntactic constraint is ‘the requirement that the primary object of study of the theory of meaning, and at the same time the primary object of a truth-conditional analysis, is directly related to the logical form of the sentence and does not depart from it in a way that changes it beyond recognition. Evidence from utterance processing points, however, in a different direction.’ (Jaszczolt 2009: 127)

Insert Figure 3 here

In Figure 2 the variables are labelled by the names of the objects and the event referred to, the sources for these names being, *ex hypothesi*, furnished by cognitive default.⁸ Such defaults are claimed to be instantaneous and automatic, arising without computation of intentions or other inference from contextual clues (*ibid.* 52, 53). However, I am not convinced that there is no inference under influence from contextual clues in respect of Jaszczolt's interpretation of (1) as given in Figure 2. The supposed default interpretations always rely on context and common ground and what makes them "default" is that they are the most probable (salient) in the absence of additional information. Take the name *Elizabeth Taylor*: among my acquaintance this is most likely (by cognitive default) to refer to the stunningly beautiful American actress born February 27, 1932 in London, star of such films as *Lassie Come Home*, *National Velvet*, *Giant*, *Cat on a Hot Tin Roof*, *Cleopatra* and *Who's Afraid of Virginia Woolf*.⁹ There was a 20th century novelist of the same name, but few people would know that; and even fewer would, by default, recognize the name *Elizabeth Taylor* to refer to an otherwise obscure woman living in Tucson around 1990. And it is not only proper names that have default referents; there are different default interpretations given to the animal nouns in (4)–(7).

- (4) Jacqueline prefers leopard to fox.
- (5) Harry prefers lamb to goat.
- (6) All we had to eat was leopard.
- (7) I'd prefer the lining to be made of lamb, because it's softer.

The animal nouns in (4) and (7) refer to types of fur; those in (5) and (6) to types of meat (see Allan 1981 for discussion). It may be arguable that the interpretations of (4) and (5) are social or cultural (fall into the SCWD category), whereas those in (6) and (7) are more closely dependent on the WS+, but the matter is far from cut and dried. Consider another example of a default nonmonotonic inference which is, I am sure, a cognitive default, though it is not compatible with the category of CD as defined in DS (where CDs arise from referential

8. The subscripts _{CD, WS, CPIpm}, etc. that are found in MRs are for the benefit of theoretical presentation. It would be most unlikely that ordinary language users are aware of them, consciously or unconsciously.

9. I would not expect most people to whom I attribute this cognitive default to be able to supply more than a subset of such biographical details when correctly identifying the name bearer.

intentions)¹⁰. (8) most likely refers to a bovine animal (an I-implicature in terms of Levinson 2000).

(8) We saw a bull. +> we saw a bovine¹¹

However, the context may override this default nonmonotonic inference, for example when whale spotting or talking about a herd of elephants because (in part) the WS+ of *x is a bull* will identify it as denoting a male animal of certain orders of large creatures including Bovinae, Cetacea, Crocodilia, Hippopotamidae, Proboscidae. For someone who doesn't know this, the default nonmonotonic inference of (8), a cognitive default, functions instead as part of the WS+ (in other words, for them, *x is a bovine* would be monotonically entailed by *x is a bull*). The error is a function of ignorance, analogous to that of someone who believes *if x is a whale then x is a fish* or a very young child who names any man *Daddy*.

Anyone who has been to El Temple de la Sagrada Família will be aware that it is visually dominant such that an utterance of (1) made when standing in front of it will unambiguously refer to la Sagrada Família unless the speaker is very obviously NOT referring to it because, for instance, s/he is pointing to a picture or description of another church (such as the Basilica di San Marco) in a guide book. In order to clarify the significance of context on the interpretation of (1), I propose we place the following condition on it: in Figure 4, S (she) utters (1) to H (him) when standing in front of building B.

Insert Figure 4 here

Ordinarily, the complex demonstrative *this church* refers to the most salient church in the foreground of attention.¹² There are several reasons for thinking that, in the situation of utterance described by Figure 4, the reference to “this church” would be unambiguous. One is that S will know at least roughly where she is and under most circumstances; so will H. Even if S and H had not planned to be in front of la Sagrada Família and merely happened upon it, they would see¹³ that (based on encyclopaedic knowledge) B looks like a church. It is

10. I'm grateful to Kasia Jaszczolt for reminding me of this. In the rest of the paper I will retain CD for the relevant category in DS as described by Jaszczolt and spell out *cognitive default* for other cases which I regard as cognitive defaults.

11. This seems to justify a defeasible consequence relation $[A] > [B]$ of SDRT in $[A]$ *if something is a bull*, $[B]$ *it's bovine* since $[A] \sim [B]$, cf. Asher and Lascarides 2003: 48, 169f.

12. But not when introducing the referent into the foreground of attention as in *Yesterday I came across this church with a gold-plated roof. It was just such an amazing sight*.

13. I'm assuming neither is blind. Blindness would complicate matters, but not invalidate the general argument.

conceivable that in such a circumstance, S is not aware of the name of the church; nevertheless, (1) would still be a credible utterance and so would (9), in which S accesses her encyclopaedic knowledge (see Allan 2001; 2006).

(9) This church must be that one designed by Gaudí.

In both (1) and (9) “this church” indubitably refers to B (because of its visual salience) without any recourse being necessary to the name of the church. In other words, the name of B is necessarily an additional inference from common ground (constituted from discourse context, situation of utterance, and input from relevant encyclopaedic knowledge, see Allan 2001). Thus the “[la Sagrada Família]_{CD}” constituent of the MR in Figure 2 is justified only by recourse to context and/or encyclopaedic knowledge. But note that this is a name given by Jaszczolt the theoretician and not assigned by either S or H, it is in fact exactly equivalent to what I have been labelling B; in other words it serves to identify the referent by naming it appropriately, but does not indicate that the name itself is any part of (1). Nevertheless, it is important to show how the referent correlates with the name *Sagrada Família* attributed to it.

At this point we need to reconsider the nature of a “merger representation”. The label is descriptive: a MR is a representation that merges meaning from several sources, namely, WS, CD, SCWD, and CPI. It is therefore an end-product of composition. Missing from DS theory is an account of how the MR is composed, which is why Figure 2 is said to be merely a “partial” merger representation.

Merger representations of Default Semantics [...] model the primary meaning which [...] is free from the syntactic constraint that characterises explicatures (developments of the logical form of the sentence, Sperber and Wilson 1995) and *what is said* (automatic enrichments of the sentence, Recanati 1989; 2004). They also go further than these other contextualist construals in that they offer a degree of formalization for these primary meanings. However, this formalization, while a big step forward in post-Gricean pragmatics, is substantially inferior to the formal accounts of discourse in dynamic semantics, such as DRT. It is inferior precisely because its object of study is too ‘pragmaticky’ to yield to formalization easily. An algorithm for the interaction of WS, CPI_{pm}, CD and SCWD_{pm} is still a task for the future. (Jaszczolt 2009: 152)

The main purpose of my paper is to begin the process of bolstering the theory of DS by identifying the interaction of these sources (WS, CPI_{pm}, etc.) with respect to a couple of definite descriptions and thereby set a pattern for the interpretation of definite descriptions within MRs.

Suppose S utters (1) in the context given by Figure 4 but S mistakenly believes the church is La Seu (la Catedral de Santa Eulàlia), so that she could comment on (1) by saying (10).

(10) In saying *the best architect designed this church* I am talking about La Seu.

It is clear that there is nothing wrong with (1) on account of (10): S could honestly believe that the best architect designed B, referred to as “this church”. The error that (10) reveals is the naming of B: in the context obtaining, (10) is referentially incorrect only because B is wrongly named.

Let’s now take the case of (11) as uttered by H to S in the context described by Figure 5. H’s referent for “this church” is readily identified as B, which is church-like even though it is in fact a mosque. Whether or not H can name the building as the Great Mosque of Djenné is irrelevant to S’s successful interpretation of the utterance in (11) as referring to B.

(11) The best architect designed this church.

Insert Figure 5 here

It is clear from (1), (10), and (11), that successful reference to B as “this church” is independent of the correct naming of B and even independent of whether B is literally a church (which it isn’t in Figure 5). Consequently, the default interpretation of the constituent “this church” merely needs to be ‘the most salient church or church-like building in the foreground of attention’. I take this to be the true cognitive default of “this church” in (1), (9), (10), and (11), and it requires a rewriting of the MR in Figure 2. – despite Jaszczolt’s belief that the “[la Sagrada Família]_{CD}” constituent of the MR simply identifies the referent B with a label convenient for the theorist (as mentioned earlier). The interpretation ‘the most salient church or church-like building in the foreground of attention’ is also a component of WS+, a matter I shall discuss later.

Although the speaker of (1), S, may know that she is referring to a building named la Sagrada Família, hearer H may not (for instance, if H is a young child). H does not need to know ‘Antoni Gaudí designed El Temple de la Sagrada Família, and the speaker believes him to be the best architect’ in order to perfectly adequately understand (1), because the default interpretation of the constituent “this church” is ‘the most salient church(-like building) in the foreground of attention’ and it is a matter of general knowledge that such buildings are architect designed. In the context of Figure 4, this knowledge is the only source for S’s reference to B’s architect. The advantage of this literal interpretation is that it does not interfere with H attributing the wrong name to the church, B – for instance, erroneously believing (whatever the speaker might believe) that B is La Seu. Although it is conceivable

that this mistaken identity is never rectified, it is more likely that it will be corrected very quickly – because the speaker of (1) names the church or the architect, or on approaching the church a signboard is seen, and so on. What difference does such an error make to H’s understanding of (1)? None. The referent of “this church” was recognized correctly as B, the fault is merely that the wrong name was (perhaps temporarily) assigned to B. We may represent such coherent discourse as (12):

(12) S says *the best architect designed this church*. H understands that S says the best architect designed La Seu (B).

This contrasts with the incoherent discourse that results if “this church” is equated with ‘La Sagrada Família’ as in (13):

(13) S says *the best architect designed La Sagrada Família* (B). *H understands that S says the best architect designed La Seu (B).

We can recast (12) as containing the (mistaken) I-implicature in (14). If H had attributed the correct name to the church, the resulting nonmonotonic inference would be (15).

(14) H understands that S says ‘The best architect designed the most salient church(-like thing) in the foreground of attention’ +> the best architect designed La Seu.

(15) H understands that S says ‘The best architect designed the most salient church(-like thing) in the foreground of attention’ +> the best architect designed La Sagrada Família.

(15) is an appropriate interpretation of (1) in which S’s reference to the church in (1) (uttered under the conditions specified in Figure 4) achieves success.

I turn my attention next to the interpretation of (1)’s “the best architect”. Let’s ignore the infelicity arising from the unspecified domain: Does S mean the best in Barcelona? In Catalonia? In the world? In the 19th century? The best ever? Leaving that aside, consider three different scenarios, all in the context described by Figure 4, where S is addressing H as they stand before B.

Suppose S were to follow up (1) with (16):

(16) In saying *the best architect designed this church*, I (S) meant that whoever designed la Sagrada Família (B) was the best architect.

Let’s make the default assumption that S is speaking felicitously, that is, she has genuine aesthetic grounds for stating her opinion that the design of B is such that it must be the work of “the best architect”. It is notable that this may simply be an attributive usage (as per Donnellan 1966) where S cannot name the architect. However (16) is also appropriate (though perhaps only marginally so) when S is able to correctly name the architect; her judgment of

his skill is based on this building alone. In such a case, the optimal phraseology (without actually naming Gaudí) would be (17).

(17) In saying *the best architect designed this church*, I (S) meant that the person who designed la Sagrada Família (B) was the best architect.

However, (17) is ambiguous between what Donnellan and Jaszczolt (along with many others) call attributive and referential uses: “the person who designed la Sagrada Família” can be attributive (refer to whosoever the architect was) or, alternatively, refer to Gaudí. As an attributive, the role of the senses of the definite descriptions is direct; when (1) or (17) is referring to Gaudí, the role of the sense is indirect (cf. Reimer 1998). To be directly referring to Gaudí, the speaker would need to name him in the utterance – as is done in (19) below.

A second possibility is that S follows up (1) with (18):

(18) In saying *the best architect designed this church*, I (S) meant that Antoni Gaudí designed la Sagrada Família (B).

This is, of course, what Jaszczolt described as the speaker’s default intention and the default interpretation by a model hearer. They are certainly the ones that well-educated folk would be expected to make in the context described by Figure 4. The reference of the complex demonstrative would count as a Reimer “standard” reference¹⁴, and this is consistent with Jaszczolt’s belief. However (18) demonstrates that Jaszczolt’s interpretation of (1) is indirect by making the indirect direct. To be direct the speaker must utter (19).

(19) Antoni Gaudí designed la Sagrada Família.

(1) and (19) satisfy different discursive functions and expectations, just as do the names *Hesperus* and *Phosphorus*. Notably, (19) offers no evaluation of Gaudí’s prowess as an architect; nor does Jaszczolt’s MR in Figure 2. In (1) the speaker refers but does not name; in (19) the speaker refers by naming.

The indirectness of (1), given Jaszczolt’s interpretation, accounts for my objection to construing it as identical with (19) by cognitive default. Jaszczolt would dispute this because in her theory, CDs are (said to be) automatically associated with referents as a result of the speaker’s intentionality and are therefore not inferred. I am claiming the contrary: the content of her CDs is in fact inferred. The naming has to be supplied from one’s mental encyclopaedia, which – as we shall see – falls into the Jaszczolt category of Conscious Pragmatic Inference; however, because CPI cannot be satisfactorily distinguished from

14. Bach 2004 rightly points out that standardization facilitates a certain use whereas conventionalization makes a certain sort of use widely accepted. It is probable that conventionalization often derives from earlier standardization.

UNconscious pragmatic inference, I would more willingly refer to it as simply pragmatic inference (PI).

S's grounds in (1) for her judgment that she is looking upon the work of "the best architect" are ambiguous. She may mean that the design of B is such that it must be the work of "the best architect", whether or not she can name the architect. Or S's grounds are that she has seen (for instance) La Casa Vicens, La Casa Batlló, La Pedrera, Parc Güell in addition to la Sagrada Família and, on the basis of these works, judges Antoni Gaudí "the best architect". Indeed, S might have described him as "the best architect" even if he had not designed la Sagrada Família.¹⁵ S could gloss this state of affairs as (20):

(20) On the basis of the many buildings I (S) have seen in Barcelona designed by Gaudí, I would say that the man who designed this church (B) is "the best architect".

Of course, S didn't say this in (1) under conditions described by Figure 4. What she did say in (1) is most accurately glossed in (21) (the reasons were given when discussing (17)–(19) above).

(21) In saying *the best architect designed this church*, S meant that the person who is the best architect designed the most salient church(-like building) in the foreground of attention.

Obviously, I take the same point of view as Kripke (1977), Salmon (1991), Neale (2001), and Kent Bach:

one cannot understand a referential use of a definite description without grasping its literal, quantificational meaning. (Bach 2004: 226)

("Quantificational meaning" arises from what is elsewhere referred to as "attributive use".) As is evident from what is said in this paper, I do not find convincing the counterarguments of e.g. Kaplan (1989), Wettstein (1983), Reimer (1998), and Devitt (2007). In Michael Devitt's words:

The speaker's route from the singular thought that x is G to the use of 'the F ' to refer to x in 'the F is G ' is *via* the general quantificational thought that, according to Russell, is expressed by 'the F is G '. So, the quantificational meaning is *what is said*. And the hearer's route to understanding the referential 'the F is G ' is *via* thinking that quantificational meaning. The quantificational meaning can play this role because it *identifies* the referent of a referential use. (Devitt 2007: 23)

15. A more credible example of such a thing is *The world's best playwright wrote 'Troilus and Cressida'*. If this were the only play of Shakespeare's to have survived, he is unlikely to have been regarded as the world's best playwright. However, the proposition that *The world's best playwright wrote 'King Lear'* might be justified on the basis of *Lear* alone.

Devitt subsequently and unconvincingly refutes this argument on the basis that most uses of definites are of incomplete ones; see Bach (2004) for why he is wrong.¹⁶ Unlike Jaszczolt, I find that the attributive reading of *the best architect* is the cognitive default. I'll come back to this.

To continue discussing (other) possible interpretations of (1): in a third scenario S might explain her utterance (1) (in the context described by Figure 4) by saying (22).

(22) In saying *the best architect designed this church*, I (S) meant that Frank Gehry designed la Sagrada Familia (B).

First of all let's assume that "Frank Gehry" is not somehow a mismatch between tongue and brain such that the speaker had in mind Antoni Gaudí but misnamed him. In other words, S believes as she utters (1) that Frank Gehry designed B and that he deserves the accolade "the best architect". This erroneous but intended attribution in no way destroys the comprehensibility of (1) which still has the meaning that I attribute to it in (21). Only additional discourse will reveal S's mistake or perhaps, even though she may recognize her own error, it may never be explicitly corrected. What (22) does demonstrate, though, is the inapplicability of the merger representation in Figure 2.

Insert Figure 6 here

What do we conclude from all this? I propose that Figure 2 be revised as shown in Figure 6 which shows the true DEFAULT reading for (1). The speaker's act of referring applies locution $\langle \pi, e \rangle$ meaning 'μ' to a particular situation in world w_i at time t_i . According to Figure 6, (1) refers to three things: (unit) sets x and y and the proposition predicated of them, x *designed* y . The referents of x and y are named in their predications as determined by the logical form represented in the second and third lines of the MR of Figure 6, and the proposition is named directly through resolution of the WS+ in the bottom line.

On the assumption that the analysis presented via Figure 6 is correct, what would the merger representations look like for the interpretations of (1) in the light of (12), where H believes that "the best church" refers to La Seu, in (16) or (17) where "the best architect" is

16. It is notable that proper names are often incomplete, as we saw when discussing the name *Elizabeth Taylor*. Under normal circumstances they refer successfully because the context of use makes completeness unnecessary.

used attributively¹⁷, in (18) and (19) which refer to both Antoni Gaudí and la Sagrada Família, and (22), which refers to Frank Gehry and la Sagrada Família?

Insert Figure 7 here

I take up the merger representation for (1) as interpreted in (22). Based on Figure 4.4 in Jaszczolt (2005: 113), Jaszczolt would have the merger representation in Figure 7.¹⁸ No satisfactory explanation is offered for the difference between the “[Antoni Gaudí]_{CD(x)}” of Figure 2 and the “[Frank Gehry]_{CPI_{pm}(x)}” of Figure 7. The fact that the former is accurate with respect to the context described in Figure 4 while the latter isn’t should surely not be represented as the difference between a cognitive default (CD) and a conscious pragmatic inference (CPI) – yet this is the only explanation offered. No other criterion is given to justify the epithet “conscious” which contrasts with the implied unconsciousness of a cognitive default. There is no evidence presented (or imaginable) that the erroneous attribution of the accolade “the best architect” to Frank Gehry in Figure 7 is any more conscious than attributing the compliment to Antoni Gaudí in Figure 2. Both are pragmatic inferences (PI) and what distinguishes them is that, for obvious reasons, Antoni Gaudí will be recognized as the architect of la Sagrada Família more frequently by more people and probably with greater certitude than Frank Gehry; those are the criteria that render it a cognitive default. In this light I would replace Figure 7 with Figure 8.

Insert Figure 8 here

Recall that merger representations are the end product of various processes; they are composed from the sources WS, CD, CPI, SCWD. I have suggested that in the interpretations of (1) we have been discussing, CD and CPI should be replaced by PI, and in what follows that will be my practice. How should we arrive at the MR in Figure 8 on the basis of the locution in (1)? The locution in (1) gives rise to a default interpretation that was presented as a MR in Figure 6. There is clearly a case for saying that the MR in Figure 8 essentially derives from the particularized nonmonotonic inferences in the interim DRS of Figure 9

17. Bach’s and Devitt’s ‘quantificational meaning’.

18. Updated with the terminology of Jaszczolt 2009.

which arise via the maxim of relation from the context supplied in Figure 4. The use of +> picks up on the representations used in (8), (14) and (15). The nonmonotonic inference is probabilistic and can be cancelled, as one is when *The best architect designed this church, but I'm not talking about la Sagrada Familia* is uttered in the context described by Figure 4.

Insert Figure 9 here

The interim DRS in Figure 9, which yields the truth value false, demonstrates the link between the WS+ of (1) and the merger representation in Figure 8 to which it serves as input. We need to reinterpret the maxim “the domain of semantics [is] not the *semantics of sentences* but the *semantics of acts of communication*” (Jaszczolt 2005: 114) to include both the semantics of acts of communication and the semantics of sentences.

According to Jaszczolt, (1) as construed in (18) will have the merger representation in Figure 2. The basis for this is the DRS in Figure 10, which only differs from that in Figure 9 by correctly naming the architect (i.e. it is true instead of false). It also gives rise to the modification of Figure 2 (different subscripting) shown in Figure 11.

Insert Figure 10 here

Insert Figure 11 here

The MR for (19), which names the referents, is shown in Figure 12. The sources for semantic interpretation are given as WS+ instead of CD. It is reasonable to suppose that “[Antoni Gaudí]_{WS+(x)}”, sourced directly from the name “Antoni Gaudí” in (19), gives rise to the cognitive default “[Antoni Gaudí]_{CD(x)}” and that would make Figure 2 instead of Figure 12 the appropriate MR for (19) (instead of being the MR for (1)). Were there no difference between Figure 11 and Figure 12, there would be no accounting for the lexical difference between (1) and (19). We should not and must not simply ignore that lexical difference and pretend that (1) and (19) necessarily have the identical interpretation – even though they may have identical reference. In a linguistic theory the path to reference is a matter of interest. The fact that (19) refers to Gaudí and la Sagrada Família directly by naming them and (1) does so only indirectly via nonmonotonic inference is consistent with Grice’s requirement that “the implicature depends on the manner in which what is said has been said” (Grice 1978: 115).

Insert Figure 12 here

As sources for the pragmatically inferred names, Figures 9 and 10 use the attributive readings of *the best architect* and *this church* (namely [the person who is the best architect]_{WS+(x)} and [the most salient church(-like building) in the foreground of attention]_{WS+(y)}). As I have said, I believe these readings constitute the true cognitive defaults. Consequently my analysis of attributives differs from that of Kasia Jaszczolt. According to Jaszczolt, the attributive reading of (1), as in (16) or (17), has the merger representation in her Figure 4.5 Jaszczolt (2005: 113) reproduced here (updated) as Figure 13. My own MR is given in Figure 14.

Insert Figure 13 here

Insert Figure 14 here

In this paper I have proposed some changes to the theory of Default Semantics as presented in Jaszczolt (2005; 2009). I have found it impossible to distinguish the notion of cognitive default within DS from the notion of conscious pragmatic inference and proposed that they be amalgamated into a single category of pragmatic inference, PI. To arrive at the speaker's message in what is said a hearer needs to make pragmatic inferences. Some PIs together with those meanings deriving directly from WS or WS+ might be classed as cognitive defaults on the criteria of being the interpretations arrived at more frequently by more people and normally with greater certitude than any alternatives. However, a method has yet to be devised for measuring frequency and extent of use combined with degree of certainty, and then converting these records into weightings that can be used in interim DRSSs and MRs. Pragmatic inference is in part reliant on context and common ground. As I have shown, it is necessary to describe these whenever indexicals are used, and the definite descriptions under discussion here are indexical. But in truth, description of context and common ground is necessary in the interpretation of virtually all utterances.

I also proposed that Jaszczolt's category WS, the combination of word meaning and sentence structure, be extended to incorporate proper names and other means of so-called "direct reference", such that WS+ symbolizes all constituents of the locution. This proposal is at ideological odds with Jaszczolt's theory, but I cannot comprehend how a linguistic theory

such as DS (or DRT, if it is a linguistic theory) can ignore the semantic and locutionary aspects of proper names and demonstratives – strange though their semantic aspects are. I have suggested that semantic interpretations of the combination of word meaning and sentence structure in the locution, WS+, such as I give in Figures 6, 9, 10, 12, and 14, might reasonably be described as cognitive defaults on the criteria just given. However, there seems to be no good reason to bring in cognitive defaults as a source in any of these MRs; Occam’s Razor warns against it. One outcome of this essay is therefore to raise the question of the usefulness of the category of cognitive defaults within the theory of DS. For the time being I leave that matter open because this paper has concerned itself with just a tiny fragment of semantic interpretation and because my own interpretation of cognitive defaults differs from the definition of CDs within DS.

I concur with Kasia Jaszczolt that the DS program needs to be supplemented by an account of the rules for composing MRs. Hitherto DS has failed to map the route from the linguistic cues provided by the sentence used in an utterance, instead going straight for the speaker’s illocutionary point. Jaszczolt [To appear] recognizes this when she writes: “What a semantic theory needs is an algorithm to show how all the sources of information about meaning interact.” This paper has sought to bolster the theory of Default Semantics by showing a means of mapping from locution to referential success via an interim DRS that, inferring from context and common ground, enables a path to be plotted from (1), *The best architect designed this church* uttered in the situation prescribed in Figure 4, to Jaszczolt’s assumption that the speaker is referring to Antoni Gaudí and la Sagrada Família – a path that was hitherto unmapped. In short, this paper makes an initial move to map meaning from form in Default Semantics.

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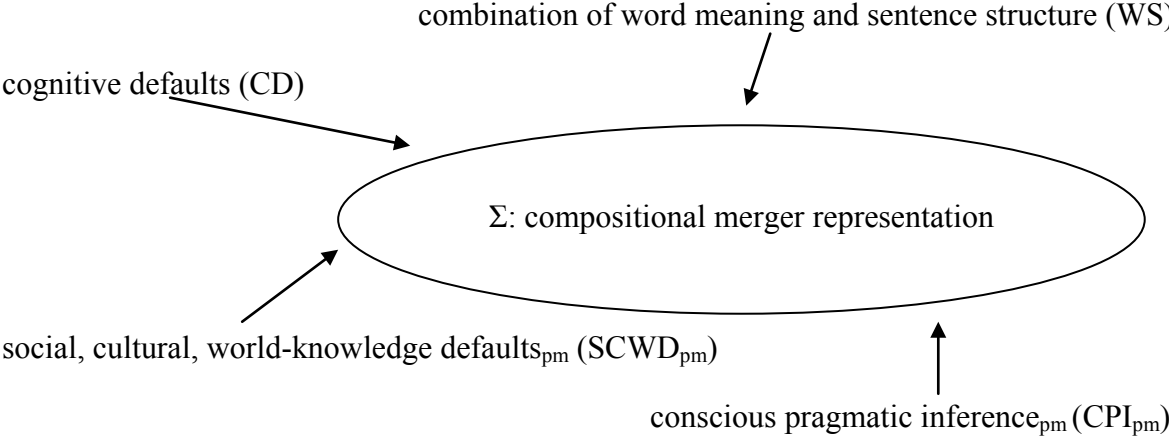
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FIGURES

Primary meaning:



Secondary meanings:

- social, cultural and world-knowledge defaults_{sm} (SCWD_{sm})
- conscious pragmatic inference_{sm} (CPI_{sm})

Figure 1. Utterance interpretation in Default Semantics

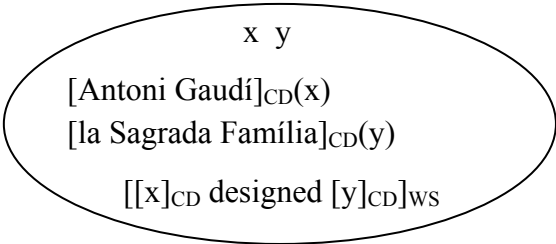


Figure 2. (Partial) merger representation (MR) for the default reading of (1)

x, y
best_architect(x) church(y) designed(x,y)

Figure 3. Simplified DRS for (1)

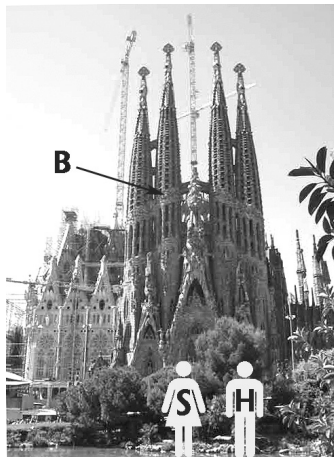


Figure 4. S utters (1) to H as they stand before B

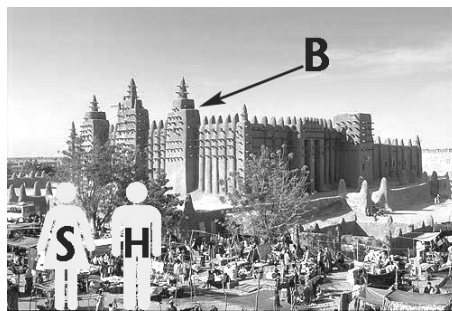


Figure 5. H utters (11) to S as they stand before B

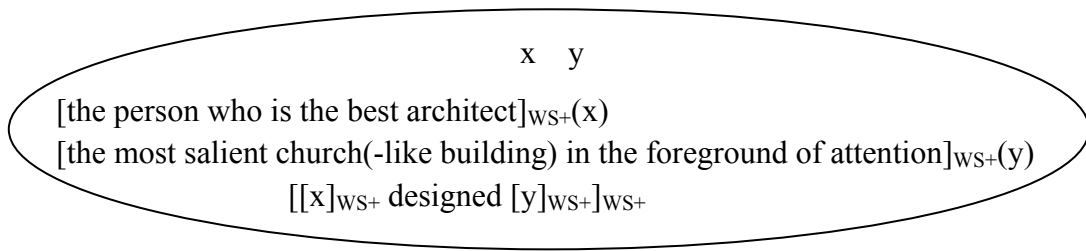


Figure 6. The (true) default reading of (1)

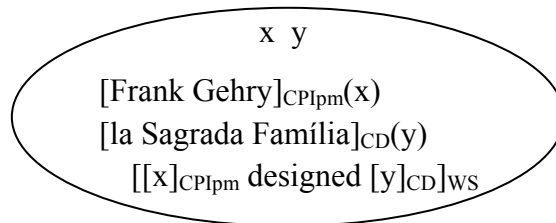


Figure 7. Jaszczolt style MR for the reading of (1) on the basis of (22)

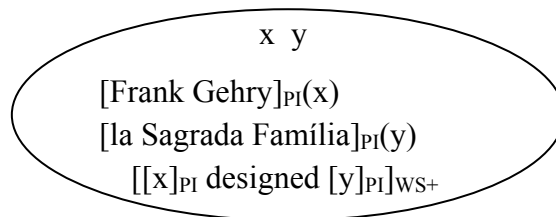


Figure 8. Revised MR for the reading of (1) on the basis of (22)

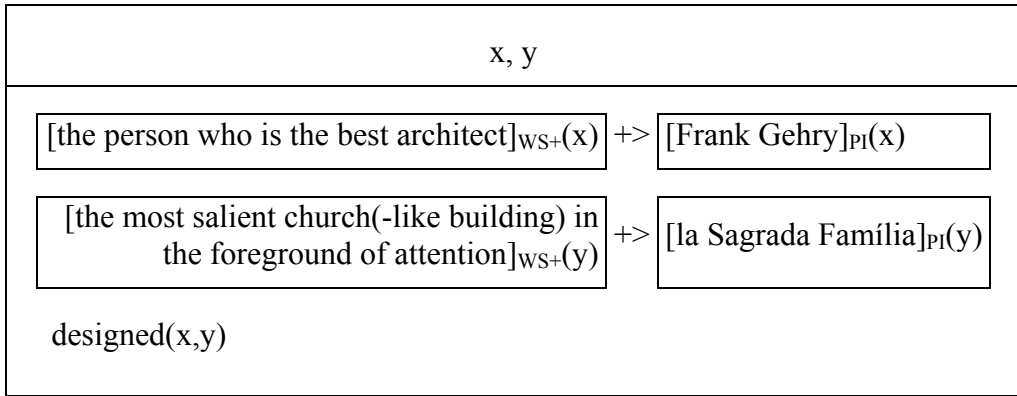


Figure 9. Interim DRS demonstrating the link between the WS+ of (1) and the MR in Figure 8

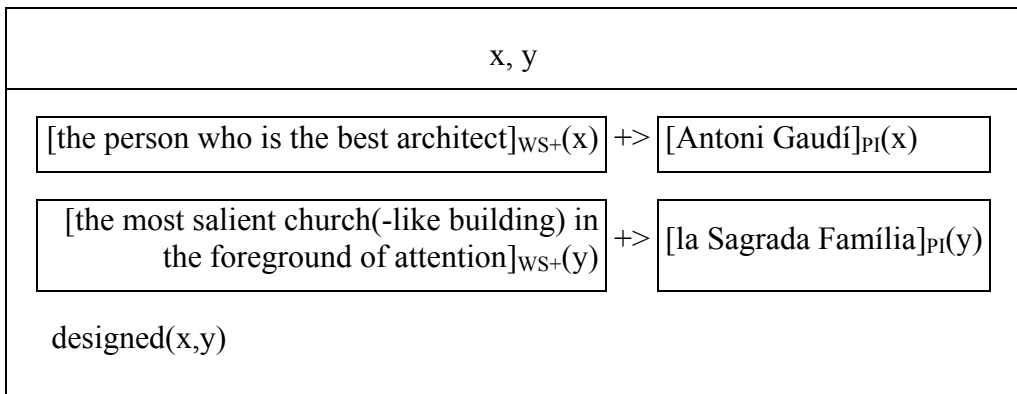


Figure 10. Interim DRS demonstrating the link between the WS+ of (1) and the MR in Figure 11

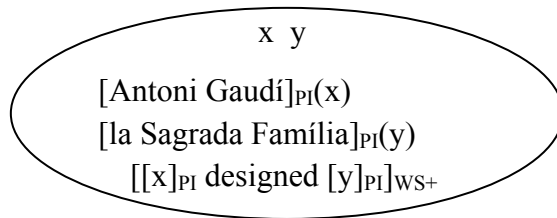


Figure 11. Revised MR for (1) based on Figure 10

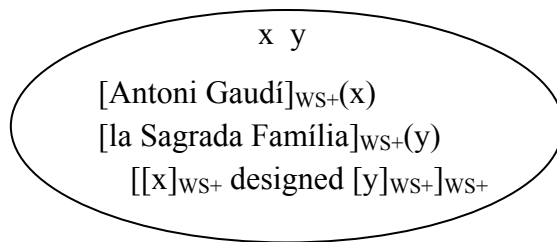


Figure 12. The MR for (19)

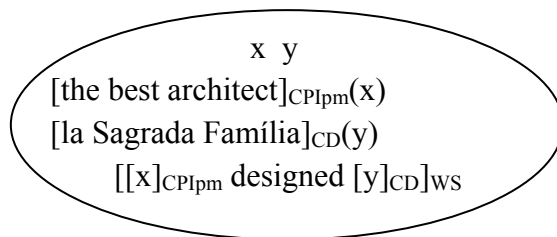


Figure 13. Jaszczolt's (partial) MR for the attributive reading of (1)

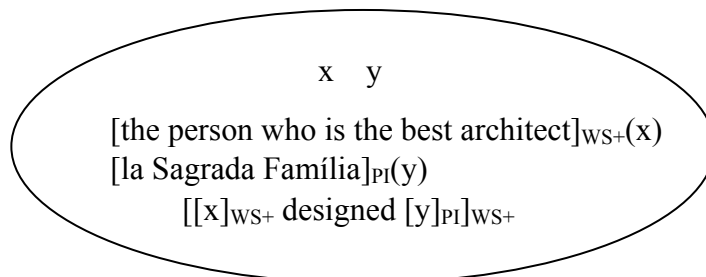


Figure 14. MR for the attributive reading of (1) on the basis of (17)