

Referring as a pragmatic act

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Abstract

Descriptions of pragmemes and pragmatic acts in Mey (2001) and Capone (2005) seem to reduce pragmemes to little more than illocutionary or perlocutionary types. Emphasizing the importance of context to the proper delivery and interpreting of speech acts scarcely justifies introducing new terminology: the importance of common ground (discourse context, situation of utterance, and input from relevant encyclopaedic knowledge) in determining the forms and meanings of speech acts has been recognized, if not by Austin (1962), at least since Bach and Harnish (1979). My paper expands the notion of ‘pragmatic act’ to include other things done with language than performing illocutionary acts, even if the acts I shall identify can rightly be included as components of speech acts. I examine some assumptions of Default Semantics (Jaszczolt 2005) as a means of eliciting what certain pragmemes may be expected to accomplish. In particular I shall consider (1) whether intentionality counts as a pragmatic act – as perhaps an instance of contextualized adaptive behaviour; (2) whether a speaker’s referring counts as a pragmatic act; and (3) whether the hearer’s understanding of an utterance, being the social default in a given situation, counts as a pragmatic act. And, for those that are pragmatic acts, I suggest a programmatic description for the pragememe that will define such acts. I shall also propose some emendations to the theory of Default Semantics.

Key words

Reference (direct and indirect), Naming, Default Semantics, Pragmatic act, Pragememe

1. Introduction

In this paper¹ I discuss referring as a pragmatic act, using as a vehicle for discussion the notion of reference within the theory of Default Semantics (Jaszczolt 2005; 2009). The facts that referring is

1. I have benefited from the comments on earlier versions of this paper of Kasia Jaszczolt, Humphrey van Polanen Petel, Mike Balint, and three anonymous readers. I suspect most of them will object to parts of this version, too – for which they are in no way to blame.

(a) pragmatic and (b) an act are not controversial; but, so far as I know, referring has not hitherto been described as a pragmatic act in the sense of Mey (2001; 2006), so that in this paper I extend the range of Mey's term. I begin by discussing pragmemes and pragmatic acts, then sketch the theory of Default Semantics which favours the notion of 'direct reference'. I dispute the reasonableness of direct reference as a norm for definite descriptions. I carefully specify a couple of contexts in which the utterance *The best architect designed this church* can plausibly be used and discuss various ways in which the NPs in it may refer, both successfully and unsuccessfully. For a speaker to successfully refer requires astute assessment of the common ground and choice of the best language expression to point the hearer to the intended reference in the prevailing circumstances. What's new in this paper is the attempt to tie referring to exactly those particular contexts of utterance and, in addition, to argue for the validity of the quantificational analysis for definite NPs like those in *The best architect designed this church* within the cognitive processes that operate on the prevailing contexts of utterance.

2. Pragmemes

The theory of pragmatic acts [... focuses] on the environment in which both speaker and hearer find their affordances, such that the entire situation is brought to bear on what can be said in the situation, as well as on what is actually being said. [...]he emphasis is not on conditions and rules for an individual (or an individual's) speech act, but on characterizing a general situational prototype, capable of being executed in the situation; such a generalized pragmatic act I will call a *pragmeme*. The instantiated individual pragmatic acts, [...] *practs*, refer to a particular pragmeme in its realizations. (Mey 2001: 221)

A pragmeme is a speech act – an utterance whose goal is to bring about effects that modify a situation and change the roles of the participants within it or to bring about other types of effect, such as exchanging/assessing information, producing social gratification or, otherwise, rights/obligations and social bonds. [...]

A pragmeme is a situated speech act in which the rules of language and of society synergize in determining meaning, intended as a socially recognized object sensitive to social expectations about the situation in which the utterance to be interpreted is embedded. (Capone 2005: 1357)

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 implicit in (and non-monotonically

entailed by) what he has said. The situation demanded a pragmeme of apology; this particular way of apologizing is a pract which has many characteristics shared by other allopracts of the same pragmeme. 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.

The descriptions of pragmatic acts and pragmemes from Mey (2001) and Capone (2005) seem to reduce them to little more than illocutionary – or, perhaps, perlocutionary – types. The importance of common ground (constituted from discourse context, situation of utterance, and input from relevant encyclopaedic knowledge, see Allan (2001); Stalnaker (2002)) in determining the forms and meanings of speech acts has long been recognized, if not by Austin (1962), at least since Bach and Harnish (1979), so emphasizing the importance of context to the proper delivery and interpreting of speech acts scarcely justifies introducing new terminology. We could note that pragmemes like *assenting*, *insulting*, and *offering* can be performed non-linguistically as well as verbally, but I shall not be considering that aspect of them here. Instead, I want to expand the notion of ‘pragmatic act’ to include other things done with language than performing illocutionary acts, even if the acts I shall identify can rightly be included as components of speech acts. So, in this paper, I shall examine some assumptions of Default Semantics as a means of eliciting what certain pragmemes may be expected to accomplish. In particular I shall consider (1) whether intentionality counts as a pragmatic act – as perhaps an instance of contextualized adaptive behaviour; (2) whether a speaker’s referring counts as a pragmatic act; and (3) whether the hearer’s understanding of an utterance, being the social default in a given situation, counts as a pragmatic act. And, for those that are pragmatic acts, I shall describe a pragmeme or set of pragmemes that will define such acts.

3. Referring in Default Semantics

The theory of Default Semantics was first proposed in Jaszczolt (1999a; b) and extensively described in Jaszczolt (2005; 2009). For Default Semantics ‘the domain of semantics [is] not the *semantics of sentences* but the *semantics of acts of communication*’ (Jaszczolt 2005: 114, her italics). Default Semantics subscribes to the view that truth conditions apply to the sentence enriched with information from pragmatic inference. That is, Default Semantics 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 Default Semantics models a particular act of communication in a particular context on a particular occasion (*ibid.* 81, 85, 86,

109, 113). 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.

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 1, S (she) utters (1) to H (him) when standing in front of building B. This establishes conditions for the pragmemes I shall be discussing in the remainder of this paper.

Insert Figure 1 here

As Jaszczolt proves, (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 considerable inferencing from contextual and encyclopaedic data. 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 this difference in conscious awareness when interpreting the language expressions discussed in this paper.² The matter of directness is taken up later.

Defaults are conceived of variously within Jaszczolt's Default Semantics, 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

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.

(the presumption of optimal relevance in Carston (2002); Wilson and Sperber (2004) is not named a default, but it functions like one). All of these approaches assume some degree of semantic underdetermination identifiable from conceptual gaps that result from processing the output of lexicon and grammar. In other words, 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.

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; i.e. the definite description succeeds in directing 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)

If intentionality is not a process, it is surely a mental state or act that may arise spontaneously from thought but will often be motivated by a perceptual act of noticing something (i.e. receiving sense data and categorizing it in some manner that allows of, but doesn't require, linguistic labelling or description). A person may have an 'intention' towards something without there being a concomitant pragmatic act, but immediately s/he employs language to speak of this 'something' (i.e. becomes a speaker) s/he does perform a pragmatic act. As we shall see, under those circumstances, reference cannot circumvent sense. (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.)

In Default Semantics a 'compositional merger representation' approximates content by presenting the most likely reconstruction by a model hearer of the event conveyed by the model speaker in an act of communication (Jaszczolt 2005: 49, 78, 81). The merger representations of Default Semantics are based on the discourse representation structures (DRSs) of Discourse

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*.

Representation Theory and consist of a set of discourse referents and a set of conditions $\{C_{1\dots n}\}$. Merger representations are the end product of various processes; they are composed from the sources ‘WS’ (the combination of word meaning and sentence structure), ‘cognitive defaults’, ‘conscious pragmatic inferences’, and ‘social, cultural, and world-knowledge defaults’.

To my understanding, WS, the combination of word meaning and sentence structure, 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, 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 I.ii.5) there has been a tradition that names have no sense, they merely make direct reference,⁴ 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 of proper names as 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 and River Thames have lexical links to topographical common nouns that are incorporated into the name which makes them inappropriate for human beings; 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+.

Cognitive defaults, CDs, 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 convincingly supported by empirical evidence. I

4. The notion of direct reference is earlier found in Peter Abelard (1079–1142) and Walter Burley (*c.* 1275–1345).

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 (მეგრელები), Japanese name for a female (富子), Polish name for a male.

claim that there is no criterion to distinguish cognitive defaults from pragmatic inferences and CDs cannot confidently be assigned a rank on the consciousness scale.

(2) You're not going to die.

Conscious pragmatic inferences, CPIs, can be illustrated by 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”. Because conscious pragmatic inferences cannot be assigned a rank on the consciousness scale any more than can cognitive defaults, they too fall under the category of pragmatic inferences.

Social, cultural, and world-knowledge defaults, SCWDs, arise from previous experience and the cultural (cum societal) common ground. An example is recognizing that (3) refers, *inter alia*, to Leonardo da Vinci and the Polish city of Cracow. Secondary social, cultural, and world-knowledge defaults 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.

According to Jaszczolt, (1) uttered by S to H in the context described by Figure 1 means by default that Antoni Gaudí designed la Sagrada Família. The justification is given in Figure 4.3 of Jaszczolt (2005: 110), reproduced here as Figure 2. Notice that the references for variables x and y are said to be cognitive defaults (CD) and that the propositional structure derives from a combination of word meaning and sentence structure (WS). I have no objection to the latter but, as already mentioned, I question the matter of cognitive defaults as presumed in Figure 2.

Insert Figure 2 here

In (1) uttered by S to H in the context described by Figure 1, ‘this church’ 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. Thus the ‘[la Sagrada Família]_{CD}’ constituent of the merger representation 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 labelled 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). There are two things of interest here: how the reference to B is established, and how the referent is correlated with the name *Sagrada Família*.

Next consider 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? Jaszczolt's identification of the referent in Figure 2 as [Antoni Gaudí]_{CD} may seem correct, but how can the referent of that definite description arise by default to justify being categorized as cognitive default? Look again at Figure 1. There is no architect, only a building of a kind that we know by experience (encyclopaedic knowledge) will have been designed by an architect: namely, the architect of B, aka la Sagrada Família. This is the route by which reference to the architect of B is established. The name of the architect must be sourced from encyclopaedic knowledge (see Allan 2001; 2006b). Let's call it a pragmatic inference, PI. How can that be accounted for in Default Semantics?

4. Referring and naming as pragmatic acts

There are many different views and definitions of *reference* (see Sullivan 2006 for a survey). Most philosophers and linguists would agree that reference is a relation that obtains between language expressions and what speakers use those expressions to talk about. For the pragmaticist the focus is on a speaker's use of a language expression in the course of talking about (referring to) its denotatum, in other words, on a speaker's act of referring. For instance, if Joe says *Saddam Hussein is dead*, Joe refers to someone called Saddam Hussein whom he supposes we shall be able to identify from common ground; he also refers to the (purported) fact of Saddam's death at some unspecified time in the past. Referring is very obviously a pragmatic act: it is situated and 'the rules of language and of society synergize in determining meaning, intended as a socially recognized object sensitive to social expectations about the situation in which the utterance to be interpreted is embedded' (Capone 2005: 1357). What is less obvious is that a hearer's recognition of the speaker's reference is also a pragmatic act of interpretation that uses common ground to make sense of the utterance.⁶ In the ensuing discussion, we shall see some of what is involved in this process.

For some people (e.g. Reimer 2003) reference is naming. The verb *name* is ambiguous: *I name this ship 'Sea Nymph'* is an act of baptism in the sense of Kripke (1972); I am here using the post-baptism sense of *name* as "picking out a particular name bearer". Referring and naming are closely correlated, and in the context of this paper it is true that to name is to refer; but the relationship is asymmetric because to refer is not to name. Some of the discussion later in this paper hinges on that very fact, so readers who have doubts should restrain their scepticism. Although it is arguable that in (1) one of the referents is 'named a church', for convenience I shall here restrict *naming* to the

6. The fact that literary criticism, academic and legal argument, etc. flourish because the 'same' text can be interpreted differently by different hearers and readers surely proves that interpretation is active not passive.

use of a proper name to identify a unique individual such as Antoni Gaudí or la Sagrada Família (or a set as in *the Rockies, the Grateful Dead*; see Allan (2001); Lehrer (2006); Reimer (2006)). Because naming is a type of referring, naming is (by logical transitivity) a pragmatic act. The hearer's recognition of the name-bearer is also, therefore, a pragmatic act.

Ordinarily, the complex demonstrative *this church* refers to the most salient church in the foreground of attention⁷ – which identifies a necessary condition of the pragmeme for a particular kind of pragmatic act of reference that is clearly generalizable to a wide variety of occasions, as we shall see. There are several reasons for thinking that, in the situation of utterance described by Figure 1, 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 see⁸ that (based on encyclopaedic knowledge) B looks like a church. They might also know that there is a church called (El Temple de) la Sagrada Família (or a translation of that name into another language). Ordinarily, but not necessarily, this will be strengthened by additional information such as knowledge of its approximate location and appearance, and/or some idea of its history and who designed it. It is conceivable that S is not aware of the name of the church; nevertheless, (1) would still be a credible utterance and so would (4), in which S accesses her encyclopaedic knowledge.

(4) This church must be the one that was designed by Gaudí.

Suppose S utters (1) in the context given by Figure 1 but S mistakenly believes the church is La Seu (la Catedral de Santa Eulàlia), so that she could comment on (1) by saying (5).

(5) 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 (5), the referential pract is successful: S could honestly believe that the best architect designed B, referred to as 'this church'; the error that (5) reveals is the naming of B: in the context obtaining, (5) is referentially incorrect only because B is wrongly named.

(6) The best architect designed this church.

Insert Figure 3 here

7. 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.*

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

Let's now take the case of (6) as uttered by H to S in the context described by Figure 3. 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 (the speaker) can name the building as the Great Mosque of Djenné is irrelevant to S's successful interpretation of the utterance in (6) as referring to B.⁹ Once again, reference can be successful because of appropriate use of the pragmeme: a certain kind of act is performed (referring) in a certain kind of context – before B, which is an appropriate possible referent.

It is clear from (1), (5), and (6), 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 3). This success is a function of the pragmeme that appropriately combines the language material with situational data, drawing attention to B by employing the phrase *this church*. 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), (4), (5), and (6), and it requires a revision of the merger representation in Figure 2 – despite Jaszczolt's belief (mentioned earlier) that the '[la Sagrada Família]_{CD}' constituent of the merger representation simply identifies the referent B with a label convenient for the theorist. 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 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, as already pointed out, it is a matter of general knowledge that such buildings are architect designed. The advantage of this literal interpretation, which arises directly from the pragmeme instantiated by the pract under consideration, is that it does not interfere with H attributing the wrong name to the church, B: for instance, H may erroneously believe (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) next names the church or the architect, or on approaching the church (B) a signboard is seen, and so on. What difference does such an error make to H's understanding of (1)? None. Pragmemic integrity ensures that the referent of 'this

9. This may be compared with the Donnellan (1966: 287) example *Who is the man drinking a martini?* asked of someone drinking water from a martini glass.

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 (7):

(7) 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 (8):

(8) 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 (7) as containing the (mistaken) I-implicature (see Levinson 2000) in (9). If H had attributed the correct name to the church, the resulting implicature would be (10).

(9) 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.

(10) 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.

(10) is an appropriate interpretation of (1) in which S's reference to the church in (1) uttered under the conditions specified in Figure 1 achieves success, just because it instantiates the proper pragmeme – referring by means of a complex demonstrative to an entity in the world spoken of (B) that is readily identified.

Consider three different scenarios, all in the context described by Figure 1, where S is addressing H as they stand before B.

Suppose S were to follow up (1) with (11):

(11) 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 a so-called 'attributive' usage (as per Donnellan 1966) where S cannot name the architect. However (11) 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 (12).

(12) 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, (12) 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 (12) 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 (18) below.

At this stage it behoves me to explain why I have been putting quotes around the word *attributive* when discussing attributive uses of definite descriptions. It is because the attributive (from which I’ll now drop the quotes) is often contrasted with the referential, but I would insist that in using attributives a speaker nonetheless refers. What characterizes an attributive such as ‘The person who designed Stonehenge’ in (13) is that the identity of the referent is unknown and never likely to be known, but the speaker is nonetheless referring to that person who existed in prehistoric times in order to predicate a compliment of him or her.

(13) The person who designed Stonehenge was very accomplished.

The difference between the referent of the attributive interpretation of ‘the best architect’ in (1) given in (11) or (12) and that of the attributive in (13) is that the identity of the former is known (if not to S or H, then to us) whereas the identity of the latter is not.¹⁰ An example of misattribution that can successfully refer was given in the discussion of (6) uttered in the context provided by Figure 3; another is the question *Who’s that teetotaller with a glass of water?* spoken of someone quaffing a glass of neat vodka. Mistaken reference will obviously be unsuccessful more frequently than ‘correct’ reference, but it doesn’t cease to be reference. Although not strictly relevant to the discussion in this paper, a speaker can refer to something that is either known not to exist, (14), or whose existential status is uncertain, (15), or that is fictional, (16).

(14) *No human* has walked on Mars.

(15) Is there *life on Mars*?

(16) [Raymond Chandler’s] *Philip Marlowe* is my favourite shamus.

To return to our investigation of meanings of (1), another possibility is that S follows up (1) with (17):

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

10. In *Take one of these lovely chocolates. I’m sure you’ll enjoy it* the ‘it’ refers indirectly to an as yet unidentified member of the set of chocolates offered, one that may never be identifiable if the offer is refused such that the prediction fails to materialize. The reference, then, is to an entity in a hypothetical world.

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 make in the context described by Figure 1. The reference of the complex demonstrative would count as a Reimer 'standard' reference, 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 (18).

(18) Antoni Gaudí designed la Sagrada Família.

(1) and (18) satisfy different discursive functions and expectations, just as do the names *Hesperus* and *Phosphorus*. Notably, (18) offers no evaluation of Gaudí's prowess as an architect; nor does Jaszczolt's merger representation in Figure 2. The relevant facts for (1) and (18) are different: the former referring but not naming, the latter naming and thereby referring; the referential pragmeme is the same for both (1) and (18) and that is what sanctions identity of reference for the distinct WS+ constituents.

The indirectness of (1), given Jaszczolt's interpretation, accounts for my objection to construing it as identical with (18) by cognitive default. The naming has to be supplied from one's mental encyclopaedia (part of the common ground), which falls into the Jaszczolt category of conscious pragmatic inference; however, because conscious pragmatic inference cannot be satisfactorily distinguished from UNconscious pragmatic inference, I prefer to call it simply pragmatic inference, PI.

What S said in (1) is most accurately glossed in (19) (the reasons were given when discussing (12), (17), and (18) above).

(19) 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); Neale (2001); Salmon (1991), 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. Devitt (2007); Kaplan (1989); Reimer (1998); Wettstein (1983). 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)

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, but in short it is because under normal circumstances they refer successfully since the context of use makes completeness unnecessary (the same is true of proper names, see Allan (2001)). 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 possible interpretations of (1): in a third scenario S might explain her utterance (1) (in the context described by Figure 1) by saying (20).

(20) In saying *the best architect designed this church*, I (S) meant that Frank Gehry designed la Sagrada Família (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 (19). 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 (20) does demonstrate, though, is the inapplicability of the merger representation in Figure 2.

Insert Figure 4 here

What do we conclude from all this? I propose that Figure 2 be revised as shown in Figure 4 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 4, (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 merger representation of Figure 4, and the proposition is named directly through resolution of the WS+ in the bottom line.

On the assumption that the analysis presented via Figure 4 is correct, what would the merger representations look like for the interpretations of (1) in the light of (7), where H believes that 'the

best church' refers to La Seu, in (11) or (19) where 'the best architect' is used attributively¹¹, in (17) and (18) which refer to both Antoni Gaudí and la Sagrada Família, and (20), which refers to Frank Gehry and la Sagrada Família?

Insert Figure 5 here

I take up the merger representation for (1) as interpreted by S in (20). Figure 5 is based on Figure 4.4 in Jaszczolt (2005: 113).¹² 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 5. The fact that the former is accurate with respect to the context described in Figure 1 while the latter isn't should surely not be represented as the difference between a cognitive default and a conscious pragmatic inference. No 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 5 is any more conscious than attributing the compliment to Antoni Gaudí in Figure 2. Both are pragmatic inferences 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 would render it a cognitive default. In this light I would replace Figure 5 with Figure 6.

Insert Figure 6 here

Recall that merger representations are the end product of various processes; they are composed from the sources WS, cognitive default (CD), conscious pragmatic inference (CPI), social, cultural, and world-knowledge default (SCWD). I have suggested that in the interpretations of (1) we have been examining, cognitive default and conscious pragmatic inference should be replaced by pragmatic inference, and in what follows that will be my practice. How should we arrive at the merger representation in Figure 6 on the basis of the locution in (1)? The locution in (1) gives rise to a default interpretation that was presented as a merger representation in Figure 4. There is clearly

11. Bach's and Devitt's 'quantificational meaning'.

12. Updated with the terminology of Jaszczolt (2009).

a case for saying that the merger representation in Figure 6 essentially derives from the particularized implicatures in the interim DRS of Figure 7, which arise via the maxim of relation from the context supplied in Figure 1. The use of \rightarrow picks up on the representations used in (9) and (10). The implicature is probabilistic and can be cancelled, as one is when *The best architect designed this church, but I'm not talking about la Sagrada Família* is uttered in the context described by Figure 1.

Insert Figure 7 here

The interim DRS in Figure 7, which yields the truth value false, shows the sources for the names of the referents by demonstrating the link between the WS of (1) and the merger representation in Figure 6 to which it serves as input. We need to interpret 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 (17) will have the merger representation in Figure 2. The basis for this is the DRS in Figure 8, which only differs from that in Figure 7 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 9.

The DRSs in both Figures 7 and 8 illustrate the pragmatic act of naming, but indirectly via implicature.

Insert Figure 8 here

Insert Figure 9 here

The merger representation for (18), which names the referents, is shown in Figure 10. The sources for semantic interpretation are given as WS+ instead of cognitive default. It is reasonable to suppose that ‘[Antoni Gaudí]_{WS+(x)}’, sourced directly from the name ‘Antoni Gaudí’ in (18), gives rise to the cognitive default ‘[Antoni Gaudí]_{CD(x)}’ and that would make Figure 2 instead of Figure 10 the appropriate merger representation for (18) (instead of being the merger representation for (1)). Were there no difference between Figure 9 and Figure 10, there would be no accounting for the lexical difference between (1) and (18). We should not and must not simply ignore that lexical difference and pretend that (1) and (18) 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 (18) refers to Gaudí and la Sagrada Família directly by the pragmatic act of naming them and (1) does so only indirectly via implicature 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 10 here

As sources for the pragmatically inferred names, the DRSs in Figures 7 and 8 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 (11) or (19), has the merger representation in her Figure 4.5 Jaszczolt (2005: 113) reproduced here (updated) as Figure 11. My own merger representation is given in Figure 12.

Insert Figure 11 here

Insert Figure 12 here

5. Summing up

In this paper I have made the claim that referring is a pragmatic act in the sense of Mey (2001; 2006) and Capone (2005). I chose to demonstrate reference as a pragmatic act within the theory of Default Semantics. This has led me to propose some changes to the theory as presented in Jaszczolt (2005; 2009). I have found it impossible to distinguish the notion of cognitive default within Default Semantics from the notion of conscious pragmatic inference and proposed that they be amalgamated into a single category of pragmatic inference. To arrive at the speaker's message in what is said a hearer needs to make pragmatic inferences. Some pragmatic inferences 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 DRSs and merger representations.

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 Default Semantics (or DRT) can ignore the semantic and locutionary aspects of proper names and demonstratives – strange though their semantic aspects are.

In part I have 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 1, to Jaszczolt's published finding that the speaker is referring to Antoni Gaudí and la Sagrada Família – a path that was hitherto unmapped.

The discussion of this mapping within the theory of Default Semantics was a vehicle for the discussion of pragmatic acts. There seems to be no reason to imagine that a person's intentionality, their 'intention' towards something, counts as a pragmatic act; but when the person embarks on an act of utterance to speak or write of the 'something', thereby referring to it, a pragmatic act is performed. Reference is situated, it binds language expressions to context and common ground, it is an indispensable part of most speech acts (one class of exceptions are speech acts whose primary illocutions are expressive in the sense of Allan (2006a), e.g. ejaculations like *Shit!* and idioms like *Hi, Sorry, Thanks*). The hearer/reader's recognition of what s/he takes to be the reference is also a pragmatic act of interpretation that uses common ground to make sense of what is uttered.

I discussed naming as a kind of referring. Perhaps further investigation will reveal other kinds of referring that can be usefully identified. Possibilities include generic reference, collective reference, and reference to natural kinds. There is also reference to different types of entity, e.g. existent, nonexistent, and propositional.

Speakers and writers can refer to literally anything (including things that don't exist), so defining a pragmatic act of reference is problematic. A programmatic approach to such a definition includes the following well-known steps.

- a) The speaker S wishes to communicate with hearer H and S has an intention towards referent r. The intentionality may precede the desire to communicate or vice versa.
- b) S believes that use of the language expression e_r to refer to referent r will enable H to recognize r (distinguish it from potential distracters), normally, with minimum effort.
- c) For r to be recognized by H from e_r , S will assume that H will make recourse to CG_i , that is, the common ground shared between S and H at a time period beginning t_i , the time of anticipated

- d) If S has the inclination and opportunity to be careful s/he will imagine him/herself in H's shoes as H seeks to recognize the referent, and S will label it accordingly.
- e) Particularly in face-to-face interaction, S can rely on H's response (verbal or nonverbal) to indicate whether or not s/he has achieved referential success (this becomes part of the common ground CG_{i+1}) and may have the opportunity to relabel the reference using an alternative expression.

Clauses (b) and (c) are crucial and much has been written on these topics. For illustration consider (21), (22), and (23).

(21) Max shouted at Ed because he'd forgotten to set the alarm.

(22) Max shouted at Ed because he was in a foul mood.

(23) The vet smelled the dog's breath when she bit her.

In (21) and (22) the people referred to must normally be identifiable from common ground and in addition the 'he' in (21) will most likely refer to Ed because Ed's failing to set an alarm can have unfortunate consequences which present a possible reason for Max to shout at Ed. It is less likely (but not impossible) that Max is shouting at Ed because Max himself has failed to set the alarm; but this would normally be marked as in *Max shouted at Ed although it was he who had forgotten to set the alarm*. In (22) 'he' most likely refers to Max, because shouting at someone is evidence of being in a bad mood. Had Ed been in a foul mood, the speaker should have said *Max shouted at Ed for being in a foul mood*. In (23) it would be usual for 'the vet' and 'the dog' to be identifiable from common ground, and then knowledge of animal~human behaviour (also a part of common ground) will identify the biter as the dog. Reporting an unusual event such as the vet biting the dog would normally demand explicit marking of agency as in *When the vet went to bite the dog she smelled its breath*.

To successfully perform a pragmatic act of reference requires astute assessment of the common ground and choice of the language expression that will best point the hearer to the intended reference in those circumstances.

13. There is some similarity here with the conclusions in Zielinska (2007: 828f).

References

- Allan, Keith, 2001. *Natural Language Semantics*. Oxford & Malden MA: Blackwell.
- Allan, Keith, 2006a. Clause-type, primary illocution, and mood-like operators in English. *Language Sciences* 28: 1-50.
- Allan, Keith, 2006b. Dictionaries and encyclopedias (relationship). In: Brown, Keith E. (Ed.) *Encyclopedia of Languages and Linguistics*. 2nd edn. 14 vols. Oxford: Elsevier. Pp. 3: 573-77.
- Asher, Nicholas and Alex Lascarides, 2003. *Logics of Conversation*. Cambridge: Cambridge University Press.
- Austin, John L., 1962. *How to Do Things with Words*. Oxford: Clarendon Press.
- Bach, Kent, 1994. Conversational implicature. *Mind and Language* 9: 124-62.
- Bach, Kent, 2004. Descriptions: points of reference. In: Reimer, Marga and Bezuidenhout (Eds) *Descriptions and Beyond*. Oxford: Oxford University Press. Pp. 189-229.
- Bach, Kent and Robert M. Harnish, 1979. *Linguistic Communication and Speech Acts*. Cambridge, MA: MIT Press.
- Capone, Alessandro, 2005. Pragmemes (a study with reference to English and Italian). *Journal of Pragmatics* 37: 1355-71.
- Carston, Robyn, 2002. *Thoughts and Utterances: The Pragmatics of Explicit Communication*. Oxford & Malden MA: Blackwell.
- Cruse, D. Alan, 1986. *Lexical Semantics*. Cambridge: Cambridge University Press.
- Devitt, Michael, 2007. Referential descriptions and conversational implicatures. *European Journal of Analytic Philosophy* 3: 7-32.
- Donnellan, Keith S., 1966. Reference and definite descriptions. *Philosophical Review* 75: 281-304.
- Frege, Gottlob, 1892. Über Sinn und Bedeutung. *Zeitschrift für Philosophie und philosophische Kritik* 100: 25–50.
- Grice, H. Paul, 1978. Further notes on logic and conversation. In: Cole, Peter (Ed.) *Syntax and Semantics 9: Pragmatics*. New York: Academic Press. Pp. 113–27.
- Jacob, Pierre, 2003. Intentionality. In: Zalta, Edward N. (Ed.) *Stanford Encyclopedia of Philosophy*. Stanford: <http://plato.stanford.edu/entries/intentionality/> [Accessed 2009].

- Jaszczolt, Katarzyna M., 1999a. Default semantics, pragmatics, and intentions. In: Turner, Ken (Ed.) *The semantics/pragmatics interface from different points of view*. Oxford: Elsevier Science. Pp. 199-232.
- Jaszczolt, Katarzyna M., 1999b. *Discourse, Beliefs and Intentions: Semantic Defaults and Propositional Attitude Ascription*. Oxford: Elsevier.
- Jaszczolt, Katarzyna M. 2005. *Default Semantics: Foundations of a Compositional Theory of Acts of Communication*. Oxford: Oxford University Press.
- Jaszczolt, Katarzyna M., 2009. *Representing Time: An Essay on Temporality as Modality*. Oxford: Oxford University Press.
- Kamp, Hans and Uwe Reyle, 1993. *From Discourse to Logic: Introduction to Modeltheoretic Semantics of Natural Language, Formal Logic and Discourse Representation Theory*. Dordrecht: Kluwer.
- Kaplan, David, 1989. Demonstratives. In: Almog, Joseph, Perry, John and Wettstein, Howard K. (Eds) *Themes from Kaplan*. Oxford: Oxford University Press. Pp. 481-563. [Circulated from 1977].
- Kripke, Saul, 1972. Naming and necessity. In: Davidson, Donald and Harman, Gilbert (eds) *Semantics of Natural Language*. Dordrecht: Reidel. Pp. 253–355. Republished separately as *Naming and Necessity*. Oxford: Blackwell. 1980.
- Kripke, Saul, 1977. Speaker's reference and semantic reference. In: French, Peter A., Uehling, Theodore E. and Wettstein, Howard K. (Eds) *Contemporary Perspectives in the Philosophy of Language*. Minneapolis: University of Minnesota Press. Pp. 6-27.
- Lehrer, Adrienne, 2006. Proper names: semantic aspects. In: Brown, E. Keith (Ed.) *Encyclopedia of Languages and Linguistics*. 2nd edn. 14 vols. Oxford: Elsevier. Pp. 10: 141-45.
- Levinson, Stephen C., 2000. *Presumptive Meanings: The Theory of Generalized Conversational Implicature*. Cambridge MA: MIT Press.
- Mey, Jacob L., 2001. *Pragmatics: An Introduction*. 2nd (revised) edn. Malden MA & Oxford: Blackwell.
- Mey, Jacob L., 2006. Pragmatic acts. In: Brown, E. Keith (Ed.) *Encyclopedia of Languages and Linguistics*. 2nd edn. 14 vols. Oxford: Elsevier. Pp. 10: 5-11.
- Mill, John S., 1843. *A System of Logic, Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation*. 2 vols. London: John W. Parker.

- Neale, Stephen, 2001. *Facing Facts*. Oxford: Clarendon Press.
- Recanati, François, 2004. *Literal Meaning*. Cambridge: Cambridge University Press.
- Reimer, Marga, 1998. Donnellan's distinction/Kripke's test. *Analysis* 58: 89-100.
- Reimer, Marga, 2003. Reference. In: Zalta, Edward N. (Ed.) *Stanford Encyclopedia of Philosophy*. Stanford: <http://plato.stanford.edu/entries/reference/> [Accessed 2009].
- Reimer, Marga, 2006. Proper names: philosophical aspects. In: Brown, E. Keith (Ed.) *Encyclopedia of Languages and Linguistics*. 2nd edn. 14 vols. Oxford: Elsevier. Pp. 10: 137-41.
- Salmon, Nathan, 1991. The pragmatic fallacy. *Philosophical Studies* 63: 83-97.
- Siewert, Charles, 2006. Consciousness and intentionality. In: Zalta, Edward N. (Ed.) *Stanford Encyclopedia of Philosophy*. Stanford: <http://plato.stanford.edu/entries/consciousness-intentionality/> [Accessed 2009].
- Stalnaker, Robert C., 2002. Common ground. *Linguistics and Philosophy* 25: 701-21.
- Sullivan, Arthur, 2006. Reference: Philosophical Theories. In: Brown, E. Keith (Ed.) *Encyclopedia of Languages and Linguistics*. 2nd edn. 14 vols. Oxford: Elsevier. Pp. 10: 420-27.
- Wettstein, Howard K., 1983. The semantic significance of the referential-attributive distinction. *Philosophical Studies* 44: 187-96.
- Wilson, Deirdre and Dan Sperber, 2004. Relevance theory. In: Horn, Laurence R. and Ward, Gregory L. (Eds) *Handbook of Pragmatics*. Oxford: Blackwell. Pp. 607-32.
- Zielinska, Dorota, 2007. The selective mode of language use and the quantized communicative field. *Journal of Pragmatics* 39: 813-30.

FIGURES

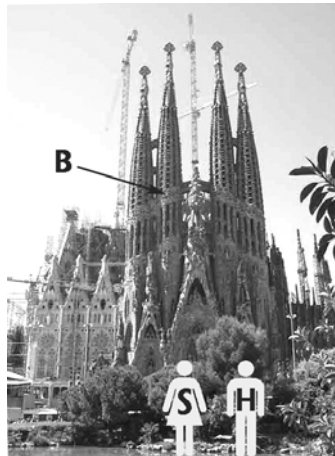


Figure 1. S utters (1) to H as they stand before B

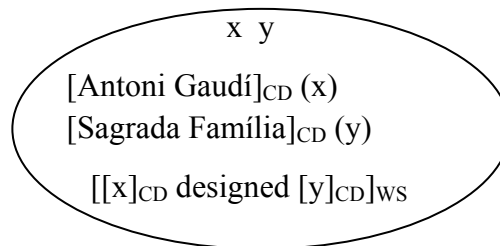


Figure 2. (Partial) merger representation for the default reading of (1)

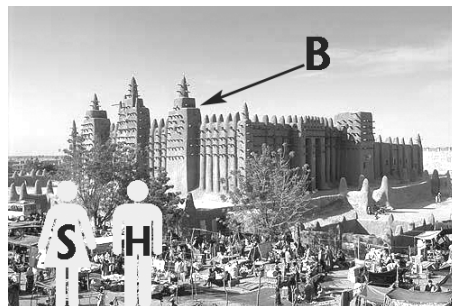


Figure 3. H utters (6) to S as they stand before B

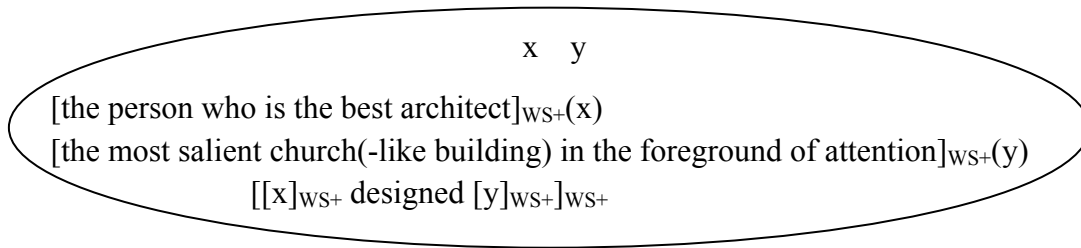


Figure 4. The (true) default reading of (1)

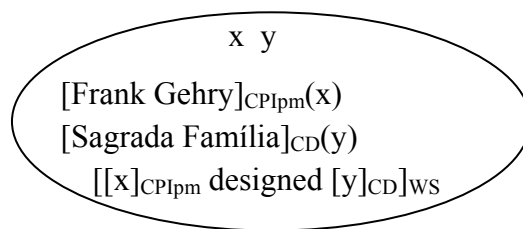


Figure 5. Jaszczolt style merger representation for the reading of (1) on the basis of (20)

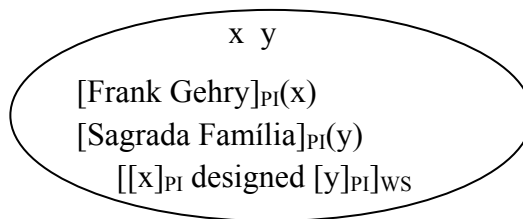


Figure 6. Revised merger representation for the reading of (1) on the basis of (20)

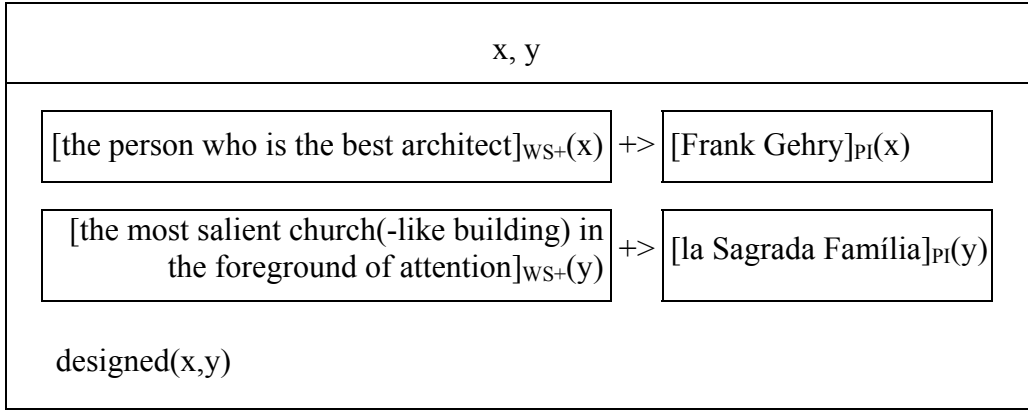


Figure 7. Interim DRS demonstrating the link between the WS+ of (1) and the merger representation in Figure 6

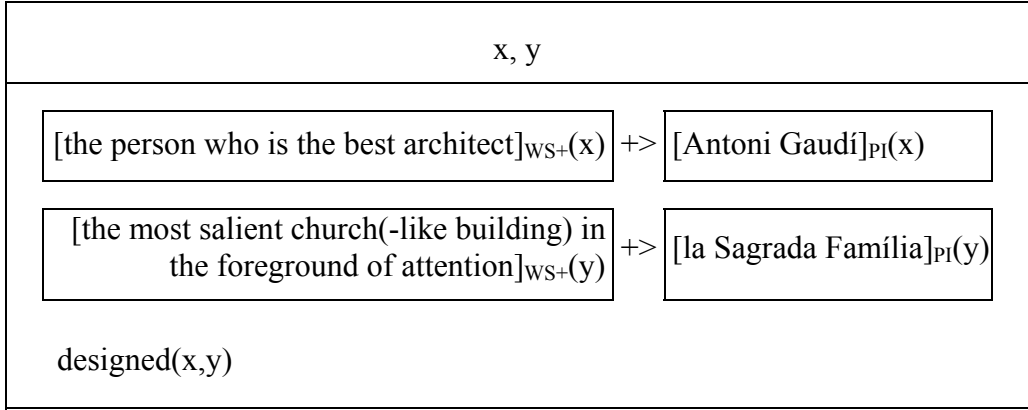


Figure 8. Interim DRS demonstrating the link between the WS+ of (1) and the merger representation in Figure 9

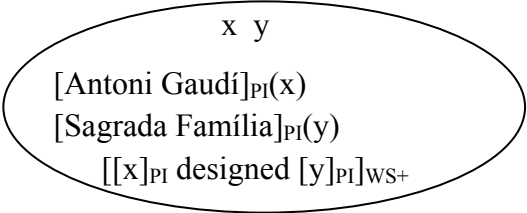


Figure 9. Revised merger representation for (1) based on Figure 8

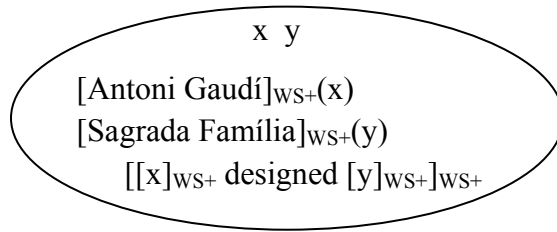


Figure 10. The merger representation for (18)

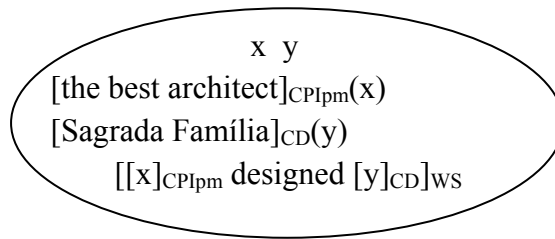


Figure 11. Jaszczolt's (partial) merger representation for the attributive reading of (1)

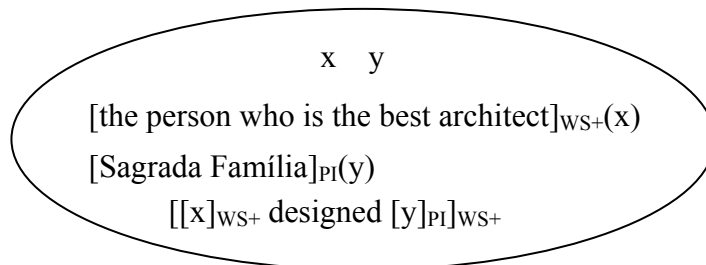


Figure 12. Merger representation for the attributive reading of (1) on the basis of (19)