

Context: Gricean Intentions vis-à-vis Two-Dimensional Semantics¹

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Abstract

The paper analyses the concepts of context used in two-dimensional formal semantic accounts of Kaplan and Stalnaker and in selected versions of post-Gricean contextualism. It focuses on the question of contextual parameters employed in ‘context as index’ on the one hand, and on free, top-down contextual enrichment on the other, pointing out the strengths and weaknesses of breaking down contextual dependence into specific sub-types. It also addresses the question of metaphysical vis-à-vis epistemological construal of context and points out that the epistemic context, associated with the concepts of intentions and pragmatic universals of rational conversational behaviour, may ultimately be reducible to a metaphysical construct. The claim is then assessed in terms of the contextualist theory of Default Semantics (DS) and it is concluded that metaphysical context is suitable for modeling the speaker-addressee interaction as it is conceived of in DS.

1. Objectives: In Search for ‘Context for Truth Conditions’

¹ I would like to express my thanks to the audience of the conference *Meaning, Context and Cognition*, University of Łódź, for comments on the first draft of the paper, to two anonymous reviewers for their invaluable suggestions and comments that led to this improved version, and to Minyao Huang for our discussions of two-dimensional semantics. The paper owes a lot to the inspiring texts by Robert Stalnaker, John Perry, and François Recanati, on both sides of the discussed divide.

Situation-dependent meaning makes it necessary for any truth-conditional theory, be it minimalist or contextualist, to consider the question of its stance on the role of contextual information in a truth-conditional account of meaning. Truth conditions can be conceived as equal to conditions of verification on one end of the spectrum, all the way to being fairly dissociated from the question as to ‘what the world would have to be like for the sentence to be true’ on the other, with the added assumption (at this end of the spectrum) that they have to be intuitively correct even in cases where the logical form of the sentence does not faithfully reflect this intuitive content of the uttered sentence. In other words, truth conditions can be used to fulfill different functions in semantics: they can be used for theorizing about meaning in a *language system*, as in minimalist versions of semantics, or for theorizing about *speaker’s meaning*, as in radical contextualist ones. In this paper, however, I am not going to be directly concerned with the minimalism/contextualism debate but rather with the properties of *context* understood as a theoretical construct devised for the purpose of truth-conditional accounts of meaning. Context can be understood as (i) an *epistemological* notion that reflects the properties of the thoughts that the speaker intended to convey, or, depending on the orientation, thoughts that *the addressee recovered* as those conveyed intentionally by the speaker. It can also, among others, be understood as (ii) a *metaphysical* notion that helps solve problems with identifying suitable possible worlds for the interpretation of the sentence. As a speaker-oriented or addressee-oriented notion, it also has a *psychological* aspect in that when context is construed as interlocutors’ thoughts, it can be approached by considering utterance *processing* – the inferential processes the interlocutors perform in conversational interaction. So, epistemological context can be understood, depending on the adopted method of inquiry, as psychological context.

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Next, ‘notions’ of context can be understood in two different ways. First, they can be understood as different entities that can be employed in the theory of meaning. Then, metaphysical context pertains to a construal of reality that enables a truth-conditional analysis. For example, when the uttered sentence under consideration contains a third-person pronoun ‘he’, it is reality (metaphysical context) that supplies the referent and provides the circumstances of evaluation for the theory of meaning. Epistemological context, on the other hand, provides what the speaker intends to refer to (as on Grice’s account), or, alternatively, what the addressee recovers from the utterance (as on Relevance Theory). The referent for the third-person pronoun would be supplied by (a) the speaker’s intentions or (b) the speaker’s intentions as recovered by the addressee, respectively.

However, it is important to point out that metaphysical context and epistemological context need not be incompatible; they need not pertain to different entities but instead they correspond to different outlooks. Their compatibility will depend, of course, on what ‘contents’ of the construal of reality we adopt. In what follows, I demonstrate that what is perceived in the extant semantic literature as a significant difference of the outlook on context, namely that of the two-dimensional semantics vis-à-vis the Gricean pragmatics, is in fact an illusion. Instead, the difference is merely quantitative: semanticists who utilize the metaphysical conception of context tend to be minimalist; they confine context to easily delineable parameters, while those of the ‘epistemological-context orientation’ are more free to put in the context more of the ‘psychological matter’, namely what the interactants themselves can supply as contextual clues. But there is nothing in these conceptions of context themselves that would stop us from construing each of them more narrowly or more widely.

While these two constructs are not incompatible, the emphasis on one or the other, and the emphasis on their differences discussed above, gave rise to two different traditions in post-Gricean pragmatics. One is the, broadly speaking, predominantly European tradition of less formal, processing-oriented contextualism exemplified by Relevance Theory (Sperber and Wilson, e.g. 1995), Truth-Conditional Pragmatics (Recanati, e.g. 2004, 2010) or Default Semantics (Jaszczolt, e.g. 2005, 2010) that essentially makes use of option (i), and the other is the, broadly speaking, predominantly American formal tradition of two-dimensional semantics in two related but different setups: that of the content-character distinction (Kaplan 1989a), and that of Stalnaker's (1978) propositional concept. Kaplan's view utilizes option (ii), while Stalnaker's, more difficult to classify, draws on both (i) and (ii). In what follows I explore how Grice's ideas relate to, or have been taken further in, these major directions and assess how Grice's project, founded on the concept of speaker intention, is (overtly or covertly) realized there. Ultimately, the paper provides a possible answer to the question of the relation between context and speaker intention, and addresses some aspects of, and extent of, the compatibility of Gricean intention-based pragmatics with the 'formal pragmatics' in the two versions of two-dimensional semantics as advocated by Kaplan and Stalnaker, in view of the discussed compatibility of their notions of context.

The paper is structured as follows. Section 2 introduces the notion of context as it is understood in two varieties of two-dimensional semantics, by David Kaplan and Robert Stalnaker, and assesses its affinities with the notion of context on the Gricean intention-based project. It concludes by comparing the metaphysical and the epistemological conception of context. Section 3 moves to the question of the role and understanding of context in contextualist accounts and concludes that the two relevant varieties of context-dependence, namely indexicality and free, top-down modulation, fail to correspond to clear-cut classes of cases. It proposes three different options for construing context-dependence and ends by

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suggesting that preserving the distinction between indexical and non-indexical context-dependence may not be theoretically justified. Section 4 addresses the problem of the interrelation between context and intentions and proposes the metaphysical conception of context as a theoretically adequate *simplification* over the epistemological, speaker-oriented and addressee-oriented context. In this argument, I explain and utilise the concept of the pragmatic universal (universal of rational conversational cooperation). Section 5 briefly addresses the question of context in one specific contextualist account, namely my Default Semantics. It concludes by stressing the compatibility of this notion with those used in two-dimensional semantics when the latter are reduced to what I call here the Rational Model-Speaker Context (RMSC). Section 6 presents some pertinent open questions and loose ends, pointing out that the core unresolved issues concern the relation between indexical and non-indexical context-dependence and thereby, more generally, the question as to whether bottom-up (structurally constrained) and top-down (free) pragmatic processing are both required in a theory of utterance meaning, and the question of the role and kinds of intentions upon which a context-conscious truth-conditional approach is to be built, bearing in mind the importance of the RMSC perspective.

2. Context: Its Semantics, Metaphysics, and Epistemology

Stalnaker (1999: 2) acknowledges the Gricean inspiration for pragmatic aspects of his two-dimensional semantics by pointing out that he inherited Grice's view on speech as action that is to be explained in terms of speaker's beliefs and intentions. The initial question is, of course, how this philosophical-pragmatic Gricean legacy could be implemented in a formal orientation. The answer is precisely in the flexibility of truth conditions and the analogous

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flexibility of possible worlds as theoretical tools mentioned in Section 1. The concept of a possible world is a modal concept and stands for properties that the actual world can be envisaged to have had, had things been different. As a result, we obtain two steps in analysing utterance meaning. First, sentence meaning determines content relative to an actual context. For example, the first-person pronoun in (1) acquires in the actual world the referent Kasia Jaszczolt.

(1) I am writing a paper on context.

Next, content determines truth value relative to a possible world; the sentence is true in some worlds but not in others, and this ‘sifting’ of worlds gives the sentence its meaning. This is where Kaplan’s (1989a, b) character-content distinction fits in. In the case of the indexical expression ‘I’ in (1), the character (linguistic meaning) is a mapping from context to content, and the latter (semantic meaning) is in turn a mapping from possible worlds, or circumstances of evaluation, to truth values. In this way the pragmatic input into a truth-conditional theory of meaning seems to be securely fixed, at least for indexical expressions.

The two dimensions can also be construed with even more credit given to participants’ meaning, as opposed to purely linguistic, meaning. Stalnaker’s (1978, 2011) ‘propositional concept’ discussed below offers an additional pragmatic component: while Kaplan’s two-dimensional semantics starts with linguistic meaning (for example, ‘I’ meaning the speaker, ‘you’ meaning the addressee), Stalnaker’s two-dimensional semantics starts with intentions and intention recognition. He regards an utterance (or: assertion) as an act whose purpose is to change the set of presuppositions of the participants. At the same time, he has to recognise the fact that an uttered sentence can mean different things to different interlocutors and can be regarded as true or as false by different interlocutors. For example, (2), uttered by

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Hermione to the audience consisting of Harry and Ron, can be understood by Harry as referring to Harry and by Ron as referring to Ron. At the same time, Ron may think he is indeed in danger, while Hermione may think that Ron is not in danger; she intended to refer to Harry who, according to her assessment of the situation at Hogwarts, is indeed in danger.

(2) You are in danger.

This gives us a dimension of what is said according to different participants, and another dimension of what the participants believe (possible worlds). Taken together, we obtain a matrix of possibilities, and a concept of, to put it informally, whatever is, according to various participants, said by the speaker, evaluated in the contexts of various participant's beliefs; in short, we obtain a *propositional concept*. This matrix throws up a special kind of a proposition (the so-called *diagonal proposition*): 'whatever is said by the speaker (is true)'.²

The advantages of Kaplan's and Stalnaker's formal accounts of context have been widely discussed in the literature², while the discussions of the Gricean construal of context are more recent and scarce.³ At a first glance, the working definitions of context in the two-dimensionalist camp are straightforward: for Stalnaker, it is common background, represented by a so-called context-set, a set of possible worlds that are compatible with what is presupposed by the speaker at a time in a given situation of discourse. When the presuppositions in the speaker's context-set coincide with those in the addressee's context-set, the context is nondefective and, unless evidence to the contrary surfaces in conversation, nondefective context is a working assumption. Kaplan goes further, proposing formal parameters. Context (*index*) can be broken down into specific parameters that serve a well-defined purpose in semantics. These are normally, for indexicals, an agent, time, location,

² The relevant literature is vast. See for example Almog *et al.* 1989; Perry, e.g. 2001; Almog and Leonardi 2009; Predelli 2005a, b.

³ See e.g. García-Carpintero and Macià 2006; Brown and Cappelen 2011.

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and world, but further parameters can be added as required (all of which make up Kaplan's *index*).⁴ As Kaplan (1989b: 591) puts it, 'context provides whatever parameters are needed'. And this open-endedness is the crux of the complication. In his theory of direct reference, pragmatics fits snugly inside the semantics in that an indexical expression (*I, he, now, that*) may have different referents in different contexts, but, as he rightly observes (p. 575), context is used here *before* truth and reference are established. It is also used *before* the semantic component of evaluation in counterfactual situations takes place. So, it is clear that context belongs to semantics. But how can such an open-ended class of parameters be incorporated in the semantics? And, more importantly, what can count as a parameter? It is not clear how, for example, the memory of past experience that is used in the process of intention recovery can be regarded as a parameter on a par with, say, agent, time, location and world.⁵

There are at least two other complications. One has to do with the range of uses for which context can be employed (Problem 1), and the other with the already mentioned epistemological vis-à-vis metaphysical status of context (Problem 2). In order to illustrate the first complication let us consider proper names. Unlike indexicals, proper names can be ambiguous: 'Kasia' can refer to the author of this article, but it can equally refer to thousands of other people, some pets, and also some artefacts that have been so dubbed. Unlike in the case of indexicals, where the character is the linguistic-semantic component that employs context for its own, so to speak, search for a referent, proper names have to be contextually disambiguated 'pre-semantically', before semantic analysis begins.⁶ For this purpose Kaplan employs 'the causal history of a particular proper name expression in the agent's idiolect'

⁴ Such as a point of evaluation, or the purpose or perspective from which a sentence is to be considered true or false. See Travis 1997 and a discussion in Predelli 2005a, b: russet leaves of a maple tree, when painted green, are (= 'appear') green to an observer but are (= 'are really') russet to a botanist. For a discussion of an index see Kaplan 1989b and Stalnaker 1999.

⁵ I am grateful to an anonymous referee for stressing this difficulty.

⁶ For a typology of varieties of context-dependence see also Recanati (2007: 7). He discusses different types of pre-semantic and semantic context-dependence. Within the first, there is ambiguity (lexical or syntactic) and language-relativity. Within the latter, there is a categorial distinction between bottom-up and top-down triggers, namely indexicality (sub-divided into token-reflexivity and semantic underspecification) and modulation.

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(1989a: 562). Semantics begins where there are words: until we know with what causal chain the expression ‘Kasia’ was used, we don’t yet have a word; specifying it is a pre-semantic matter. The use of context pre-semantically, as well as within semantics, creates the first difficulty for its delineation in that it is not always clear which ambiguities should be relegated to the pre-semantic ‘fixing’ and which should be kept for the first semantic dimension, that of the actual world. For example, following certain conventions, in some social relationships, proper names can be used in lieu of indexical expressions (as in ‘motherese’). Next, in languages with honorific systems, there is no morphosyntactic distinction between the categories of proper names and pronouns (Siewierska 2004; Heine and Song 2011; Jaszczolt forthcoming b). On the other hand, common nouns can be ambiguous in virtue of their homonymy or polysemy and just as the boundary between these two causes of ambiguity is hazy, so will the attribution to the pre-semantic or semantic level have to be. Presumably, the pre-semantic level would pertain only to homonymy if the latter were to be clearly delineable, while the semantic level to polysemy, where the latter often requires merely fine-tuning in context when such polysemy is diaphanous and therefore recoverable in the synchronic state of language.⁷

Moreover, Problem 1, the question of the range of uses of context, also appears within the semantics itself: a character points to a referent provided by the context of use, and subsequently⁸ context is wheeled in again in the form of circumstances of evaluation in that the content is a function from circumstances of evaluation (possible worlds) to extensions. The first complication is also evident in Stalnaker’s two-dimensional semantics, albeit in a somewhat different way. Stalnaker (1999: 2) points out that “one should be able to say something general about the *kind* of thing we are talking about when we talk about

⁷ For example, arguably, the homonymy of ‘bank’ (financial institution) – ‘bank’ (river edge) is relegated to the pre-semantic ‘fixing’, while in the case of clearly recoverable polysemy (i.e. the case of one lemma) such as that between ‘bank’ (financial institution) and ‘bank’ (building), no pre-semantic level may be required in the explanation.

⁸ Albeit not in the temporal sense.

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possibilities, counterfactual situations, or possible worlds”. Context is understood here in two ways: as a set of *things that have been said according to different participants*, and as a set of *sets of beliefs of different participants*. Unlike on Kaplan’s character-content theory, here we have two dimensions that are equally pragmatic and at the same time equally constitutive of a semantic theory. The set of a person’s beliefs and the ascription of what is said by a particular participant are kinds of epistemological dimensions of discourse, where the sets of ‘things that have been said’ are their causes.⁹ Although, unlike in the case of Kaplan’s account, this duality of understanding of context does not seem to affect the theory of meaning, the problem of definition remains there.

A justification for this epistemological status of context constitutes the second problem (Problem 2) listed above. Stalnaker understands context as a genuinely pragmatic component, ‘pragmatic’ in the Gricean sense of intention-based pragmatics where a speaker means something by an utterance when he/she utters it “with the intention of inducing a belief by means of the recognition of this intention” (Grice 1989: 219). To repeat, this is different from how Kaplan understands context in his ‘Demonstratives’. For Kaplan (1989a), context is a metaphysical rather than an epistemological (or: cognitive) notion. Context is fairly formalized, fairly minimal, and, to repeat, its three roles with respect to semantics are clearly delineated as (i) pre-semantic, (ii) reference-securing, and (iii) providing relevant circumstances of evaluation. All this apparatus is available without making recourse to intentions and intentionality. But the difference between the two construals is not as clear as it seems. Subsequently, in ‘Afterthoughts’ (Kaplan 1989b), this formal apparatus obtains reinforcement from the so-called ‘directing intention’. The directing intention, an intention to refer to something, is responsible for associating the character of an indexical expression with different contents. It is responsible for the potentiality of different referents. But this

⁹ Two-dimensional semantics comes in different varieties and applies to different types of concepts. Here I focus on those pertinent for a linguistic study of reference but see Chalmers 2006 and *Appendix* to Chalmers 2010 for an overview.

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intention, according to Kaplan, is not itself part of the formal description (p. 588) and hence is not part of semantics; it enables the semantics. It belongs to the act of communication:

The same demonstrative can be repeated, with a distinct directing intention for each repetition of the demonstrative. This can occur in the single sentence, “You, you, you and you can leave, but you stay”, or in a single discourse, “You can leave. You must stay.”

Kaplan (1989b: 587).

Directing intention serves one other important purpose, namely it allows us to preserve the semantic content of the utterance in the case of confusing or mistaken demonstration where what is said seems to vary. When, uttering (2), Hermione intends to refer to Harry but vaguely wiggles her wand in the direction where Ron is standing, she is understood by other wizards to refer to Ron. That is why Perry emphasises ‘a forensic element to our ordinary concept of what is said’, ‘forensic’ in the sense that what really matters to meaning is what can be *retrieved* from one’s words:

Saying something is often a social act, which has effects on others in virtue of the words used, their meanings, and other publicly observable indications of the speaker’s intentions (“perlocutionary effects,” in Austin’s terminology). One is held responsible for some of these effects.

Perry (2009: 191).

On this understanding, what is said can differ from audience to audience. At the same time, arguably, a variable ‘what is said’ is of little use as semantic content. One cannot build a

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semantic theory around a concept that allows such a potentially infinite variability of meaning. We need instead a concept of ‘locutionary content’ that is arrived at through directing intentions:

the primary reason we think it is worth developing a semi-technical concept, *locutionary content*, as an explication of what is said, is that the latter concept has a heavy *forensic aspect*, that is tied to its daily use in not only describing utterances but assigning responsibility for their effects, but isn’t helpful for theoretical purposes.

Korta and Perry (2007: 105).

While the ‘forensic element’ is vital in analyzing conversational misunderstandings and conversational breakdown, a formalizable theory of natural language meaning needs, arguably, the *intended* content.

Now, it seems that Stalnaker’s epistemological perspective in two-dimensional semantics copes with this diversity by combining context as sets of beliefs with context as sets of referent ascriptions. The dilemma as to ‘whose meaning should be chosen as the object of semantic description’ disappears; the propositional concept incorporates the relevant perspectives. It appears that the interim conclusion to the second complication (Problem 2) has to be that context cannot be metaphysical, it has to be epistemological-cognitive and include cases of mistaken or misunderstood reference. Metaphysical context is an unattainable illusion, albeit an illusion that frequently assumes the role of the ‘default reality’, where the ‘default’ pertains to the situation where all goes well with the recovery of the speaker’s intentions. The default is assumed unless evidence of mismatches and misunderstandings contradicts it. However, this is not the final word on the utility of the metaphysical construal of context. I return to this distinction at the end of Section 4 and in Section 6 where I tentatively propose that a metaphysical construct may be a useful fiction

for semantic theory to adopt after all, in that the relevant epistemological context reduces to such a metaphysical construct.

3. Context in Contextualism vis-à-vis Contextual Parameters

The next question to address is the possibility of delimitation of contextual parameters. Can context be reduced to a set of components that have to be ‘ticked off’, so to speak, by a processing agent or by a theorist? According to post-Gricean contextualists represented by Relevance Theory of Sperber and Wilson, Recanati’s Truth-Conditional Pragmatics, or Jaszczolt’s Default Semantics among others, any set of contextual parameters would be too restrictive; context is inherently unwieldy. But it is not unmanageable. According to contextualism, the only kind of proposition there is, is the proposition arrived at with the aid of top-down pragmatic inference, that is a pragmatic process that is free, not restricted to any slots or indicators in the logical form of the sentence (see Recanati, e.g. 2004, 2005, 2010; Jaszczolt, e.g. 2005, 2010). Indexical expressions provide ‘bottom-up’ instruction about the need for pragmatic filling in, while, for example, arguably, on some accounts, quantifier phrases do not; (3) is fleshed out (enriched, ‘modulated’, embellished, according to different terminological preferences) without such an overt instruction being present.¹⁰ The only instruction comes from the recognition of the speaker’s intention.

(3) Every plum has a worm in it.

¹⁰ The question of quantifier domain restriction is still a widely discussed one within contextualism.

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Sentence (3) requires a restriction of the domain of quantification in order to represent the speaker's intended meaning. In (3), it will normally be assumed that each of the plums in the bag, or on the plate, or, alas, in a plum cake has a worm in it, rather than that plums in general are kinds of fruit that always come with a worm inside. It has been attempted to ascribe quantifier domain restriction to filling in a relevant putative slot in the logical form of the sentence (e.g. Stanley and Szabó 2000; Stanley 2002 and some essays in his 2007). It would be quite plausible to argue that, as long as we allow that the material that has to be supplied (plums in a bag, plums in a plum cake, etc.) can be supplied via pragmatic inference, it is a matter of methodological preference whether we side with the free enrichment view postulated by (some) radical contextualists or with the filling in of the logical form. But the choice is not as arbitrary as it may first seem as the problem turns out to be only a part of a wider question. There are other aspects of the meaning intended by the speaker of (3) that can only be successfully handled on the free enrichment account. (3) is used to perform a speech act. We can envisage a typical scenario on which the speaker *complains* about the quality of the plums he/she bought, *warns* a friend not to eat the plum cake, *requests* a replacement punnet of plums, and so forth. In the Speech Act Theory tradition, such acts would be classified as indirect, pertaining to some additional illocutionary force that makes them something over and above the assertives/representatives they overtly are. However, this traditional view overlooks the fact that these illocutionary forces pertain to the main content of such utterances and therefore should be modelled as such in an adequate theory of meaning. It is quite obvious that normally when the speaker has a need to utter (3), he/she *intends* such a complaint, warning, request and so forth as the main, primary meaning of the issued utterance. Therefore, if we were to fully follow through the spirit of radical

contextualism, we would have to admit that it is this primary meaning that has to be modelled in our contextualist truth-conditional semantics.¹¹

It is irrelevant for the current argument whether we are talking here about the main meaning as intended by the speaker, as neo-Griceans have it, or the main meaning as recovered by the addressee, as Relevance Theory has it, or else an abstract ‘primary meaning’ construed as intended by a Model Speaker on the given scenario and recovered by a Model Addressee, as proposed in Default Semantics.¹² What matters is that, following the spirit of contextualism faithfully, we should admit that indirect contents may have to be recognised as semantic, truth-conditionally evaluable contents precisely because they constitute main, intended meanings. The relation this meaning bears to the logical form of the sentence is of a lesser importance. Default Semantics proposes just that: the truth-conditionally evaluable content is constituted by the main, intended content, arrived at through putting together information from various sources in the situation of discourse, where the logical form of the uttered sentence does not take priority over other available sources of information about intentions. I return to this topic in Section 4.

Next, there are of course examples in which even the Stanley and Szabó’s strategy of filling in slots would not work, such as (4), where ‘some time’ is interpreted as ‘longer than expected’.

- (4) It will take some time for the British economy to get out of the recession.

¹¹ Some contributors to the contextualism/minimalism debate adopt the label of ‘truth-conditional pragmatics’ for this context-rich representation. However, the term seems misleading: once we adopt the view that context contributes to the truth-conditional content *en masse*, rejecting a label ‘semantics’ has the effect of a retreat from the position that has been adopted. Therefore, in Default Semantics, I adopt the term semantic representation for this contextually enriched content, also dubbed ‘merger representation’ in that it merges information coming from different contributing domains.

¹² Discussed in Section 5.

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(adapted from Carston 1988). Let us see whether these interpretations of (3) and (4), pertaining to the main intended meaning – or even just to the main intended enrichment/modulation (that is, leaving aside for a moment the radical primary meaning that allows for the semanticization of the illocutionary forces of indirect speech acts) – can be fitted in the mould of a formalized notion of context.

There seem to be several options open for defining and delimiting context. First, we can retain Kaplan's (1989b: 591) claim that "[i]f we think of the formal role played by context within the model-theoretic semantics, then we should say that context *provides* whatever parameters are needed" and restrict it to the instances where such a 'bottom-up trigger' is available, at the same time maintaining that this is only one of the forms in which context enters truth-conditional representations of utterances. We will call it Option A. Second, on Option B, we can adopt the late-Wittgensteinian (1953) idea from *Philosophical Investigations*, dubbed by Recanati (2005) *meaning eliminativism*, and admit that each lexical item is, so to speak, 'a bit like an indexical' in that there is no meaning in abstraction from the actual context of use; contextual modulation cannot be dissociated from what we call word meaning.¹³ Third, we could deny indexicality altogether and allow for top-down modulation even in the case of demonstratives and other expressions standardly called indexical (Option C). This list is not exhaustive but continuing it would involve us in well rehearsed debates about the role of grammar in providing pragmatic constituents of meaning which there is no need to repeat here.¹⁴

Each of the three options listed above has some weaknesses. Option A splits context into two varieties which we can call parametric and non-parametric. Bottom-up pragmatic

¹³ An interesting mid-way solution is for example Asher's (2011) idea of the adjustments in types for particular uses words are put to, and the interaction of types in producing compositional meaning, abandoning the traditional theory of types of Montague semantics. On the compatibility of views that transfer the burden of context-dependence away from a lexical decomposition to combinatorial possibilities see also Borg 2010.

¹⁴ See for example Stanley 2002; Stanley and Szabó 2000, and other essays in Stanley 2007; Chierchia 2004; and the discussion above.

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inference is parametric, while free, top-down inference is non-parametric. According to Kaplan, the first can be semantic or pre-semantic, the latter is clearly pragmatic. Such a separation obtains no support from language processing, neither is it methodologically preferred; either we want the logical form (or even grammar if the two are kept apart, see Stanley 2002) to enable various possibilities of enrichment, or we keep the logical form (or grammar) out of it altogether. Option B does not allow for characters for indexicals, that is for linguistic meaning that is fixed and that directs and constrains the variable reference. Such meanings can be clearly delimited, to mention only pure indexicals such as ‘I’, ‘today’, or possibly ‘here’ and ‘now’.¹⁵ On the other hand, non-indexicals can have pure indexical meaning which, arguably, is assigned pre-semantically as in the case of the already mentioned ‘motherese’ as for example in (5) where ‘mummy’ stands for first-person reference. Similarly, the normally echoic¹⁶ metaphorical use of a diminutive form ‘piglet’ in (6) serves the function of first-person singular pronoun.

(5) Mummy will be with you in a minute.

(6) The *piglet* has finished his porridge.

Intuitively, referring expressions in (5) and (6) behave like honorifics in that they are used for restricted social contexts and do not rely on the processing of implicatures. Also, as was briefly discussed in Section 2, honorifics such as Thai ‘mice’ in (7), used as a first-person

¹⁵ But see Jaszczolt forthcoming b on the non-indexical uses of ‘I’. They are very restricted but they do take place.

¹⁶ As, for example, in a response to mother’s comment on a little boy’s messy eating habits in ‘What a mess, a piglet must have been sitting here!’. Such echoic uses normally come with a dedicated intonation pattern, stressing the echoically used expression.

plural form ‘we’ by women in situations of social deference, are arguably pre-semantically indexicals, semantically bleached, while arising from a common noun.¹⁷

(7) The *mice* are asking you to forgive them. (Thai)

So, the boundary between indexicals and non-indexicals may indeed be more blurred than formal semanticists envisage it to be. Finally, Option C suffers from a similar weakness as Option B in failing to differentiate between fixed and variable characters. We can conclude by confirming that before we can even envisage delimiting a list of contextual ‘parameters’, the question as to how and when to use them and with what classes of words would be a very difficult one to answer, possibly making the entire proposal of contextual parameters unviable.

4. Context Selection: Whose Meaning?

Grice’s non-natural meaning ($\text{meaning}_{\text{NN}}$) is clearly a concept founded on speaker’s intention.¹⁸ In the current discussions around the question as to whether a theory of meaning should model speaker’s intended content or the addressee’s recovered content, Grice stands firmly on the side of the speaker’s intentions, albeit subjectivism is prevented thanks to the reliance on universal principles of utterance processing represented by his maxims associated

¹⁷ Another example of blurring the boundary between indexicals and non-indexicals is the metonymic use of the first-person pronoun, as in ‘I am parked out there’, standing for ‘My car is parked out there’. I owe this example to an anonymous referee. Ample examples of blurring this boundary in the case of the first-person pronoun are also provided in Jaszczolt forthcoming b.

¹⁸ In some circles, one talks not about $\text{meaning}_{\text{NN}}$ but about assertions. This term is used for example in Stalnaker’s eponymous paper (1978) but it has to be remembered that the terms are directly compatible. An assertion, according to Brown and Cappelen (2011: 4), is a saying that has some effect on the hearer. It expresses the speaker’s belief and the intention that he hearer adopt or hold this belief.

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with the Cooperative Principle.¹⁹ This is how his theory of meaning intention and his theory of cooperation are closely interrelated. For Grice,

‘*U* meant something by uttering *x*’ is true iff, for some audience *A*, *U* uttered *x* intending:

- (i) *A* to produce a particular response *r*
- (ii) *A* to think (recognize) that *U* intends (1)
- (iii) *A* to fulfil (1) on the basis of his fulfilment of (2).

Grice (1989: 92).

When the speaker utters an indexical expression where a proper name or a definite description would have been more informative, it is so because according to the maxim of Quantity, and equivalent mechanisms in neo-Gricean accounts of Horn’s (e. g. 2004) principles and Levinson’s (2000) heuristics, the use of an indexical is the most optimal, rational choice. Context is here conceptually dependent on these mechanisms of rational behaviour: it is, in terms of our earlier discussion, an epistemological notion. The addressee hears an indexical expression and the context is activated – retrieved or constructed *ad hoc* – in search (conscious or automatic) for a referent. Grice (1989: 222) explains this secondary, or ‘ancillary’, role of context in the following way:

In cases where there is doubt, say, about which of two or more things an utterer intends to convey, we tend to refer to the context (linguistic or otherwise) of the utterance and ask which of the alternatives would be relevant to other things he is

¹⁹ See von Stechow and Matthewson 2008 and Evans and Levinson 2009 on their candidates for semantic and pragmatic universals. For the current discussion suffice it to say that principles of utterance processing in one of their post-Gricean forms are generally considered to be a candidate for a pragmatic universal.

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saying or doing, or which intention in a particular situation would fit in with some purpose he obviously has (e.g. a man who calls for a “pump” at a fire would not want a bicycle pump). Nonlinguistic parallels are obvious: context is a criterion in settling the question of why a man who has just put a cigarette in his mouth has put his hand in his pocket; relevance to an obvious end is a criterion in settling why a man is running away from a bull.

In short, intentions can be explicit or implicit, and clear or unclear. When they are unclear, context understood as (linguistic) co-text, as well as the situational goals and stereotypes, comes to the rescue. While the notion of context has become dynamic and incremental in the decades since Grice’s theory of meaning_{NN} was conceived, mainly as a result of the development of dynamic semantic approaches such as Discourse Representation Theory (Kamp and Reyle 1993) or Dynamic Predicate Logic (Groenendijk and Stokhof 1991) and accounts of presupposition associated with them (e.g. van der Sandt 1992), the speaker-centrism, kept within the bounds of objectivism by universal principles of rational conversational interaction, still prevails. So, to return to the discussion of Kaplan’s directing intention and the addressee-oriented ‘what is said’ as contrasted with speaker-oriented locutionary content (in Perry’s 2009 terminology), it is the latter that prevails both in Grice and the neo-Gricean accounts on the one hand, and in versions of two-dimensional semantics on the other. Context is then speaker’s context. In Default Semantics, it is further constrained as a Rational Model-Speaker Context: the context that a rational model speaker would construct, out of the available common ground. In this way, arguably, short of resorting to the inadequate contextual parameters, we can build a contextualist semantic account on the assumption that standard scenarios (default contexts) will give us insights into standard inferences and default meaning assignments, the latter understood as *defaults in the given*

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context. The topic of default contexts and default inferences in a given context is discussed in the following section.

Now, it appears that the main difference between Gricean accounts and two-dimensional semantic accounts with respect to context can be seen as the difference of objectives, where this difference of objectives dictates the concepts of context. For Stalnaker (1975, 1978, 2011), the person's beliefs act as a constraint on relevant possible worlds, creating a set of centered possible worlds with respect to which truth-evaluation is relevant. The person can be any participant of the discourse – this is particularly important in the case of indexicals. On the other hand, it seems that for Grice, propositional concept can, so to speak, be taken for granted; what matters is the speaker's dimension of reference assignment (Stalnaker's speaker-bound horizontal) and the dimension of the speaker's set of beliefs (Stalnaker's speaker-bound vertical). Other horizontal and vertical dimensions of the propositional concept are assumed to be regulated by the universal principles of utterance processing (also referred to as pragmatic universals) and therefore can be left out of the analysis.

When it comes to free top-down enrichment, the role of context is also regulated by speaker intentions. For example, (3), repeated below, will invoke different aspects of the relevant scenario when the intention is to stop the addressee from eating the plums, and a different subset of shared information (if indeed context is construed as information) when the speaker tries to obtain a refund at a greengrocer's. It would certainly be difficult to parametrize such differences that pertain to the recognition and ascription of the relevant illocutionary force.

(3) Every plum has a worm in it.

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But it has to be remembered that free enrichment is also regulated by default meaning assignment performed through an automatic process, where the automaticity comes from the memory of previous contexts, knowledge of general laws, or the properties of human inferential system that aims at the strongest intentionality and the most informative relevant referentiality of the expressed propositions.²⁰ Contextualists are definitely correct in pointing out that “...in general (i.e. not only in the special case of indexicals), the propositional contribution of an expression is not fully determined by the invariant meaning conventionally associated with the expression type but depends upon the context” (Recanati 2010: 17). It seems that ‘*the context*’ in this statement is uniformly defined both for indexicals and non-indexicals and, analogously, the processes of meaning assignment can be regarded as operative across the board.

Context is also uniformly defined for the truth-conditional content *tout court*. And the latter, as is argued in Default Semantics, is best understood as the content intended by a rational speaker, recovered by a rational addressee. Returning briefly to our initial distinction from Section 1 between metaphysical context and epistemological context, it can now be easily observed that by fixing the properties of the speaker and the addressee in such a way, namely by proposing a model, rational speaker and a model, rational addressee as agents in the explanation of utterance meaning, both obeying the principles of rational conversational behaviour, both making correct assessments of the other’s sets of beliefs and intentions, what we called earlier an epistemological context, the context pertaining to the participants’ knowledge and beliefs, can be collapsed to the metaphysical context. Put simply, if all goes well in conversation, if assumptions and reality are matched, metaphysical context, the very reality of the situation of discourse, will suffice. It will correctly model reality, knowledge

²⁰ Typology of defaults has been discussed with reference to (i) sources of information and (ii) types of processes involved in utterance interpretation in Jaszczolt 2005, 2009a, and 2010. The degrees of intentionality in the use of referring expressions have been discussed, among others, in Jaszczolt 1997 and 1999. See also Section 5.

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and beliefs at the same time. Epistemological context can legitimately be assumed to be reducible to metaphysical context: unless something goes wrong in conversation, we assume mutual understanding and sharing of pertinent assumptions. What I labelled before the Rational Model-Speaker Context can thus be reduced to a metaphysical category. Default Semantics makes precisely such a move and this is the topic to which I now briefly turn.

5. Content and Context in Default Semantics

In this penultimate section I address the question ‘Whose meaning?’ specifically from the perspective of the radical contextualist account of Default Semantics. The universal principles of rational communication, also referred to as a pragmatic universal (von Stechow and Matthewson 2008) are the foundation for what is called there a Model Speaker-Model Addressee communication. Default Semantics aims at representing the meaning of a rational (model) speaker, as recovered by a rational (model) addressee in situations of discourse that fall under the description from the end of Section 4 above, namely the situations of mutual understanding and sharing of pertinent assumptions. Its objective is to give foundations of a theory of how meaning is *normally* composed, taking into consideration typical situations of discourse. It focuses on identifying *sources* of information about intended meaning that are available in the context, and mapping them onto *types of processes* that interact in the production and in the comprehension of the intended message. The relevant methodological directive is therefore to begin with situations of discourse in which the process of meaning recovery goes smoothly and the intended message is correctly recovered, and therefore the situations in which the interlocutors’ assumptions about contextually available information match in the relevant respects, that is to the extent that allows for the speaker’s intentions to

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match the ascription of the intentions by the receiver. Default Semantics has relatively little to say about cases of miscommunication, and where it does, it follows the Gricean and neo-Gricean tradition of focusing on speaker meaning, and thereby the Kaplanian tradition of focusing on directing intention, also represented in Perry's (2009) and Korta and Perry's (2007) locutionary content.

To repeat, Default Semantics models the main meaning intended by the Model Speaker and recovered by the Model Addressee irrespective of the relation it bears to the structure (logical form) of the uttered sentence. This modelled meaning is orthogonal to the *what is said/what is implicated* distinction. The rationale for this construal comes from empirical and theoretical evidence. As we discussed in the example of the main illocutionary force associated with uttering (3) above and the role that contextualism should arguably assign to it within the semantic content, there is no convincing theoretical argument for maintaining the distinction between content that pertains to an enriched logical form on the one hand, and content that does not preserve this logical form on the other. Neither is there experimental evidence in support of the hypothesis of psychological plausibility of such a distinction.²¹ The logical form of the sentence can not only be *extended* but can also be *replaced* by a new semantic representation in order to reflect the primary, intended meaning. Such extensions or substitutions contribute to representations that are called in Default Semantics merger representations in that they merge information coming from different sources and through different types of processes of interpretation. To summarise our earlier discussions of the primary meaning of (3) in the form of a catchphrase,

There is no syntactic constraint on merger representations.

²¹ See Jaszczolt 2008 and the sources discussed there, in particular Nicolle and Clark 1999; Pitts 2005, and Sysoeva and Jaszczolt 2007. For a theoretical argument from cancellability see Jaszczolt 2009b. See also Pulvermüller 2010 for possibilities of obtaining evidence from neuroscience of language where neuronal structures are assumed to be correlates of linguistic representations and patterns of neuronal activation are taken to be correlates of linguistic processes. Designing pertinent experiments is, however, a task for the future.

The relaxation of the reliance on the logical form does not come with a departure from the requirement of compositionality of meaning though. Compositionality of meaning is preserved as a methodological assumption on merger representations; in the contextualist spirit, composition is a pragmatic composition and the truth conditions are applied to its output – the output of the contributing sources of information, composed via the contributing processes, as identified in the theory.

The Gricean account of context also applies here, with some modification: Stalnaker's horizontal (but only speaker-centred) dimension of his propositional concept is what is modelled, and so is Stalnaker's vertical (but only speaker-centred) dimension of beliefs. In this way, to repeat, by modelling presumed inferences and situations in which assumptions of the interlocutors match without producing miscommunication, we can reinstate metaphysical context out of the epistemological context. The pragmatic universal of rational cooperation reduces the possibilities by reducing the epistemological, intention-based notion of context to the presumed metaphysical, shared, albeit dynamic, context. And this is where the formal tradition of two-dimensional semantics, Gricean meaning_{NN}, and dynamic approaches all meet in the use they make of the theoretical tool dubbed context. Arguably, conversational breakdown and miscommunication have to, by definition, fall outside a theory of what interactants rationally do; they have to be accounted for by a psycholinguistic theory rather than theoretical, philosophical semantics. As a result, the answer to the question 'Whose meaning?' is also predetermined, in that, by definition, discrepancies between intentions and intention ascriptions fall outside the theory as they constitute deviations from pragmatic universals. One can have either (a) a semantic theory or (b) psycho- and sociolinguistic explanations of miscommunication, but not both at once.

6. Dénouement

In this critical survey of the use of context as a theoretical tool in various selected versions of the semantics-pragmatics mix, we concluded that context understood as speaker's beliefs and speaker's reference assignment (in the vertical and horizontal dimension of Stalnaker's propositional concept respectively) indeed reflects Grice's idea of building meaning upon intentions, but at the same time is somewhat excessive in not giving due credit to universal principles of rational cooperation. Normally, when there is a risk of being misunderstood, the speaker would not use an indexical but would resort to an alternative with richer semantic content (such as a description), or to a proper name – a directly referential expression whose unique referent was secured in the pre-semantic phase of context utilisation. While this may seem to be an unimportant restriction in formal semantics where the variability of referents of indexicals is to be emphasised, it is an observation that has to be in focus of every theory of discourse. As a result, the utility of the matrix for the propositional concept appears significantly reduced there.

There are, of course, loose ends. Two-dimensional perspective seems to allow for the formalization of all kinds of pragmatic additions – effects of 'modulation', top-down processing, as sets of alternatives. As was briefly pointed out in the discussion of Options A-C in Section 3, indexicality is a flexible property and can be construed as applicable to a wide range of expressions. The alternation between indexical and non-indexical use of words is also a common fact, as was shown in examples (5)-(7). It is also attested in *de se* belief attribution, where, in addition, we have the variability with respect to the presence of self-awareness in different contexts in which first-person indexical is used (Jaszczolt forthcoming a). On the other hand, flexibility is restricted by the universal principles of rational

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conversational behaviour, also known in the form of maxims or heuristics. There are always some optimal means for conveying what the speaker intends to communicate. So it seems that the next step should consist of developing a more flexible notion of a character where linguistic meaning is derived not from the properties of a word but from the interaction into which it enters and from ‘webs of words’ (Asher 2011). This is what is what I tentatively called elsewhere a ‘fluid character’ (Jaszczolt 2012).

On the other hand, contextually supplied information and linguistically supplied information are not alike in strength or dependability, even in the case of the main intended meaning, where, arguably, Grice’s criterion of cancellability as a method of delimiting implicatures is of little use.²² This difference is attended to in Default Semantics by ascribing linguistic information to a separate source called ‘word meaning and sentence structure (WS), placed in the context of such sources as world knowledge (WK); stereotypes and presumptions about society and culture (SC); properties of the human inferential system (IS); and situation of discourse (SD). There is some convincing experimental evidence to support this distinction between linguistically supplied and contextually supplied information. For example, Larson *et al.* (2009: 80) report an experiment in which a clearly misused indexical (classified there under so-called ‘necessary contextual elements’) triggers a rate of ‘false’ responses of 86-92%, whereas contradiction control items that are clearly false responses given the fact, produce a rate of 98-99% across the three specified instruction conditions. The case is exemplified in (8) (*ibid.*, p. 80). Presented with the FACT described as in (8), subjects do not react with the response ‘false’ as often as they would in the case of a contradiction, although the use of ‘these’ is clearly inappropriate and misleading.

(8) Irene: What shoes are you wearing to dinner?

²² See Jaszczolt 2009b on the *degrees of entrenchment* of explicit and implicit meaning.

Sam: I'm going to wear these shoes.

FACT: Sam has decided to wear the shoes in the upstairs closet, not the ones he is currently putting on.

The difference between cases such as (8) and contradictions is significant; subjects distinguish between linguistically supplied and contextually supplied information, even when there is no/little doubt concerning the referent. Taking also into account the facts that the rate of false responses for generalized conversational implicatures was 36-50%, and that for entailments false responses ranged from 4 to 7% across the instruction conditions, it appears that the claim that the resolution of indexicals makes use of context in a qualitatively different way may be justified.

Another contentious issue that remains is that of the role of intentions. While Perry's (2009) locutionary content is delivered by the intention of the speaker, it is at the same time based on directing intentions, and therefore on what we could call interactive, meta-intentions rather than 'real', psychological intentions. As such, his locutionary content is open to considerable weakening in unclear cases and cases of incompatibility between intention and demonstration. In Default Semantics, the content as ascribed to the Model Speaker and the Model Addressee and represented in merger representations also relies on meta-intentions, in that it abstracts from cases where there is a mismatch of assumptions and treats the pragmatic principles of rational cooperation as the sole guarantee that intended meaning equals recovered meaning, at the same time reducing the epistemological construal of context to a metaphysical construal. Intentions are constitutive of the explanation but any experimental testing would have to resort to the statistical probability that conversation won't go off the rails.²³

²³ On the role of intentions see also Haugh and Jaszczolt 2012.

Finally, in construing the concept of context as a set of speaker's beliefs, when used in conversation and restricted by the presumption of rational cooperation, we have to account for the fact that inferential processes performed by the addressee are offset by the assumption of default, automatic 'clicking in' of certain interpretations. This latter notion of context as fossilised previous contexts that produce salient, automatically retrieved meanings is yet another unresolved issue.²⁴

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²⁴ See Giora 2003; Jaszczolt 2011 and other papers in Jaszczolt and Allan 2011.

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