

Chapter 1

Salient meanings, default meanings, and automatic processing

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1.1. Preliminaries

As a result of the ongoing disputes concerning the boundary between semantic and pragmatic aspects of utterance meaning, the psychology of utterance processing has recently moved to the forefront of attention in post-Gricean pragmatics. The principal rationale for this trend is the following. When the outcome of pragmatic processing of an utterance came to be admitted as part of the truth-conditional content, or, in other words, when truth conditions came to be employed in the service of the meaning of utterances rather than sentences, a plethora of new research questions to do with the process of utterance interpretation has emerged. Contextualism, to call this orientation by its name (see Recanati 2005), must address the issues of, for example, *how much context* is allowed in the truth-conditional representation, *how* this contextual information gets there, and *at what stages* in utterance processing it gets there. Frequently asked questions include:

- Is there a difference between the processes which enrich the logical form of the sentence (constructing the *explicit content*, a.k.a. *what is said*) and those which produce implicatures understood as separate thoughts?
- Is there a difference in processing between inferring from context (viz. Grice's particularized conversational implicatures) and inferring from general assumptions (viz. generalized conversational implicatures)?
- How should pragmatic inference be defined? Should it subsume automatic, associative 'additions' to encoded content or rather should the term mean only conscious processing by definition?
- Is pragmatic inference local (pre-propositional) or global (post-propositional)?

To this well-rehearsed list we shall add some other seminal questions to be tackled in what follows:

- How should automatic enrichment of the logical form be defined? Does the term ‘pragmatic default’ suit the task?
- Are there context-free automatic enrichments (defaults)?
- Is there context-free salient lexical meaning?
- Are salient lexical meanings and default meanings compatible concepts?

In what follows I make use of several approaches which emphasize the importance of such default meanings on the lexical and propositional level and point out how they contribute to solving some of the main problems listed above. I focus on Levinson’s (2000) presumptive meanings, Recanati’s (2004, 2007, 2010) automatic enrichment/modulation, Giora’s (2003, forthcoming, Peleg and Giora, this volume) graded salience, and Jaszczolt’s (2005, 2010a) default meanings of merger propositions, also pointing out the importance of default enrichment in dynamic semantics and optimality-theory pragmatics. We have to begin by pointing out that default sense is not necessarily a property of propositions but may arguably figure much earlier in the process of utterance interpretation. For example, it is theoretically possible that in (1) the meaning of ‘secretary’ is enriched by the addressee to ‘female secretary’ as soon as the relevant noun is processed, without waiting until the entire proposition is recovered.

(1) We sat down in Mr Baker’s office and his secretary brought us coffee.

However, *pace* Levinson (2000) who proposes a theory of such ‘local’ typical, presumed interpretations, it seems that such a pre-propositional unit, be it a word or a phrase, on which salient interpretation operates, cannot be theoretically established *a*

priori. Instead, it seems to be dependent on the particular situation of discourse. In (2), for example, no analogous inference seems to arise.

(2) The president's secretary was an expert on the new policy.

For this reason, it is prudent to wait with postulating such units until there is sufficient empirical evidence from relevant experimental or corpus-based studies. In the meantime, it seems methodologically preferable to adopt what we can call the principle of *methodological globalism*: unless there is sufficient evidence for postulating default interpretations of expressions, it is methodologically sound to build a theory of utterance processing on an assumption that default senses apply to propositions alone. In other words, one has to recover the speaker's thought which in itself can be taken in some salient sense or interpreted in a less salient one.¹ We shall now proceed on adopting this assumption and will return to the psychological aspects of the local/global question in Section 1.5.

At this stage we have been using the term 'default' without giving it a fixed meaning. Continuing to do so would be bad practice – the kind of practice that has already led to a plethora of futile disputes and misunderstandings in the literature on the subject. For instance, the ongoing dispute between 'defaultists' and 'noncists' tends to make use of the term '*the* default account', referring only to Levinson's rather idiosyncratic understanding of the term (see contributors to Noveck and Sperber 2004 or Breheny *et al.* 2006). Let us then focus, for the rest of this section, on assigning a specific meaning to the term 'default' whereby 'default' will mean an automatic interpretation (or 'default' processing). To arrive at an interpretation 'by default' means to arrive at it unconsciously, without effort or time lapse. The sources of such automatic meanings can be various and we will not pursue this topic at the moment.² Suffice it to say, defined as such, default interpretations are interpretations whose automaticity can have different provenance: sometimes it is context that enables it, at other times it arises out of context. In other words, context-dependent

¹ We refrain from the labels 'context-free' and 'context-dependent' for the time being.

² In Default Semantics, there are default interpretations that arise thanks to the properties of human inferential system (so-called 'cognitive defaults') and defaults that arise when the subject is immersed in a particular culture and society (so-called 'socio-cultural defaults'). For a revised version of Default Semantics see Jaszczolt 2009a and 2010a. See also Section 1.3.

defaults is not an oxymoron on this definition: defaults can be context-free or context-dependent.

Defaults can co-exist alongside inferential interpretations as two routes through which the main intended message can be reached by the addressee. In Default Semantics (henceforth DS), this main intended message is called *primary meaning* – borrowing the term from the contextualist literature (e.g. Recanati 2004) but giving it a new scope. The formal equivalent of primary meaning is a merged proposition, represented in DS as a merger representation. Now, merged propositions are units of main content and as such are orthogonal to the standard contextualist explicit/implicit (what is said/what is implicated; primary/secondary) divide.³ They are orthogonal for a very important, empirically verifiable reason. The standard contextualist distinction is drawn around the concept of development of the meaning of the uttered sentence and as such is dictated by the structure of that sentence in that development has to amount to the development of the logical form but must not go beyond it. If the ‘skeleton’ in the form of the logical form is not preserved, then we don’t have the explicit/said/primary meaning on the standard contextualist accounts⁴ but instead we deal with implicatures. In DS this structural constraint is not endorsed as there does not seem to be evidence from discourse that would support it; on the contrary, the majority of human communication takes place indirectly, that is in a manner where the meaning of the sentence does not provide even a logical structure to the main intended message (DS-theoretic primary meaning; see e.g. Sysoeva 2010 on primary meanings in English and Russian discourse).

Default meaning is arrived at compositionally. But compositionality of primary meaning can only be upheld when we recognise that the units that compose it are not the syntactic constituents of the sentence but instead constituents of a representation that draws on various means by which meaning is conveyed in discourse. Starting with salient meanings of lexical items (Giora 2003 and Peleg and Giora, this volume), interlocutors proceed to the interpretation of larger units either assigning meaning to them automatically or processing them through conscious inference, depending on contextual factors. The compatibility of lexical salience and pragmatic defaults will be taken up in Section 1.3. To repeat, assuming

³ See also Haugh, this volume.

⁴ The distinction dates back to 1980s, see e.g. Sperber and Wilson’s 1986 and Carston’s 1988 on explicature and ultimately the Atlas-Kempson thesis that initiated the radical pragmatics of negation in 1970s (see Atlas 1977; Kempson 1975; and Atlas 2006 for a historical account).

methodological globalism, we refrain from making assumptions concerning the length and status of any units that may give rise to such automatic senses. In the current state of post-Gricean pragmatics, an assumption that these units vary and have to be empirically established is the best way to proceed.

In brief then, we have just attempted to define the term ‘default’ by using processing criteria to mean the interpretation that is arrived at automatically, as opposed to information that is consciously inferred. This automatic appearance of such interpretations has various sources, the combination of which, and *a fortiori* often the result of which, varies from person to person. Therefore, default meanings are fast and effortless but do not always coincide with statistically frequent interpretations.⁵ Such meanings are salient in the context but not necessarily salient *per se*, on the lexical or syntactic, context-free level. They may be salient for the situation and for the speaker, because the sources of information about the speaker’s meaning operate in such a way in this particular scenario. It is evident from this rather permissive definition that such defaults have little in common with Levinson’s (2000) presumed interpretations which are ‘*utterance-type meanings*’, arising in all conversations, unless they are specifically cancelled in a particular context. This difference in the properties assigned to defaults is taken up in Section 1.4. Our DS-theoretic defaults are defined from the perspective of the agent engaged in the process of interpretation: they are meanings arrived at by the agent automatically, be it independently of the context or not, idiosyncratically or in agreement with other potential agents, because of a word that is used, a phrase, or an entire sentence or a series of sentences. The definition is then derived from the psychology of utterance processing rather than being founded on the theory of the structure of discourse. This orientation opens up a possibility, closed to structure-based defaults of Levinson’s theory of generalised conversational implicature, and indeed to Grice himself, of looking at possible affinities between the concept of default so-defined and the concept of salient lexical meaning as discussed in Giora’s (2003) theory of graded salience. When compositionality is conceived of as a property of utterances (or indeed discourses) rather than sentences, automatic salient meanings in the lexicon seem to be compatible with the default-semantic model of utterance processing: they interact with outputs of other sources of information about utterance meaning to produce the

⁵ Although, naturally, statistically more frequent meanings are *ceteris paribus* default meanings in that statistical frequency has automatic generation as one of its main causes.

interpretation either automatically (to repeat, ‘default interpretation for the context and for the speaker’) or inferentially. This is the conclusion we will reach in this paper.

1.2. Automatic meanings in the lexicon and in discourse

Whereas, on the one hand, pragmaticists are interested in default interpretations of utterances and the possible automaticity of these defaults, on the other, it is also well acknowledged that some lexical items do come with salient, context-free preferred interpretations. Nonmonotonic reasoning in the processing of the lexicon is a well established domain of research, to mention only default inheritance (e.g. Asher and Lascarides 1995; Lascarides and Copestake 1998), abductive inference in the lexicon (Pustejovsky 1995), Giora’s Graded Saliency Hypothesis (henceforth GSH, e.g. 2003 and Peleg and Giora, this volume) and Allan’s (this volume) formulae for probabilistic inference. These two strands of research, post-Gricean localism/globalism debate on the one hand, and nonmonotonic inference in the lexicon, inspired by computational linguistics on the other, rarely meet. If we were to contrast them in the most rudimentary manner, we would obtain the following two hypotheses:

Hypothesis 1:

Lexical items give rise to context-free enriched meanings, be it through automatically attained salient interpretation or lexicon-based inference.

Hypothesis 2:

Inferential enrichment or default (automatic) enrichment can arise either on the level of the lexical items, on the level of the proposition, or on a level in-between these two.

Let us narrow down the investigation to the automatic enrichment on various levels of the utterance. When we address the issue of ‘automatic attainment’ of salient interpretations, we narrow down the study of the lexicon to exclude conscious inference from Hypothesis 1, but have to extend it in the direction of Hypothesis 2, asking whether such automatic lexical meanings have anything in common with

automatic meanings postulated for utterance interpretation in some post-Gricean accounts. Following our assumption of methodological globalism, we arrive at the need to compare the following two tenets:

Tenet 1:

Defaults, understood as automatic interpretations for the context, pertain to entire propositions/sentences/events/situations of discourse.

Tenet 2:

There are automatically attained salient context-free lexical meanings.

Tenet 1 comes from the methodological assumption of DS and tenet 2 from Giora's GSH. While discussing post-Gricean globalism/localism dispute, we emphasized that default interpretations were defaults for the context: in some situations 'some' will trigger automatic enrichment, in others it will not. On the other hand, lexical salient meanings are normally meanings whose salience is probabilistic, statistical, and can be built into a computational model of the lexicon. Giora (2003: 10), on whose approach we will focus for our comparison, states this point as follows:

'[M]ore salient meanings – coded meanings foremost on our mind due to *conventionality, frequency, familiarity, or prototypicality* – are accessed faster than and reach sufficient levels of activation before less salient ones. According to the graded salience hypothesis, then, coded meanings would be accessed upon encounter, *regardless of contextual information or authorial intent.*'⁶

Similarly, Allan distinguishes monotonic (marked as '→' below) from nonmonotonic (marked as '+>' below) 'inference' on the level of lexical items. In (3) and (4), 'lamb', 'goat', 'leopard' and 'fox' all trigger the non-cancellable meaning product-of as a result of using the uncountable form, and cancellable pragmatic meaning meat-of or pelt-of depending on the *conventionality, frequency, familiarity, or prototypicality*.

(3) Harry prefers lamb to goat.

⁶ My own emphasis.

(4) Jacqueline prefers leopard to fox.

Uncountable animal → product-of

+> meat-of

+> pelt-of

(adapted from Allan, this volume)

Both types of ‘added’ meaning, monotonic and nonmonotonic, have their place in the lexicon rather than in the pragmatic, Gricean, propositional overlay. Nonmonotonic meanings are just probabilistic meanings of the lexemes.

How are we to reconcile T-1 and T2? Are they compatible? Such salient lexical meanings are produced automatically and irrespective of the particular context. We have also proposed earlier that default interpretations of utterances are produced automatically in the particular context. Can these two claims to automaticity of these very different processes be compatible?

1.3. Default meanings and salient meanings: Towards a unified account

Salience on Giora’s account is not contextual salience; it pertains to the storage of meanings in the mental lexicon. We can call it instead ‘pre-contextual salience’:

The criterion or threshold a meaning has to reach to be considered salient is related only to its accessibility in memory due to such factors as frequency of use or experiential familiarity. Giora (2003: 33),

or even ‘salience in spite of context’:

[P]rivileged meanings, meanings foremost on our mind, affect comprehension and production primarily, regardless of context and literality. ...[A]ccess of salient

meanings is hard to prevent, even when context is highly supportive of the less or nonsalient meaning, irrespective of whether they are literal or nonliteral.⁷

Giora (2003: 103).

At the same time, Giora allows for situations in which context has an immediate effect on the interpretation, creating the impression of direct access. What matters to her GSH is that lexical access as such is not affected: ‘...across the communication path, context and linguistic effects run in parallel’ (p. 11), context producing final interpretations but not affecting the lexicon itself.

The properties of Giora’s salient meanings make them sit in-between two polar types of accounts: the direct access one and the modular one. According to the direct access view, context can be responsible for activating the relevant sense of an ambiguous word to the extent that the lexical salience does not play a part. On the modular accounts, ambiguous words engender the activation of all of their meanings, and the contextually inappropriate ones become suppressed at the next stage of processing. On Giora’s salient meanings view, lexical access and processing of the context operate in parallel. Meanings that are more familiar, frequent, or conventional are activated first, independently of their contextual relevance. Next, context can play its role in that inferential or automatic (our: default) interpretation takes place. If the context-dependent interpretation kicks in early, for example due to the inference from previous sentences that gives rise to expectations, then the role of salient meanings can be negligible; they disappear, so to speak, and do not affect the interpretation. And yet, they had been or will have been there, stronger or weaker, with their gradable presence.

The outputs of the processing of the context and the processing of the lexicon run in parallel on this account but the speed is the decisive factor: the sooner the output of context-based inference kicks in, the sooner the relevant meanings are activated, vis-à-vis the salient, context-independent meanings accessed in the bottom-up way. The appropriate meaning may even be activated before context-independent meaning. Now, since the GSH postulates that salient meanings are ‘automatic’ and ‘context-free’, it appears that the hypothesis has to run counter to the assumptions of

⁷ For example, familiar metaphorical and familiar literal interpretations of expressions are equally easy to access. See Giora (2003: 108).

DS where ‘automatic’ can be ‘context-dependent’ and therefore apparently subscribe to direct access.

Let us first consider a relatively simple example (5). It appeals to encyclopaedic information rather than to the lexical retrieval in that it involves reference assignment to proper names.

(5) In *Revolutionary Road*, Kate and Leonardo made a very dynamic couple.

DS would make the following assumptions here:

- (i) An utterance of (5) has one intended interpretation/primary meaning.
- (ii) Since we don’t know exactly when the ‘going beyond sentence meaning’ takes place in the process of utterance interpretation, we can talk only about the meaning on the ‘global’ level of a proposition.
- (iii) For many (but of course not all) communicators, this primary meaning is likely to be (5a)
- (5a) In *Revolutionary Road*, Kate Winslett and Leonardo diCaprio made a very dynamic couple.

This reference assignment is triggered by the recognition of the film title *Revolutionary Road*.

(iv) The identification of the referents is arrived at either (a) inferentially, or (b) is attributed to socio-cultural defaults, depending on the entrenchment of information about the film in a particular agent.

It is (iv.b) that we should be particularly interested in for the current purpose of assessing compatibility of the claims made by GSH and DS, making an assumption that proper names as lexical items give rise to similar salience effects. A dedicated film enthusiast or film critic may recover the referent of ‘Kate’ automatically, while a casual viewer may have to, at best, consciously recover from memory that Kate

Winslett indeed acted in this film. An even less interested viewer, or one endowed with poorer memory, may simply infer here something to the effect ‘an actress who is presumed to be intersubjectively identifiable in conversation when referred to by first name’.

When the scenario includes inference, Giora’s graded salience is perfectly compatible with the DS-theoretic predictions. I may still automatically invoke the sense, say, ‘my best friend Kate’ or ‘my favourite singer Kate Bush’ and then it becomes suppressed thanks to the parallel workings of the processing of the context. But when the scenario allows for a socio-cultural default and thereby it is assumed that only the contextually relevant interpretation is triggered, and in addition it is triggered automatically, we apparently have a clash. If in (3) ‘Kate’ gives rise to the automatic assignment of reference as Kate Winslett, it is so due to the contextual embedding. However, the clash may be only apparent rather than real. All that GSH predicts here is that context should have no impact on blocking salient meanings. But his particular situation does not fall under the remit of GSH: ‘Kate’ as a lexical item does not have salient meaning in the sense in which common properties and relations do. Unlike ambiguous common nouns or verbs for example, it does not have salient meaning worth testing. This does not mean that it is not testable. It is perfectly plausible to assume that people have salient interpretations of proper names (see e.g. Carston 2007). So, rather than fix a rigid boundary between common and proper names, let us consider the other proper name from example (5). ‘Leonardo’, on the contrary, seems to be worth testing in that it is clearly culturally loaded. Indeed, whether the sense ‘Leonardo da Vinci’ is invoked in the context of (5) is a matter for experimental testing. It is at least feasible that it does. But since proper names as directly referring expressions present a special case in that their meaning is at most encyclopaedic knowledge, again, the issue is somewhat tangential to the dispute.

Let us then take a sentence with an ambiguous word such as ‘pen’ in (6), or a sentence that leads to an interpretation due to an embedding in a social expectation, such as ‘secretary’ in (1) repeated below.

(6) Tom left the pen open and the pigs got out.

(1) We sat down in Mr Baker’s office and his secretary brought us coffee.

Since DS assumes methodological globalism, it seems that there is no obvious clash between the predictions of GSH and DS. If the automatic meanings were allocated to particular ambiguous words such as ‘pen’ or ones leading to culturally loaded predictions such as ‘secretary’, as on Levinson’s account discussed in Section 1.4, then the hypothesis that the contextually relevant meaning is automatically triggered would be incompatible with GSH. As it is, however, the issue of compatibility is still left open. It has to be flagged in that if there is a socio-cultural default in (1) that leads to an automatic enrichment to ‘female secretary’, the automaticity reflected at the global, macro, propositional level would have to subsume the parallel processing of the lexicon and context at a micro stage. In other words, in (5), ‘Kate and Leonardo’ may automatically trigger the interpretation of a pair of Hollywood actors in spite of some degree of activation of, say, ‘Leonardo da Vinci’ or even ‘Kate Bush’ when the word is processed.

Default interpretations are by definition more frequent, common, salience-based interpretations of utterances. They arise automatically, subdoxastically. What happens when the default for the utterance in a context does not coincide with salient lexical meanings? Do we have an irreconcilable incompatibility here? When we look closely at the recent disputes in the contextualist literature (Carston 2007, Recanati 2007), the lexical salience is being accepted: words trigger their salient meanings which then have to be overruled. This conclusion, based on some persuasive examples, leads to the claim that main interpretations of utterances, namely the explicit content (a.k.a. what is said), cannot always be automatic, *pace* Recanati (2004); the addressee may have to resort to conscious inferential processing. I am going to argue below that while it is indeed true that main meanings of utterances can arise automatically or inferentially, on the level of the lexicon this is an overkill: there is no need to deny automaticity of interpretations of utterances whenever salient lexical meanings don’t figure in what is supposed to be the default interpretation of the utterance. In other words, when the salient lexical meaning is, so to speak, overridden by contextual considerations, we can still, arguably, have a default overall interpretation in the sense of an automatic, context- and addressee-dependent one.

The answer lies in the understanding of compositionality. When we model the meaning of the utterance (pragmatic construct) rather than the meaning of the sentence (syntactic construct), compositionality has to be applied differently. Notably, it has to be applied to the product of the interaction of chunks of information that

come from various sources and which produce this primary message intended by the speaker and recovered by the addressee. As was noted in Section 1.1, such a pragmatic application of the principle of compositionality was introduced by Recanati (2004: 132) in what he called the Pragmatic Composition view and an ‘interactionist’, ‘Gestaltist’ approach to compositionality. The resulting approach to utterance processing becomes then *truth-conditional pragmatics* (see Recanati 2010). The idea of pragmatic compositionality was then further developed in Default Semantics (DS, Jaszczolt 2005, 2009a, 2010a) where the detailed principles of this composition were spelled out. The basic idea is this. There are various sources of information that contribute to the main meaning conveyed by the speaker and recovered by the addressee. In the DS model, we identify five main sources: word meaning and sentence structure (WS), world knowledge (WK), situation of discourse (SD), and two kinds of default information: stereotypes and presumptions about society and culture (SC) and properties of human inferential system (IS). The latter, for example, account for the fact that the strongest, most informative interpretation is the preferred one, such as the referential rather than attributive reading of definite descriptions, *de re* rather than *de dicto* reading of propositional attitude reports, or the anaphoric rather than presupposing reading of referential partial matches. These sources can also be directly mapped onto types of processes that interact in producing the interpretation but the types of processes will not concern us at present. Compositionality pertains to the result of the interaction of information coming from these sources and hence belongs to the level of merger representations defined in Section 1.1. To repeat, merger representations are formal equivalents of the main message intended by the speaker and recovered by the addressee, called in DS primary meanings. The concept of primary meaning is an important one in that it is conceived as a cognitively real unit which is a result of a free combination of information from the identified sources. What it means is that in the case where the speaker chooses to communicate the main content implicitly, primary meaning need not be constrained by the logical form of the uttered sentence. In other words, the concept of primary meaning cuts across the explicit/implicit or what is said/what is implicated divide. Analogously, secondary messages, called secondary meanings, can pertain to implicit as well as explicit content of the sentence. To compare and contrast, in traditional compositional semantic accounts compositionality is predicated only of the level of WS, and

therefore it causes insurmountable problems with providing a compositional account for certain types of constructions (intensional contexts).⁸

Now, pragmatic compositionality, and in particular compositionality of merger representations, seems particularly susceptible to symbiosis with the GSH. The components entering the composition process are discrete units, they carry information of their own. DS identifies five of such sources; one of them, namely WS, is of particular importance here. Word meaning provides a component that enters composition not at the level of sentence-based propositions, but at the level of merger representations. In other words, we assume that compositionality is to be sought for speech acts, not for sentences (units of syntax). Syntax provides structures, but pragmatics does not merely mirror them.⁹ In addition to stressing contextual relevance of an interpretation, DS develops a model of the particular sources. So, our question of compatibility can now be narrowed down to:

- Does the theory of graded salience fit as a theory of the lexical sub-component of the WS source of DS?

Now the compatibility becomes more attainable. The fact that lexical access is automatic and context-free does not preclude the possibility that the primary meanings are sometimes automatically reached – sometimes, because they are, of course, not always default meanings. Lexical access and utterance interpretation can run in parallel. For example, automatic reference assignment as Kate Winslett and

⁸ The question may arise, if the natural language constructions (WS) are not compositional but instead contribute to compositional units, so to speak, ‘higher up’, then how does one explain their semantic well-formedness and meaningfulness. In DS, I am not denying that sentences as syntactic units can be taken to exhibit some kind of compositional semantics. It is of course possible to hold they do. But sentence meaning so conceived sheds little light on what users of this sentence would claim they had intended and what they would call true or false. Instead, I am attending to the problems with mapping sentence meaning, or meaning of a sentence fragment, onto the intended interpretation. We have known since medieval discussions on *de re/de dicto* modalities, and more recently from Fregean tradition in the philosophy of language, that reconciling common-sense compositional meaning with what the compositionality of the sentence meaning predicts has not been attained and possibly is not attainable. Instead, DS proposes a separation of the composition of sentence meaning from ‘compositionality proper’, that is that of intended meaning, thereby attending to the problems of intensionality, incompleteness and intensions. I am grateful to Keith Allan for discussing this problem with me.

⁹ What we choose to call ‘semantics’ on this construal is up for grabs. While Recanati (2002, 2004, 2010) calls this perspective ‘truth-conditional pragmatics’ and retains the traditional label of semantics for the sentence-based proposition, DS, as the name suggests, proposes that the only useful sense of the term ‘semantics’ is the ‘theory of meaning of acts of communication’ and uses it for the meanings modelled in merger representations.

Leonardo diCaprio in (5) does not preclude the automatic occurrence of the referents, say, Kate Bush and Leonardo da Vinci – in agreement with graded salience.

In a similar vein, a colleague reported to me that whenever she uses the name David to talk about our mutual work colleague, she always thinks of her husband called David at the same time. One can provide endless, anecdotal, corpus-based, and also controlled experimental, evidence of this context-free or even, so to speak, ‘against context’ activation. Puns add another twist to the story: they work because the meaning ‘foremost on our mind’ is activated alongside the contextually preferred, less salient meaning. Some puns also lead to humorous ambiguity effects, showing that homonymy or homophony can be exploited even when there does not seem to be any noticeable difference in salience, as for example in (7) and (8). If the search for one, optimal interpretation governed by direct access were the main principle of interpretation, presumably puns would have to be regarded as cases of defective communication.

(7) Tom worked as a lumberjack but was axed.

(8) At school, Lenin was obsessed by his marks/Marx.

(after Tolley 2004)

Next, we must remember that lexical salience on Giora’s account does not amount to dictionary meanings but to meanings in particular *mental lexicons* of particular speakers of a language. In other words, ‘[w]hat is foremost on one’s mind need not necessarily be foremost on another’s’ (Giora 2003: 37). Similarly, in DS, default interpretations are defaults for the particular speaker and for the particular addressee. As Haugh (2008) argues, defaults are predictable from directionality of communicative acts, they are a product of *emergent intentionality*.¹⁰ They are interpretations recovered automatically by the addressee in the interaction as the main meaning intended by the speaker in this context. In modelling the compositional product we use the DS-theoretic concepts of the Model Speaker and the Model Addressee in order to arrive at a theory with good predictive power (see e.g. Jaszczolt 2005). However, all it means is that by talking about model communication we are

¹⁰ See also Haugh, this volume

excluding instances of miscommunication, or communication breakdown, and concentrating on useful regularities for sample context in order to demonstrate how pragmatic compositionality of primary meanings works and, on the technical side, how merger representations are composed.

The task set out for this section is now complete: salient lexical meanings and default utterance interpretations can coexist, where both are understood as automatic meanings and meanings for the speaker. Where they differ is their dependence on context: lexical meanings arise automatically in WS and interact in various ways with the output of the other sources of meaning identified in DS to produce the utterance interpretation which fits the purpose of the discourse at hand. The lexical stage is automatic, the composition of primary meanings on the other hand is either automatic, when it proceeds through the defaults coming from SC or IS sources, or conscious inferential when it utilises information coming from SD. To repeat, relevant interacting processes correspond to these sources.

Now, the answer to the question of compatibility is very different in the case of a local-default account such as Levinson's presumptive meanings. A critical discussion of localism merged with defaultism (albeit understood in the sense of statistical preferences) is the topic for the following sections.

1.4. Incremental processing

As is well acknowledged in Gricean pragmatics, some interpretations are triggered by the context, while others ensue unless the context suppresses them (Grice 1975; Horn 2004). Grice's original account of generalized conversational implicatures (GCIs) depicted the latter as propositions: pragmatically implied thoughts, founded on the proposition that corresponds to the uttered sentence. The conceptual foundation for GCIs was a thought, and more precisely a *propositional form of a thought*, in agreement with the theoretical preferences in that period.

It is worth remembering that Grice was a philosopher interested in the logical properties of natural language and in the rationality principles underlying communication, but there was one thing that he was not interested in but which captured the attention of one of the groups of scholars who carried his ideas further: this topic is the description of the *process* of utterance interpretation. For this group, the important starting point in any inquiry is the premise that utterance processing is

incremental: it proceeds, so to speak, ‘bit by bit’, and some manipulation of the meaning of the uttered words or phrases can potentially happen at any stage, not just post-propositionally. There is little sense in disputing this: interlocutors do indeed assign meanings to sub-propositional fragments. But what is worth disputing is whether the processing considerations should be brought to the forefront of pragmatic theory. There is an argument that they obscure the real aim which is laying out the principles for the interaction of sentence meaning with other factors in the recovery of the intended message. There is also an argument we used in Section 1.1 that until we know how exactly this incremental processing proceeds, it would be speculative to use increments as units in any pragmatic theory. It is easy to provide a long list of approaches which answer the question of the incorporation processing hypotheses negatively. For example, rhetorical structure rules of Segmented Discourse Representation Theory (Asher and Lascarides, e.g. 2003) focus on the logic of ‘gluing’ sentences together rather than on the processing of the constituents; Optimality Theory Pragmatics (e.g. Blutner 2000; Blutner and Zeevat 2004) proposes constraints which build upon Grice’s maxims and Levinson’s (2000) neo-Gricean heuristics, focusing on the regularities governing the emergence of the resulting proposition; automatic, subdoxastic enrichment of sentence meaning in Recanati’s (e.g. 2002, 2003, 2004) truth-conditional pragmatics also focuses on the resulting proposition, and so do primary meanings of DS (Jaszczolt, e.g. 2005, 2009a, 2010a; Sysoeva 2010; Srioutai 2004, 2006) which are modelled as the main meanings intended by the speaker and recovered by the addressee and which can be explicit or implicit – they cut across the explicit/implicit divide.¹¹ Equally, Geurts (2009) opts for globalism, albeit using arguments from processing rather than from the suitability of the methodology. The other approaches mentioned above can be grouped as advocates of what I called in Section 1.1 methodological globalism. Here, the qualification ‘methodological’ reflects the fact that experimental studies of processing have not yet led to the recognition of fixed local units that would trigger pragmatic enrichment and it is therefore more judicious to adopt the generalization that such pragmatic meanings are post-propositional, no matter what the psychology of processing throws up in the end.

¹¹ See also Jaszczolt 2009b for an extensive discussion of the relation between the distinctions primary/secondary and explicit/implicit meaning.

It has to be pointed out though that default interpretations are something of a mixed bag as far as their localism or globalism is concerned. While (9)-(11) can be argued to invite local enrichments, with (9) only accidentally global in virtue of the position of ‘warm’ at the end of the sentence, (12)-(15) testify more to psychological, not only methodological, globalism, in that it is prudent to wait until the end of the sentence before rushing to the interpretation, otherwise unnecessary cancellations may ensue. The symbol $\rightarrow d$ signals the default interpretation and is inserted after the relevant item.

- (9) Some ($\rightarrow d$ not all) of her lectures are inspiring.
- (10) The coffee spoon ($\rightarrow d$ spoon used for stirring coffee) is dirty.
- (11) The coffee is warm. ($\rightarrow d$ not hot)
- (12) Alex enjoyed ($\rightarrow d$ reading) the book.
- (13) You are digging your own grave. ($\rightarrow d$ causing harm to yourself)
- (14) Everybody ($\rightarrow d$ invited) is coming to the party.
- (15) The temperature fell below 0 degrees Celsius and ($\rightarrow d$ as a result) the rails contracted.

Examples in (16)-(21) are presented by Levinson as paradigm cases of local interpretation, to demonstrate that ‘hypotheses about meaning are entertained incrementally – as the words come in, as it were.’ (Levinson 2000: 5).

- (16) bread knife $\rightarrow d$ knife used for cutting bread
- (17) kitchen knife $\rightarrow d$ knife used for preparing food, e.g. chopping
- (18) steel knife $\rightarrow d$ knife made of steel
- (19) a secretary $\rightarrow d$ a female one
- (20) a road $\rightarrow d$ hard-surfaced one
- (21) I don’t like [garlic]. $\rightarrow d$ I dislike [garlic].

As was argued extensively elsewhere (Jaszczolt 2008), (12)-(17) are again a mixed bag. While (16)-(18) can be considered simple lexical compounds, (19) is a very dubious candidate for a social standard, let alone linguistic default, (20) is an

exposition of the lexical content (with obvious locality-specific typicality effects)¹², and (21) is more plausible as a global, propositional interpretation than a case of local *neg*-raising. To strengthen the point further, let us consider (5) again and the alleged lexical default for the quantifying expression ‘some’. For localism to work as a general principle for scalar terms such as *some*, it would have to work across *all* examples. It is not difficult, however, to undermine its status. (22) triggers the main message to the effect in (23) or (24) rather than (25).

- (22) Some people say you are presumptuous.
- (23) You should change something in your behaviour.
- (24) You should refrain from boasting so much in conversation.
- (25) Some but not all people say you are presumptuous.

Equally, if in (1) ‘secretary’ allegedly triggers the default interpretation ‘a female one’ as in (19), then frequent cancellations have to be built into the account of processing, as example (2) in Section 1.1 demonstrates. These are not only triggered by context but also by the various senses of the word ‘secretary’, including secretary of state, secretary of an organization, and so forth. In a similar manner, ‘a nanny’ would have to trigger a frequently cancelled default to ‘female nanny’, and even more frequently cancellable default to ‘young, pretty and lovable’ or the opposite ‘old, thin, ugly and strict’, depending on what childhood stories shaped the addressee’s background beliefs. In short, this is an endless and unsystematic route: endless, because there is no principled end to such precisifications of word or phrase meaning, and unsystematic because we cannot specify, once and for all, the length of the unit which gives rise to enriched interpretations. The length of this unit will depend on the situation at hand. Sometimes it can be, say, the determiner ‘some’, sometimes the entire quantifier phrase ‘some of the guests’, and at other times the entire sentence. In other words, what we can call *default base*, the unit which triggers the default meaning, varies from context to context.¹³

Further argument against postulating rigid default bases, that is bases which don’t differ from context to context, comes from the scrutiny of Geurts’ objection to

¹² Pointed out to me by Keith Allan.

¹³ Analogously, the unit on the basis of which pragmatic inference is drawn will be called an *inferential base*.

Levinson's localism. Geurts (2009) discusses examples (26) and (27) and concludes that they go against the very spirit of Levinson's localism, in that on the localist account they should not arise.

(26) It isn't likely that the match will be cancelled: it's certain.

(from Geurts 2009: 59)

(27) If the chair sometimes comes to the department meetings that is not enough; he should come always.

(from Geurts 2009: 60, after Levinson 2000: 205)

The argument is this. These are downward entailing contexts, containing negation and a conditional construction respectively. On a localist account sentence (26) would have to be interpreted as (26a).

(26a) It isn't likely but not certain that the match will be cancelled: it's certain.

Sentence (27) has a logical form that is subject to the equivalence $p \rightarrow q \equiv \neg p \vee q$ and hence (27a) would have to be correct, even if clumsy.

(27a) Either the chair never comes to the department meetings or (what he does) is enough.

Contradiction ensues with 'he should come always'. There are of course possibilities of saving localism by incorporating the focus: 'likely' and 'sometimes' have to be stressed in order to achieve the contrasting effect, and the emphasis can be construed as a local phenomenon. However, it seems much more advantageous from the methodological point of view to admit that default bases differ from context to context.

1.5. 'Defaultism is a lost cause'? A dénouement

| Geurts (2009: 59) continues as follows:

‘although localism and defaultism aren’t wedded to each other, there is a natural affinity between the two.’

Having argued against Levinson’s rigid, linguistic-unit-based localism, he concludes that ‘defaultism is a lost cause’. However, in the preceding section I suggested a different, more flexible notion of localism, where the default base is not a lexical or syntactic unit fixed once and for all; it varies from context to context and from circumstances to circumstances. Assuming such a flexible base, which is in need of experimental precisification, led us to adopting a temporary theoretical solution of methodological globalism. So, as was demonstrated throughout this study, it seems necessary to reopen the question as to what we should understand by ‘defaults’ and ‘defaultism’ in view of the fact that the length and character¹⁴ of the default base is still a matter for research.

Let us start with the common-sense assumption that default reasoning reflects ‘salience’ (in a pre-theoretic sense), common sense, and probability. When it is salient in the situation of discourse that by using ‘some’ the speaker intended to convey ‘not all’, this is the ‘default’ (in the pre-theoretic sense) interpretation for this context. Naturally, this will also be the statistically most common interpretation because interlocutors normally do not misjudge their respective background information and so convey the intended meaning in the appropriate way. But what makes such interpretations ‘defaults’? Shouldn’t we just call them ‘default inferences’, ‘assumed inferences’, or ‘preferred inferences’? We could do so if our aim were to make statistically justified predictions. But in line with our assumption made in Section 1.1, the key point in identifying the ‘default status’ of interpretations is for us their effortless production, their automaticity; they are a result of default reasoning – a process which has been emphasized in pragmatic theory and in computational linguistics for a long time, and even longer in philosophy, to mention only Humboldt, Jespersen and Cassirer. Bach defines it as follows:

[D]efault reasoning is reasoning that contains at least one defeasible step, and what that is can be described intuitively as follows. When you take such a step you do not

¹⁴ By ‘character’ I mean for example the questions concerning its dependence on the situation and interlocutors’ knowledge base or rather generalization to the element of structure à la Levinson.

think, ‘Everything is OK, so I’ll take this step’. Rather, you just take it unless you think something might not be OK. Bach (1984: 40).

It can be subsumed under the general principle of default logic (e.g. Reiter 1980):

A:B

C

C can be concluded if A has been concluded and B can be assumed (and not B cannot be proven).¹⁵ All in all, our definition of default interpretation will therefore contain the following necessary components: contextual salience, fairly high predictability in the context, statistical frequency, and automaticity.

We are a long way though from being able to predict the particular contexts in which defaults so understood may arise. To repeat, unlike on other defaultist accounts, we are not in the business of delimiting types of expressions: defaults are *defaults for the context* and not defaults for the word or the syntactic constituent. The boundary between automatic and inferential enrichment is, and will remain, nonrigid and context-driven. The problem lies precisely in the context-dependence of the type of interpretation. It is the particular situation of discourse that dictates whether the interpretation comes automatically or inferentially. The ‘presumptive’, ‘default’ meanings proposed by Levinson better qualify for dividing the category between inferential and automatic enrichments, depending on who is interpreting and in what context. In (28), the possessive construction can be understood in a variety of ways and is likely to trigger inferential rather than automatic enrichment. (29) either triggers the interpretation ‘written by Chomsky’ automatically, or inferentially, or not at all, depending on the addressee’s background information. Setting them in stone as examples of word-based or phrase-based defaults puts the theory on the wrong track from the outset.

(28) John’s book is good.’

+> the one he read, wrote, borrowed...

¹⁵ For an extensive encyclopaedic review of various approaches to defaults in logic, linguistic semantics, and pragmatics see Thomason 1997 and Jaszczolt 2006, 2009d. See also Benferhat *et al.* 2005 and Veltman 1996.

(from Levinson 2000: 37)

(29) Chomsky's book is about grammar.

There are differences in the class of possessive constructions which have to do with their salience and specialization and which testify against structure-based defaults and in favour of the situation-based ones.

1.6. Concluding remarks: Salience and defaults in contextualism

The concluding remarks and methodological postulates that stem from this discussion are as follows:

- Default interpretations of utterances are best understood as defaults for the interlocutors and for the context rather than rigid linguistic unit-based interpretations. They are best defined liberally as salient, frequent, and automatic meanings ascribed to the speaker by the addressee. This perspective allows for an integration with the findings about the processing of the lexicon.
- While it is well acknowledged that utterance interpretation proceeds incrementally, it is methodologically more prudent to adopt globalism, or propositionalism, about meaning assignment in that (i) the default base (and likewise the inferential base) differs from context to context and (ii) we are far from being able to test experimentally default bases or inferential bases so understood. 'Globalism' is a temporary methodological solution, necessary until the length and character of the default bases and inferential bases is experimentally demonstrated.
- Salient meanings of lexical items as defined on the GSH are compatible with default meanings of utterances as defined in DS. Automaticity of both processes is compatible because compositionality pertains to the level of the merger of information coming from different sources as identified in DS. While the automaticity of defaults pertains to the level of merger

representations, the automaticity of salient lexical meanings pertains to the level of the WS source of DS.

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