

Radical Interpretation and Pragmatic Enrichment

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Abstract

I consider a problem from pragmatics for the radical interpretation project, relying on the principle of charity. If a speaker X in a context c manifests the attitude of holding a sentence s true, this might be because of believing, not the content of s in c , but what results from a pragmatic enrichment of that content. In this case, the connection between the holding-true attitude and the meaning of s might be too loose for charity to confirm the correct interpretation hypothesis. To solve this problem, I apply the coherence raising account of pragmatic enrichment developed in Pagin 2014. The result is that in upward entailing linguistic contexts, the enriched content entails the prior content, and so charity prevails: the speaker also believes the prior content. In downward entailing contexts this would not hold, but I argue that enrichments tend not to occur in downward entailing contexts.

Keywords: Radical interpretation, Charity, Pragmatic enrichment, Coherence raising.

1. Two Projects or One?

H. Paul Grice and Donald Davidson shared the view that we should separate semantics from pragmatics. To this end, Grice (1975) developed the theory of *implicatures*. The main tenet was that we can separate *what is said* from *what is implicated* (Grice 1975: 25), which together make up of what is communicated. Semantics deals with the relation between a sentence and what is said *by means of* uttering that sentence, and the theory of implicatures, a part of pragmatics, deals with the relation between what is said and what is implicated *by means of* saying what is said. This relieves semantics from dealing directly with what is communicated in all cases, which avoids many complications.

Grice early on exemplified this strategy by indefinite descriptions. He notes that, for instance, “Anyone who uses a sentence of the form *X is meeting a woman this evening* would normally implicate that the person to be met was someone other than X 's wife, mother, sister, or perhaps even close platonic friend” (Grice 1975: 37). He goes on to remark:

I am inclined to think that one would not lend a sympathetic ear to a philosopher who suggested that there are three senses of the form of expression *an X*: one in which it means roughly “something that satisfies the conditions defining the word X,” another in which it means approximately “an X (in the first sense) that is only remotely related in a certain way to some person indicated by the context,” and yet another in which it means “an X (in the first sense) that is closely related in a certain way to some person indicated by the context.” Would we not much prefer an account on the following lines (which, of course, may be incorrect in detail): When someone, by using the form of expression *an X*, implicates that the X does not belong to or is not otherwise closely connected with some identifiable person, the implicature is present because the speaker has failed to be specific in a way in which he might have been expected to be specific, with the consequence that it is likely to be assumed that he is not in a position to be specific (Grice 1975: 38).

What is exemplified in the passage, Grice later proposed as a principle, which he called a modified Occam’s Razor: *Senses are not to be multiplied beyond necessity* (Grice 1989a: 47). The strategy is to keep semantics and pragmatics separate, to keep semantics simple and to this end move tasks that can be moved from semantics to pragmatics. The two projects have separate and complementary roles.

Davidson had a similar attitude. He emphasized that a speaker always has an ulterior purpose with speaking:

But where meaning is relevant, there is always an ulterior purpose. When one speaks, one aims to instruct, impress, amuse, insult, persuade, warn, remind, or aid a calculation. One may even speak with the intention of boring an audience; but not by hoping no one will attend to the meaning (Davidson 1984a: 9).

Davidson also insisted that linguistic meaning is *independent* of ulterior purposes:

But the criteria for deciding what an utterance literally means—the theory of truth or meaning for the speaker—do not decide whether he has accomplished his ulterior purpose, nor is there any general rule that speakers represent themselves as having any further end than that of using words with a certain meaning and force. The ulterior purpose may or may not be evident, and it may or may not help an interpreter determine the literal meaning. I conclude that it is not an accidental feature of language that the ulterior purpose of an utterance and its literal meaning are independent, in the sense that the latter cannot be derived from the former: it is of the essence of language. I call this feature of language the principle of *the autonomy of meaning*. We came across an application when discussing illocutionary force, where it took the form of the discovery that what is put into the literal meaning then becomes available for any ulterior (nonlinguistic) purpose—and even any illocutionary performance (Davidson 1984a: 11-12).

In this passage, Davidson is speaking of the independence of the literal meaning of a sentence uttered on a particular occasion from the ulterior purpose of the speaker in uttering it. There is a further question whether the general *determination* of linguistic meaning is independent as well from the ulterior purposes that speakers have. That you cannot derive the literal meaning of a sentence from the ulterior purpose of a single utterance is compatible with the possibility that ulterior purposes have a role to play among the factors that determine meaning. In other passages, however, Davidson rejects this possibility as well:

I agree with the hypothetical objector that autonomy of meaning is essential to language; indeed it is largely this that explains why linguistic meaning cannot be defined or analysed on the basis of extra-linguistic intentions and beliefs (Davidson 1975: 164-5).

Grice's separation of semantics and pragmatics later came to be challenged by philosophers and linguists who claimed that pragmatic processes not only generate what is indirectly communicated, but also intrude into what is directly *said*. These are known as *primary pragmatic processes*.

There has been much controversy over the alleged existence of such processes. I shall here accept, without argument, some of these claims. The main purpose of this paper is to argue that some primary pragmatic processes, known as *enrichments*, pose a *prima facie* problem for Davidson's autonomy claim. They in fact pose a threat as well to the adequacy of the method of *radical interpretation*.

The rest of the paper is structured as follows. In section 2, I shall briefly present the phenomenon of pragmatic enrichment. In section 3, I give a brief outline of the most relevant features of the method of radical interpretation. In section 4, I show how enrichment is a *prima facie* problem for the method. In section 5, I present Enrichment Theory, an account of pragmatic enrichment proposed in Pagin 2014. In section 6, I argue that if Enrichment Theory is true, then the phenomenon of pragmatic enrichment is so restricted that it is not, after all, a real problem for radical interpretation, as long as we keep to a certain type of contexts, the *upward entailing contexts*. In section 7, finally, I consider the problem induced by *downward entailing contexts*, where the situation seems to be reversed. I argue that the situation is nonetheless not reversed, because of an asymmetry in the distribution of enrichments. Enrichments do not arise, or do not have the corresponding effects, in downward entailing contexts, and hence the radical interpretation project survives the threat.

2. Free Pragmatic Enrichment

In a very wide sense of 'pragmatics', the term denotes everything that a speaker intends and a hearer interprets a linguistic utterance to convey that is not fully determined by standard (morphology and) syntax and semantics. Pragmatics, in this very general sense, covers syntactic and lexical disambiguation, anaphora resolution, ellipsis recovery, presupposition detection and accommodation, saturation, modulation, the understanding of conversational implicature, metaphor, irony, any form of indirect speech act, and more. Some of these, such as disambiguation, consist in choosing between alternatives that are made available by the semantics. Others involve adding something new. Perhaps the most basic kind is saturation.

Saturation (the term is from Recanati 2004: 7) is the process of providing values to indexicals and other context dependent expressions, including individuals to 'I' and 'her' in (1a), a quantifier domain to the quantifier 'everyone' in (1b), and a standard of height to the adjective 'tall' in (1c):

- (1) a. I like her.
 b. Everyone cheered.
 c. He is tall.

These sentences also have tensed verbs, and the hearer typically assigns a time as part of interpreting their contributions to the truth conditions.

Saturation is characterized as being “linguistically mandated”, as Recanati puts it (2004: 7-10). That is, there is some expression that triggers the saturation step. It is triggered because the expression needs a value in order for the sentence to express a proposition, i.e. a content that has a truth value with respect to a possible world. In case of (1a), no proposition is expressed by an utterance of the sentence except if values have been given to ‘I’, and ‘her’, and likewise a time is assigned. So, saturation is both *needed* for a proposition to be expressed, and *triggered* by a context dependent expression that is to be assigned a value.

This paper focuses on a pragmatic layer of interpretation that is characterized as being located *between* saturation and implicature. This layer of pragmatics has been named “modulations” by François Recanati (2004: 74; 2010: 5-7).¹ It has been called “explicatures” in Relevance Theory, primarily by Dan Sperber and Deirdre Wilson (1995: 182), and Robyn Carston (2002: 116), and “implicatures” by Kent Bach (1994: 126).² Saturation and modulation together have been called “primary pragmatic processes” by Recanati (2004: 17), intending to highlight that they occur *before* implicature.

There are important differences between these authors. Relevance theorists are contextualists; they think that the meaning of a sentence in principle underdetermines the content of an utterance made by means of it. In order to express a proposition, a contextually determined inferential process is always needed. Bach (2010: 128-29) rejects contextualism. Recanati (2004: 81-82) takes a kind of middle position. What he calls *the minimal proposition*, the result of saturation alone (after disambiguation etc.), is never, or hardly ever computed and never, or hardly ever, plays any role in utterance interpretation. On his view (Recanati 2010: 39-47), pragmatic modulations are *intertwined* with semantic interpretation: for instance, the semantic interpretation of a predicate may take as argument the *modulated* content of the interpretation of a singular term.

Recanati distinguishes between three kinds of modulation: *loosening*, *semantic shift* (or *semantic transfer*) and *free enrichment*. An example of loosening is

- (2) The ATM swallowed my credit card

(Recanati 2004: 24) where the verb ‘to swallow’ has its application conditions *extended* to include the cash machine process referred to.

Classic examples of semantic shift come from Geoffrey Nunberg, including

- (3) The ham sandwich is sitting at table 20

¹ The idea that modulation is strictly between saturation and implicature is complicated because of top-down effects: for instance, you can use the interpretation of an expected implicature in order to interpret what is said. An example from Carston 2002: 40 illustrates it:

- (i) a. A: Do you want to go to the cinema?
 B: I am tired.
 b. B: I am tired [*enough for not wanting to go to the cinema*].

The extent of tiredness (made explicit in (b)) is inferred and entered into the interpretation of what is said because it would justify the implicature.

The mutual influence of what is said and what is implicated has been called “Grice’s circle” by Stephen Levinson (2000: 186). I shall not here be concerned with this phenomenon. For further discussion of this issue, see Pagin 2014, section 2.

² Terminological differences are a little more complex. Officially, *explicatures* are the *results* of pragmatic operations, whereas *saturation*s and *modulation*s are the operations *themselves*, and *implicatures* are either the operations or the contents *added* by means of them.

as said by one waiter to another in a restaurant (Nunberg 1979; Nunberg 1995). The content of the utterance is that

(3') The ham sandwich *orderer* is sitting at table 20.

What Recanati calls *free enrichment* is any *addition* of content material that is not needed for the content to be a proposition, i.e. to have truth conditions; it is freely added in this sense. The term 'enrichment' has come to be well established in the pragmatics literature, and largely accepted across different theoretical standpoints, even though it is often employed as an alternative to more technical vocabulary that *does* differ between the positions. The phenomenon the term is used for describing is pretty much the same. A typical example is the following (from Carston 2002: 71):

- (4) a. He handed her the key and she opened the door.
 b. He handed her the key and she opened the door [*with the key that he had handed her*].

A normal and typical interpretation of (4a) associates with it a content that is more completely articulated in (4b), which includes additional linguistic material in brackets. The semantic contribution of this material to (4b) is the *pragmatic* enrichment of (4a). That is, when processing (4a) the hearer/reader tends to interpret it as representing a type of situation which is more completely represented by (4b). That the referent of 'she' used the key handed to her by the referent of 'he' is not semantically represented in (4a), but is "read into" it, i.e. pragmatically added during interpretation. It is semantically represented in (4b).

The idea is *not* that the hearer tacitly adds the bracketed *expression* during interpretation. It is also not the case, as in normal examples of ellipsis recovery, that there is a particular expression that *would be* recovered in any effort of making the enrichment explicit. Rather, it is the semantic content (in context) of the added phrase that matters, and often there are alternative possible linguistic additions that are semantically equivalent as far as the linguistic and extra-linguistic context goes.

One of Recanati's own official examples (2004: 8) is given in

- (5) A: Do you want something to eat?
 B: I have had breakfast.

According to Recanati, it is exemplified in B's utterance, where *today* is freely added to the content *I have had breakfast*. The idea is that without the enrichment, there is still a proposition, true if B has had breakfast at some time or other during his life.

Similarly, concerning enrichment, Robyn Carston says:

It is the enriched propositions that are communicated as explicatures and which function as premises in the derivation of implicatures; the uninformative, irrelevant, and sometimes truistic or patently false minimal propositions appear to play no role in the process of utterance understanding, which is geared to the recovery of just those propositional forms which the speaker intends to communicate. The pragmatic process at work here is known as free enrichment; it is "free" in that it is not under linguistic control. So, unlike saturation, it is an optional process, in the sense that there can be contexts in which it does not take place, though these tend to be somewhat unusual (Carston 2004: 639).

I take free enrichment to be a linguistic phenomenon. Speakers *assert* propositions that are the result of free enrichment in relation to what is literally ex-

pressed (after saturation, disambiguation etc.). These are not indirect assertions.³ I shall argue that the phenomenon of enrichment generally, and free enrichment in particular, is a problem for Davidson's method of radical interpretation. In the next section, I first present the basics of that method.

3. Radical Interpretation

Donald Davidson proposed that the proper method for testing a meaning theory for a particular language is to apply *radical interpretation* to the speaker(s) of the language. The term 'radical interpretation' is coined in analogy to Quine's 'radical translation' in chapter 2 of *Word and Object*. The intuitive idea, in both cases, is that of translation/interpretation that "starts from scratch", without any prior knowledge of the language one is interpreting, or a detailed knowledge of the attitudes of its speakers. Although radical translation/interpretation in this sense has taken place in history, for both Quine and Davidson, describing it is rather a thought experiment. The point is to identify the kind of *evidence* that is ultimately available to an interpreter and how that evidence *supports* a meaning theory, i.e. the evidential relation (Davidson 1973: 128).

The problem of interpretation is domestic as well as foreign: it surfaces for speakers of the same language in the form of the question, how can it be determined that the language is the same? Speakers of the same language can go on the assumption that for them the same expressions are to be interpreted in the same way, but this does not indicate what justifies the assumption. All understanding of the speech of another involves radical interpretation (Davidson 1973: 125).

That my fellow speakers mean the same as I with words we both use, is not, on this view, anything we have the right to take for granted, but something that requires justification, and ultimately from evidence of the very same kind as is available to the interpreter that does start from scratch.

When interpreting a speaker who makes an assertion in a familiar language we typically infer what she *believes* on the basis of what we take the sentence to mean. If she speaks an unfamiliar language but we happen to have independent information about what she believes or wants, we can move on to a plausible guess about the meaning of the sentence she used. Ultimately, however, the radical interpreter does not have access to sentence meaning as basic evidence, and neither does he have access to information about particular beliefs, desires or intentions as data for interpretation. The meaning of sentences and the contents of attitudes will be what his theory attributes to the speaker. The evidence must be something else (Davidson 1973: 134).

Without knowing what the speaker believes or expresses the interpreter can, however, observe the speaker's linguistic utterances and reactions to utterances by others, including the interpreter himself. The interpreter can form a hypothesis about the *attitude* to a sentence that the speaker manifests. In particular, Davidson focused on the attitude of *holding-true*, or more precisely, holding true relative to a time, in order to take account of indexical sentences, like 'it is

³ That pragmatics does "intrude" into the truth-conditional content of what is said is a controversial claim and was the subject of intense debate about ten years ago. See, for instance, Stanley 2000, Cappelen and Lepore 2005, Borg 2006. I find the claim completely convincing and the alternatives implausible.

raining' (Davidson 1973: 135; Davidson 1974: 144). Holding a sentence true is an attitude to a sentence that corresponds to *believing* the proposition that is the meaning of the sentence. Holding-true is indeed a kind of belief, but it is a belief with a very coarse-grained, impoverished content; identifying the *content* of such a belief requires no more than identifying the sentence the belief is about, for there is no need to identify the meaning of the sentence. Provided the radical interpreter can identify manifestations of the holding-true attitude on the part of the speaker, he has access to data that are independent of knowledge of sentence meaning or fine-grained individual beliefs.

At the next step, the interpreter faces a serious problem of *underdetermination*: just as the truth of a sentence depends in part on what the sentence means and in part on what the *facts* are, so the speaker's holding true a sentence depends in part on what the sentence means in the speaker's language and in part on what the speaker *believes*. So, if the interpreter knows what the speaker believes and what a sentence in the speaker's language means, he can infer what the speaker will hold true:

- (INF1) 1) X believes that *p*
 2) *s* means that *p*
 —————
 3) Hence, X holds *s* true

Similarly, if the interpreter knows what a sentence means, and knows that a speaker holds it true, he can infer what the speaker believes:

- (INF2) 1) X holds *s* true
 2) *s* means that *p*
 —————
 3) Hence, X believes that *p*

There is no analogous simple inference from belief to meaning:

- (INF3) 1) X holds *s* true
 2) X believes that *p*
 —————
 3) Hence, *s* means that *p*

The simple reason why (INF2) goes through but (INF3) does not is that a (disambiguated) sentence only has one meaning, while a speaker has many beliefs, and the second premise of (INF3) does not provide the information that *this particular belief is* responsible for holding *s* true. Still, the interpreter *can* infer that among the sentences the speaker holds true, at least one means that *p* (since we are dealing with beliefs expressible in the speaker's language). Knowledge of all the beliefs of the speaker would then allow the interpreter to infer what meanings many sentences of the speaker's language must have, but not directly how these meanings are distributed over the sentences.

Initially, the interpreter knows only what sentences the speaker holds true. Different hypotheses about what the sentences mean lead to different hypotheses about what the speaker believes, and, indirectly, vice versa. Davidson refers to this as the *interdependence of belief and meaning* (Davidson 1973: 134).

How can the radical interpreter break into this interdependence? Davidson's proposal is a cornerstone in his philosophy of language. Basically, the proposal is that although the interpreter does not at the outset have any *particular* knowledge of the speaker's fine-grained beliefs or other attitudes, he does

have *general* knowledge, which he can put to use. He can know that if someone has beliefs at all, most of these beliefs are *true* (by the interpreter's lights).

The method is intended to solve the problem of the interdependence of belief and meaning by holding belief constant as far as possible while solving for meaning. This is accomplished by assigning truth conditions to alien sentences that make native speakers right when plausibly possible, according, of course, to our own view of what is right (Davidson 1973: 137).

This is a statement of what became known as *The Principle of Charity*. In its simplest version, the idea of using Charity in interpretation is the idea that an interpretation is *better* if it leads to attributing *more* true beliefs. This works precisely because of the interdependence of belief and meaning, in particular because of the validity of schema (INF2):

$$\begin{array}{l} \text{(INF2)} \quad 1) X \text{ holds } s \text{ true} \\ \quad \quad 2) s \text{ means that } p \\ \hline \quad \quad 3) \text{ Hence, } X \text{ believes that } p \end{array}$$

Premise 1) here records the evidence for the interpreter. Premise 2) states his interpretation *hypothesis*. The conclusion is used for *evaluating* the hypothesis.

Consider two global meaning theoretical hypotheses, theories T_1 and T_2 . For a great number of sentences held true by the speaker, T_1 and T_2 contain substantially different hypotheses about their meaning. According to T_1 , say, s means that *there is a hippopotamus in the refrigerator*, and according to T_2 , s means that *there is an orange in the refrigerator* (cf. Davidson 1969: 100-101). As a consequence, the interpreter has a choice between two belief attributions to the speaker: that there is a hippopotamus in the refrigerator and that there is an orange in the refrigerator. The first belief is pretty absurd while the second may well be true. The second is preferable, in particular if it *is* true. This then speaks in favor of T_2 over T_1 . This exemplifies the basic mechanism of how belief attribution influences semantics, via Charity.

A few remarks about this mechanism are in order.

1. The role of Charity is that of comparison and evaluation. In terms of the philosophy of science: Charity belongs to the *context of justification*, not the *context of discovery*. Charity is a tool for testing whether a meaning theory is acceptable, not primarily a method of selecting hypotheses to test. Other factors, such as relevance and general psychological plausibility will be important for hypothesis formation. As Davidson emphasizes as regards actual interpretation, a theory is "derived by wit, luck, and wisdom" (Davidson 1986b: 107). Neither is required for testing.

2. Charity is primarily applicable to a theory as a whole, not to individual theorems. A speaker may well have a number of false beliefs (we probably all do), and may even have some absurd beliefs as well. What is compared is the totality of belief attributions according to one theory with the totality of belief attributions according to another. That a theory generates the attribution of a belief that is *true*, gives a small positive contribution to the overall evaluation of

the theory. Conversely, that it generates the attribution of a belief that is *false*, gives a small negative contribution.⁴

3. One reason the interpreter cannot (with ordinary concepts) simply devise a meaning theory that makes the speaker hold *only* true beliefs is that the theory must be compositional; the theorems must be connected by being derived from a shared basis. If that were not the case, the interpreter could simply pick a true interpretation for any sentence held true by the speaker, because then the interpretation of one sentence would not impose any restriction on the interpretation of any other sentence. Since any belief could then come out true, the interpreter could score high on Charity. This observation shows that compositionality must be an independent requirement, because it cannot be justified from Charity (cf. Pagin 1999).

Let's go back to the content of the charity principle. A typical early formulation is

The general policy [...] is to choose truth conditions that do as well as possible in making speakers hold sentences true when (according to the theory and the theory builder's view of the facts) those sentences are true (Davidson 1974: 152).

So, in the most basic version, interpretations should be chosen that *maximize* the rate of true beliefs among the speaker's beliefs, judged according to the standards of the interpreter (cf. Davidson 1975: 169). Theories that do *not* reach the maximum rate of truths, i.e. those that are not among the *best* theories, must be rejected.⁵

The interpreter is always to maximize the rate of true beliefs *by the interpreter's standards*, or *according to the interpreter's view of the facts*, and this comes to the same thing as maximizing agreement; it is compatible with the falsity of the beliefs of both speaker and interpreter. We get real maximizing of the rate of truth only by assuming that the interpreter's beliefs are all true (or the interpreter is dropped).⁶

In the most basic formulations, applying Charity is to make a *comparison* between theories. However, *acceptable* theories must not only be best, they must also be *good*. They must be such that speaker and hearer are rendered *largely* in agreement, i.e. such that *most* of the speaker's beliefs come out true, by the interpreter's standards:

What justifies the procedure is the fact that disagreement and agreement alike are intelligible only against a background of massive agreement (Davidson 1973: 137).⁷

The requirement of massive agreement is typically presented in the context of an *argument* for Charity in the previous respect. However, it is clearly an aspect of Charity in its own right, since it provides an *absolute* requirement on the rate of

⁴ Davidson notes that some false beliefs are more destructive than others, in case the speaker would be expected to know better. Cf. Davidson 1975: 161.

⁵ Davidson accepts the consequence that two or more different theories can be equally good but better than all others. These top-ranking theories are then *all* true, despite being apparently incompatible. This is what Davidson calls "indeterminacy of interpretation", analogous to Quine's indeterminacy of translation. Cf. Davidson 1979.

⁶ Davidson did assume the possibility of an omniscient interpreter in Davidson 1986a.

⁷ See also Davidson 1975: 168-69.

truth (it must be high), which complements the *relative* requirement (it must be the highest).

We are now in the position to see why the enrichment phenomenon is a problem for the method of radical interpretation.

4. The Enrichment Problem

The core of the radical interpretation method is that, firstly, we can infer what a speaker X believes from data about what sentences X holds true and a hypothesis about what the sentences mean, and secondly, that we have, in the principle of charity, a filter on acceptable belief attributions. These two factors combined provides a filter on acceptable meaning hypotheses.

The problem that stems from pragmatics, and in particular free pragmatic enrichment, is that the first factor, the link between the meaning of the sentence and the content of the belief, is distorted by an additional factor: the enrichment. Schematically, instead of (INF2), we have

- (INF2') 1) X holds *s* true
 2) *s* means that *p*
 3) *p* is enriched to *q*

 4) Hence, X believes that *q*

Clearly, if we have no idea about the result of an assumed enrichment of *p*, then we have no idea of what *q* is, and then we have no input to our Charity test on belief attributions, simply because we have no belief attributions. If, in enrichment, the sky is the limit, then the method of radical interpretation simply delivers nothing.

On reflection, we can see that the situation is not *that* bad. Enrichment is not an operation from any content to any content, but provides an *addition* to content that is already in place. It is in principle possible to enrich (6a) to (6b) but not to (6c):

- (6) a. John kissed Mary.
 b. John kissed Mary at midnight.
 c. Bill broke his leg.

Since enrichment does not delete conceptual components of the original content, there is a restriction on what the enriched content can be, given the hypothesis about the meaning of the sentence.

However, that restriction is not of tremendous help, since it still leaves an infinity of possibilities open, as illustrated in (7):

- (7) a. I am sick.
 b. [*The man*] I [*saw on the bus*] [*was doing what my aunt Augusta does when I*] am [*at her place and she believes that her neighbor is*] sick.

If (7a) can be enriched to (7b), then, although not *every* content can be an enrichment of (7a), there is no upper bound to contents that in principle can be.

That there is a potential infinity of possible enrichments of any particular content is not, however, in itself a decisive blow to the adequacy of radical interpretation. For, if all enrichments were *plausibility preserving*, it would not matter that they are infinitely many. Suppose that it is plausible that X believes that *p*. If enrichments are plausibility preserving, then for any possible enrichment *q* of *p*, it is also plausible that X believes that *q*. Then, the hypothesis that *p* is the

meaning of sentence s gets a positive degree of confirmation from the hypothesis, given that X holds s true, *whatever* enriched proposition q it is that X believes. Likewise, if it is not plausible that X believes that p , then for any possible plausibility preserving enrichment q , it would still be implausible that X believes that q , and hence the hypothesis would get a degree of disconfirmation. So, it is not the infinity of enrichments itself that is the main problem.

The problem for the method is rather that there is no a priori reason to believe that an enrichment cannot lead from a plausible belief content p to an implausible belief content q , and *vice versa*. This means the combination of a meaning hypothesis for a sentence s , jointly with the fact of X holding s true, gives neither confirmation nor disconfirmation of the meaning hypothesis, for after enrichment, the resulting belief attribution can be either plausible or implausible, depending on the enrichment assumption.

The upshot is that unless we can restrict the range of available enrichments very tightly, and ideally such that available enrichments are plausibility preserving, the method of radical interpretation does not deliver any results at all.⁸

Such a restriction on the range of available enrichments would require a systematic theory of enrichments. Is that possible? Davidson himself was clearly pessimistic about theories of pragmatics:

I do not believe there are rules or conventions that govern this essential aspect of language. It is something language users can convey to hearers and hearers can, often enough, detect; but this does not show that these abilities can be regimented. I think there are sound reasons for thinking nothing like a serious theory is possible concerning this dimension of language (Davidson 1990: 313n).

As we shall see in the next section, however, there are reasons to be more optimistic.

5. Enrichment Theory

Much of the literature on modulations in general and enrichments in particular has been concerned with convincing readers that these phenomena exist, and with some sub-categorizing of different kinds of modulation. Little has been done in the way of explanation. Relevance Theory has indeed offered a number of principles that would help explaining why this or that enrichment occurs, but the principles offered are not sufficient for predicting any particular enrichment on their own.⁹ Some predictive principles have been offered by Levinson (2000), especially with his theory of *I*-implicatures. The basic idea there is that the speaker says as little as possible, and the hearer infers as much as possible, and Levinson (2000: 117-18) offers some more concrete principles for achieving the-

⁸ That pragmatic phenomena provide potential issues for the method radical interpretation, especially if contextualism is true, is noted by Kathrin Glüer (2011: 40n).

Furthermore, if we think of the conveying of an *enriched* belief as an ulterior purpose of the speaker, and the interpreter needs to arrive at a meaning theory by means of belief attributions that depend on enrichments, then Davidson's principle of the autonomy of meaning does not hold. It is doubtful, however, that conveying a belief should be counted as an ulterior purpose.

⁹ This is not the place for criticism of Relevance Theory with respect to predictive capacity. For discussion, see Pagin 2014: 88-92.

se ends. These principles are a mixed bunch, however, and I think enrichments often are not motivated by his general idea.¹⁰

In Pagin 2014, I proposed a theory that, I claimed, does this, given only background beliefs about the world. The general idea was that free enrichments occur because they *raise the coherence*: the proposition arrived at *after* enrichment, the *enriched* proposition, has a higher degree of coherence than the prior proposition *before* the enrichment, the *original* proposition. As regards mandatory enrichments, the theory does not explain why an enrichment occurs, since some enrichment is needed irrespective of coherence, but rather (where there is enough background information) why some enrichment occurs rather than an alternative.

The theory was spelled out by means of an ordinal scale of *coherence strength*. In doing so I was building on the theory of coherence relations (rhetorical relations) of Andrew Kehler (2002), who in turn developed idea presented by Jerry Hobbs, for instance in Hobbs (1985). After a suggestion by Hobbs, Kehler used the categories of *connections between ideas* of David Hume (1748) as his basic categories of discourse relations: *Resemblance*, *Cause-Effect*, and *Contiguity*.

Kehler's cause-effect relations are *Result*, *Explanation*, *Violated Expectation*, and *Denial of Preventer*. An example of *Explanation* (Kehler 2002: 21) is

(8) George is dishonest. He is a politician.

This satisfies the *Explanation* relation insofar as it is *presupposed* that being a politician *implies* being dishonest.

Kehler's resemblance relations are *Parallel*, *Contrast*, *Exemplification*, *Generalization*, *Exception*, and *Elaboration*. An example of *Parallel* is

(9) Dick Gephardt organized rallies for Gore, and Tom Daschle distributed pamphlets for him (Kehler 2002: 16).

This exemplifies *Parallel* since organizing rallies for Gore and distributing pamphlets for Gore are subsumed under a common more general property/activity, such as *doing something in favor of Gore*. In addition, Dick Gephardt and Tom Daschle both had the property of being high-ranking Democratic politicians.

There is only one contiguity relation: *Occasion*. It is exemplified in

(10) George picked up the speech. He began to read.

This exemplifies *Occasion* since we read (10) is conveying that nothing happened *between* the picking up and the start of the reading.

Partly based on these coherence categories and coherence relations, I offered the following scale of coherence strength (Pagin 2014):

Scale of coherence strength

- 0) Vacuity
- 1) Contiguity type relations
- 2) Resemblance type relations
- 3) Possibility type relations
- 4) Necessity type relations

The scale runs from weakest (0) to strongest. Degree 0, Vacuity, is the measure of discourse without coherence, like

(11) My dad bought a car. Bananas are yellow.

¹⁰ For discussion, see Pagin 2014: 92-95.

Degree 1, contiguity, could be exemplified by

- (12) The table is covered with books. A cat is lying on the sofa.

On reading (12), one typically makes a so-called *bridging inference* to the conclusion that the sofa mentioned in the second sentence is in the same room as the table mentioned in the first, thus close to each other.¹¹

Degree 2, Resemblance, belongs to discourses where there is a certain type of thematic unity, typically together with contiguity. The *Parallel* example above from Kehler is a good example.

Degrees 3 and 4 mark coherence between states of affairs in virtue of either, loosely speaking, making *possible* (degree 3), or making *necessary* (degree 4). Often, these relations are causal in nature. In that case, a degree 3 coherence pertains to a discourse where one fact mentioned is such as to *enable* another fact or event also mentioned. This is exemplified in (4): when we read into (4a) that the female subject opened the door with the keys that had been handed to her, we take the fact stated in the first conjunct to enable the action reported in the second, i.e. the opening of the door.

Degree 4, Necessity, concerns states of affairs related by *consequence* either causal/evidential or logical/conceptual. For instance, teleological explanations belong to this type:

- (13) a. The man took out a knife. He was going to cut the rope.
b. The man took out a knife. [*He did this because*] he was going to cut the rope.

Taking out the knife is a causal consequence of intending to cut the rope, presented in a teleological manner as a consequence of the purpose itself.

The general idea of the theory, called *Enrichment Theory* (ET) (Pagin 2014), is that a free enrichment takes place if it maximally raises the coherence compared with the unenriched content, given constraints regarding the *plausibility* and *accessibility* of the enrichment. The plausibility constraint depends on general background beliefs, often called “world knowledge”. For instance, the enrichment in (13b) depends on the background belief that rope-cutting is commonly done with a knife (it is commonly known to be feasible, hence commonly intended). The accessibility constraint concerns the complexity of the added content; it should be quick and easy to think.

The theory can in fact explain many of the enrichment examples in the literature, and many more examples as well. For instance, the enrichment in (13) is explained by the fact that it raises the coherence of the discourse from 1 (assuming the taking-out occurs just after the onset of the intending) to 4, Necessity, in that the taking-out is represented as a consequence of the intending.¹²

The enrichment in (4) is explained by its raising the coherence from degree 1 to degree 3, as getting the key is thought to enable the opening of the door. Degree 4 is not reachable here, unless we think that handing her the key somehow *causes* her to open the door. This is indeed possible, but the background plausibility of this assumption is not very high. The theory predicts, however, that those who *do* find it high, would also read this stronger relation into the sentence.

¹¹ Cf. Clark 1975, Levinson 2000: 37-38, Wilson and Matsui 1998. According to Levinson, bridging inferences are examples of I-implicatures.

¹² Compare: (i) The man took out a handkerchief. He was going to cut the rope.

Enrichment can take place within a single predication, in that it can relate a property that is *predicated* of a subject to a property that is *attributed*:

- (14) a. The temperature has risen to a dangerous level.
 b. The temperature has risen [*from a non-dangerous*] to a dangerous[*ly high*] level.
- (15) a. A tall man picked up the book.
 b. A kind man picked up the book (Pagin 2014: 83).

In (14a), two properties are ascribed to the temperature (as a changing property of some entity); that it has risen and that it is (at the time or utterance) at a dangerous level. These two facts could be unrelated without affecting the truth of the sentence, since the temperature might have been at a dangerous level before the rising. It could also be the case that the level is dangerous because the temperature is *low*, or that it is within a particular interval. Intuitively, we read into the statement the temperature was at a non-dangerous level before the rising. This is explained by the theory, since coherence is thereby raised to degree 4: the rising causes the danger. In addition, we take it that the danger depends on the temperature being high. This is not necessity for the rising to cause the danger, but it is natural to take the rising first to cause the temperature's being high, and the latter again to cause the danger.

In (15b), the property of being kind is attributed to a man and the property of picking up the book is predicated of him. Intuitively, these are taken to be connected, in that it is seen as an *act of kindness* to pick up the book. It is not completely easy to situate the example on the scale, since it would involve difficult considerations about reasons and causes, but I find it natural to say that the act of picking up the book, insofar as it is done out of kindness, is *motivated* by kindness as a trait, i.e. a disposition to perform acts that are beneficial to others. By contrast, no corresponding relation can be seen in (15a), since there is no plausible connection between being tall and picking up a book. This again can be contrasted with

- (16) A tall man took down the book.

where being tall is easily seen as *enabling* the man to take down the book (from a high shelf, for instance).

For a precise statement of ET, see Pagin (2014: 76). The paper also has many more examples. We can now apply ET to the enrichment problem for radical interpretation.

6. Enrichment Theory and Radical Interpretation: The Simple Connection

We can note a central feature of Enrichment Theory:

- (EEO) The enriched proposition *entails* the original proposition.

The enriched proposition is always *more specific* than the original proposition.¹³ In possible-worlds terms: the set of worlds where the enriched proposition is true is a *subset* of the set of worlds where the original proposition is true.

¹³ This does not hold of bridging inferences, where, according to Enrichment Theory, enrichment does not take place. Rather, the raising of coherence to level 1 occurs in *saturation*, with the assignment of time and location parameters.

Standard examples in the literature exemplify this. For instance, in

- (4a) He handed her the key and she opened the door
 (4b) He handed her the key and she opened the door [*with the key that he had handed her*]

the worlds where she opens the door with the key he gave her are all worlds where she opens the door (some way or other). Similarly, in

- (13a) The man took out a knife. He was going to cut the rope.
 (13b) The man took out a knife. [*He did this because*] he was going to cut the rope.

And similarly, again in the breakfast example of Recanati (5a), and similarly, in turn, in just about every example in the literature. I argued (Pagin 2014) that this shows that enrichment does *not* take place in order to satisfy *Charity*: if the original proposition is false, then the enriched proposition is false as well, since it entails the original one. Rather, something else is going on, and I proposed exactly coherence raising.

If Enrichment Theory is correct, and the entailment from the enriched to the original propositions projects from the examples in the literature to all (or perhaps virtually all) cases of pragmatic enrichment, we also have a result that is relevant for the prospects of radical interpretation. For then, *if* Enrichment Theory is correct, then enrichments *are* plausibility preserving, in the sense of section 4. For if it is plausible that the speaker X believes the enriched proposition, then it is (at least standardly) plausible as well that X believes the original proposition, since it is entailed by the enriched proposition. And in the case of the Charity inference, (INF2'), the original proposition is exactly the meaning of the sentence *s* (in context, if necessary).

We get the same result by taking Charity itself into account. For, in the most basic case, it is plausible that a speaker believes a proposition provided that proposition is *true*. If we have a prima facie reason to believe that X believes the enrichment proposition *q*, since *q* is *true*, then we also have a reason to believe that X believes the original proposition *p*, since *p* (entailed by *q*), is true as well.

The upshot of the investigation so far is that, if Enrichment Theory is true, then the phenomenon of pragmatic enrichment is so restricted that it in fact does *not* have any negative consequence for the adequacy of the method of Radical Interpretation. The complete picture is more complicated, however, because of downward entailing contexts.

7. The Problem of Downward Entailing Contexts

Consider the following classical example from Bach (1994: 278). A mother is talking to her child, who has had a cut in a finger:

- (17) a. You are not going to die.
 b. You are not going to die [*from that cut*].

In this case, on the standard analysis of the example, the salient background content is the content of the mutually shared knowledge that the child has a cut in the finger. The enrichment operates on a *part* of that content: it enriches *die* to *die from that cut* or *die because of that cut*.

On the standard analysis, the unenriched content of the mother's utterance is blatantly false: she says that the child is not (= never) going to die. The en-

richment, into saying that the cut will not cause the child to die, then turns the utterance from having a false content into one having a true content. Hence, charity may be a motivating factor of the enrichment. But for the current account of the relation between enrichment and radical interpretation, the standard analysis of the example provides an apparent counterexample. For the mother to hold (17a) true looks like indicating a false belief, which *prima facie* speaks against the interpretation hypothesis. This is of course a bad result.

From the coherence raising point of view, the problem seems to be that the enrichment occurs in a *downward entailing context*. A downward entailing (DE) context $\Phi\dots$ is such that if $p \models q$, then $\Phi(q) \models \Phi(p)$. Hence, the context in a sense reverses the entailment relation. Negation is of course the basic downward entailing operator, i.e. an operator that induces DE contexts. If p entails q , then $\neg q$ entails $\neg p$. Other DE contexts are ‘Nobody...’ and ‘if..., p’, i.e. antecedents of conditionals. Upward entailing (UE) contexts are opposite: Φ is upwards entailing just in case if $p \models q$, then $\Phi(p) \models \Phi(q)$.

The effect on the present account is obvious: if every enriched proposition within the local context entails the prior proposition, then when the enrichment occurs in a DE context, the proposition P expressed by the containing (unembedded) sentence will entail the resulting proposition P' expressed after the enrichment. In the present example, *that you will not die* entails *that you will not die from this cut*. Hence, in general, if enrichment supports charity in UE contexts, it undermines charity in DE contexts.

The result is potentially very bad for the radical interpretation approach to linguistic meaning. The question is, however, what the pattern of enrichment actually is in DE contexts. Let’s reconsider the Bach example.

Suppose we make the following morbid addition to the example: unbeknownst to the mother, the child has swallowed some poison and is in fact going to die within an hour, although not from the cut. Is then the utterance (17a) true? If the content of the utterance is that of (17b), then it is indeed still true. Intuitions may be divided here. Mine is that it is in fact false in this case.

Also, from the point of view of coherence raising, the original idea would be that enriching with *from that cut* would *raise* the content *you are going to die* to the necessity level of *you are going to die from that cut*. However, if the future tense involves unrestricted quantification over future times, then the prior proposition is already at necessity level, so there is in fact no raising: it is part of folk theory that by natural necessity, everyone dies sooner or later. There would have been a raising only if the cut had made the child mortal.

The natural and intuitive correction of the standard analysis is to introduce domain restriction for the temporal domain to the *near future*. That is, what the mother says, *before enrichment*, is that the child is not going to die *in the near future*, i.e. *any time soon*. This is itself not a case of enrichment, but a case of domain restriction.¹⁴ That is, the contents before and after enrichment are

- (18) a. Not: For some time t in the near future, you will die at t .
 b. Not: For some time t in the near future, you will die at t from that cut.

If this is right, then in Bach’s original example, the mother’s prior content (18a) is true, not false. The embedded propositions will be

- (19) a. For some time t in the near future, you will die at t .

¹⁴ I argue for this claim in Pagin 2014, section 7.

- b. For some time t in the near future, you will die at t from that cut.

This enriched embedded proposition (19b) of course *does* entail the prior embedded proposition (19a). Moreover, coherence then *is* raised: on the assumption that the cut causes the child to die, what it does cause is not that the child dies *some time or other*, since that it would do anyway, but that the child dies soon after the time of getting the cut, which it would not have done without getting the cut.

Assuming that the enrichment *from that cut* does take place, in accordance with the standard analysis, because it takes place in a DE context, the result is that the *prior* total proposition (18a) does entail the *enriched* total proposition (18b). Nevertheless, we do not get a counterexample to the application of charity, simply because, unlike in the standard analysis, the prior proposition (18a) is both believed by the speaker and true, not disbelieved and false, as in the standard analysis. Hence, the Bach example, on this account, does not provide a counterexample.

However, it may seem that this result gets us out of the frying pan and into the fire. For in the morbid alternative scenario, when the child will die from having swallowed poison, the original proposition (18a) is false, while the enriched proposition (18b) is true. The speaker holds the sentence (17a) true, and believes the enriched proposition (18b). It may therefore look as if we do get the counterexample in this variant of Bach's example.

We do not however, and the reason is that it is built into the example that the speaker does *not* know, and hence (because it is very unlikely) has good reasons not to *believe* that the child will die in the near future because of having swallowed poison. Therefore, the speaker *does* believe (18a), just as in the original scenario. In this alternative scenario, the belief is false. That could be a problem for charity itself, but again is not in this case. Rather the false belief in (18a) is an explicable error. Under the epistemic circumstances, belief in (18a) is precisely what should be predicted. Hence, the standard strategy of radical interpretation deals with this case:

Some disagreements are more destructive of understanding than others, and a sophisticated theory must naturally take this into account. Disagreement about theoretical matters may (in some cases) be more tolerable than disagreement about what is more evident; disagreement about how things look or appear is less tolerable than disagreement about how they are; disagreement about the truth of attributions of certain attitudes to a speaker by that same speaker may not be tolerable at all, or barely. [...] The methodology of interpretation is, in this respect, nothing but epistemology seen in the mirror of meaning (Davidson 1975: 169).

The hardest case remains, however. For what are the contents and truth values in the even more morbid alternative case where the mother *knows* that the child has swallowed poison and will soon die? In this case, if by uttering (17a) she actually asserts (18b), not (18a), then what she asserts is in fact *true*, despite the imminent death of the child, and despite her knowledge of this fact. The prior proposition (18a) is false, and not believed. Hence, we seem to have ended up in the worst scenario for the radical interpretation project.

This is the hardest case, and I cannot discuss it thoroughly in the present paper. I believe that the radical interpretation project survives this problem as well, however, because of an asymmetry between enrichments in UE and DE contexts. To bring this out, let's go back to Carston's case of (4), repeated here as (20):

- (20) a. He handed her the key and she opened the door.
 b. He handed her the key and she opened the door [*with the key that he had handed her*].

Consider the scenario where he hands her the key and she does open the door, but not with the key that he had handed her. What are the intuitions about the truth value of the assertion made by means of (20a)? We must distinguish between the case where the speaker *knows* or *believes* that (20b) is false and the case where he believes that (20b) is in fact true and intends to convey this belief. In this latter case, I think the assertion is simply false: the content of the assertion is that of (20b), although it is not fully articulated, and the proposition asserted is false.

In the first case, we should again distinguish between the sub-case where the speaker understands that the enriched proposition will be conveyed, and the sub-case where he does not. In either of these sub-cases, I take the assertion to be *true* but misleading. It is true because the content that is both believed and literally expressed is true. The enriched content is not believed, and not literally expressed. Hence, the speaker does not *lie*. In the sub-case where the speaker is aware of the enrichment, the speaker intentional misleads the hearer, and in the case the speaker is unaware of the enrichment, he unintentionally misleads the hearer.

Intuitions about these cases may not be completely robust, and perhaps they get more shaky when we turn to the DE cases instead. Thus consider:

- (21) a. He handed her the key but she did not open the door.
 b. He handed her the key but she did not open the door [*with the key that he handed her*].

Consider again the same scenario, where she does open the door, although not with the key that he handed her. Now, in case the speaker of (21a) believes that she did not open the door in any way at all, the belief expressed and the content asserted is simply false.

The crucial case is that where the speaker has a correct belief about the scenario and still makes his assertion by means of (21a). Is the assertion true or false? Is it true but misleading?

In the UE case of (20), where the speaker has correct beliefs about the scenario, we settled for *true but misleading*. It seems to me that in the DE case of (21a), this result is ruled out. The reason is in fact rather simple: opening the door without using the key given to one is a way of opening the door, *not* a way of *not* opening the door. Compare:

- (22) a. He handed her the key and she opened the door, although not with the key that he had handed her.
 b. *He handed her the key and she did not open the door, although she did open it without using the key he had handed her.

Here, (22a) is perfectly fine: the default enrichment is cancelled by the additional conjunct. By contrast, (22b) is clearly (in my view) unacceptable. Accordingly, we cannot make an assertion of (21a) come out as true but misleading. It is simply false, and (22) brings out the asymmetry between the UE and DE cases.

Let's turn back to the mother's assertion of (17a) in the doubly morbid case: the child has swallowed poison and will soon die, and the mother knows this. In accordance with the discussion above, I think that the mother's assertion is false, not true but misleading. She tells the child that it will not die in the near

future, and that is simply false. This indicates that she is *not* asserting the enriched proposition (18b), which is true.

With this outcome, the radical interpretation project survives. For it is then not the case that the mother holds the false sentence (18a) *true* because of believing the enriched (18b), thereby incorrectly inducing a disconfirmation of the interpretation hypothesis of the radical interpreter. Rather, on the present analysis, she does hold (or at least would be expected to hold) (18a) false. Asserting (18a) would amount to lying.

In a way, this outcome is in agreement with Grice's first maxim of quantity:

(Quantity 1) Make your contribution as informative as is required (for the current purposes of the exchange) (Grice 1975: 26).

This is in accordance with Grice's discussion of disjunction (Grice 1989a: 45-47) and the idea of asserting *the stronger*. In upward entailing contexts, the enriched content is the stronger statement, while in downward entailing contexts, the *un*-enriched content is the stronger content.

It has seemed to many in the semantics-pragmatics literature that the weaker, enriched content (17b) is what is asserted by the mother. I think this is a mistake based on not taking the reasons for the temporal domain restriction into account. With the domain restriction in place, we can stick to the quantity principle of asserting the stronger. If this is right, then, in DE contexts, or at least under negation, enrichments do not even arise (or if they arise, they do not affect the asserted content).

Intuitions concerning the examples considered support the application of Grice's quantity principle, and also supports the project of radical interpretation. It remains an open question whether the study of other examples would yield a different result.¹⁵

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