

TRUTH AND REFERENCE IN CONTEXT

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Abstract. In communicative exchanges, sentences are uttered against a background of shared beliefs or attitudes that helps the audience to determine the content of what the speaker has said. Unfortunately, different agents may have *different* views of this common ground. From this standpoint, one of the most familiar phenomena is *accommodation*, which enables the addressee to incorporate the speaker's presuppositions into her own view of the common ground. This phenomenon is analyzed here as a case of *global* context shift, since the missing piece of information, which the addressee is willing to share, will be an integral part of the revised context.

A less familiar, but equally important, phenomenon is what I call *disaccommodation*, whose main feature consists in the fact that the missing piece of information, although essential to the comprehension of the utterance, *cannot* be shared by the addressee because it sounds problematic or even false to her. This is not a marginal aspect of communicative exchanges, which are often characterized not only by different views of the common ground, but also by *incompatible* views. In such cases the addressee opens a "presuppositional slot" to take into account the assumptions that serve to select the reference of the noun phrase, but that are not incorporated into the revised context because of the addressee's disagreement. Thus, such a process is analyzed as a case of *local* context shift, which affects only the noun phrase and which, unlike global context shifts, allows us to keep considerations about reference distinct from considerations about truth.

One of the main purposes of the paper is to propose a definition of truth (with respect to a presuppositional apparatus) that does not ignore the role of disaccommodation when different views of the common ground are involved¹.

1. Truth in context.

A context X , conceived of as a body of information that is supposed to be shared by the participants in a communicative exchange, plays two crucial roles in the semantics of natural languages. First of all, X serves to fix the content of an utterance U , since it represents the background against which U must be interpreted. Secondly, it provides the basis on which it is possible to build up the updated context, i. e. the context that results from adding this content to X itself.

A fruitful formalization of these concepts is based on Stalnaker's idea that a set X of shared propositions (the "common ground"²) is represented as a *context set* C , i. e. the set of possible worlds that are compatible with the propositions in X , and that the proposition p expressed by uttering a sentence S with respect to X is a subset of C , so that the update of C is obtained by eliminating from C the worlds that are not in p .

If X is the presumed common ground and C is the corresponding context set (that is, $C = \{w \in W : w \in p \text{ for every proposition } p \text{ in } X\}$), we say that a sentence ϕ is true with respect to X if and only if the proposition expressed by ϕ with respect to C is compatible with the actual world $@$. More exactly³:

(T) Given a context X , represented by the context set C , an utterance of the sentence ϕ in X is true iff $@ \in [[\phi]](C)$.

¹ I am indebted to...

² See Stalnaker (1999). In Stalnaker (2002: 701) the relationship between presuppositions and common ground is informally defined as follows: 'To presuppose something is to take it for granted, or at least to act as if one takes it for granted, as background information – as *common ground* among the participants in the conversation.' See also the definition of *speaker presupposition* in Soames (1982: 485).

³ Alternative definitions are possible in a dynamic framework. In **(T)** the role of the common ground is made explicit, as desired.

Here, $[[\phi]]$ is the “meaning”⁴ of ϕ , which is a function from contexts sets (i. e. sets of possible worlds) into propositions (i. e., once again, sets of possible worlds), such that $[[\phi]](C) \subseteq C^5$. So, a (simplified) translation schema for a sentence like ‘The P is Q’ is given by the rule:

(TRANS₁): The P is Q $\Rightarrow \lambda C \lambda w [C(w) \wedge Q(w)(\text{the_P}(w))]$.

Combined with this schema of translation, **(T)** tells us that ‘The P is Q’ is true, with respect to a context set C , iff the actual world $@$ belongs to C and in $@$ u is Q , where u is the only individual (if any) that satisfies the property P in $@$.

Notice that if X contains any wrong assumption, then $@ \notin C$ and, for every proposition p expressed in X , $@ \notin p$ (because p must be a subset of C): which means that *no* true proposition can be expressed in the context X . This is a minor problem, of course, if the false piece of information contained by the context at issue can be eliminated without serious consequences: which is possible if it has *no* significant role in determining the expected truth conditions (if, in particular, it has no role in picking out the intended reference of the definite description⁶).

The obvious solution, in this case, is to replace the “deviant” context with a new one, where the false proposition is simply eliminated. In other terms, C must be replaced by $C^{X,@} = \{w \in W : w \in p \text{ for every proposition } p \text{ in } X \text{ such that } @ \in p\}$. Thus, if X is any context and C the corresponding context set, $C^{X,@}$ can be seen as the result we obtain after eliminating the false proposition(s) contained in X .

As a consequence, definition **(T)** must be replaced with the following definition:

(T[@]) Given a context X , represented by the context set C , an utterance of the sentence ϕ in X is true iff $@ \in [[\phi]](C^{X,@})$.

If $@ \in C$ (which happens when X contains only true presuppositions), then $C^{X,@} = C$: in this case, as desired, **(T[@])** is equivalent to **(T)**, and there is a vacuous context shift.

To sum up, with this adjustment of truth conditions it would be possible to take care of the presence of false but *inessential* assumptions.

2. Imported presuppositions.

As we have just seen, the context shift on which **(T[@])** is based is made possible by a simple contraction of the common ground. But there are situations in which a false presupposition *cannot* simply be eliminated, because, unlike the wrong assumptions mentioned in the previous section, it plays an essential role in determining the reference of the definite description and the content of the utterance. Thus, it must be replaced by a new piece of information. This point can be illustrated by the following example.

⁴ The meaning of ϕ with respect to an assignment g . I will ignore the reference to an assignment, unless required by the context.

⁵ That the proposition expressed by ϕ with respect to C be a subset of C is a natural requirement in the theoretical framework under discussion: ‘What the context provides is the domain of possible worlds that propositions distinguish between. Semantics in general gives us rules for picking a subset of situations from such a domain. On this kind of account, context is not just information that mediates between utterance and proposition; it is the material out of which propositions are constructed.’ (Stalnaker, 1999: 156.)

⁶ For example, imagine a situation where it is *correctly* presupposed that yesterday, at a party, only one person (i. e. Leo) wore a fez. Yet, because of a *false* piece of information provided during the conversation, it is also presupposed that fezzes were formerly worn by Afghan men. In this case we have no difficulty to admit that, since Leo really is a poet, an utterance of the sentence ‘The man wearing a fez is a poet’ is intuitively true, even if it is false that fezzes were formerly worn by Afghan men. A similar problem is discussed in Heim (1982: 337-338).

Case A. The false presupposition that Tom is the only man wearing a fez is part of the common ground among the participants in a conversation during a party. (Actually, the man with the fez is Leo, a distinguished poet.) At a certain point, Lea joins in the conversation and utters the sentence

(1) The man wearing a fez is a poet.

From a number of hints, it is clear that she is referring to Leo. And since everybody knows that Lea is very well informed about the situation, the old presupposition is cancelled and the assumption that Leo is the man wearing a fez is tacitly incorporated into the common ground. So, Lea succeeds in communicating the true statement that he is a poet.

In general, in communicative exchanges, the common ground is affected not only by what the participants assert, but also by what they show to presuppose. Different views of the common ground may influence each other: what is tacitly presupposed by a speaker may be incorporated into the presuppositional apparatus of another speaker, and the new information may be *incompatible* with the old one. Thus, a more complex type of context shift is needed.

To account for such situations I will assume that our truth conditions, where contexts are treated as set of possible worlds, are associated with a suitable ordering of the worlds. There are several ways of formalizing such an ordering. Here, I will adopt a “system of spheres” which is a modification⁷ of the one introduced by Lewis (1973) and which is defined as follows.

Let C be any subset of W (the set of possible situations).

A collection S of subsets of W is a system of spheres centred on C if it satisfies the following conditions:

- (i) S is totally ordered by \subseteq
- (ii) $W \in S$ (as a consequence, W is the largest element in S)
- (iii) $C \in S$ and, for any B in S , $C \subseteq B$ (i. e. C is the \subseteq -minimum of S)
- (iv) For any proposition p : if there is any sphere B in S such that $B \cap p \neq \emptyset$, then there is a smallest sphere B' such that $B' \cap p \neq \emptyset$. (This is the limit assumption discussed by Lewis⁸.)

In virtue of (i) – (iv), a system of spheres S centred on C can be associated with a function f_C :

$\wp(W) \rightarrow \wp(W)$ which is defined as follows:

for any $p \in \wp(W)$

$f_C(p) = W$ if $B \cap p = \emptyset$ for every B in S

$f_C(p) = E \cap p$, where E is the smallest sphere in S such that $E \cap p \neq \emptyset$.

⁷ See Grove (1988) for the modified version of Lewis’s system that is adopted here. To avoid unnecessary complications, I will consider only those contexts that are logically consistent, even though they may contain false propositions. Removing this assumption would entail a complication of the semantics that is not relevant here. See Arló-Costa (2002) for a treatment of propositions that would allow us to deal with the case of inconsistent contexts.

⁸ Lewis (1973) points out some problems for this assumption. Yet, his counterexamples are based on the fact that his system is centred on the real world @, so that whenever we assume that a given sphere B is the smallest sphere such that $B \cap p \neq \emptyset$, it is always possible to find worlds that are closer to @ than those in B . As a consequence B cannot be considered as the smallest sphere with those characteristics any longer. It should be noticed, however, that in the present framework a system of spheres is centred, in general, on a context set A that represents a set X of presupposed propositions. So it seems reasonable, in this case, to assume that worlds which are too finely individuated to be discernible with respect to the context X of presuppositions count as equally “close” to C . See, on this point, Bonomi and Zucchi (2003).

Intuitive meaning. The smallest sphere C (on which the system is centred) can be seen as a context set, representing a certain background of assumptions, i. e. a set X of propositions. Given two worlds w and w' , if there is a sphere B such that B contains w but not w' , we can say that w is “closer” to C than w' , i. e. closer to the idea of world associated with X . Thus, $f_C(p)$ is the set of p -worlds which are “maximally” close to the background X and, in the situations I am going to discuss, it can be interpreted as the result of the *minimal revision* of X under the assumption p . The idea is that the only admissible modifications, in X , are those strictly necessary to *incorporate* p . In the case of a context shift like the one illustrated by example **A**, where false presuppositions are replaced by true propositions, I shall speak of *truth through incorporation*, and the relevant definition might have this form (where p represents a set of *veridical* presuppositions associated to an external source of information):

(\mathbf{T}^{INC}) Given a context X , represented by the context set C , an utterance of the sentence ϕ in X , with additional presuppositions represented by p , is true iff $@ \in [[\phi]](f_C(p))$.

In our example, C represents the given context and p Lea’s presuppositions. Since the worlds in $f_C(p)$ are p -worlds the identity ‘Leo = the man wearing a fez’ is true in all these worlds: which means that these presuppositions are satisfied and that Leo is the intended referent of the definite description, as desired.

It should be noticed that the process of incorporation defined in (\mathbf{T}^{INC}) is general enough to cover other cases of context revision: in particular, the familiar phenomenon of *accommodation*. The idea is that in this case p contains information not present in C but *compatible* with it (which in general is not true, as illustrated by case **A**), so that $f_C(p) = C \cap p$.

To sum up, (\mathbf{T}^{INC}) accounts for a kind of context shift where some *essential* assumptions must be added to the basic common ground because they are missing (accommodation) or replace false presuppositions (like in case **A**).

3. Points of view.

So far, we have endorsed a very naïve notion of common ground or context, for we have tacitly characterized it as the set X of the beliefs or attitudes that are *really* shared by the participants in a communicative exchange. Yet, even if these beliefs or attitudes are limited to those that are strictly *relevant* to the current communicative exchange (a restriction that will be taken for granted in the present discussion), such a local characterization of the common ground is still empirically inadequate for the following reasons.

Whilst it is quite natural to think that X is not empty (for, in any communicative exchange, there are, at the worst, shared beliefs about some *public* facts connected to the exchange itself: e. g. the fact that someone is speaking, or the fact that someone is listening, and so on), it is also plausible to admit that, in general, the agents have only a *partial* and *hypothetical* view of X ⁹. This is so, of course, because nobody has a direct access to the beliefs of the other participants and, as a consequence, each of them can only make *conjectures* about the background of shared beliefs, without knowing what exactly it is in many circumstances. As we shall see, in some cases there can be a conflict between different views of this background¹⁰.

⁹ In Beaver (2001: 236-249) an agent’s uncertain knowledge of the common ground is formally treated as an “information set” (i. e. a set of information states: the idea is that ‘each state in the set corresponds to a possibly correct model of [the agent’s] assumptions about the common ground’).

¹⁰ See Stalnaker (1978: 85) for a definition of defective contexts: ‘Each participant in a conversation has his own context set, but it is part of the concept of presupposition that a speaker assumes that the members of his audience presuppose everything he presupposes. We may define a NONDEFECTIVE CONTEXT as one in which the presupposition of the various participants in the conversation are all the same. A DEFECTIVE CONTEXT will have a kind of instability, and will tend to adjust to the equilibrium position of a non defective context [...] So it is not unreasonable, I think, to assume that in the normal case contexts are non defective, or at least close enough to being nondefective.’

In the light of these considerations, (\mathbf{T}^{INC}) can be reformulated in order to account for a kind of context revision that enables an addressee to modify her own view of the common ground by making room for the speaker's presuppositions and to accept (or reject) the content determined by these presuppositions. So, we might call this process *update through incorporation* (\mathbf{UP}^{INC}), because the speaker's presuppositions become an integral part of the revised context to which the content of the utterance must be added, and if we concentrate on the role of definite descriptions, which is the main topic of the present paper, we get the following definition (where α is the author of the utterance and β the addressee):

(\mathbf{UP}^{INC})

- (i) Given β 's relevant presuppositions, represented by the context set C , and β 's conjectures about α 's relevant presuppositions, conjectures represented by the context set p , a proposition q is *taken for granted* by β , with respect to C and p , iff, for every $w \in f_C(p)$, $w \in q$;
- (ii) by virtue of definition (\mathbf{TRANS}_1), the update of the context $f_C(p)$ with the utterance of the sentence 'The P is Q ' is the set of worlds w such that $w \in f_C(p)$ and in w u is Q , where u is the only individual (if any) that satisfies the property P in w .

According to this picture, β has her own presuppositions (represented by the context set C) and her own view of what is presupposed by the speaker α (represented by the context set p), and, in order to grasp what α says (and to accept it as a true statement), she *assimilates* the relevant presuppositions she attributes to him through a minimal revision of her own presuppositions. In other terms, (\mathbf{UP}^{INC}) expresses two crucial steps in β 's interaction with α : (i) revision of her own presuppositions to make them consistent with the presuppositions that she attributes to α : the result is the new context $f_C(p)$, which includes these presuppositions and which is used to determine the proposition expressed by α 's utterance; (ii) update of the context $f_C(p)$ by eliminating all the possible situations where this proposition turns out to be false.

Of course, the complexity of this revision process depends on the compatibility of α 's presuppositions with β 's presuppositions. For example, as in case **A**, imagine that β is convinced that the man wearing a fez is not Leo but Tom. Once she has realized that α presupposes that the man with the fez is Leo, she may want to revise her own presuppositions (provided that she thinks that α is a reliable source of information on this subject). In this case $f_C(p)$, which represents the result of a revision made possible by incorporating α 's presupposition, is *not* a subset of C , which represents β 's original presuppositions, since the assumption that the man wearing a fez is Leo is *not* compatible with C .

A simpler illustration of (\mathbf{UP}^{INC}) is provided by *accommodation* proper. In this case we have a "smoother" type of context revision based on incorporation, because the proposition presupposed by α is consistent with β 's presuppositions, so that the revised context $f_C(p)$ is simply a subset of C . Since it is this revised context that is updated by adding the content of the utterance, I will speak, in such cases, of *update through accommodation*. In other words, accommodation is conceived of as a particular (and simple) case of context revision based on incorporation, whose general definition is given in (\mathbf{UP}^{INC}).

4. *Discommodation.*

As we have just seen, this kind of strategy is based on the fact that the "external" presuppositions represented by p are *incorporated* into the revised context $f_C(p)$. In other words, these

Unlike Stalnaker, I consider defective contexts not as a pathology to be ignored, but as an intriguing phenomenon characterizing the dynamics of communicative exchanges. As emphasized in Donnellan (1966), this is evident in the so-called referential use of a definite description, because 'it is perfectly possible for our audience to know to whom we refer, even though they do not share our presupposition'. I will address this problem in sect. 7.

presuppositions become an integral part of the new context that is used to identify and evaluate the content of an utterance. Thus, at the end of this process of incorporation, a *single* context is relevant here. To use a metaphor, one might say that truth and reference share the same destiny, in the sense that $f_C(p)$ is the context set to which the world of evaluation must belong and, at the same time, the context set which serves to fix the intended reference of a part of the sentence (the definite description).

Witness example **A**, in some cases such a strategy (based on the assimilation of an external presuppositional apparatus) is quite appropriate. Yet, apart from the cases of misdescription that will be discussed in a moment, the need for an alternative strategy seems to be motivated by independent reasons. To see this, consider the following example¹¹:

Case B. Imagine that α and β are speaking of Proust's *Recherche* and that, to emphasize the fictional nature of this work, α utters the following sentence:

(2) No famous novelist has ever expired while visiting an exhibition of Swann's favourite painter.

In this scenario, the truth of the statement depends on two facts: (i) on the one hand, the reference of the definite description is fixed with respect to the world(s) of the *Recherche* (where Swann's favourite painter is Vermeer), not with respect to the world of evaluation (where Swann does not exist); (ii) on the other hand, it is in this world that no famous novelist has ever expired while visiting the exhibition at issue, not in the world(s) of the *Recherche* (where (2) turns out to be false because Bergotte, a famous novelist, expires while visiting the exhibition at issue)¹². But these two requirements cannot be satisfied by (T^{INC}), where the world of evaluation must belong to the set of worlds that are relevant for fixing the reference of the definite description (i. e. the set of worlds compatible with what is narrated in the novel).

A similar inadequacy can be ascertained in the case of (UP^{INC}): since it is based on the idea that the speaker's presuppositions are *incorporated* into the addressee's view of the common ground, it cannot account for situations where the addressee is not willing to share these presuppositions. This is what happens, for instance, in the case of misdescriptions, witness this new example:

Case C. Sentence (1) (i. e. 'The man wearing a fez is a poet') is uttered by α , who is sure that Leo is the only person wearing a fez. Unfortunately, this presupposition turns out to be false (whilst it is true, as before, that Leo is a poet). β , who is provided with independent information, knows that the only person wearing a fez is not Leo but Theo, and she is also convinced that everybody at the party shares this presupposition. This is why α 's use of the definite description surprises her.

In such a situation this is a possible dialogue between α and β ¹³:

(3) α : The man wearing a fez is a poet.

¹¹ In Bonomi (1998) an example similar to (2) is analyzed in a formal framework that is a little different from the one adopted here. See Fauconnier (1986) and Recanati (1996) for other examples that seem to require what I call a "local" context shift. Predelli (2000) contains an interesting discussion of the sentence 'The person who guided Dante through Hell and Purgatory is one of my favourite poets'.

¹² This means that a possible paraphrase of (2) is (2a): 'No famous novelist has ever expired while visiting an exhibition of the artist who in the *Recherche* is Swann's favourite painter', but not (2b): 'In the *Recherche* no famous novelist has ever expired while visiting an exhibition of Swann's favourite painter'. The semantics of statements such as (2b) is discussed in Bonomi and Zucchi (2003).

¹³ This kind of example is discussed in Kripke (1979), who judges a dialogue like (3) perfectly acceptable. According to the analysis developed in Donnellan (1978) the pronoun 'he', in (3 β), is anaphoric: which would prove, according to Donnellan, the semantic relevance of the speaker's reference. This thesis is rejected by Soames (1994). Pronominal contradiction is extensively discussed in van Rooy (2001), who accounts for Donnellan's intuition in the framework of dynamic semantics.

β : I am happy to learn that he [= Leo] is a poet. But his hat is not a fez.

What is peculiar to this situation is the fact that α and β have *different* views of the common ground, for what is presupposed by α is questioned by β . But this fact does not prevent β from referring to Leo in the first sentence of her answer, for the simple reason that β takes into account the (false) assumption that Leo is the man wearing the fez as a tool to pick out the intended reference of the definite description. Thus, under the assumption that α (in spite of his confusion about Leo's hat) is a reliable source of information about Leo's literary activity, β can update her own view of the common ground by adding the information that Leo is a poet, *without* sharing the false presupposition that his hat is a fez (witness the second sentence in her answer). For reasons that will be clear in a moment, I will call such a process *update through discommodation*. I have assumed, for simplicity, that, unlike α , β is provided with *true* information. But this is not crucial in such situations. We can even imagine a situation where α uses a definite description (e. g. 'The man wearing an elegant hat') with a vague predicate like 'elegant', with respect to which α and β adopt different standards. In these cases, it would be misleading to speak of "false" or "true" presuppositions, although a dialogue similar to (3) is still possible:

(4) α : The man wearing an elegant hat is a poet.

β : I am happy to learn that he [= Leo] is a poet. But his hat is not elegant.

In general, such situations are characterized by the presence of a disagreement between α and β , and, at the same time, by the willingness of β to suspend temporarily her own assumptions in order to grasp what α wants to say. Thus, in dialogue (3), β is perfectly aware that the man wearing a fez is *not* Leo, but she takes into account α 's point of view to determine the proposition he intends to express and to update her own view of the common ground with this proposition (always admitting that she judges α well informed about Leo's literary activity, although misinformed about Leo's hat).

As I have already suggested, this phenomenon is, in a sense, symmetrical with respect to accommodation. For this reason I will speak of *discommodation*, which can be characterized as follows (with respect to a speaker α and an addressee β):

ACCOMMODATION: permanent¹⁴ *expansion* of β 's view of the common ground, in order to determine the content of the utterance; this expansion is obtained by adding some new piece of information which β judges to be presupposed by the speaker α and which β is willing to take for granted without objection¹⁵.

DISCOMMODATION: temporary *suspension* of β 's view of the common ground, in order to determine the content of the utterance; this suspension is required to take into account some new piece of information which β judges to be presupposed by the speaker α and which β is *not* willing to take for granted.

In these intuitive definitions, what is crucial is not the common ground as such (i. e. as a set of shared beliefs or attitudes), but, on the one hand, the views of the common ground that different

¹⁴ At least in the context of the communicative exchange.

¹⁵ See Stalnaker's discussion of the example 'I can't come to the meeting. I have to pick up my sister at the airport' uttered in a context where the addressee does not know that the speaker has a sister. In Stalnaker's words: 'The phenomenon of *accommodation*, in general, is the process by which something becomes common ground in virtue of one party recognizing that the other takes it to be common ground.' (Stalnaker, 2002: 711.) It should be noticed that what Stalnaker describes here is the effect on the *real* common ground of the parallel processes of revision (assuming that these processes are successful) that the different agents achieve *with respect to their own views* of the common ground. These processes are one of the main topics of the present paper.

agents have, and, on the other hand, their willingness to modify these views, if necessary, in order to determine the content of an utterance. This can be done in two ways: by adding information (if this information does not sound problematic), or by a temporary suspension of pre-existing information in order to make room for information which sounds problematic, but which is required to make the continuation of the exchange possible. The former situation can be described as a case of *merging* between different (but compatible) views, whilst in the latter situation these views are kept *separate*.

The term ‘temporary’ is necessarily vague here, for the addressee may suspend her own presuppositions just for an instant (as in the examples (3 β) and (4 β), where β takes into account α ’s point of view *only* to grasp the proposition he wants to express: a point of view which is immediately questioned in the second sentence of the answer), or for a longer period. Imagine, for instance, that, in the situation described in case C, β is not concerned with the pedantries about Leo’s hat and that, to be cooperative, she refrains from uttering the second sentence, i. e. the sentence which expresses her objection to the way α uses the definite description. In this case α ’s (false) assumption can remain in force until the end of the exchange. Needless to say, such a cooperative attitude is highly motivated in all those situations in which there is no way to settle which of the competing views is the correct one, as in example (4).

To sum up, both cases (accommodation and disaccommodation) can be described in terms of a context shift, which involves different views of the common ground. What changes is the nature of this operation, as we shall see in the next section.

5. Presuppositional slots.

In the present theoretical framework there is no problem in accounting for accommodation, which is a very simple illustration of the process of context revision described in (UP^{INC}), a process based on the incorporation of the relevant presuppositions. The result of this process is represented by the new context $f_C(p)$, which is simply a subset of the given context C.

Disaccommodation is more intriguing, because in this case p, the proposition which β judges to be presupposed by α , must *not* be incorporated into the revised context. Unfortunately, such a requirement cannot be satisfied by (UP^{INC}), which does not allow us to keep the worlds relevant for truth separate from the worlds relevant for reference. But such a distinction is exactly what is necessary to account for disaccommodation, because in this case p, the presupposition which determines the intended reference, is *not* compatible with β ’s assumptions, so that the worlds in which the content of α ’s utterance should be evaluated as true or false cannot be p-worlds. This is a general problem that does not concern only the cases of misdescription, witness the Proustian example discussed in sect. 3. Intuitively speaking, what we do, when we judge (3 α) or (2) to be true, is to resort to the “counterfactual” context of the speaker’s presuppositions or to the “counterfactual” context of the *Recherche* in order to pick out the intended reference of the definite description, whilst we resort to the real world (or what we assume to be the real world) in order to evaluate the whole sentence.

The problem is that in a *global* context shift the worlds of the revised context are used to determine *both* the reference of the definite description and the truth-value of the sentence. This is perfectly appropriate to account for a situation where new assumptions are *incorporated* into the relevant presuppositional apparatus. But if one reflects on the cases of “misdescription” (in a broad sense, so as to include (2b), where the reference of the definite description is determined with respect to counterfactual worlds) it is easy to see that a different analysis is required.

Take for instance (4 α). When accepting this statement as true, β is perfectly aware of the fact that she and α have different opinions about the reference of the definite description ‘the man wearing an elegant hat’. Thus, on the one hand, she has no reason to give up her own suppositions about the person who satisfies the definite description. On the other hand, she *takes into account α ’s beliefs* on the matter in order to grasp the content of his utterance and to update *her own* view of the

common ground with that content, for she thinks that α is a reliable source of information about Leo's literary activity.

It is as if, in processing the utterance made by α , β should open a temporary slot within her own presuppositional apparatus in order to take into account α 's presuppositions. This effect can be described as a *local* context shift, which involves only the definite description at issue (or, in general, the NP at issue), and a little modification of the translation schema proposed at the outset is sufficient to account for it. The idea is that what we need is not only a contextual variable associated with the whole sentence, but also a specific one, associated with the definite description. Thus, since the *embedding context* (relevant for the evaluation of the whole sentence) may not coincide with the *embedded context* (relevant for the reference of the NP), the new translation schema must be something like:

(**TRANS₂**) The P is Q $\Rightarrow \lambda C \lambda w [C(w) \wedge Q(w)(\text{the_P}(K)(w))]$

where K is a free variable whose value depends on the assignment π . In the default cases, $\pi(K) = R$ (where R is the evaluation context). Thus, the embedding context and the embedded context coincide, and we have something equivalent to (**TRANS₁**). But if K is given a different value (namely the speaker's context S), then the embedding context and the embedded context can be different.

Of course, a third option is theoretically possible: the variable might be bound by a suitable quantifier, e. g. an adverb of quantification. Thus, the question is: is such an option empirically justified? If it is (as I think) the presence of a free variable in the relevant logical form would be justified by reasons that are independent of the phenomena of accommodation analyzed here. I will address this problem in sect. 9.

To be more specific about the main topic of this paper, suppose that the meaning of a definite description is defined by the following (simplified) rule of interpretation¹⁶:

(**DESC**) The meaning of the definite description 'The P' is the function $[[\text{The P}]]$ from contexts to identifying functions (i. e. functions from worlds to individuals) which is defined as follows:

- (i) if there is an individual u that in every world in C is the only individual satisfying P , then $[[\text{The P}]](C)$ is the constant function f such that, for any $w \in W$, $f(w) = u$;
- (ii) otherwise, $[[\text{The P}]](C)$ is the partial function g such that, for any $w \in W$, $g(w)$ is the only individual that satisfies P in w ($g(w)$ is indefinite when, in w , P is satisfied by no individual or by several individuals).

We are now in a position to sketch a global solution to the problems raised by disaccommodation phenomena. The case of update through disaccommodation, illustrated by dialogue (3), corresponds to the second option made possible by (**TRANS₂**): the value of the free variable is the context set representing β 's conjectures about α 's relevant presuppositions. This means that the embedding context is distinct from the embedded one. Intuitively speaking, the idea is that, as shown by this particular use of the pronoun 'he', β wants to update her own view of the common ground with the proposition that Leo (i. e. the reference of the definite description 'The man wearing a fez' according to the presuppositions that β attributes to α) is a poet. So, if R stands for β 's

¹⁶ See, on this point, the discussion on the referential/attributional distinction in Stalnaker (1970).

I will come back to (**DESC**) in sect. 8. It should be noticed that adopting this kind of definition is not essential for the general strategy I have sketched to deal with disaccommodation phenomena. Alternative treatments of definite descriptions, in particular a Russellian one, might be adopted.

As for other singular terms (namely, proper names and demonstratives), defining their meaning in the theoretical framework under discussion is an issue that cannot be addressed in the present paper.

presuppositions and S for the relevant presuppositions she attributes to α , the proposition by which β wants to update R is given by:

(5) $\lambda C \lambda w [C(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(K)(w))](R) = \lambda w [R(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(S/K)(w))]$ where ‘S/K’ means that S is the value of K for the given assignment π .

In other terms, the reference of the definite description is fixed with respect to S, not with respect to R. Since $[[\text{The_man_wearing_a_fez}]](S)$ is the constant function f such that, for any w , $f(w) = \text{Leo}$, (5) denotes the proposition that β is willing to accept in order to update her own view of the common ground, i. e. the proposition that Leo is a poet. This attitude is made explicit in (3 β), where β expresses her willingness to accept that proposition, while questioning the way in which one of its constituents (i. e. Leo) is identified.

But consider this other dialogue between α and β ¹⁷:

(6) α : The man wearing a fez is a poet

β : No, he is not a poet. The man you are referring to does not wear a fez.

This time, witness the second sentence in (6 β), β sticks to her own presuppositions, so that the individual she refers to by using the pronoun ‘he’ is *not* Leo, but Theo. In other words, the referent of the definite description is picked out with respect to R itself, not to S. To account for this situation we can resort to the first option made possible by (**TRANS**₂), the default case, and the value of the variable is the evaluation context. The idea is that the embedding context and the embedded context coincide, and what we obtain is the following proposition:

(7) $\lambda C \lambda w [C(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(K)(w))](R) = \lambda w [R(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(R/K)(w))]$ where ‘R/K’ means that R is the value of K for the given assignment π .

As desired, this time the reference of the definite description is not Leo, because the relevant context is R (i. e. β ’s presuppositions) and $[[\text{The_man_wearing_a_fez}]](R)$ is the constant function f such that, for any w , $f(w) = \text{Theo}$. This is exactly the situation described by dialogue (6), where β is not willing to update her own view of the common ground with the proposition at issue, i. e. the proposition that Theo is a poet.

A methodological remark is in order at this point. Usually the need for a context shift is justified by the presence, in a given sentence, of an (implicit or explicit) operator that makes the “basic” context inappropriate to evaluate the embedded sentence. This is the case, for instance, of a sentence such as ‘ x believes that ϕ ’, uttered in the context X, where the proposition denoted by ‘that ϕ ’, which is relevant to evaluate the whole sentence, cannot be defined as a subset of the basic context X. This is why, to obtain this proposition, we need a *derived context*.¹⁸ So, the natural question, at this point, might be the following: what is the difference between these familiar cases of context shift and the kind of context shift that should account for the discommodation phenomena analyzed here?

¹⁷ This is a second type of dialogue that Kripke (1979) judges acceptable in a case of misdescription. Unlike (3), based on what he calls the speaker’s referent, (6) is based on the semantic referent of the definite description.

¹⁸ See Stalnaker (1999: 156). In the present theoretical framework, the translation of a sentence such as ‘ x believes that ϕ ’ would be something like $\lambda C \lambda w [C(w) \wedge \forall w' (B_{x,w}(w') \rightarrow \phi(B_{x,w}(w')))]$ where $B_{x,w}$, i. e. the set of worlds compatible with x ’s beliefs in w , is the derived context (relative to w) for the embedded sentence ϕ . Notice that this derived context is not included in the basic context C if x holds beliefs that are not compatible with w .

A first difference is that in the former case the context change is *triggered* by the occurrence, in the sentence at issue, of an implicit or explicit operator. On the contrary, in the latter case the need for a context shift is simply determined by the existence of a tension between different views of the common ground: a tension that might undermine the exchange of information. It is in this sense that one might speak of a *spontaneous* context shift, motivated not by the presence of a suitable operator, but by the simple intention of keeping the possible discrepancies under control. Thus, what is essential here is not the internal articulation of a complex sentence, but the complexity of the utterance context, which involves a plurality of agents (with different views of the common ground, in the relevant situations).

A second, and crucial, difference is that in the familiar cases the derived context is relevant for evaluating the sentence *as a whole* (no discrimination between truth and reference), whilst to account for discommodation phenomena the context relevant for truth and the context relevant for reference may be different.

6. *Truth in context (revised).*

We have just seen how the translation schema (**TRANS**₂) can help to account for the notion of update through discommodation. The same happens with the parallel notion of truth through discommodation, which is the problem discussed at the outset. The distinction between the embedding context, which is relevant for evaluating the sentence as true or false, and the embedded context, which is relevant for fixing the reference of the definite description, allows us to solve the problems raised by misdescriptions (in the broad sense of the term).

Consider again dialogue (6), where, according to Kripke's analysis, the first sentence in (6 β) is about *the semantic reference* of the definite description occurring in (6 α), i. e. about Theo. In the theoretical framework adopted here, this means that the embedding context must coincide with the embedded one, and that it must be compatible with the real world. In particular, in the case of (6), it must contain the *correct* information that there is only one person wearing a fez and that this person is Theo. Let R be such a context. Thus, the utterance of the sentence 'The man wearing a fez is a poet' in (6 α) is simply false, with respect to R, because the reference of the definite description is not Leo, but another person who is not a poet.

On the contrary, in the case of dialogue (3), which is about *the speaker's reference*, the utterance of the sentence 'The man wearing a fez is a poet', in (3 α), turns out to be true, because this time the reference of the definite description (i. e. Leo) is fixed with respect to the embedded context S, representing the speaker's assumptions, and distinct from the embedding context R.

To sum up, the two options made available by (**TRANS**₂) correspond to two different ways of determining the reference of the definite description, according to whether the embedding context and the embedded one coincide or not. When the value of the context variable associated with the definite description is R itself (where R has the characteristics specified above) we get the interpretation based on the semantic reference; when the value of the variable is the background of the speaker's presuppositions, we get the interpretation based on the speaker's reference. Neglecting the details, this notion of truth in context can be generalized in the following way:

(TC)

Given a context X, represented by the context set C such that @ \in C, and given a presuppositional saturation π , an utterance of the sentence ϕ in X is true with respect to π iff @ \in [[ϕ]] $_{\pi}$ (C).

Here, π is the given assignment of contexts to context variables and [[ϕ]] $_{\pi}$ is the "meaning" of ϕ with respect to the parameter π .

The presence of a free variable makes the final interpretation depend on the value of this variable.

When $\pi(K)$ is the evaluation context C (the default case), C is relevant both for truth and reference and no context shift is required. By contrast, if $\pi(K)$ is not the evaluation context, then the

embedding context and the embedded context do not coincide, and this means that the reference of the description is *not* fixed with respect to C. This time C is relevant for truth but not for reference. One last remark. In (TC) it is explicitly assumed that the basic context C is a “true” context, i. e. $@ \in C$. This means that there are no false presuppositions. Such an assumption is partially justified by the fact that the cases of misdescription can now be treated by resorting to the distinction between the context that is relevant for truth and the context that is relevant for reference. Yet, we should not forget that, independently of the presence of misdescriptions, C might contain false, although irrelevant, assumptions. I have ignored this problem because misdescriptions are the main topic of the present paper, and (TC) seems to offer an adequate solution in this connection. In any case, as shown at the outset, the problem of “irrelevant” mistakes might be solved by adopting in (TC) a “harmless” context shift like the one adopted in (T[@]). Accordingly, in the definition proposed in (TC) $[[\phi]]_{\pi}$ should be applied not to C but to $C^{X,@}$, as defined in connection with (T[@]) and we would obtain the following definition:

(TC[@])

(i) Given a context X, represented by the context set C, and given a presuppositional saturation π , an utterance of the sentence ϕ in X is true with respect to π iff $@ \in [[\phi]]_{\pi}(C^{X,@})$.

7. Donnellan’s dilemma.

In his 1966 paper, Donnellan distinguishes two uses of a definite description like ‘the so-and-so’. In the *attributive* use, the speaker ‘states something about whoever or whatever is the so-and-so’, whilst in the *referential* use the speaker ‘uses the description to enable his audience to pick out whom or what he is talking about and states something about that person or thing. In the first case, the definite description might be said to occur essentially [...]; but in the referential use the definite description is merely one tool [...] for calling attention to a person or thing.’¹⁹ This is why, in this second use, we may succeed in picking out this person or thing ‘even though he or it does not really fit the description’.

Some years later, Donnellan addresses a different, but related, problem. Consider, once again, case C, where the referential use of the definite description ‘the man wearing a fez’ is intended to denote Leo, whose hat is not a fez (even though everybody is convinced that it is). Actually, the only person wearing a fez is Theo. Since, according to Donnellan, we are willing to admit that, by uttering sentence (1) (i. e. the sentence ‘The man wearing the fez is a poet’) α has said something *true* of Leo, he wonders whether this is just a pragmatic phenomenon or, on the contrary, the speaker’s reference (Leo, in this case) has a *semantic* role to play. If it has such a role, the *truth conditions* of (1), in these circumstances, do not depend on Theo’s properties, but on Leo’s properties (namely, the property of being a poet). And if we adopt a Russellian characterization of propositions, this idea might be formulated by saying that Leo, the speaker’s reference, is a *constituent* of the proposition expressed by (1) in the context at issue. It is in this sense that, according to Donnellan, the speaker’s reference has a ‘semantic significance’²⁰, and that the truth-value is determined by the properties of the speaker’s reference. Indeed, he mentions some examples where, as in our dialogue (3), the reference of the anaphoric²¹ pronoun ‘he’ is the

¹⁹ Donnellan (1966: 285.)

²⁰ He says that in these cases ‘the speaker’s reference determines the semantic reference’ or that ‘the speaker reference appears necessary to provide semantic reference.’ (Donnellan, 1978: 55, 61.) Notice that this use of the expression ‘semantic reference’ to speak of the relevance of the intended individual for the truth conditions of the sentence does not coincide with Kripke’s use of the term ‘semantic referent’, which applies only to the thing, if any, that does satisfy the definite description. Kripke’s “semantic reference” corresponds to Donnellan’s “denotation” (of a definite description), even though there is some fluctuation in the use of these terms in Donnellan’s paper.

²¹ In Soames (1994) several arguments are presented to reject the idea that, in such cases, the pronoun ‘he’ is an anaphoric element. This issue deserves a separate discussion that cannot be developed here.

speaker's reference, as we should expect, he thinks, if we assume that the speaker reference has a semantic relevance, that is a role to play in the truth conditions of the sentence.

Let us sum up. On the one hand, there is the attributive/referential distinction, which many theorists are reluctant to treat as a *semantic* distinction (for they are reluctant to admit that the definite article is *ambiguous*). On the other hand, from Donnellan's point of view, the presence of the speaker's reference is what characterizes the referential use of a definite description, *not* its attributive use²². And since, according to him, the speaker's reference has a semantic role to play, as shown by its relevance for the truth conditions of the sentence in some cases of misdescription, this means that the truth conditions determined by the referential use are different from the truth conditions determined by the attributive use (where no speaker's reference is involved). But such a conclusion seems to entail a *semantic* characterization of the attributive/referential distinction, which is exactly what many theorists are reluctant to accept. Thus, we have to face the following dilemma: if the thesis of the semantic relevance of the speaker's reference were correct, 'it might be thought that [...] an ambiguity in the definite article would at least be suggested and that it is intuitively very implausible to suppose such an ambiguity. So that, until the question of ambiguity is resolved, a real doubt remains about whether that position can be correct.' (Donnellan, 1978: 66.)

8. *Escaping the dilemma.*

There is a fair amount of discussion about the semantic relevance of the speaker's reference and its relationship with the attributive/referential distinction. In particular, a number of authors have endorsed Donnellan's dilemma, by rejecting²³ the thesis of the semantic relevance as entailing the ambiguity of the definite article or, on the contrary, by accepting that thesis and the semantic ambiguity that it is believed to entail.

In what follows, I will refrain from reviewing the relevant literature and I will confine myself to considering the attributive/referential distinction in connection with the phenomena of discommodation analyzed in the present paper.

Part of the problem, of course, might depend on terminological issues. Yet, if by 'semantic ambiguity' one means that the semantics of the definite article should include *two* distinct rules of interpretation, then the theoretical framework adopted here suggests a possible way out by allowing us to recognize the semantic relevance of the speaker's reference without assuming any ambiguity of the definite article, because definite descriptions are associated with a single rule of interpretation. So, what I would like to show, in this last part of the paper, is not that the ambiguity hypothesis is false (because such a discussion is beyond the purpose of the present paper, although I find unitary theories preferable), but only that it is possible to account for the semantic role of the speaker's reference and its relevance for the determination of the truth conditions without assuming the ambiguity of the definite descriptions.

²² 'Let us say that a definite description is uttered in a referential context when speaker reference exists relative to it [...] A definite description will be uttered in an attributive context when speaker reference relative to it is absent.' (Donnellan, 1978: 53.)

²³ As far as I can judge, this is officially Kripke's position. According to his analysis, there is no need to admit the semantic relevance of the speaker's reference, because the cases of misdescription like those illustrated by dialogue (3) can be accounted for by appealing to a pragmatic explanation based on Gricean rules. Yet, in some passages in his paper he expresses some doubts about the real nature of these phenomena: 'I myself feel that such a sentence [the sentence "Her husband is kind to her"] expresses a falsehood, even when "her husband" is used referentially to refer to a kind man; but the popularity of Donnellan's view has made me uncertain that this intuition should be pressed very far [...]. In *Naming and Necessity* [...] I suggested tentatively that Donnellan's remarks about reference have little to do with semantics or truth conditions. The point would be put more exactly if I had said that Donnellan's distinction is not itself a semantical one, though it is relevant to semantics through pronominalization.' (Kripke, 1977: 269, 275.) As I have already pointed out, the idea that the notion of speaker's reference is strictly pragmatic and has no semantic significance is clearly stated in Soames (1994), where Donnellan's remarks about pronominalization are discussed at length.

As a starting point²⁴, let us reflect on the rule of interpretation (**DESC**), repeated here:

(DESC) The meaning of the definite description ‘The P’ is the function $[[\text{The P}]]$ from contexts to identifying functions (i. e. functions from worlds to individuals) which is defined as follows:

(i) if there is an individual u that in every world in C is the only individual satisfying P , then $[[\text{The P}]](C)$ is the constant function f such that, for any $w \in W$, $f(w) = u$;

(ii) otherwise, $[[\text{The P}]](C)$ is the partial function g such that, for any $w \in W$, $g(w)$ is the only individual that satisfies P in w ($g(w)$ is indefinite when, in w , P is satisfied by no individual or by several individuals).

The idea is that, in case (i), the body of information associated with the relevant context C is strong enough to select an individual u as the only individual satisfying P in C , so that u is the intended referent of the description ‘the P’ with respect to any evaluation world w (even though u might not satisfy this description in w). On the contrary, in case (ii), as suggested by Donnellan’s characterization of the attributive use (according to which the speaker ‘states something about whoever or whatever is the so-and-so’), no particular individual is selected by C ²⁵, and the denotation of the description, with respect to any evaluation world w , depends on which individual, in w , satisfies the description.

Let us return to sentence (1), which in the context of a dialogue such as (6) receives an interpretation based on the semantic reference of the definite description. (1) is evaluated as false in this case. (Do not forget that, in Kripke’s sense, the semantic reference of a designator is given by the formula: meaning of the designator (as determined by linguistic conventions) + relevant facts). But we have also seen that, according to Donnellan, there is a sense in which, in the interpretation based on the speaker’s reference, as in the case of dialogue (3), (1) is evaluated as true. As we saw in sect. 5, these different results can be accounted for by the fact that the world @ belongs to proposition (5), repeated here:

(5) $\lambda w[R(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(S/K)(w))]$.

But @ does not belong to proposition (7):

(7) $\lambda w[R(w) \wedge \text{Poet}(w)(\text{The_man_wearing_a_fez}(R/K)(w))]$.

Notice that we get these results by applying rule (**DESC**) in both cases: what changes, when passing from (5) to (7) is only the value of the variable associated with the NP, which in (7), but not in (5), coincides with the evaluation context. To illustrate this point, suppose that the evaluation context is the set R representing a context of true assumptions where Theo (the semantic reference) is the man wearing a fez. In the default cases, the reference of the description is fixed with respect to this context. This is what happens in (7). But in (5) the reference is fixed with respect to S , representing the speaker’s presuppositions, so that, this time, the relevant individual is Leo. Intuitively speaking, (5) corresponds to an interpretation in which a presuppositional slot is tentatively opened in order to take into account the speaker’s assumptions with respect to a local constituent of the sentence (the definite description). In the theoretical framework discussed above, we might say that the

²⁴ As I have already specified, adopting alternative treatments of definite descriptions, e. g. a Russellian one, would not interfere with the remarks I am about to develop and would be equally appropriate.

²⁵ In most circumstances this is so because the information available to the speaker α is not rich enough to select a particular individual as the reference of the description ‘the P’ (even though α presupposes that there is only one individual that satisfies the description). Yet, as suggested by Donnellan, there are situations in which the speaker is provided with the necessary information about the identity of the individual at issue, but she suspends it in order to state something, in general, about *whoever* or *whatever* is the P. In this case, the relevant context C , in definition (**DESC**), does not coincide with the full information available to α .

embedding context and the embedded context do not coincide. But no slot is opened in (7), where the relevant assumptions are those represented by the basic context R. Here, the embedding context and the embedded one coincide.

Given this kind of analysis, there is a further question to be addressed: for what reason is the notion of truth based on the speaker's reference often associated, from an intuitive point of view, with a feeling of uneasiness²⁶ that is absent from the notion of truth based on the semantic reference? A possible answer to this question is that when a speaker α uses a misdescription to identify a particular individual u and to state that u is Q, it is not correct, strictly speaking, to say that α stated something true, of u , for the simple fact that u is Q. It would be much more appropriate to say that, in this case, α stated something true, of u , *with respect to the criteria of identification available to α* . In general, the notion of truth based on the speaker's reference is defined with respect to a presuppositional apparatus *which is the vehicle of potentially false information*. This is what happens in the case of (5), because $@ \notin [w \in W: \text{in } w \text{ Leo is the man wearing a fez}]$ (even if $@ \in [w \in W: \text{in } w \text{ Leo is a poet}]$).

Finally, it is noteworthy that, if such a reconstruction is correct, to fix the speaker's reference there is no need to appeal to "Gricean" pragmatic rules, as suggested by Kripke. The procedure is the same that is used to fix the semantic reference and established by the *semantic rule (DESC)*: take the meaning of the definite description and apply it to a context (i. e. a set of worlds representing an information state). In the default cases, what is relevant is context C (which, as specified by (TC), represents a body of true assumptions), so that the semantic reference is picked out. On the contrary, the speaker's reference is picked out with respect to the context that corresponds to the speaker's assumptions. *No ambiguity* of the definite description is presupposed here. In both cases the reference is given by Kripke's formula: meaning (determined by linguistic conventions) + relevant facts. As expected, different representations of the facts may yield different results.

9. Conclusions and open problems.

In communicative exchanges context shifts are often *induced* by the presence, in a given sentence, of operators such as 'If ..., then ...', 'x believes that ...', 'In fiction F ...', and so on. A natural point of reference, from this standpoint, is Stalnaker's analysis in terms of context sets and operations on context sets.

Yet, in other situations, the exchange of information is made possible by a sort of *spontaneous* context shift, i. e. a revision of the relevant beliefs and attitudes that enables the agents to communicate the intended information even if their presuppositional backgrounds diverge on some specific point. In these cases, the need for a revised context is motivated not by the presence of an (explicit or implicit) operator, but by the simple intention of taking into account a different view of the common ground.

In the present paper I focussed on this second type of context shift. I started from the most familiar cases, where the relevant information is added to the basic common ground because it is missing, as required by accommodation, or because it must replace some false presuppositions, as required by the intention of sharing only *true* assumptions. Such revision strategies, based on the *incorporation* of presuppositions originated by an external source of information, are accounted for by definitions (\mathbf{T}^{INC}), centred on the notion of truth, and (\mathbf{UP}^{INC}), centred on the notion of update. Both of them involve a *global* context shift, since there is no reason for keeping considerations about reference distinct from considerations about truth: the worlds that are relevant for evaluating the sentence as true or false coincide with the worlds that are relevant for fixing the intended reference of a term, for example a definite description.

²⁶ As remarked by Kripke (1977: 262): 'It seems hard for us to say that when he [the speaker] uttered, "Her husband is kind to her", it expressed a truth, if *we* believe that her husband is unkind to her.'

But a different strategy, based on *local* context shifts, must be adopted to deal with the phenomenon of *discommodation*, which is the main topic of the paper. This phenomenon is characterized by the presence, in the context presupposed by a speaker α , of an assumption p that an addressee β must take into account even though β cannot accept it because it is in contrast with her own assumptions. To account for the existence of such “presuppositional slots” that an agent can temporarily open up when interacting with other agents, in the formalism sketched in the paper a definite description (or, in general, a Noun Phrase) is associated with a free variable for contexts, whose value depends on the assignment π . In the default cases, $\pi(K) = R$ (where R is the evaluation context), so that the context that is relevant for evaluating the statement as true or false coincides with the context that is relevant for fixing the reference of the NP. But if K is given a different value (namely the speaker’s context S), then those contexts can be different. In this case, the context that is relevant for fixing the reference represents an *alternative* source of presuppositions. Such a local context shift, which concerns only the NP, is made possible by the truth conditions proposed in definition (TC), and this definition is used in the last section of the paper to explain why, in the cases of misdescription like those made popular by Donnellan, the speaker’s reference can have a *semantic* relevance in determining the truth conditions of the utterance. Interestingly enough, without assuming any ambiguity of the definite article, the approach discussed in the paper allows us to account for this role of the speaker’s reference as a simple case of discommodation, where different views of the common ground are involved.

From a formal point of view, the problem is that the nature and the exact position of the variable that has a crucial role in (TC) should be made more explicit. Several proposals²⁷ are available in the literature, but one of the major problems with them, as far as I can see, is to make them compatible with cases of discommodation like those discussed here (e. g. (2): ‘No famous novelist has ever expired while visiting an exhibition of Swann’s favourite painter’), where the worlds that are relevant for reference are not relevant for truth.

First of all one should specify the precise *domain* of such variables. Treating them as variables for worlds may not be sufficient, as shown by the fact that a sentence such as:

(8a) ? Leo is always an erudite person

is hardly acceptable in normal circumstances, whilst the sentences:

(8b) Faust is always a very erudite person

and

(9) The person who makes a deal with Faust is always a very erudite person.

are not problematic. For example, (9) is perfectly acceptable in the interpretation that can be paraphrased by the conjunction: In Marlowe’s tragedy the person (in that tragedy) who makes a deal with Faust is a very erudite person and in Goethe’s tragedy the person (in that tragedy) who makes a deal with Faust is a very erudite person and... To explain this fact, the most natural solution is to assume, as I have done in this paper, that in (9) the variable bound by the adverb of

²⁷ To account for the role of context in the interpretation of the Definites, Chierchia (1995: 220-222) uses relational variables that represent the contextually supplied information. In Stanley and Szabó (2000: 251) the variables for domain restriction are associated with the common noun occurring in quantified expressions. In Percus (2000: 194-195) definite descriptions contain a situation pronoun that is bound by a lambda operator. Finally, contextual variables stand for subsets of the domain in Westertahl (1985) or for submodels, with respect to a given model, in Bonomi (1998). In all these cases it is not immediate to see how the proposed analysis can deal with examples like (2) and in general with phenomena of discommodation.

quantification ‘always’ is a variable *not* for worlds, but for contexts, that is, a variable for sets of worlds, under the hypothesis that contexts are represented by context sets. In fact, if the domain of quantification is the set of relevant contexts (i. e. Marlowe’s tragedy, Goethe’s tragedy, etc.), a possible (rough) paraphrase of (9) should be something like:

(9’) For every (relevant) context C and for every x such that x is the person who makes a deal with Faust in C , x is a very erudite person in C .

In this case, the context variable bound by the adverb of quantification is the variable for the evaluation context, which coincides with the context variable that is relevant for fixing the reference of the definite description. So, there would be no need, here, for a specific variable associated with the definite description. Yet, consider this other example:

(10) The number of nuclear weapons is always significantly smaller than the number Rumsfeld has suggested during the last press conference.

This sentence is appropriate in a situation where a reporter, in order to prove that Rumsfeld is lying about Iraq’s nuclear armament, utters it after consulting different sources of information (as, for example, the United Nations, the European Community, and so on). What he means is that, whenever we compare the figure provided by Rumsfeld with the figure provided by any of those sources, the former is much bigger than the latter. In this case, if the domain of quantification is the set of relevant contexts (i. e. the information available to the United Nations, the information available to the European Community, etc.) a possible paraphrase of (12) should be something like:

(10’) There is a context C and there is a number y such that C is the context of Rumsfeld’s utterance and y is the number of nuclear weapons provided in C , and for every (relevant) context $C' \neq C$ and for every x such that x is the number of nuclear weapons available to Iraq in C' , x is smaller than y .

As predicted by the kind of analysis developed in this paper, the quantificational structure obtained in the case of (10) is considerably different from the one obtained in the case of (9), because in (10) the variable bound by the adverb of quantification is not the variable for the evaluation context, but the one associated with the definite description. Unfortunately, a systematic treatment of these binding phenomena is far beyond the rough formalization suggested in the paper.

A further problem concerns the exact role of the free variable in a more explicit logical form. Consider Strawson’s conjecture that the presuppositions usually associated with a definite description are relevant only when the description has a “topical” occurrence. Supposing that some partition of propositions into a focal and a topical part is available, one possible way of interpreting this conjecture in terms of Donnellan’s distinction is to say that the referential interpretation of a definite description is possible only when the description is part of the topical material²⁸. From this point of view, the dependence on the relevant assignment π would characterize not only the occurrences of definite descriptions in this position but, *in general*, any topical material, so that the solution proposed here for definite descriptions would be independently motivated. In connection with the analysis developed in the paper, one might suggest²⁹ that the material in focus is always interpreted with respect to the evaluation context C , whilst topical material is evaluated with respect to a context K selected by π .

This is an intriguing problem that deserves further investigation. Anyway, there are at least two reasons for being cautious on this point. (i) In general, the link between “topicality” and existential presuppositions is a controversial issue³⁰. (ii) A first problem that seems to arise in connection with

²⁸ In Dekker (1998: 319-322) this hypothesis is developed in the framework of dynamic semantics.

²⁹ I am grateful to an anonymous referee for this suggestion.

³⁰ For example, the link is questioned in von Stechow (2004).

the proposal under discussion is that if the partition into a focal and a topical part is taken at its face value, in a statement such as:

(11) ‘Only [the man wearing a fez]_F is a poet’

the interpretation based on the speaker’s reference. i. e. on the referential use of the definite description, should not be compatible with the “focal” occurrence of the description. But it is not difficult to find situations where that kind of reading is the appropriate one for (11). Think of the following comment:

(12) Yes, he is a poet, but his hat is not a fez.

Once more, the role of the articulation topic/focus in selecting the relevant reading is an open problem that should be addressed in a more refined theoretical framework.

Finally, there is a problem concerning the ontological commitments of the treatment outlined here for discommodation phenomena. As the reader remembers, this treatment is based on the idea that, in a sentence such as (2), the reference of the definite description ‘Swann’s favourite painter’ is fixed by the presence of a variable that is locally anchored to a “counterfactual” context such as the *Recherche*. It is this reference which is used to evaluate the sentence as “factually” true, that is true in the real world @, which does not belong to the “counterfactual” context set associated with the *Recherche*. No problem arises here, because the intended reference (Vermeer) exists not only in the *Recherche* but also in @. Yet, consider a sentence such as:

(13) Vinteuil, the talented composer that Swann likes best, is a very unpretentious man.

Unfortunately, most of the so-called superstars that have signed a contract with La Scala this year are much more arrogant and fastidious than Swann’s favourite musician.

Suppose that the second sentence, in (13), is factually true, exactly as (2). In both cases the referent of the definite description is fixed with respect to the *Recherche*. The difference is that the referent of the definite description ‘Swann’s favourite musician’, that is Vinteuil, is a person who exists in the *Recherche* but not in the real world. To be sure, the presence of the contextual variable, which selects the “local” context required by the definite description, allows us to account for the peculiarity of such a situation, where the factual truth of the sentence is based on a relation between real persons on the one hand and a fictional one on the other. Formally speaking, this means that in some cases the extension of a relational predicate in the real world @ might involve individuals that do not exist in @³¹. Thus, it is natural to wonder if such a requirement can be motivated by independent reasons.

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³¹ It should be noticed that this is exactly what happens in the intensional semantics proposed in Kripke (1963), where the extension of a predicate P, in a world w, may contain individuals that do not exist in w (whilst the interpretation of the quantifiers is *restricted* to the domain of w).

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