Visit www.benjamins.com (http://www.benjamins.com)

Home (/) >> Books (/content/books) >> Simulation and Knowledge of Action (/content/books/9789027297075)

Simulation and Knowledge of Action

Add to favourites (#)

Buy print copy

(http://benjamins.com

/catalog/aicr.45)

Simulation and Knowledge of Action

Editors: Jérôme Dokic; Joëlle Proust

Format: PDF

Publication Date: 2002 ISBN: 9789027297075

DOI: 10.1075/aicr.45 (http://dx.doi.org/10.1075/aicr.45)

Show (#) / Hide (#) descriptions

Introduction (/content/books/9789027297075-01dok)

Author: Jérôme Dokic pp. vii–xxi

1. Simulation theory and mental concepts (/content/books /9789027297075-02gol)

Author: Alvin A. Goldman

pp. 1-19 (19)

Reply to Alvin I. Goldman (/content/books/9789027297075-03chi)

Author: William Child pp. 21–31 (11)

2. From simulation to theory (/content/books/9789027297075-04ber)

Author: Paul Bernier pp. 33–48 (16)

Reply to Paul Bernier (/content/books/9789027297075-05sol)

Author: Gianfranco Soldati pp. 49–52 (4)

3. Neurophysiological evidence for simulation of action (/content /books/9789027297075-06dec)

Author: Jean Decety pp. 53-72 (20)

Reply to Jean Decety (/content/books/9789027297075-07hoe)

Author: Christoph Hoerl pp. 73–85 (13)

4. The scope and limits of mental simulation (/content/books /9789027297075-08jac)

Author: Pierre Jacob pp. 87–109 (23)

1 sur 3 20/03/2014 15:43

Reply to Pierre Jacob (/content/books/9789027297075-09dok)

Author: Jérôme Dokic pp. 111–117 (7)

5. Some reasons to link imitation and imitation recognition to theory of mind (/content/books/9789027297075-10nad)

Author: Jacqueline Nadel pp. 119–135 (17)

Reply to Jacqueline Nadel (/content/books/9789027297075-11roe)

Author: Johannes Roessler pp. 135–149 (15)

6. Varieties of simulation (/content/books/9789027297075-12rec)

Author: François Recanati pp. 151–171 (21)

Reply to François Recanati (/content/books/9789027297075-13pel)

Author: Jérôme Pelletier pp. 173–184 (12)

7. Mental simulation, dialogical processing and the syndrome of autism (/content/books/9789027297075-14pet)

Author: Donald M. Peterson pp. 185–195 (11)

Reply to Donald M. Peterson (/content/books/9789027297075-15liv)

Author: Pierre Livet pp. 197–200 (4)

8. Can "radical" simulation theories explain psychological concept acquisition? (/content/books/9789027297075-16pro)

Author: Joëlle Proust pp. 201–228 (28)

Reply to Joëlle Proust (/content/books/9789027297075-17lud)

Author: Pascal Ludwig pp. 229–240 (12)

9. Joint attention and simulation (/content/books /9789027297075-18cam)

Author: John Campbell pp. 241–253 (13)

Reply to John Campbell (/content/books/9789027297075-19pac)

Author: Elisabeth Pacherie pp. 255–260 (6)

2 sur 3 20/03/2014 15:43

Subject index (/content/books/9789027297075-20sub)

pp. 261-264 (4)

Name index (/content/books/9789027297075-21nam)

pp. 265-269 (5)

Related content:

Memory and Understanding (/content/books/9789027294548)

Author: Renate Bartsch

Type: Book

Making Minds (/content/books/9789027292742)

Editors: Petra Hauf; Friedrich Försterling

Type: Book

Olfactory Cognition (/content/books/9789027274649)

Editors: Gesualdo M. Zucco; Rachel S. Herz; Benoist Schaal

Type: Book

More > (#) < Less (#)

/content/books/9789027297075

 $dcterms_subject,pub_keyword$

6

3

3 sur 3 20/03/2014 15:43

Pelletier, J. (2002) « Reply to François Recanati », in J. Dokic et J. Proust (dirs.) Simulation and Knowledge of Action, John Benjamins, Advances in Consciousness Research Series, 173-184.

1 SIMULATION AND ASSUMPTION

François Recanati claims that assumption is simulative both in a technical and in a more phenomenological sense. Assumption is simulative in a technical sense since it uses the inference mechanism off-line and it is simulative in the phenomenological sense in so far as it is often accompanied by a certain kind of *as if* behaviour: 'when someone assumes that *p*, he or she behaves *as if* the representation that *p* was validated'.

Let's reconstruct Recanati's reasoning:

- 1. Assumption is a kind of acceptance
- 2. Acceptance is the disposition to exploit a representation, i.e. to feed a representation to the inferential device. It is a disposition to run the inferential device within the belief module.
- 3. The function of the inferential device is to exploit representations which are validated. Acceptance, *qua* disposition to run the inferential device, exists only because of that function.
- 4. There is a divergence between the natural function of the inferential device and the way the inferential device is used in assumption, that is 'off-line'.
- 5. There is simulation whenever a mechanism which has a function within a system is used 'off-line' (and sometimes when there is a certain kind of *as if* behaviour).
- 6. Therefore assumption is simulative.

I am reluctant to accept Recanati's conclusion: I would not be ready, as Recanati does, for instance to describe the children who pretend that a certain stick is a sword as 'assuming' that a stick is a sword. One assumes a certain proposition either in a polemical or in a heuristic context. Moreover assumption can be described as an adult purposeful activity and this is rarely the case with children's games of make-believe. I believe that Recanati's conclusion goes too much against our colloquial use of the term 'assumption'.

At the same time, I accept, with Recanati, premiss 1 and premiss 5. So my disagreement with him lies in 2-4. The main idea which I reject in 2-4 is that there would be something like the unique natural function of acceptance. I see acceptance as a primitive mental state of regarding a certain proposition as true, but a mental state which has no privileged function within the belief module. Acceptance is 'designed' to work in various cognitive states as different as imagination and assumption on one side and belief on the other side. On that different basis, assumption is, like belief, a case of acceptance (premiss 1) since it is a case of regarding a proposition as true. But it is no more needed to introduce a simulative ingredient to specify the distinction between belief and assumption. Let's draw a different picture from Recanati's of the relations between belief, acceptance and assumption.

What distinguishes belief and assumption is mainly their different aims, their different ways of accepting a proposition, not the fact that, in assumption, acceptance would be running off-line. Assumption is the mental state it is because it is a state of acceptance of a proposition which does not take into account the *real* truth-value of the proposition accepted. In order to assume a proposition one needs only regard that proposition *as* true without considering the *real* truth-value of the proposition. By contrast, a belief is a way of accepting a proposition or of regarding a proposition as true while at the same time considering that it is its *real* truth-value. I cannot believe a proposition without believing it, maybe wrongly, to be *really* true whereas in assumption I only accept a proposition, that is I regard it as true in a quite different spirit, for the sake of argument. So my main disagreement with Recanati lies with the idea expressed in 2-4 that there would be something like the *real* or *natural* function of acceptance and which would be to feed the inferential sub-system of the belief faculty.

2 SIMULATION AND PREDICTION

Recanati's second thesis is that reasoning on someone else's beliefs is a kind of simulative reasoning. When one reasons on someone else's beliefs, the exercise of 'projection', 'retrojection' and 'deduction' makes it possible to predict someone else's beliefs. And this attempt to reason within a person belief's space is a kind of 'simulative reasoning'.

The simulative part of the so-called 'simulative reasoning' is the operation of 'cognitive projection', that is the process of assuming or accepting the propositions believed by someone else, what Recanati calls 'the object representation'. Simulation here is understood as the process of running off-line some version of someone else's beliefs. In order to calculate on someone else's mind, through

¹ On this conception of acceptance, Cf. Velleman (1992).

cognitive projection, one is able to remove the prefix 'John believes that...' and takes on temporarily John's belief.

Are we really ready to admit that somebody who reasons on someone else's beliefs 'takes on' this person's beliefs or imagines believing *herself* such and such propositions? I doubt that the process of belief ascription requires such participation on the side of the ascriber. But my point might be simply terminological since Recanati claims that the operation of cognitive projection which lies at the heart of the process consists in 'assuming' or 'accepting' the propositions believed by someone else. If then one understands 'assumption' and 'acceptance' the way I did in the preceding section, then I totally agree with Recanati's description of the phenomenon of belief ascription and prediction.

Recanati tries then to resist a counter-example levelled against this simulative approach to reasoning, a counter-example which shows the limits of this method of reasoning. This method of reasoning can be used only if the premises of the reasoning already belong to the belief's space of the person whose beliefs one tries to predict. No premises external to the 'assumptive space' can be used in such reasoning.

The fact that deductions on the basis of projections are limited to the premises already belonging to the beliefs space of the believer raises a difficulty previously noticed by Proust in her paper in this volume.² As a matter of fact, there is here a risk of circularity: in order to reason simulatively within someone else's belief space, the ascriber presumably needs to know the premises authorised in the reasoning, which means that she already needs to know the content of the belief space of the ascribee. But this is precisely why the simulative reasoning was started in the first place.

wonder whether this Moreover Ι method for 'exploiting' metarepresentations, especially the process of retrojection, is really faithful to the logic of belief. The fact is that beliefs do not seem closed under deduction. We are not perfectly logical agents, in particular, we do not believe all the consequences of our beliefs, for instance, we do not believe the contradictions that might follow from our beliefs.³ But simulatively reasoning on someone else's belief might in some cases lead to ascribe to someone the contradictions he or she does not believe in. And in that case, one would loose all the interest of this kind of reasoning which is precisely to help us predict someone else's beliefs.

-

² Pp. 395-396.

³ Cf. Drestske (1970).

3 SIMULATION AND METAREPRESENTATION

I come to the main part of Recanati's paper. According to Recanati, metarepresentations are 'intrinsically simulative'. One needs to put oneself into someone else's shoes, one has to think what she thinks, in order to entertain a genuine metarepresentation. Whereas in simulative reasoning, the idea was that in order to *calculate* on someone else's belief, one has to take on the contents believed by that person, here the idea is that in order to *represent* someone else's beliefs, in order to construct a metarepresentation, one has first to entertain the contents represented by that person.

3.1 The iconicity of metarepresentations

What is really new in this proposal? The followers of Gordon and Goldman know very well that simulation is centrally involved in attributing mental states to others. But Recanati does not just hold this view. He presents new evidence in favour of this view based on the linguistic format of our belief reports. According to Recanati, the simulative essence of metarepresentations follows from the intuitive observation that in order to metarepresent, to have a second level belief about a first level belief, one needs to *display* the content believed at the first level. This is what Recanati calls the 'iconic' dimension of metapresentations. Metarepresentations are 'iconic' in so far as they resemble or replicate the beliefs they are about.

Recanati is right to insist that in belief reporting some *picturing* takes place. And Recanati is careful enough to speak here vaguely of resemblance since there are many different ways of *displaying* a content believed at the first level, different ways to think what another person thinks. Imagine for instance that:

(1) He is a jolly good fellow

is sincerely uttered by Joëlle while demonstrating Pierre. It seems that I could truly report her belief by uttering any of the following sentences:

- (2) Joëlle believes that Pierre is a jolly good fellow
- (3) Joëlle believes that he is a jolly good fellow [demonstrating Pierre]
- (4) Joëlle believes that you are a jolly good fellow [addressing Pierre]
- (2) and (4) are true belief reports which display the content believed by Joëlle in a semantically faithful way even though they are not syntactically faithful to the way Joëlle expressed her belief as in (3). (2) and (4) 'resemble' less than (3) to Joëlle's way of expressing her belief.

When I report Joëlle's belief the way I do in (2), this is because I feel free to exploit the fact that I know the proper name of the person demonstrated by Joëlle

even though I know that Joëlle ignores his name. In these circumstances, while truly attributing to Joëlle the belief that Pierre is a jolly good fellow, I would be displaying the content of Joëlle's belief but in a different way from her. What Recanati calls the 'object representation' in a metarepresentation might then be in some cases a reconstruction of the ascribee's thought from the ascriber's perspective.

Recanati claims that "Tom stated that identical objects have all their properties in common" is a genuine metarepresentation contrary to "Tom stated Leibniz's law" since the content of Tom's statement is displayed only in (2). But the problem is that, since many metarepresentations relies as in (2) and (4) on a reconstruction on the side of the ascriber, in many intermediate cases one might not be able to tell whether or not one is dealing with what Recanati calls a 'genuine metarepresentation'.

3.2 The transparency thesis

The 'iconic' dimension of metarepresentations in turn explains, according to Recanati, why the ascriber needs first to *entertain* the content of the first-level representation he or she attributes. This last move leads Recanati to claim that metarepresentations are 'transparent' representations. Metarepresentations do not constitute an opaque interface between the ascriber and the ascribee's thoughts since the ascriber needs to entertain the semantic content of the representation he attributes to the other person.

Whenever a meta-representation displays the content x of an object-representation, then the meta-representation is bound to be about x. Let's quote Recanati: "a genuine meta-representation dS (where d is the tag and S the radical) satisfies the following schema:

Schema (I): One cannot entertain the proposition that dS without entertaining the proposition that S.

For example:

One cannot entertain the proposition that John believes that grass is green without entertaining the proposition that grass is green."

According to Recanati, the linguistic format of our belief reports, the way belief reports are displayed, would then be another evidence *via* the 'transparency thesis' in favour of the simulation theory of metarepresentations.

Recanati's transparency thesis has for it a pre-philosophical intuition about the truth of our belief reports. According to that intuition, a true belief report contains a that clause whose terms have the same *references* as the ones used by the subject of the report. As is well-known, this pre-philosophical intuition goes against what has now become the standard Fregean philosophical intuition according to which the that-clause of a belief report has to express some sort of conceptual content that the subject of the report believes in order for the report to be true. To use Davidson's phrase, Recanati tries with Schema (I) to recover this 'pre-Fregean semantic innocence' (Davidson 1968, p. 108).

Schema (I) is liable to face several immediate difficulties which Recanati tries to deal with in the rest of the paper. I will mention one which is apparently omitted in Recanati's paper. What happens to Schema (I) when the proposition 'believed' by John is an 'impossible proposition'? Let's suppose for the sake of argument that there is such a thing as an 'impossible proposition'. Does one need to entertain the proposition that 2 + 2 = 5 or the proposition that Hesperus is not Phosphorus in order to entertain the proposition that John believes that 2 + 2 = 5 or the proposition that John believes that Hesperus is not Phosphorus? Imagine that John is experiencing the Capgras delusion and believes that, Mary, his spouse has been replaced by an impostor who looks just like her. When the doctor commenting on Johns' situation says:

(5) John believes that Mary is not Mary,

must we accept with Recanati that the doctor entertains the thought that Mary is not Mary? If the entertaining of the object proposition is a necessary condition of the entertaining of the metaproposition, if, as Recanati claims, there cannot be an entertaining of the metaproposition without an entertaining of the object proposition, each time one attributes a belief in an 'impossible proposition', one would then entertain an 'impossible proposition' which is a difficulty for Schema (I).

Moreover, in these cases of belief with a logically or metaphysically impossible content, it might well be that the correct account of John's state of mind is that John *claims* to believe an impossible proposition or that John *says* that he believes an impossible proposition. So why should this kind of report should impose to the ascriber to entertain himself or herself impossible propositions? In order to give this kind of report, the striking fact is that it seems necessary *not* to put oneself into John's shoes, *not* to think or replicate in thought what he apparently thinks. And these intuitions go against Schema (I). The main purpose of a belief report with an impossible content is neither to think nor to talk 'transparently' about the impossible *states of affairs* represented by John but only to talk of John's impossible *mental representations* as such without entertaining the content of John's representations.

In the rest of the paper, Recanati develops a thesis concerning the decoupling procedure at work each time there is a primary representation and a tag,

and he tries to defend the 'transparency thesis' expressed in Schema (I) against various objections. I deal with these claims in the following sections.

4 METAREPRESENTATIONAL PREFIXES VS 'SCENE-SETTING' PREFIXES

Recanati claims that metarepresentations are a special case of the decoupling procedure used in many other circumstances, that is whenever one finds a primary representation and a tag or prefix. For instance, when we have metarepresentational prefixes such as 'In the picture, grass is green' and 'In the film, grass is green', or spatial prefixes such as 'In Chicago, grass is green', according to Recanati what we really have is an attempt by the speaker to go imaginatively beyond his egocentric situation and to describe a distinct situation. This is something previously noticed by Perner:

"When exclaiming 'Look, there is Judy in the picture. She is wearing blue' (...). With the word 'Judy', we make a direct reference to Judy being in the picture, and the expression 'in the picture' serves as a context-marker in much the same way that, in the statement 'Yesterday at your party Judy was wearing blue', the expression 'Yesterday at your party' marks a difference in the spatio-temporal context which differentiates it from that of current reality' (Perner 1993, 129).

Recanati's proposal is to interpret the presence of these various tags or operators as an invitation to simulation. But shouldn't we distinguish the simulative role plaid by true metarepresentational prefixes such as 'In the film' and 'According to John' from the non-simulative role plaid by non-metarepresentational prefixes or 'scene-setting prefixes' such as 'In Chicago' or 'Yesterday'?

As a matter of fact, I think that Recanati's proposal might be plausible if it were restricted to metarepresentational operators such as 'In the fiction, ...' 'In the picture...' or 'In the film...'. Understanding some remarks made with these operators may require to continue the simulation initiated by the author of the fictional story, picture or film. This is actually Evans (1982) and Walton's (1990) thesis on discourse about fiction or 'metafictive' discourse.

But even in these cases, I find the interpretation of metafictive discourse given by van Inwagen (1977) or Currie (1990) more plausible. Let's consider the following 'metafictive' utterance:

(6) In Shakespeare plays, some characters are neurotic.

The tag 'In Shakespeare plays' is an invitation to adopt a serious attitude towards the plays, even a scientific one. This is an invitation to decompose the play in its structure, to see for instance that plays contain among other things characters and that these characters have certain properties. I do not see the tag here as an

invitation to a simulation. There is no simulation or decoupling procedure when one talks of the play in this case.

But even though one endorses the Evans-Walton-Recanati thesis on metafictive discourse and tags, would it be possible, following Recanati, to generalise it to non-metarepresentational or to what may be called 'scene-setting' prefixes? Recanati is ready to generalise the simulative analysis to many prefixes which have nothing to do with metarepresentational matters. According to Recanati, 'In Chicago, it is raining' is to be understood along the same lines as 'In the film, it is raining', that is as involving cognitive projection or simulation. It is true that there is in 'In Chicago, it is raining' a decoupling in so far as the object representation is not tokened to describe the environment of the utterer. But this decoupling has nothing to do with a simulation. I would not say like Recanati that in this case "one simulatively entertains a representation decoupled from the egocentric situation" or that one "simulates perception". If one really thinks that simulation or imagination is involved in the Chicago statement – something which I find doubtful since the Chicago statement is the expression of a judgement -, a more accurate description of the situation would be that in uttering in Chicago, it is raining', one is led to imagine that something happens in Chicago - a case of impersonal imagining according to Currie (1995, p. 166) - without putting oneself into anybody's shoes, in particular without simulatively imagining observing or seeing the rain falling in Chicago. I do not see the need to locate in imagination the rain event in relation to myself when I judge that it is raining in Chicago.

As an aside, I add that I also wonder whether Recanati's theory applies to statements such as 'Yesterday, it was raining'. With temporal prefixes or tags such as 'yesterday' or 'tomorrow', primary representations being already at the past or future tense and, by the same token, being already decoupled from the present situation of the utterer, it is difficult to understand the presence of the tag as inducing an extra decoupling.

5 SUBSTITUTION FAILURES WITHOUT OPACITY?

At the end of the paper, Recanati tries to resist various counter examples to the 'transparency thesis' concerning genuine metarepresentations. All counterexamples are opacity examples, that is examples of metarepresentational sentences wherein substitution of co-referring terms in the object proposition does not preserve truth value.

Recanati's difficult strategy is to maintain that all these metarepresentational sentences are true cases of substitutional failures and that these metarepresentational sentences are nonetheless transparent.

As I understand him, Recanati denies that 'believes' and like verbs *really* create opaque contexts. But still Recanati claims that in belief reports, substitution of co-referring terms fails.

One traditional line of argument in favour of the thesis that 'believes' and like verbs do not *really* create opaque contexts is to claim that the appearance of opacity in metarepresentational sentences has arisen from a confusion between what a statement says and what it implicates. Salmon (1986) has defended such a strategy and claims that the apparent differences in truth value between:

- (7) Hammurabi believes that Hesperus is visible in the evening
- (8) Hammurabi believes that Phosphorus is visible in the evening

results from a confusion between what might be *pragmatically* conveyed by such sentences – that is a difference in truth value- and what these sentences *semantically* do express – that is the same proposition.

Recanati does not follow such a strategy. The difference in truth-value between (7) and (8) is, for Recanati contra Salmon, not just pragnatically communicated. Substituting 'Phosphorus' for 'Hesperus' in (7) could really lead to a change in truth-value. But, according to Recanati, this real changement should not lead the semanticist to conclude that belief reports are opaque. Rather, the semanticist should look more closely at the ascriber's way of using the language when reporting a belief. She will then find that words in the ascriber's mouth are used either in a quotational or in a deferential way, that is in ways which all involve simulation. This is the reason why the opacity conclusion is not imposed to the semanticist and the transparency thesis is saved. Let's try to reconstruct Recanati's argument:

- 1. Metarepresentational sentences are true cases of substitution failures. Coreferential singular terms in belief reports are not substituable *salva veritate*.
- 2. The best explanation of substitution failures in metarepresentational sentences is either that there is a circumstancial shift or that the ascriber implicitly uses the language in a quotation or in a deferential way.
- 3. Leaving aside circumstancial shifts, quotational and deferential uses of language involve context-shift and simulation.
- 4. Terms used in the embedded portion of a belief sentence contribute their normal semantic value even though they are not substituable with co-referring terms which is the case when they are used in a quotational or deferential way.
- 5. Conclusion: substitution failures are compatible with transparency. The traditional opacity examples are in fact examples of quotational or deferential uses of language.

Recanati claims in premise 3 that some quotational use of language involves context-shift and simulation. In some particular cases such as:

(9) 'Quine' has not finished writing his paper

the best explanation of the presence of quotation marks is that the intention of the speaker is not to use the proper name inside the quotation marks with its normal semantic value but with the semantic value that another person attributes to it. When reporting James's false belief, I might say:

(10) James believes that 'Quine' has not finished writing his paper.

In this report, I would be mimicking my friend's James way of using the name 'Quine' to refer to another person that the late philosopher. This quotational use of language explains why one cannot substitute *salva veritate* corerefential terms with 'Quine' in (10).

Following Putnam and Burge, Recanati adds in premise 3 that in many cases speakers who have only a partial mastery of the rules of the public language mimic the use of those who master the language. Deference is then construed by Recanati as another form of simulation. In both cases, using words inside quotation or deferentially is construed as a way of using someone else's language within one's language or as playing the part of someone else.

Now it is true that *one way* of depicting a person's mental life is to include in one's belief report the very words the person used, either in a quotational or deferential way. An appeal to these special uses of language can help to explain *some* cases of substitutional failures in belief reports. And this is the major claim made by premise 2. But the main problem with Recanati's argument is that it seems *a priori* very difficult to account for *all* cases of susbstitution failures on the basis of premise 2, for instance to account for Kripke's Pierre puzzling beliefs by appealing to a simulative use of language.

In the end of the paper, Recanati gives his own analysis of what is traditionally considered as an opaque statement. Recanati analyses:

(11) My son believes that Santa Claus will come tonight

in Walton's way that is as involving simulation or pretense. (11) is according to Recanati a pretend assertion. The mother saying (11) engages into pretense and shifts the context: she temporarily pretends that Santa Claus exists, and within that pretense ascribes her children the belief that *he* will come tonight. The transparency is saved, according to Recanati, thanks to the simulation of the ascriber: since the mother pretends that there exists a certain person who is called 'Santa Claus' and who will come tonight, the existential generalisation from (11) can be inferred within the pretense.

Remember that what Recanati means by 'transparency' is that "whichever state of affairs the object-representation represents, the metarepresentation also

represents". In this particular example, the object representation 'Santa Claus will come tonight' does not represent any sate of affairs since Santa Claus does not exist. Therefore, in this analysis, neither does the metarepresentation represent any state of affairs except within a pretense. The ascriber and the ascribee are in the same *fictional* boat.

Pace Recanati, I have the impression that the metarepresentation, contrary to the primary representation, really does represent a state of affairs and does not only pretend to represent something. Belief ascriptions such as (11) are not pretend ascriptions, whatever the status of the primary representation might be. In this particular case, I do not see why the mother would pretend to assert (11) since she really believes that her son believes that Santa Claus will come tonight. The mother does not imagine that her son believes that Santa Claus will come tonight. A pretend assertion reflects at the linguistic level what a pretend belief or imagined belief is at the mental level. But here, there is no reason to postulate a pretend belief on the side of the mother. Actually what the mother could even say is that her son claims to believe that Santa Claus will come tonight. She would then state a fact about the actual world without pretending anything. And this is something that Recanati's account might have difficulties to explain.

References

Davidson, D. (1968), 'On Saying That' reprinted in his *Inquiries into Truth and Interpretation*, Oxford: Clarendon Press, 1984, 93-108.

Dretske, F. (1970), "Epistemic Operators", Journal of Philosophy 67, 1007-23.

Evans, G. (1982) *The Varieties of Reference*, J. McDowell (ed.), (NewYork: Oxford University Press, 1982)

Currie, G. (1990) *The Nature of Fiction* (Cambridge: Cambridge UniversityPress, 1990)

Perner, J (1993), "Rethinking the metarepresentation theory", in S. Baron-Cohen, H. Tager-Flusberg & D.J. Cohen (eds.), *Understanding other Minds: Perpsectives from Autism*, Oxford: Oxford University Press.

Salmon, N (1986) Frege's Puzzle, Cambridge: MIT Press.

Van Inwagen, P. (1977) "Creatures of Fiction", American Philosophical Quaterly 4, 299-308.

Velleman, D. (1992) "The Guise of the Good", Noûs 26, 3-26 in Velleman, D. (2000) The Possibility of Practical Reason Oxford, Oxford University Press, 99-122.