Deference and Semantics of Belief Reports II: Reporting Deferential Beliefs

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Abstract

In this paper I show how to semantically treat the cases in which a speaker reports the deferential beliefs of an agent. In this sense, I will adopt the semantic theory of belief reports put forth by Crimmins and Perry. After presenting their conceptual framework, I will consider that the deferential notions are the unarticulated constituents of the semantic content of an utterance by means of which we report a deferential belief. Therefore, in reporting a deferential belief, the speaker tacitly refers to the deferential items involved in the reported belief. This is the second part of a two-part paper.

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1. Introduction

In the first part of the present study, following Recanati, I have shown that an agent can have deferential beliefs. In this second part I will show how to semantically treat the reports of deferential beliefs. In order to analyse the reports by means of which a speaker informs us about the beliefs of an agent involved in burgean cases of deference, I will adopt the conceptual framework offered by Crimmins and Perry.

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2. Crimmins and Perry’s analysis of beliefs and belief reports

In Crimmins and Perry’s account, every belief $b$ is a structured entity involving an idea with arity $k$ and a $k$-tuple of notions (i.e., a sequence of $k$ notions) (1989: 213). The content of a $k$-ary idea can be represented as a function which assigns to it a relation of arity $k$, and the content of a notion can be represented as a function which assigns to it the object the notion represents. In the same vein, the content of a belief $b$ can be represented by means of a partial function which assigns to the pair made up of $b$ and a time $t$ a proposition $p$ (1989: 211). On their account, a proposition is itself a structured entity made up of a $k$-ary relation and a $k$-tuple of objects (i.e., a sequence of $k$ objects). Down below, I will use a polarity item $i$ whose role is to indicate whether a relation holds between the propositional constituents, case in which $i = 1$, or not, case in which $i = 0$.

Since propositions are the contents of beliefs and since these abstract entities are individuated in terms of their structures, it follows that the content of a belief $b$ that an agent $a$ has at the time $t$, will involve the constituents of the proposition $p$, that is the $k$-tuple of objects about which, at the time $t$, the agent $a$ has a $k$-tuple of notions and between which the $k$-ary relation which constitutes the content of the agent’s $k$-ary idea holds. It must be mentioned that in Crimmins and Perry’s framework, a proposition which plays the role of the content of a belief, plays also a second role, that of the semantic content expressed by the that-clause of a belief sentence used in a context to report a belief (1989: 218).

We have seen that notions and ideas are the items that form the structure of a belief and that objects – as contents of the notions – and relations – as contents of the ideas – are items which form the structure of a proposition. However, these ingredients are not enough to explain the difference between two beliefs or two propositions that, having the same structure, will involve the same number of items. Crimmins and Perry’s solution is to introduce a new ingredient in the structure of a belief, ingredient which will have a counterpart in the structure of the proposition. The role of this ingredient is to explain the order of the notions involved in a belief, as well as the order of the objects in a proposition. In this sense, they will say that a $k$-ary idea involved in a belief has a number $k$ of argument places, and the $k$-ary relation involved in the propositional content of this belief has a number $k$ of argument roles (1989: 214). Thus, the complete structure of a belief $b$ includes, besides the $k$-ary idea and the $k$-tuple of notions, a number $k$ of argument places of the idea which are occupied by notions. Symmetrically, the structure of a proposition $p$, which represents the content of the belief $b$, includes, besides the $k$-ary relation and the $k$-tuple of objects, a number $k$ of argument roles of the relation which will be occupied by objects. Leaving the mathematical details aside for reasons of space, it must be said that the relation between the argument places of an idea and the notions which occupy these places in a belief $b$ can be represented by means of an assignment function from the set of argument places of the idea to the set of notions $b$ involves. Also, the relation between the argument roles of a relation and the objects which occupy them can be represented by means of an assignment function from the set of argument roles of the relation to the set of objects involved in $p$. In the case of a belief $b$, the order of the notions involved in $b$ will reflect the way notions are assigned to the argument places of $b$’s idea, and in the case of $b$’s propositional content $p$, the order of the objects which constitute $p$ will reflect the way objects are assigned to the argument roles of $p$’s relation (1989: 214).

Since an object, as a constituent of a proposition $p$, is the content of a notion involved in a belief $b$, it follows that the notion which occupies an argument place of the idea in $b$ determines the object that occupies the argument role of the relation in the propositional content of $b$. In order to capture this in their semantics of belief reports, Crimmins and Perry introduce a responsibility clause which places internal and relational requirements on the reported belief (Crimmins, 1992: 155). With respect to the structure of the reported belief, what the responsibility clause requires is that this belief should involve certain representations of the constituents of the belief’s content. With respect to its content, this time, it is required that the items involved in the reported belief connect with the argument roles of the proposition which constitutes the belief’s content (Crimmins, 1992: 155). Therefore they will say that a notion $n$ involved in a belief $b$ is responsible for filling an argument role in the belief’s content $p$ when the argument role of the relation in $p$ is generated by the argument place of the idea in $b$ with whom $n$ is associated (1989: 214). In other words, a notion $n$ of a belief $b$ is responsible for an argument role in $b$’s content when $n$’s semantic contribution to the proposition $p$ will be a constituent of $p$, more precisely that object which represents the content of the notion $n$ (Clapp, 2010: 25).
In Crimmins and Perry’s semantic analysis of belief sentences, the context in which such sentences are uttered plays an essential role. As they consider that a belief sentence is sensitive to the context in which it is uttered, their analysis must capture this form of contextual independence. One of the assumptions of traditional semantics is the existence of a perfect correspondence between the form and the semantic content of the sentences of a natural language. According to this assumption, also known as the principle of isomorphism, each propositional constituent of the semantic content expressed by an utterance of a belief sentence is the semantic value of a lexical item present in the surface syntax of the sentence (Neale, 2007: 273). The semantic analysis of belief reports offered by Crimmins and Perry shows that, when applied to belief sentences, the principle of isomorphism is not correct. On their contextualist account, in the proposition expressed by a belief report there are constituents that are not the semantic contributions of any component in the surface syntax of the belief sentence used to make the report. Since the application of the isomorphism principle is sanctioned in the case of belief sentences, the diagnosis is clear: the semantic content of a belief sentence uttered in a context c will not be exhausted by the semantic contribution of the that-clause in the belief sentence used in c to make the report (Perry, 2001: 50).

According to Crimmins and Perry, in the semantic content of a belief report, besides the syntactically articulated constituents of the proposition expressed by the that-clause of a belief sentence, there are also constituents which are not syntactically articulated (1989: 220). Thus, every time a speaker reports the belief b of an agent a, by uttering a belief sentence, and the notions involved in b are not mentioned in the surface syntax of the belief sentence, these notions will be the unarticulated constituents of the semantic content of the belief report. Even though a notion present in the semantic content of a belief report does not constitute the semantic value of an item occurring in the syntax of the belief sentence, the speaker of the belief report tacitly refers to it simply because it is not necessary to syntactically specify a piece of information if it is implicit in a context and, therefore, it is accessible to the participants in the conversation (Crimmins, 1992: 158). Thus, according to Crimmins and Perry, the speaker of a belief report refers explicitly to the content of the reported belief and implicitly to the notions and ideas by means of which the constituents of the proposition expressed by the that-clause of the belief sentence used to make the report are represented. As the sequence of notions involved in the reported belief is contextually obvious, the speaker of the belief report will not refer to these notions by exploiting the linguistic material, but will tacitly refer to them by exploiting the available contextual information (Perry, 2001: 45).

In Crimmins and Perry’s perspective, there are two categories of belief reports and therefore, there are two ways of semantically analysing the content of a belief report. The first category includes the belief reports that specify the notions responsible for filling the argument roles in the propositions which constitute the beliefs’ contents. Thus, in cases where the context of a belief report makes it obvious to the participants in the conversation which are the notions involved in the reported belief, we have to analyse the belief report in terms of notion provision (1989: 227). As they are provided by the circumstances in which the belief sentence is uttered, the notions will occur in the responsibility clause of the semantic content of the belief report. In cases like these, the notions involved in the reported belief are familiar to the participants in the conversation and the speaker of the report will tacitly refer to them (1989: 219). As they are not syntactically represented by any overt expression in the belief sentence, the notions are the unarticulated constituents of the semantic content of the belief report. Considering that B is a triadic relation between an agent a, a belief b and a time t, that n is a notion and that r is an argument role of a proposition p, Crimmins and Perry represent the semantic content of a belief report u in this category as follows (1989: 219):

\[\text{Content}(u) = \exists b \left[ B(a, b, t) \wedge \text{Content}(b, t) = p \wedge \bigwedge n \in p \text{ Responsible}(n, r, b) \right]\]

It may not always be the case that a belief report should specify the notions responsible for filling the argument roles in the proposition which constitutes the belief’s content. In cases like these, the circumstances of the belief report do not offer sufficient information regarding the notions involved in the reported belief. This time, the semantic analysis of the belief report should be offered in terms of notion constraint (1989: 227). The speaker of a belief report of this type will tacitly refer to the conditions which constrain the notions responsible for filling the argument roles of the belief’s content. Provided by the circumstances in which the belief sentence is uttered, the conditions constraining the notions will be raised to constituency, thus occurring in the responsibility clause of the semantic content of the belief report (Crimmins, 1992: 185). As they are not syntactically represented by any overt expression in the belief sentence, the providing conditions are the unarticulated constituents of the semantic content of the belief report (1989: 225). According to Crimmins and Perry, where C is a condition that a notion n must
satisfy in order to fill with its own content the argument role \( r \) of the proposition \( p \), the semantic content of the belief report \( u \) will be represented this time as follows (1989: 225):

\[
\text{Content}(u) = \exists b \left[ B(a, b, t) \land \text{Content}(b, t) = p \land \exists n_1, \ldots, \exists n_k \in p \left( C_i(n_i) \land \text{Responsible}(n_i, r, b) \right) \right]
\]

### 3. Reporting deferential beliefs

In what follows, I will adopt the format of the semantics of belief reports presented above in order to semantically treat the cases in which a speaker reports the deferential beliefs of an agent, beliefs which involve notions and ideas that the agent does not understand.

As we have seen above, according to Crimmins and Perry, in cases where the circumstances of a belief report make it clear to the speaker and his interlocutors which are the notions involved in the reported belief, we have to analyse the belief report in terms of notion provision (1989: 227). Let us consider the case in which, following a series of medical investigations, Irina obtains from her doctor both the information that she suffers from arthritis and the information concerning the effects of this inflammation. Let us assume that Irina, deferring to the epistemic authority of the doctor, does not understand the exact meaning of the term "arthritis" occurring in the sentence by which her diagnosis was set. Now Irina has a deferential notion of arthritis. As this fact is known by both Mihai and his interlocutor, let us suppose that Mihai utters the following sentence:

(1)  Irina believes that arthritis interferes with physical abilities.

Uttering (1), the speaker is claiming that Irina has a belief which involves the deferential notion she has of arthritis and whose semantic content is the proposition that arthritis interferes with physical abilities. Being the relevant notion in the context of this belief report, Irina’s deferential notion will be tacitly referred to by the speaker of (1). Provided by the circumstances of the utterance (1), the deferential notion of arthritis will occur in the responsibility clause of the semantic content of (1). As it is not represented by any overt expression in the surface syntax of the belief sentence, Irina's notion of arthritis plays the role of the unarticulated constituent of the semantic content of the belief report.

In this scenario, the belief report does specify the notion responsible for filling the argument role in the proposition which constitutes the content of Irina's belief. But what does the notion fill the argument role with?

Given the fact that in burgean cases the referential content of a deferential item is identical with the referential content of the item being deferred, the only difference between the two items being located, as Recanati rightly showed, at the level of their kaplania characters, it follows that the very same propositional constituent which represents the standard semantic contribution of the term "arthritis" will end up in the content of Irina's deferential belief (2000: 281). Therefore, Irina's deferential notion the belief report is about will fill with its own referential content the argument role in the proposition expressed by the that-clause of the belief report. Considering that \( t_1 \) is the time of the belief report and \( n_d^{\text{arthritis}} \) is the deferential notion Irina has, the semantic content of the belief report \( u_1 \) made by uttering the sentence (1) can be represented as follows:

\[
\text{Content}(u_1) = \exists b \left[ B(\text{Irina}, b, t_1) \land \text{Content}(b, t_1) = \langle \langle \text{interferes}, r_1; \text{arthritis}, r_2; \text{physical abilities} ; 1 \rangle \rangle \land \text{Responsible}(n_d^{\text{arthritis}}, r_1, b) \right]
\]

Let us now suppose a scenario, similar to the one mentioned above, in which the circumstances of a belief report do not offer sufficient information with respect to the notions involved in the reported belief. This time, according to Crimmins and Perry, the analysis of the belief report above should be given in terms of notion constraint (1989: 227). In this scenario, the speaker of (1) is not directly acquainted with the deferential notion Irina has about arthritis. This time, the belief report does not specify the notion responsible for filling the argument role \( r_1 \) in the proposition which constitutes the content of Irina's belief. Not being able to provide a notion for the report to be about, the speaker will tacitly refer to the condition which constrains the notion responsible for filling the argument role \( r_1 \) of the reported belief's content. Uttering (1) in this context, the speaker is claiming that Irina has a belief involving some notion relevant to the current conversation, a belief whose semantic content is the proposition that arthritis interferes with physical abilities. Here, Irina's notion of arthritis is constrained by the condition of being a deferential notion and this providing condition, being raised to constituency, a fortiori becomes a constituent of the semantic content of the belief report. Provided by the circumstances of the utterance (1), the condition of being a
deferential notion of arthritis will occur in the responsibility clause of the semantic content of (1). Without any overt expression in the surface syntax of the sentence, the condition (of being a deferential notion) the belief report is about plays the role of the unarticulated constituent of the semantic content of the utterance (1). Considering that \( t_1 \) is the time of utterance and the condition \( C \) expresses the property of being (identical to) the deferential notion \( R_{\text{doctor}}(n_{\text{arthritis}}) \) that \( n \) must satisfy in order to be responsible for the constituent which occupies \( r_1 \), the semantic content of the belief report made by uttering (1) will be represented this time as follows:

\[
\text{Content}(u_1) = \exists b \left[ B(\text{Irina}, b, t_1) \land \text{Content}(b, t_1) = \right.
\]

\[
\ll \text{interferes}, r_1 : \text{arthritis}, r_2 : \text{physical abilities}; 1 \gg \land \exists n \left( C(n) \land \text{Responsible}(n, r_1, b) \right) \]

What happens in a situation in which the agent has no notion \( n \) of an object and the speaker of a belief sentence states that the agent has a belief involving the representation \( n \) the agent has not? Let us suppose that, this time, Mihai utters the belief sentence (1) in a situation in which Irina has no notion of arthritis and implicitly no deferential notion. This type of cases can be explained by means of the concept of pre-assertive commitment introduced by Crimmins and Perry (1989: 224). Assuming that Irina has a deferential notion of arthritis, the speaker of (1) is attempting to claim that Irina has a belief involving that notion, a belief whose content is the proposition that arthritis interferes with physical abilities. In so doing, Mihai intends to provide a notion for his belief report to be about, specifically the deferential notion responsible for filling the argument role \( r_1 \) of the content of Irina's belief, and tacitly refer to this very same notion. In this case, resting upon a referential presupposition that fails, his belief report will fail to express a proposition. Although the utterance (1) fails to express a proposition, the speaker of (1) is committed pre-assertively to the proposition that there is a notion involved in Irina's belief satisfying the condition of being a deferential notion of arthritis. Believing this proposition, Mihai attempts to provide the deferential notion Irina has of arthritis as a constituent of the semantic content of (1). His belief report would have a referential content only if the proposition to which he is pre-assertively committed would be true, conditioned by the fact that the condition of being a deferential notion would be met by any of Irina's notions. Let us now suppose that, in this context, Dora expresses her disagreement with Mihai by uttering:

(2) Irina does not believe that arthritis interferes with physical abilities.

Given the fact that the notion the speaker of (1) attempts to provide fails to exist, the speaker of the belief report (2) raises the condition the speaker of (1) believes to be satisfied to constituency in her denial (2), this way directly contradicting the proposition to which the speaker of (1) is pre-assertively committed (Crimmins, 1992: 188-189). Uttering the sentence (2), the speaker wants to make obvious in the context of that belief report the fact that she does not believe that the condition \( C \) is satisfied. The speaker of (2) expresses the proposition that there is no notion satisfying the condition \( C \) of being a deferential notion so that Irina, at \( t_1 \), has a belief whose content is the proposition expressed by the that-clause of the belief report and in which the deferential notion is responsible for filling the role \( r_1 \) of the content of her belief. What the speaker of (1) presupposed in his belief report, will occur, this time, in the responsibility clause of the semantic content of (2), as an unarticulated constituent of the proposition expressed by denying (1). Since there is no notion of arthritis involved in any of the Irina's beliefs and since the speaker of (1) presupposes in his statement that Irina has a deferential notion, his belief report cannot have a truth-value, exemplifying a case of reference failure. Although this belief report is neither true, nor false, its denial displayed in (2) is true. Considering that \( t_1 \) is the time of the report and \( C \) expresses the condition of being the deferential notion \( R_{\text{doctor}}(n_{\text{arthritis}}) \), the semantic content of the belief report \( u_2 \) made by uttering the sentence (2) will be represented as follows:

\[
\text{Content}(u_2) = \neg \exists b \left[ B(\text{Irina}, b, t_1) \land \text{Content}(b, t_1) = \right.
\]

\[
\ll \text{interferes}, r_1 : \text{arthritis}, r_2 : \text{physical abilities}; 1 \gg \land \exists n \left( C(n) \land \text{Responsible}(n, r_1, b) \right) \]

What happens in cases where the agent has a deferential notion of an object with which no idea of the object's properties is associated, and the speaker of a belief report claims that the agent has a belief in which his notion of the object is associated with a specific idea? Let us suppose that, deferring to the epistemic authority of a doctor who sets her diagnosis, Irina has only a deferential notion of arthritis. Her friend Dora, who knows the fact that Irina has a notion which satisfies the condition \( R_{\text{doctor}}(n_{\text{arthritis}}) \), knows also what the scientific meaning of her diagnosis is. Not knowing the fact that Irina associates her deferential notion with no idea of the arthritis's characteristics, let us suppose that, in this context, Dora utters the following belief sentence:
(3) Irina believes that arthritis is a metabolic disorder.

Given the fact that, in this scenario, the belief report does not specify the notion responsible for filling the argument role in the proposition expressed by the that-clause of the belief sentence, the semantic analysis of the content of (3) should be in terms of notion constraints. Although the referential content of her deferential notion is identical with the referential content of the doctor's notion, this standard semantic contribution will not end up as a constituent in the proposition expressed by the internal sentence uttered in the belief report. In this case the problem is located at the level of the responsibility clause. As Crimmins and Perry would put it, in reporting a belief, a notion is responsible for the propositional constituent which occupies the argument role of the proposition expressed by uttering the that-clause of the belief sentence used to make the report, only when the notion involved in the reported belief is associated with an idea at the argument place that generates the argument role in the proposition constituting the belief's content (1989: 214). In this case, even though Irina has a deferential notion of arthritis and this notion has the standard referential content, the notion cannot fill with its own content the argument role in the proposition which the that-clause of the report pretends to express. This is happening because, having no idea of the metabolic disorder that Irina associates with her deferential notion, the argument role of the proposition that, in other circumstances, would be expressed by uttering, in a belief report, the that-clause of the belief sentence above, cannot actually be generated by an argument place of the idea. In cases where another speaker, in the circumstances mentioned above, would deny Dora’s belief report (3), he would make a true claim whose semantic content can be represented, considering that \( t_1 \) is the time of the utterance and \( C \) is the condition of being the deferential notion \( R_{doctor}^{n_{arthritis}} \), as follows:

\[
\text{Content}(u') = \neg\exists b \left[ B(Irina, b, t_1) \land \text{Content}(b, t_1) = \langle \langle \text{metabolic disorder}, r_1 : \text{arthritis} \rangle ; 1 \rangle \land \exists n \left( C(n) \land \text{Responsible}(n, r_1, b) \right) \right]
\]

There are also cases in which the speaker of a belief report intends to make salient to his interlocutors the fact that the reported belief involves deferential notions. Let us assume that in a context like this Dora says:

(4) Irina does not believe that arthritis affects the mood.

(5) She (only) believes that “arthritis” affects the mood.

where the quotes indicate that the agent deferentially uses the term “arthritis” which should be represented, in this context, as \( R_{doctor}^{n_{arthritis}} \). The speaker of the first belief report claims that the agent does not have a belief which involves a normal, scientific notion of arthritis. What she claims instead, this being obvious in her second belief report, is that there is some notion involved in Irina's belief that satisfies a condition, that of being a deferential one, which is relevant in the context of utterance of this belief report. In so doing, Dora wants to make it explicit that, with respect to the referential content of the notion Irina has acquired by deference, the agent is not in a good epistemic position. In this case, even though Irina has an epistemically undetermined representation of arthritis, her deferential notion is semantically determined at the referential content level. Considering that \( t_1 \) is the time of utterance and \( C \) expresses the condition of being the deferential notion \( R_{doctor}^{n_{arthritis}} \), the semantic contents of the above mentioned belief reports \( u_4 \) and \( u_5 \) will be represented, in this case, as follows:

\[
\text{Content}(u_4) = \neg\exists b \left[ B(Irina, b, t_1) \land \text{Content}(b, t_1) = \langle \langle \text{affects}, r_1 : \text{arthritis}, r_2 : \text{mood} \rangle ; 1 \rangle \land \text{Responsible}(n_{arthritis}, r_1, b) \right]
\]

\[
\text{Content}(u_5) = \exists b \left[ B(Irina, b, t_1) \land \text{Content}(b, t_1) = \langle \langle \text{affects}, r_1 : \text{arthritis}, r_2 : \text{mood} \rangle ; 1 \rangle \land \exists n \left( C(n) \land \text{Responsible}(n, r_1, b) \right) \right]
\]

4. Conclusion

I will conclude this paper saying that the speaker who reports an agent’s deferential belief, explicitly refers to the deferential belief’s content which is identical to the belief’s content of the expert to which the agent defers, and implicitly refers to the deferential notions and ideas involved in the reported belief which thus play the role of the unarticulated constituents of the semantic content of the utterance by means of which the deferential belief is reported.
References


