

# On Reporting Attitudes: an Analysis of Desire Reports and their Reading-Establishing Scenarios\*

Tillmann Pross

University of Stuttgart, Germany  
prosstn@ims.uni-stuttgart.de

## Abstract

I argue that conventional wisdom about attitude reports lumps together theorizing about the attitudes themselves with theorizing about the meaning of attitude reports. Instead of conflating these, I propose to treat them as distinct (although obviously related) topics. A central reason for this separation is the distinction between anaphoric constructions that are *internally* about the same object and anaphoric constructions that are *externally* about the same object. Anaphoric constructions that are internally about the same object reveal the structure of the attitudes themselves – e.g. that desires are parasitic on beliefs – whereas anaphoric constructions which are externally about the same object make explicit the structure of attitude reports. I correlate the distinction between the attitudes themselves and attitude reports with the asymmetry between the first- and third-person perspective on attitudes. On the basis of this asymmetry, I propose a semantics of desire reports according to which a desire report like *Adrian wants to buy a jacket like Malte's* is not ambiguous between different readings. Conventional wisdom readings are reconstructed as a third person's pragmatic strategies for justifying the truth of an attitude ascription. I conclude with an outlook on the transfer of the analysis proposed to reports involving other non-doxastic predicates like *wish* or *hope* and reports involving doxastic predicates such as *believe*.

## 1 Three concerns about the conventional wisdom analysis of attitude reports

Conventional wisdom has it that an attitude report like (1) is ambiguous between a range of so-called *readings* of (1) that appear when (1) is interpreted against a certain set of *background assumptions*.

(1) (A reporter says:) Adrian wants to buy a jacket like Malte's.

Background assumptions – often called *scenarios* – for the identification of readings usually comprise (a) a doxastic specification of the descriptive content of the report, e.g. whether or not Adrian knows Malte or his jacket and (b) a specification of the reality in which Adrian finds himself, e.g. whether or not Adrian stands in a causal relation of acquaintance to a specific jacket like Malte's. For example, a scenario in which Adrian has decided to buy a certain jacket but has no idea that the jacket he wants to buy is like Malte's gives rise to the so-called *de re* reading of (1). According to this reading, there is a jacket like Malte's which Adrian wants to buy. Or, in a scenario in which Adrian has not decided which jacket he wants to buy but he wants it to be like Malte's, (1) receives a *de dicto* interpretation, according to which Adrian wants to buy something that is a jacket like Malte's. Under the terms of conventional wisdom, the existence of readings is established by the difference that scenarios make to the interpretation of an attitude report. As (von Fintel and Heim, 2011, p. 85) put it: “[...] construct

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scenarios that make one of the readings true and the other false. This establishes the existence of two readings.”. Let me call such scenarios that entail the truth of an attitude report when it is taken in one way, but not when it is taken in another *reading-identifying scenarios*. Conventional wisdom also has it that the distinction between the *de re* and *de dicto* readings of an attitude report like (1) can be explicated in its logical form in terms of the scope relation between the modal verb *want* and the existentially quantified noun phrase *a jacket like Malte’s*, as shown in (2).

- (2) a. De re:  $(\exists x)(\text{jacket}(x) \ \& \ \text{like-Malte's-jacket}(x) \ \& \ \text{wants}(\text{Adrian}, \text{buy}(\text{Adrian}, x)))$   
 b. De dicto:  $\text{wants}(\text{Adrian}, (\exists x)(\text{jacket}(x) \ \& \ \text{like-Malte's-jacket}(x) \ \& \ \text{buy}(\text{Adrian}, x)))$

There are three concerns about the conventional wisdom that the meaning of an attitude report finds expression in the readings it has and that the different readings can be captured as different scope relationships.

First, Fodor (1970) argued that there are more readings of (1) than just the *de dicto* and *de re* reading. For example, in a scenario in which Adrian has decided what kind of jacket he wants to buy but has no idea that the kind of jacket he wants is like Malte’s jacket, (1) intuitively has a reading which neither the *de re* nor the *de dicto* reading in (2-a), (2-b) capture correctly. On the one hand, the existential quantifier introduced by *a jacket like Malte’s* must be inside the scope of *wants*, since there is no one particular jacket that Adrian wants to buy. But that would bring the description *a jacket like Malte’s* within the scope of *wants* and that seems wrong since Adrian is assumed to know nothing about Malte’s jacket. But the noun phrase *a jacket like Malte’s* cannot be both inside and outside the scope of the verb *want*. The literature has mainly focused on saving conventional wisdom from Fodor’s problem by improving on the simple connection between scope and intensional status of a noun phrase that renders the *de dicto* and *de re* readings, see e.g. Romoli and Sudo (2009); Schwager (2009); Keshet and Schwarz (2014) for strikingly distinct proposals. But even if (improved theories of) scope and intensional status of a noun phrase could provide a semantic explanation of Fodor’s paradox of scope, conventional wisdom is challenged by the other two problems, which are even more fundamental.

Second, we need an explanation why in first-person reports as in (3) there is no room for the traditional ambiguities, since (3) cannot be a true utterance by Adrian if Adrian isn’t fully aware that what he wants to buy is a jacket like Malte’s.

- (3) (Adrian says:) I want to buy a jacket like Malte’s.

As the only difference between (3) and (1) is the grammatical subject of the report, conventional wisdom about the role of scope and intensional status of the indefinite noun phrase *a jacket like Malte’s* cannot explain why (3) doesn’t have the same variety of readings as (1). But if scope and intensional status of a noun phrase cannot account for why (1) allows for several readings while (3) only has one, then these are apparently not the right tools for dealing with these sentences.

Third, there is a difficulty with the conventional wisdom that the meaning of (1) (like that of more or less any sentence) is given by the range of its possible readings at least if these readings are associated with the scenarios that have been discussed in the literature. The problem here is how much an interpreter of (1) must know about the scenario which forces a certain reading upon it. The information that tells him to opt for one interpretation rather than another shouldn’t give too much away. For otherwise the utterance of (1) couldn’t teach the interpreter anything that he didn’t already know from his perception of the scenario: an utterance of (1) would be uninformative for the interpreter in any situation where he understands enough about the scenario to be able to disambiguate (1) to its intended reading because every reading-identifying scenario of (1) entails the truth of (1).

These three problems with the conventional wisdom about the meaning of attitude reports are all symptoms, I want to argue, of an underlying mistake: that of lumping together theorizing about the attitudes themselves with theorizing about the meaning of attitude reports. What is needed is to separate the

analysis of the attitudes themselves from the semantics of their reports. The next section 2 implements this separation by distinguishing anaphoric constructions that refer back to what is the same entity from an internal point of view from those that corefer with their anaphoric antecedents from an external perspective. Anaphoric constructions that are internally about the same object make explicit the structure of the attitudes themselves – e.g. that desires are parasitic on beliefs whereas anaphoric constructions which are externally about the same object reveal the structure of attitude reports. Section 3 grounds the distinction between attitudes and attitude reports in the asymmetry between the first- and third-person perspective on attitudes. On the basis of this asymmetry, section 4 proposes a semantics of desire reports according to which (1) is not ambiguous between different readings but isolates the meaning that (1) has independently of the availability of reading-identifying scenarios. Conventional wisdom readings are reconstructed as third person strategies for justifying the truth of an attitude ascription in section 5. Section 6 concludes with a brief exploration of how the proposed analysis of desires and their reports can be extended to reports involving such non-doxastic predicates like *wish* or *hope* and reports involving doxastic predicates such as *believe*.

## 2 Intra- and interpersonal anaphora in attitude reports

Developing a line of thought that originated in Kamp (1985) with contrasts as in (4) (focused constituents in caps) Maier (2015) argues that non-doxastic attitudes such as desires are *parasitic* on their doxastic host attitudes.

- (4) a. John believes that Mary will come. He hopes that SUE will come too.  
 b. \*John hopes that Marry will come. He believes that SUE will come too.

Maier argues that the linguistic asymmetry in (4) “mirrors an underlying asymmetry in the logic of the attitudes themselves” (Maier, 2015, p. 209): “We only have desires relative to our beliefs” (Maier, 2015, p. 220). Semantically, the asymmetry between attitudes of different types manifests itself as the ‘anaphoric’ dependency of non-doxastic on doxastic attitudes. For example, if Adrian believes that the object in front of him is a jacket and decides that he wants to buy *it*, the object of his want is anaphorically dependent on the object he believes to be a jacket. In such cases, different attitudes of one and the same attitude holder are *internally* about the same object (adopting the terminology of Kamp et al. (2011)) in that the different attitudes are connected by *intrapersonal* anaphoric links. Attitudes can also be *externally* about the same object when “two expressions refer to the same real world entity, but where a particular speaker (or thinker) may be unaware of this, or alternatively where a speaker takes two expressions (or occurrences thereof) to refer to the same thing although in actuality they refer to distinct real world entities.” (Kamp et al., 2011, p. 332). Attitudes that are externally about the same object are connected by *interpersonal* anaphoric links. Interpersonal anaphoric links are central to reading-identifying scenarios. Consider the scenarios for Fodor’s puzzling reading in (5)-(7) (italics added and naming adopted to the running example of the paper).

- (5) Reading-identifying scenario for (1) (Romoli and Sudo, 2009, p. 427)  
 Suppose a store sells some jackets that all look like Malte’s and that Adrian does not know anything about Malte. Assume further that Adrian wants one of *those* jackets and any of *them* is an option.
- (6) Reading-identifying scenario for (1) (Keshet and Schwarz, 2014, p. 16)  
 Adrian wants to buy either jacket A or jacket B, for instance, although he had not decided which yet. Both *jacket A* and *jacket B* actually happen to be jackets like Malte’s, although Adrian may or may not know this.

- (7) Reading-identifying scenario for (1) (Schwager, 2009, p. 395)  
 Malte and Adrian do not know each other. Adrian has seen a green Bench jacket in a catalogue and wants to buy one. Malte happens to own precisely *such* a green *Bench* jacket.

The background assumptions in (5)-(7) all serve the same purpose. They entail the truth of (1) while rendering the *de dicto* and *de re* reading false. Thus, according to common wisdom, (5)-(7) establish the existence of a further reading of (1) besides the *de dicto* and the *de re* reading. But although (5)-(7) have been argued to motivate quite different logical forms for the reading identified, the presentation of Adrian's attitude follows the same schema. Each scenario specifies the doxastic host of Adrian's parasitic desire which does not include Adrian's awareness that what he wants to buy is a jacket like Malte's. This description is the antecedent for the specification of the parasitic desire that is ascribed to Adrian. It is important to note that the author of each of these scenarios invites us to consider (1) in the light of their respective scenarios. More specifically, we are invited to interpret the infinitival complement of *wants* in terms of what the scenario says about Adrian's information about the jacket that he wants to get, and to agree with them that in the light of this information their specification of Adrian's desire is the correct paraphrase of (1). It is important to note against this background that in their own specification of Adrian's desire in the different scenarios the authors use an interpersonal anaphoric expression that links the descriptive content of Adrian's desire to what is said about Adrian's information<sup>1</sup>. In (5), the plural pronoun *those* makes explicit that the descriptive content of Adrian's attitude is externally about the same object of reference that is identified by the description *a jacket like Malte's*. In (6), the same anaphoric function is realized by the use of the proper names *jacket A* and *jacket B* both inside and outside of Adrian's attitude. In (7), a combination of the pronoun *such* and the proper name *Bench* for a kind of jackets is used to indicate how Adrian's own concept of what he wants to buy is connected to the 'external' description that the author has just provided of that target. The crux of the use of such interpersonal anaphora in reading-establishing scenarios is the presentation of the same object of reference from two distinct points of view. These observations about the central role of anaphora in attitude reports generalize to the other conventional wisdom readings of (1). *De re* reading-identifying scenarios require a singular interpersonal anaphoric specification and *de dicto* reading-identifying scenarios involve an intrapersonal anaphor. Consider the textbook scenarios for *de re* (8) and *de dicto* (9) (von Fintel and Heim, 2011, adopted from p. 100, italics added).

- (8) I am walking along Newbury Street with Adrian. Adrian sees a jacket in a display window and wants to buy *it*. He tells me so. I don't reveal that I have one just like *it*. I report (1) to you.
- (9) Adrian's desire is to buy some jacket or other which fulfills the description that *it* is just like mine.

The role of inter- and intrapersonal anaphora in attitudes and their reports is the fundamental phenomenon to be explained by a semantic theory of the meaning of attitude reports. Fodor's reading shows that scope relationship reflects some of the aspects of attitude reports that anaphoric constructions can express, but not all. In fact, Fodor's puzzle is not the only case where anaphoric constructions create apparent scope paradoxes, compare e.g. Geach (1967)'s Hob-Nob sentences. On the one hand, the goal of this paper is to make the linguistic distinction between intra- and interpersonal anaphoric expressions as sharp as possible. On the other, the goal of this paper is also to show that only when taken together, intra- and interpersonal anaphoric expressions provide the basis for the semantic analysis of the attitudes themselves and their reports. To this end, in the next section, I explain the role of anaphora in attitude reports in terms of the asymmetry of first- and third-person reports observed with (3) and (1).

<sup>1</sup>A similar observation about the role of interpersonal anaphora in *de re*-identifying scenarios is made in footnote 7 to chapter 8 of Brandom (1994)

### 3 The asymmetry of first- and third person perspective

(1) ascribes a desire to Adrian from a third-person perspective whereas (3) is a report from Adrian's own first-person perspective. Only the first-person perspective grants introspection of one's own mental states (i.e. the attitudes themselves). A third person has no direct access to another person's mental states. The asymmetry in the accessibility of mental states finds expression in the way the truth of an attitude report is justified given that a justification of a claim is a set of observations that, when taken together entail the truth of the claim. The truth of a first-person report is justified just in virtue of the authority of the first person over what her state of mind is like. A rational justification for the self-ascription of a desire<sup>2</sup> as in (3) would make explicit how the reported desire is parasitic on a set of beliefs. For the case of (3), Adrian could justify his desire by grounding it in a description of the doxastic state which gave rise to the desire: maybe he saw a jacket like Malte's and liked it and *thus* wants to buy a jacket like the one he saw. Linguistically, the justification of a first-person report amounts to making explicit the intrapersonal anaphoric dependency of a parasitic attitude. Things are different for a third-person report like (1). Given that only the first-person has authority over her state of mind, (1) cannot be justified to be true just in virtue of the reporter saying so. Instead, (1) can be justified in two fundamentally different ways<sup>3</sup>. The simpler strategy to justify the truth of (1) is when Adrian told the reporter: "I want to buy a jacket like Malte's". In this case, the third-person reporter can simply reproduce Adrian's self-ascription without taking on any further responsibility for why (1) is true besides the fact that Adrian said so and, because Adrian is granted introspection of beliefs, Adrian could rationalize his desire by specifying the antecedent of the desire with an intrapersonal anaphoric construction. This justification of the truth of a third-person attitude report is called the *de dicto* strategy of justification: "the words which I, the speaker, am using to describe the attitudes content, are the same (at least as far as the relevant DP is concerned) as the words that the subject herself would use to express her attitude." (von Fintel and Heim, 2011, p. 84). Besides the delegation of responsibility to a first-person *de dicto* (i.e. according to what the first-person said), a third-person reporter can also justify (1) with an interpersonal anaphoric construction. The interpersonal justification of a desire ascription requires the reporter to be able to figure out the common object which the reportee considers to be relevant to his desire and to which the reporter herself can refer. The justification of the truth of an attitude report as being externally about the same object is called the *de re* justification: "[t]he term *de re* [...] indicates that there is a common object [...] whom I (the speaker) am talking about [...] and whom the attitude holder would be referring to if he were to express his attitude in his own words." (von Fintel and Heim, 2011, p. 84).

### 4 The attitudes themselves and reports of attitudes

In this section, I develop a semantic theory of desires themselves and their reports that allows to distinguish theorizing about the attitudes themselves from theorizing about attitude reports on the one hand and justification strategies for the truth of an attitude report (provided by reading-identifying scenarios) from the truth-conditions of an attitude report. Heim (1992) popularized a semantic analysis of desire reports based on Stalnaker's proposal for a qualified consequence condition for rational desires that deals with the problem of logical omniscience: "wanting something is preferring it to certain relevant alternatives, the relevant alternatives being those possibilities that the agent believes will be realized if he does not get what he want." (Stalnaker, 1984, p. 89). It is important to note that this characterization of desires is concerned with the logical properties of an agent's first-person perspective on his

<sup>2</sup>I use the term *rational* here in the sense of Davidson (1963)'s rationalization of actions.

<sup>3</sup>There is in principle a third justification strategy which I do not consider here, namely abduction from observed behaviour and conventional goals of behaviour to the best explanation. E.g. if Adrian prowls around the fridge continuously, one is justified to infer that he has the desire to eat something.

attitudes, e.g. an agent's beliefs about his beliefs or the ways in which an agent's beliefs may change in response to his experiences (Stalnaker, 1984, cp. p. 80). But the problem that arises for third-person reports is a more fundamental one. To a third person, another agent's state of mind is basically a black box, the inputs and outputs to which can be observed but not its internal workings. This is true in particular of the third-person perspective on an agent's beliefs (including those beliefs that a first person considers in her preferences). Instead of the introspection of beliefs that is granted by the first-person perspective, a third-person attitude report like (1) must be based on observations about the behaviour of the reportee that the reporter considers to be indicative of his state of mind. Stalnaker is one of many philosophers who argued that an agent's behaviour indicates that she desires that  $P$  if "[t]o desire that  $P$  is to be disposed to act in ways that would tend to bring it about that  $\phi$ " (Stalnaker, 1984, p. 15), i.e. desires are pro-attitudes Davidson (1963) that are capable of playing a causal role in their induction of a tendency to act in a certain way. Consequently, (1) is not a report of Adrian's attitude itself (which is inaccessible to a third person) but presents a third person's assessment of Adrian's behaviour guided by justification strategies for the truth of (1). In other words, I argue that the truth-conditions of (1) do not reflect the conditions under which (1) is a true description of Adrian's attitudes themselves but that the truth-conditions of (1) reflect the conditions under which (1) is a true description of Adrian's behaviour. To deal with the distinction between the attitudes themselves and their reports, I propose that linguistic descriptions of the form  $x$  wants  $\phi$  are to be interpreted as in (10), a simplified version of the action-theoretic analysis of desires proposed in Schroeder (2015).

- (10) A report of the form "x wants  $\phi$ " is true if and only if  $x$  is disposed to take those actions which are likely to bring about a state of affairs of which the reporter is justified to believe that  $\phi$  obtains.

The interpretation of linguistic descriptions of the form  $x$  wants  $\phi$  in (10) separates the semantics of a desire report from the mental state of desiring itself. It captures that third-person reports are based on the observable realization of a desire – the behaviour in which it manifests itself – instead of the unobservable attitudes themselves. (10) thus provides the possibility to distinguish the first- and third-person perspective. In a first-person perspective report like (3), the reportee is identical with the reporter and thus the truth of (3) is justified by intrapersonal reference to the attitudes themselves, thereby making explicit the joint responsibility of desire and belief for the actions undertaken by the reportee. Things are different for attitude reports in which the reportee is not identical with the reporter. Third person reports do not make a claim about Adrian's attitudes themselves – although Adrian himself certainly has a certain combination of desire and belief that makes him act in a certain way. Instead, (1) is true as long as the reporter is justified to claim that Adrian's actions bring about a state of affairs where  $\phi$  obtains. To make more precise the distinction of truth-conditions of an attitude report and justification strategies for the truth of an attitude report, it is helpful to formalize the behaviour-based account of desires in (10).

To the development of a formal account of desires as pro-attitudes, I take to be central what Stalnaker calls the future-looking nature of desires, i.e. the fact that the reporter of (1) or (3) claims that the reportee acts towards a future state of affairs at which the descriptive content of the attitude report eventually becomes true. A formal framework in which such an analysis can be captured has been proposed in Singh and Asher (1993). The basic idea – I refer the reader to Singh and Asher (1993) for full details – is to include in a standard model theory of the language of Discourse Representation Structures (DRS) (see Kamp et al. (2011)) a time structure  $\mathcal{T}$  and two functions  $\mathbf{B}$  and  $\mathbf{D}$ .  $\mathcal{T} = \langle \mathbf{T}, < \rangle$ , where  $\mathbf{T}$  is a set of possible times and  $<$  a partial order on  $\mathbf{T}$ . We may view  $\mathcal{T}$  as a tree-like structure of times branching towards the future in which arc labels are basic actions. That is, the order  $<$  on  $\mathbf{T}$  is transitive, asymmetric and does not allow for merging of branches. We define a scenario  $S$  at a world  $w$  and time  $t$  as any maximal branch starting from  $t$  and  $\mathbf{S}_{w,t}$  is the class of all scenarios at world  $w$  and

time  $t$ .  $\mathbf{B}$  and  $\mathbf{D}$  are functions defined for a set of ‘agents’ (a subset of the set of individuals in the model theory) to subsets of  $\mathbf{S}_{w,t}$  which assign beliefs  $\mathbf{B}$  and desires  $\mathbf{D}$  to agents at different worlds and times (qua modelling). On the basis of these additional postulations, (Singh and Asher, 1993, p. 523) propose a semantics for intentions and beliefs, which I adopt in (11) to capture the difference between desires themselves (a set of scenarios) and desire ascriptions (beliefs about the goal of acting on a desire)<sup>4</sup>. (11) defines the interpretation of the DRS-predicate  $DES(a, K)$ , where the first argument is an agent and the second argument is a DRS  $K$ , as the set of scenarios  $S$  at  $t$  such that if the world  $w$  developed along any of them, the reporter  $b$  believes that the desire described with  $K$  would be realized at  $t' > t$ , i.e. that  $K$  has a verifying embedding  $g$  in  $M$  at  $w$  at  $t'$ .

- (11) Interpretation of  $DES(a, K)$ :  
 $\llbracket DES(a, K) \rrbracket_{M,w,t,g} = \{S \mid \exists w, t : S \in \mathbf{S}_{w,t} \wedge (\exists t', f : t' \in S \wedge g_w \subset_U f_w \wedge M \models_{w,t',f} BEL(b, K))\}$ ,  
 where  $a$  is the bearer of the desire and  $b$  the ascriber of the desire
- (12) Verifying embedding of  $DES(a, K)$ :  
 $M \models_{w,t,g} DES(a, K)$  iff  $\llbracket DES(a, K) \rrbracket_{M,w,t,g} \in \mathbf{D}(w, t, a)$

Singh and Asher (1993) also propose a definition of beliefs relative to scenarios as the set of scenarios  $S$  at whose initial world  $w$  and time  $t$ , the descriptive content  $K$  of the belief is true under the given embedding  $g$ , cp. (13). I do not relativize belief ascriptions to the reporter-reportee distinction here, but see section 6 for additional discussion.

- (13) Interpretation of  $BEL(a, K)$   
 $\llbracket BEL(a, K) \rrbracket_{M,w,t,g} = \{S \mid \exists w, t : S \in BEL(w, t, a) \wedge (\exists f : g_w \subset_U f_w \wedge M \models_{w,t,f} K)\}$
- (14) Verifying embedding of  $BEL(a, K)$ :  
 $M \models_{w,t,g} BEL(a, K)$  iff  $\llbracket BEL(a, K) \rrbracket_{M,w,t,g} \in \mathbf{B}(w, t, a)$

Given the model-theoretic background on the interpretation of desire ascriptions, consider (15), the semantic representation of the first-person report (3) in the representation formalism for attitudes developed in Maier (2015).  $DRS_1$  labels (for the sake of presentation) the representation for the global belief state of Adrian in which the desire representation labelled with  $DRS_2$  is embedded. (15) is true iff there is a set of scenarios which belong to Adrian’s desire set such that if Adrian would act on any of these scenarios the reporter (i.e. Adrian) believes that  $DRS_2$  eventually becomes true.

$$(15) \quad DRS_1 : \boxed{\begin{array}{l} i \\ DES - DRS_2 : \boxed{\begin{array}{l} y, e \\ e : buy(i, y) \\ like - Maltes - jacket(y) \end{array}} \end{array}}$$

$$(16) \quad DRS_1 : \boxed{\begin{array}{l} x \\ Adrian(x) \\ Att(x) : DRS_2 : \boxed{\begin{array}{l} DES - DRS_3 : \boxed{\begin{array}{l} y, e \\ e : buy(x, y) \\ like - Maltes - jacket(y) \end{array}} \end{array}} \end{array}}$$

The representation of (1) in (16) involves a subtle but important difference. In (1), the reportee is not identical with the reporter and thus the semantics in (11) predicts that (1) is true iff there is a set of

<sup>4</sup>The relevant difference between the semantics proposed in Singh and Asher (1993) for intentions and the version adopted here to model desires concerns the relativization of goal descriptions. To me, goal relativization seems to be the relevant linguistic difference between intentions and desires, given the fact that *Adrian intends to buy a jacket like Malte’s* can only be a true description of Adrian’s behaviour if Adrian is aware of the descriptive content of the intention ascription.

scenarios which belong to Adrian's desire set such that if Adrian would act on any of these scenarios the reporter (i.e. not Adrian) believes that  $DRS_3$  eventually becomes true.

## 5 The justification of attitude reports

The representations in (15) and (16) capture the model-theoretic truth-conditions of attitude reports. But given what has been said so far, an equally important aspect of the interpretation of attitude reports is their justification. In the definition of the semantics of desire ascriptions in (12), I glossed over the role of justification in assuming that it is enough for a reporter of (1) or (3) to believe that what the reportee is disposed to do will bring about a state of affairs in which the reportee bought a jacket like Malte's. But belief seems to be too weak to provide an adequate characterization of the conditions under which an attitude report is justified. In this section I consider in more detail the strategies which a reporter of (1) can employ to justify the truth of her belief that Adrian wants to buy a jacket like Malte's, where justified true belief amounts to an answer to the question put to the reporter "How do you *know* that (1)?"

For (3), Adrian can justify his self-report by specifying the intrapersonally antecedent host of his desire to buy a jacket like Malte's. For example, Adrian could justify (3) by grounding his desire in the belief that jackets like Malte's are trendy and that trendy jackets are desirable. Because *de dicto* justification in terms of revealing the intrapersonal anaphoricity of the desire in (3) is the only way in which a rational agent can justify a self-report<sup>5</sup>, we expect a difference between (3) and (1), for which several justification strategies are available. Besides the delegation of the responsibility for the justification of the truth of (1) *de dicto* to Adrian himself, the reporter of (1) can also justify the truth of (1) *de re*.

The textbook *de re* justification of (1) starts from the assumption that Adrian does not know Malte or his jacket but ignores the fact that this assumption itself is a third-person attitude report. From the point of view advanced in this paper, this is a mistake: it is interpersonal anaphoric constructions, not doxastic attitudes that are relevant to *de re* justification. Consider the following reasoning. Self-reports like (3) do not allow for *de re* justification because Adrian's report of his doxastic background with *I do not know Malte or his jacket* would be incompatible with (3). Consequently, a third person cannot challenge the justification of the truth of (3) by the justified assumption that Adrian does not know about Malte or his jacket (as this would require Adrian to contradict himself) and *de dicto* is the only justification strategy for (3). Similarly, considerations about doxastic states of Adrian are irrelevant when (3) is used as a *de dicto* justification of (1). But the same conclusion about the irrelevance of doxastic states of Adrian holds for the *de re* justification of (1). The crucial point about *de re* justification of (1) is not whether or not Adrian knows about Malte or his jacket but that it rests on an interpersonally anaphoric self-report such as *I want to buy it* (e.g., as in (8)). It is this self-report which the reporter of (1) considers as the *de dicto*-justified basis – i.e. that he is justified to say that *Adrian wants to buy it* – of his *de re* justification. In the *de dicto*-basis of *de re* justification, the anaphoric expression serves the identification of an object external to the reportee's state of mind<sup>6</sup> but does not hint at any particular description that the reportee associates with the antecedent of the anaphoric expression. In other words: it is the anaphoric nature of Adrian's self-report that licenses the *de re* justification of (1) after all, independently of background assumptions about the doxastic state of the reportee. Furthermore, the type of anaphor that occurs in the *de dicto*-basis of a *de re* justification determines how a third person can charge the anaphora with

<sup>5</sup>It should be noted that I ignore here the fact that the *de dicto* justification of self-reports actually decomposes itself into different justification strategies, depending on e.g. whether or not the intrapersonal antecedent of a parasitic desire is in turn grounded in a causal relation of acquaintance.

<sup>6</sup>If "I want to buy it" would refer to an unpronounced belief of Adrian about a certain jacket but not to an object external to Adrian's state of mind, a reporter would not be able to report his desire with (1) just because there is no way in which "I want to buy it" and (1) could be externally about the same kind of jacket.

descriptive content. The basic case is where a singular anaphoric description such as “I want to buy it” licenses a *de re* justification of the descriptive content of (1) if the reporter is able to resolve *it* to the antecedent description *a jacket like Malte’s jacket*. The complex case induces the reading that puzzled Fodor. The self-report of Adrian which underlies Fodor’s puzzle involves a particular kind of complex anaphoric device of reference, e.g. as in *I want to buy one of those jackets* (cp. (5)). Compared to the interpersonal interpretation of the singular and simplex anaphoric expression *it*, what is special about *one of those* is that the expression involves not one but two anaphoric elements. Adrian’s desire is directed towards an (unspecific) object that he (and only he himself) can identify with *one of*. But this intrapersonal anaphora cannot serve as the interpersonal anaphora that a reporter can pick up in a *de re* justification. Instead, what justifies (1) *de re* is the specific object that Adrian identifies with *those* (and similar conclusions hold for the other types of complex interpersonal anaphoric expressions discussed in section 2). The problem that emerges from complex uses of anaphora is that they require the interpreter to distinguish the role of anaphora in self-attributions of attitudes themselves (the intrapersonal specification of *one of*) from the role of anaphora in attitude reports (the interpersonal specification of *those*). Consequently, it is not surprising that justifications that involve complex interpersonal anaphoric constructions are puzzling from the perspective of conventional wisdom. It is because conventional wisdom conflates theorizing about the attitudes themselves with theorizing about their reports that it conceals the source of Fodor’s puzzle: not only do anaphors structure the attitudes themselves intrapersonally and attitude reports interpersonally, but in *de re*-justification anaphors sit astride between attitudes and their reports in that they mediate between attitudes and their reports. I take this role of anaphora to be indicative of what justification strategies themselves are.

If there is a truth at all to the claim that attitude ascriptions obtain validity from the very fact that we accept *de re* and *de dicto* justifications as being suitable licensors for our talk about attitudes, then justification strategies are part of the pragmatic conditions for the successful *use* of attitude ascriptions. Considering *de re* and *de dicto* justification as regulating our use of attitude ascriptions makes them part of the system of social conventions according to which we ascribe attitudes: it is a social convention that a person has the descriptive authority over her own mental states and it is also a social convention that a third-person report cannot claim authority over the description of other persons’ mental states. First-person attitude reports like (1) cannot be justified *de re* without giving up the social convention that a person has the authority over her own mental states. Thus, the function of *de re* and *de dicto* justification in regulating the practice of attitude ascriptions is part of a theory of the pragmatics of attitude reports. It is on the grounds of the acceptance of the implicit pragmatic success conditions of an attitude report generally that (1) is semantically informative to an interpreter. As mentioned earlier, one semantic function of attitude reports (what a reporter *does* when reporting an attitude) is the rationalization of an agent’s behaviour. But the more important semantic function of attitude reports is in the way in which attitude ascriptions figure in practical reasoning. The semantics for desire ascriptions that I presented is motivated on exactly these grounds. Singh and Asher (1993) argue in detail how the action-theoretic analysis of belief, intentions and desires provides the basis for the definition of a logic of rational agency in which agents can reason about themselves and other agents. It is important to note at this point that also Stalnaker (1984) is concerned with the delineation of such a system of the logical relations that underly a rational agent’s inquiry. A Stalnaker-type logic of desire and beliefs is thus not incompatible with the proposal for attitude reports made in this paper as long as we stick – as Stalnaker does anyway – to the first-person perspective when theorizing about the attitudes themselves.

## 6 Conclusion

This section concludes with some remarks on how the proposed account of desire reports can be generalized. First, the analysis of desire reports proposed can be modified so as to deal with other non-doxastic

attitudes such as *hope* or *wish*, the main difference between *hope*, *wish* and *want* manifesting not in their propositional content but in the strength with which they induce a tendency to act in the bearer of the attitude. While desires are understood as inducing a strong tendency to act in a certain way, a wish basically omits the forward-looking nature of desires and thus also can be used for goals which an agent cannot accomplish with his actions, like *I wish that I was never born.* vs. *\*I want that I was never born.* With respect to the relation of attitude and action, hopes seem to stand inbetween desires and wishes, as one the one hand, they share the forward-looking nature of desires but on the other also allow for out-comes of actions that an agent does not have under its own control like *I hope to pass the exams without preparation* vs. *I want to pass the exams without preparation.* Second, once the distinction between the first-person perspective on the attitudes themselves and their third-person reports has been established, the argument of this paper generalizes to doxastic attitudes like belief. On the one hand, like desires, an agent's beliefs can be observed from an external perspective only through the behaviour in which they manifest themselves under the hypothesis that "[t]o believe that P is to be disposed to act in ways that would tend to satisfy one's desires" (Stalnaker, 1984, p. 17). On the other, like desires, beliefs are parasitic attitudes: "[b]eliefs have determinate content because of their presumed causal connections with the world" (Stalnaker, 1984, p. 17). It is the combination of both aspects of beliefs that should be considered to be fundamental to their reports, given that the justification of belief reports necessarily involves an anaphoric specification of how the reported belief is parasitic on its causal relation of acquaintance, compare e.g. (Quine, 1956, p. 179)'s famous Orcutt scenario in (17) (italics added).

- (17) "There is a certain man in a brown hat whom Ralph has *glimpsed* several times [...] Ralph suspects *he* is a spy. Also there is a gray-haired man, [...] whom Ralph is not aware of having *seen* except once at the beach. Now Ralph does not know it, but *the men* are one and the same."

## References

- Robert B. Brandom. *Making It Explicit. Reasoning, Representing, and Discursive Commitment.* Harvard University Press, Cambridge, MA, 1994.
- Donald Davidson. Actions, reasons and causes. *Journal of Philosophy*, 60:695 – 700, 1963.
- Janet Dean Fodor. *The linguistic description of opaque contents.* PhD thesis, MIT, 1970.
- Peter T. Geach. Intentional identity. *Journal of Philosophy*, 64(20):627 – 632, 1967.
- Irene Heim. Presupposition projection and the semantics of attitude verbs. *Journal of Semantics*, 9:183–221, 1992.
- Hans Kamp. Context, thought and communication. *Proceedings of the Aristotelian Society*, 85:239–261, 1985.
- Hans Kamp, Josef van Genabith, and Uwe Reyle. Discourse Representation Theory. In Dov M. Gabbay and Franz Guenther, editors, *Handbook of Philosophical Logic* 15:125 – 394. Springer, 2011.
- Ezra Keshet and Florian Schwarz. De re/de dicto. 2014. URL [http://florianschwarz.net/wp-content/uploads/papers/De\\_Re\\_\\_De\\_Dicto.pdf](http://florianschwarz.net/wp-content/uploads/papers/De_Re__De_Dicto.pdf).
- Emar Maier. Parasitic attitudes. *Linguistics and Philosophy*, 38(3):205–236, 2015.
- William Van Orman Quine. Quantifiers and propositional attitudes. *Journal of Philosophy*, 53(5):177 – 187, 1956.
- Jacopo Romoli and Yasutada Sudo. De Re / De Dicto Ambiguity and Presupposition Projection. In Arndt Riester and Torgrim Solstad, editors, *Proceedings of Sinn und Bedeutung 13*, pages 425 – 438, 2009.
- Tim Schroeder. Desire. In Edward N. Zalta, editor, *The Stanford Encyclopedia of Philosophy*. Summer 2015 edition, 2015.
- Magdalena Schwager. Speaking of qualities. In Ed Cormany, Satoshi Ito, and David Lutz, editors, *Proceedings of SALT 19*, 2009.
- Munindar P. Singh and Nicholas Asher. A logic of intentions and beliefs. *Journal of Philosophical Logic*, 22:513 – 544, 1993.
- Robert C. Stalnaker. *Inquiry.* MIT Press, 1984.
- Kai von Fintel and Irene Heim. *Intensional semantics.* MIT, Spring 2011 Edition, 2011.