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Conditional attitude ascription*

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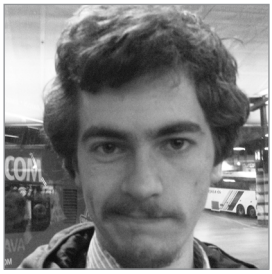

Many theories of the *de dicto* / *de re* ambiguity for quantifiers and descriptions follow the tradition started by Kaplan and Lewis in that they make use of notions that are epistemic in nature, such as the notion of acquaintance. This may create the impression that the question about *de re* in attitude report semantics should always be resolved by looking at the reported attitude; if the latter qualifies as *de re* according to some epistemological criteria, then also the attitude report may be true *de re*. The present paper aims to provide an argument to the contrary. The argument proceeds in several steps. First, we point out the existence of a wide range of *de re* readings (mostly already known from the literature), some of which do not target referential or quantificational expressions at all. Second, we show that the existing analyses either give wrong predictions for such cases, or are incomplete, or at least inelegant. Third, we offer a new analysis (which, as it turns out, has predecessors not united by any single tradition) whose main ingredient is the observation that the right predictions result from modifying the Context Set of the conversation in certain intuitive ways before the attitude report is added to the Common Ground. This is the semantic contribution of the paper. The philosophical upshot is that the reasons for an attitude report being *de re* at least in some cases have little to do with the grounds on which the corresponding mental state – the attitude itself – qualifies as *de re*. We also speculate as to how the proposed analysis, which divorces *de re*'ness from epistemic *rapport*, may be extended onto more traditional cases.

Keywords: attitude reports, de re, acquaintance, possible world semantics, Context Set

Условное приписывание пропозициональных установок[1]

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Ряд семантических теорий, объясняющих неоднозначности *de dicto* / *de re* в высказываниях о пропозициональных установках, следуют начатой Д. Капланом и Д. Льюисом традиции, в которой в семантике используются эпистемологические понятия, такие как знакомство (acquaintance). Отсюда можно было бы сделать вывод, что семантический вопрос об истинности высказывания о пропозициональной установке *de re* всегда разрешается путём установления того, носит ли характер *de re* соответствующая установка. В настоящей работе делается попытка опровергнуть этот тезис. Мы приводим приме-

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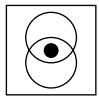


ры чтений *de re*, которые требуют альтернативного анализа. В соответствии с таким анализом нестандартные чтения *de re* возникают, когда контекстуальное множество миров (Context Set) определённым образом модифицируется в соответствии со знаниями участников речевой ситуации. Таким образом, удаётся показать, что по крайней мере в некоторых случаях истинность (или речевая успешность) высказывания о пропозициональной установке *de re* не связана напрямую с эпистемологическими характеристиками соответствующей установки.

Ключевые слова: высказывания о пропозициональных установках, de re, эпистемическое знакомство, семантика возможных миров, контекстуальное множество

1. Introduction

It has been emphasised in the literature (see e.g. [Pross, 2015]) that the study of propositional attitude reports should be kept separate from any account of what propositional attitudes themselves or, more generally, mental states are. In particular, the following two questions may turn out to have different answers:

(a) What are the necessary and sufficient conditions for a propositional attitude to be *de re* w.r.t. a given object (in whatever sense of the latter term)?

(b) What are the necessary and sufficient conditions for a propositional attitude report to be *de re* w.r.t. a part of the attitudinal clause?

This difference has been blurred in the theories of *de re* that appealed to the notion of *acquaintance*, which in turn goes back to Russell's epistemology [Russell, 1910–1911] where it is taken to mean "a direct cognitive relation" or direct awareness "of the object itself". Such theories in various ways implement Frege's [Frege, 1892] intuition that the difference between co-referential terms that prevents intersubstitutability lies in the different *modes of presentation* they introduce. Here belong the proposals by [Aloni, 2001], [Yanovich, 2011, 2014], [Yalcin, 2015] and, perhaps most prominently in terms of linguistic applications, the research tradition started by Percus & Sauerland [Percus, Sauerland, 2003]. All those accounts have as their main concern the *de re* readings of referring or quantificational expressions. However, as will be shown presently, recent studies have revealed the whole realm of "non-standard" *de re* readings targeting predicates and maybe even quantifiers instead of determiner phrases (DPs) traditionally recognised as giving rise to *de re* readings. To this picture I will here add what seems to be whole attitudinal clauses read *de re*.

Whereas acquaintance with propositions is used by the supporters of "semantic innocence" ([Salmon, 1995, 1997]; see also [Egré, 2014]), it is, together with acquaintance with properties, notoriously spurious from the

philosophical viewpoint. Additionally, most of the contemporary theories of *de re* make considerable use of syntactic apparatus, assuming pieces of structure that do not always have independent linguistic motivation; or alternatively, they complicate the semantic composition process. The latter option is chosen by Yanovich and Yalcin, and to a certain extent by [Santorio, 2014] as opposed to [Percus, Sauerland, 2003] and [Charlow, Sharvit, 2014]. Yet another route is to work with structured propositions [Cresswell, von Stechow, 1982], [Schwager, 2009], which of course also raises the complexity of the semantic component.

In the light of the considerations above, an analysis of "non-standard" *de re* which does not add much to the overall complexity of one's semantics would be highly welcome, and even more so if it could additionally perform at least some of the more traditional tasks within attitude semantics. The present paper aims to offer such a view. Its essential components are: the proper classification of *de re* readings (Section 2), several assumptions about the universe of possible worlds (Section 3) and a reductive analysis of non-standard *de re* (Section 4), which has recently gained independent motivation in the semantics of conditionals [Priest, 2015]. The analysis is reductive since it reduces non-standard *de re* to *de dicto* plus the update of the Context Set with some contextually salient information. I deem what happens according to my analysis *conditional attitude ascription* because of that analogy to conditionals and because of its being conditional on the state of the Context Set. The final Section 5 speculates about the possible extension of the analysis onto referring expressions and gives the overall conclusion.

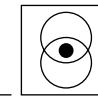
As a result of the present study, it should become clear that at least in the case of non-standard *de re*, the constraints that guarantee *de re*'ness for an attitude report are not those pertaining to the *de re*'ness of the corresponding propositional attitude.

2. The variety of *de re* readings

The terms "*de re*" and "(referentially[2]) transparent" are sometimes used as interchangeable, although this is plausible only insofar as the simplest cases are concerned such as (1) below. The metaphor of transparency emerged in contraposition to the metaphor of *opacity* [Quine, 1956, 1960] in the sense of being a context that resists substitution of co-extensive terms and quantification in. The term *de re* is (multiply) ambiguous. Out of its possible meanings, the present paper concentrates on the following[3]:

[2] The term *referential* does not equally well suit all sorts of *de re* readings, as they can target some sorts of expressions way beyond what is usually taken to refer (on a narrow conception of reference).

[3] In some terminological systems [von Fintel, Heim, 2011], the term "*de re*" is reserved for (b) only, in which case it is indeed (roughly) synonymous with "transparent"; (a) is then characterised as "wide scope", even though the latter term is in its literal sense inapplicable under *in situ* (no-movement) approaches to *de re*.



(a) existential import as characteristic of *de re* readings of referring and quantificational expressions;

(b) interpretation in the domain of the world of evaluation (as opposed to those of the worlds quantified over by an modal operator) for predicates.

The remaining connotations of the term "*de re*", such as e.g. specificity, are not of special interest in the present study. However, already the range of de re phenomena so limited is wide and heterogeneous. I will first summarise the essentials concerning the *de re* readings of referential and quantificational expressions, which have arguably provided the main motivation for acquaintance-based analyses, and then proceed to less canonical cases, on the basis of which I object to such analyses.

2.1. Acquaintance-based semantics for classical *de re*

The simplest cases, known since Russell (1905), involve an ambiguity as to whether a quantificational expression is interpreted at the world of evaluation or within the scope of an intensional operator:

(1) George IV. wished to know whether Scott was the author of *Waverley*.

On the most natural reading of (1), the position of *the author of* ***Waverley*** is non-substitutional; on its awkward reading, it is substitutional so that *Scott* can be substituted in the place of *the author of Waverley*, attributing George IV. the unlikely desire to find out if a trivial identity is true.

Russell's own solution was spelled out in terms of the scope of the description *the author of Waverley*. Similarly, Quine [Quine, 1956] proposed a variation in attitude reports as to whether a given report is read "relationally" (~ *de re*) or "notionally" (~ *de dicto*). Instead of a scope ambiguity, he argued for what may nowadays be called *flexible semantic types* for attitude verbs (cf. [Quine, 1977], [Crawford, 2008]), which can either take a propositional argument or two arguments in its place: a property argument and an individual argument. The latter position is then transparent.

However, Quine is also credited for the invention of *double vision puzzles*, which have proved to be a powerful diagnostics for the plausibility of semantic theories of attitude ascription. The gist of all such puzzles is that an attitude holder stands in two different acquaintance relations to a single object, to the effect that she cannot identify the two impressions of it she has. In addition, she has incompatible beliefs concerning the two impressions she has got. (In Quine's case, there was a certain Ralph who encountered Bernard J. Ortcutt twice and formed two incompatible beliefs concerning him: that he is a spy and that he is not.) Intuitively, in such cases the attitude holder is not in a position to discover an inconsistency in

her own beliefs; according to the most influential viewpoint, this should be predicted by any adequate semantics for attitude reports, but just playing with scope or adicity does not yield the desired result: (2) and (3) are deemed contradictory on any vaguely Russellian account.

(2) Ralph believes that Ortcutt$_{de\ re}$ is a spy.

(3) Ralph believes that Ortcutt$_{de\ re}$ is not a spy.

A breakthrough on the way towards solving Quine's puzzle was made by Kaplan (1968). The crucial part of Kaplan's proposal was to make use of vicarious entities instead of directly using referring expressions. Kaplan took those vicarious entities to be internal names the attitude holder has for the object of her attitude (e. g. Ralph would have two distinct internal names for Ortcutt, as he does not identify the two perceptions of Ortcutt he has got); in subsequent literature, they were sometimes identified with Frege's [Frege, 1892] modes or presentation [Yalcin, 2015]. Cf. (4) for (2) and (5) for (3):

(4) $\exists a$: R (Ralph, Ortcutt, a) & **believes** (Ralph, [a is a spy])

(5) $\exists b$: R (Ralph, Ortcutt, b) & **believes** (Ralph, [b is not a spy])

The clause "R (Ralph, Ortcutt, a)" is to be read "a is a suitable internal name / mode of presentation of Ortcutt for Ralph". Obviously, as long as different vicarious entities verify (4) and (5), no contradiction arises, as desired.

As it stands, Kaplan's proposal is in need of a compositional implementation. One option[4], which has proved quite successful in solving intricate semantic puzzles [Percus, Sauerland, 2003], [Percus, 2013], [Charlow, Sharvit, 2014], is to add more machinery to the syntax. This machinery includes *concept generator* (CG) variables and other elements needed to make them work.

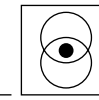
To get the feeling of what is going on under the CG theory, consider the Logical Form[5] (LF) for (2):

(6) Ralph [$_{VP}$ believes [$_{S}$ 3 [$_{S}$ 2 [$_{S}$ w_2 [[G_3 Ortcutt] w_2] [$_{VP}$ is a spy]]]]]

The referring expression *Ortcutt* is wrapped into a constituent which includes the CG variable G_3 (abstracted over by the index 3 just below the attitude verb) and the world variable w_2 (abstracted over in the same

[4] Another option is to let modes of presentation into the interpretation process, either in the form of an additional parameter of evaluation [Aloni, 2001] or as a component of a composition rule [Yanovich, 2011, 2014; Yalcin, 2015].

[5] Logical Form is an auxiliary level of syntactic representation within certain versions of Generative Grammar. It serves, among other things, for the disambiguation of ambiguous sentences before semantic interpretation. In the LF given in (6), the world pronoun w_2 occurs twice: the first occurrence serves for the evaluation of the whole subordinate clause, first and foremost its main predicate *is a spy*; the second occurrence specifies the world where the counterpart yielded by G_3 should reside.



fashion). The meaning of the compound [[G_3 Ortcutt] w_2] is, according to the theory [Percus, Sauerland, 2003], the individual y in the world w_2 s.t. the centre (in the sense of [Lewis, 1979]) of the world w_2 is *acquainted* with y at w_2 in the very same way the attitude holder (i.e. Ralph) is acquainted with Ortcutt at the world of evaluation. In other words, what is said by (6) is that there is some object o in Ralph's belief worlds whose epistemic relation to who Ralph takes himself to be is the same as Ortcutt's relation to Ralph, and that o is a spy. Thus the vicarious entity (acquaintance function) itself does not show up in the syntax, although it still does its job, avoiding contradiction in the pair (2)–(3). This is because (2) and (3) are made true by different CGs, just like (4) and (5) are made true by different vicarious entities.

2.2. The realm of Fodorian readings

At least traditionally, CGs are claimed to operate only on complete DPs (or, technically, on their *traces*). On the other hand, the readings so produced by no means exhaust the variety of *de re* readings attested in natural language. With [Fodor, 1970] and [Bäuerle, 1983] it became clear that when a DP is within the scope of an intensional operator in the surface structure, its restrictor predicate may be evaluated as if unaffected by the operator even when the determiner is interpreted under the operator. E.g. (7) has the following reading on a par with the standard *de re* reading and the *de dicto* reading: 'Charley wants to buy a coat of a particular kind, but no specific one, whereas the speaker knows Bill has a coat of that kind'.

(7) Charley wants to buy a coat like Bill's.

Von Fintel & Heim [Von Fintel, Heim, 2011] call such readings "narrow-Q, R-*de-re*" (narrow scope of the quantifier w.r.t. the intensional operator plus the transparent reading of the restrictor predicate). Kusliy [Kusliy, 2013] calls them simply "third readings" (after the two traditionally acknowledged ones). Here I will call them *Fodorian readings*.

There are several ways to generate at least some Fodorian readings. (We will see below that they are not all alike.) Von Fintel & Heim and Kusliy discuss various proposals to this effect. Of all those arguably the most straightforward one is to endow each predicate with an additional world argument, thus generating for the Fodorian reading of (7) the LF in (8):

(8) Charley [$_{VP}$ wants [$_{S}$ 3 [$_{S}$ 2 [$_{S}$ w_2 PRO$_3$ buy [$_{DP}$ a coat-like-Bill's @]]]]],

where @ is the name of the world of evaluation. The effect of (8) is that the predicate *coat like Bill's* is evaluated at the actual world @, so that Charley's desire amounts to buying one of the coats which are *in fact* (but not necessarily in Charley's desire worlds) like Bill's coat.

Now, there are several worries about this sort of strategy. First, the truth conditions for (7) we have just predicted do not exactly fit our intuitions. As Schwager [Schwager, 2009] notes, the predicted truth conditions require that Charley want to buy one of the *existing* coats of the aforementioned kind (or, on a different view of trans-world existence [Lewis, 1968], a counterpart of some existing coat): nothing else, in whatever world it resides itself, can be *actually* a coat like Bill's. This is of course unjustified, as Charley may want to buy such a coat even if Bill's one is the only one manufactured so far. And what if John wanted, say, to marry a mermaid (mermaids assumed to be a kind of fairy) and we reported his desire as

(9) John wants to marry a fairy,

where the predicate *fairy* has an empty extension at the actual world? If any two empty properties were intersubstitutable in such cases, why does *John wants to marry a witch* not suit here?

Second, it has been convincingly argued that the distribution of world arguments obeys several robust restrictions. The simplest among them is the Main Predicate Constraint [Percus, 2000], according to which the main predicate of the attitude clause cannot be evaluated at the actual world:

(10) Mary thinks my brother is Canadian.

cannot mean that for the set of actual Canadians (i.e. the *extension* of the predicate *Canadian*), Mary thinks that whoever is my brother is one of them. Nevertheless, some Fodorian readings arise even w.r.t. main predicates. For example [Schwager, 2009], (11) is claimed to be assertible in case Mary believes Sue is of the same religion as John, whom the interlocutors know to be Catholic (and Mary has no idea); (12) is assertible if John is afraid that his wife broke the curfew, which in fact – as we, but not John, know – started at 6 p.m. Similarly, (13) would be truly utterable even if Mary does not know what we are doing (which in fact is tap-dancing) but thinks that we are again doing that noisy thing we have been doing daily for quite a while already [Cable, 2011].

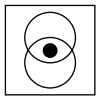
(11) Mary believes Sue is Catholic.

(12) John is afraid that his wife was out after 6 p.m.

(13) Mary thinks we're tap-dancing now.

Thus it cannot be that world pronouns are responsible for the whole range of Fodorian readings[6].

[6] [Schwager, 2009] and [Sudo, 2014] contain proposals that are intended as solutions to the problem. However, Schwager's proposal cannot straightforwardly account for the contextual variation in acceptability discussed in Section 4.2; at the same time, the present paper may be seen as an elaboration on the notion of contextual equivalence appealed to by Sudo.



2.3. Fodorian readings for other constituents

Cases similar to those above can be constructed that involve whole propositions instead of predicates. Imagine, for instance, John's favourite soccer team one goal ahead while playing against a much stronger opponent; then (14) would be indicative of John's mental state even though his desire is not directed towards the whistle, but rather to the end of the game, which – as we know – comes with a certain sound.

(14) John wants the final whistle to blow as soon as possible.

Thus the *de re* mode affects a whole proposition. Analogously, it seems that a particularly elusive reading of (15) is verified by the situation where John, a somnambulist, has assassinated the president although he has always supported him when fully conscious. That reading is clearly not the *de dicto* reading in case John has just learned about the assassination from the news (where the murderer's identity is not revealed) and cannot himself recall anything that happened.

(15) John regrets having shot the president.

This shows that one would like a general mechanism deriving Fodorian readings for a whole scale of types of expressions[7]. Moreover, it is rather unlikely that the notion of acquaintance would be of much help here, given the ontological variety of entities denoted by expressions read *de re*.

3. Levels of worlds

The proposal to follow in Section 4 requires non-standard assumptions about the structure of the universe of possible worlds[8]. In particular, I assume that possible worlds are organised in levels. Basically, there are ground-level worlds, one of which is the actual world @ and the others are alternatives to it. From each of such worlds, a certain number of second-level worlds are accessible via each of the defined accessibility relations. (Accessibility relations select, for a given world w and a given agent a, the worlds that a cannot distinguish between when a is at w.) Moreover, if R_j is the accessibility relation corresponding to the beliefs of John's and R_m the one corresponding to the beliefs of Mary's, then no world may be

[7] Additionally, what has been known as specific opaque, or "wide-Q, R-*de-dicto*" readings ([Szabó, 2010, 2011], [Santorio, 2013], [Ben-Yami, 2014]) may be viewed as a species of Fodorian readings. This depends on how several intricate issues are resolved; see [Tiskin, 2014] for a preliminary discussion.

[8] Another use for the same assumptions and their formal explication, as well as the discussion of their problems, can be found in [Tiskin, 2016]. Originally the assumptions come from the literature on dynamic epistemic logic [Gerbrandy, 1999], [Lomuscio, 1999].

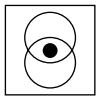
accessible from any other world by both. From second-level worlds, third-level ones are accessible in the same fashion, etc. *ad infinitum*. Therefore, to each ground-level world *w* there corresponds a *tree frame* [Hughes, Cresswell, 1996, p. 118 ff.] composed of second-level, third-level worlds and so on: it has *w* as its root world and a number of branches stemming from it, which may each be branching as well, etc.

Our semantics borrows a good deal of its machinery from Stalnakerian approaches to pragmatics [Stalnaker, 1978, *i.a.*], which model the *information state* of a conversation as a set of worlds, called its Context Set (CS). All and only the worlds of CS, as opposed to the worlds outside it, satisfy the presuppositions of the conversation and the propositions to which the interlocutors are committed. As the conversation proceeds and the information grows, CS narrows down to accommodate new information by means of throwing away the worlds that do not comply with the newly uttered propositions.

In tree-frame semantics CS should be characterised by a set of tree frames (rather than worlds), one of which is the actual frame whose root is the actual world @ and whose branches correspond to whatever attitudes real attitude holders actually have. Other frames in CS differ from the actual one either in the state of affairs in the root world or in what their branches look like, or in both respects. They are unrealised possibilities, and one may mistakenly believe one of them takes place instead of the actual one.

Why is this complex structure needed? Precisely because it allows for fine-tuned updates of CS. Indeed, in the traditional dynamic semantics adding a new restriction on the possible worlds in CS – any assertion functions as a restriction, e.g. *The Earth is round* removes from CS all worlds where the Earth is not round – checks all the worlds in CS as to whether the asserted sentence is true there. With tree frames, one can specify the depth and width of checking, e.g. whether the restriction extends to all worlds, or only to second-level worlds onwards, or only to worlds accessible from a particular second-level world via John's doxastic accessibility relation, etc.; crucially, the rest of the model remains intact. (To the contrary, in the traditional case John's doxastic alternative can *also* be Mary's alternative, so e.g. removing it as an alternative of John's will also affect the alternatives of Mary's, which is sometimes undesired.)

We will see presently the merits of this fine-tuning, but as a preview, consider the following (cf. [Gerbrandy, 1999, p. 108–114]); (cf. [Lomiscio, 1999, p. 116–117]). Assume that w_1 and @ are John's doxastic alternatives and that w_2 and @ are Mary's alternatives at the actual world @. Given this, John deems possible that Mary is not mistaken as to which world she lives in (as @ is one of Mary's alternatives in one of John's alternatives, namely @ itself). Now imagine that Mary changes her mind in a wrong way, so that @ is no longer compatible with what she believes. If this is



modeled by eliminating the @—@ accessibility arrow for Mary, John will be viewed as automatically informed about Mary's new opinion. In fact, however, Mary may have changed her mind without John knowing that. If Mary's actual doxastic alternatives (of level 1) are viewed as distinct from Mary's doxastic alternatives according to what John thinks (of level 2), such a confusion will never arise.

4. Conditional ascription

4.1. Precursors

Either in cases of *de re* readings or otherwise, the speaker's primary communicative goal is to change the hearer's information state in a particular way. Therefore, all utterances yielding the same updated state are in one sense *equivalent*; this equivalence is *conditional* on the hearer's current information state.

In the particular case of *de re* reports, the literature contains several (but rather disjoint) proposals that relate the availability of the *de re* reading to certain conditions on the state of the context. For example, van Fraassen [van Fraassen, 1979] proclaimed that "'*x* believes that *A*' is true if and only if a certain proposition is one of *x*'s beliefs – though that is not generally the proposition which is the content of *A* (in the given context)". Van Fraassen suggests that the class of candidates for the role of that "other" proposition is jointly determined by *x believes that A* and "some contextual factor". Such a factor for van Fraassen is a certain proposition associated with the given context and called its *contextual auxiliary*. As van Fraassen's proposal is primarily aimed at the analysis of indexicals, his example is as follows.

(16) He must think I'm rich!

This sentence is intended as said by an irritated mother to her daughter, whose university official, not knowing anything about the mother, demands higher payments. The auxiliary in (16) is *I am your mother*; as can easily be seen, in more conventional terms (16) is intended to be read *de re* w.r.t. *I*. From the conjunction of what the official really believes *de dicto* (something like *Her mother – whoever she is – is rich*) and the auxiliary the content of (16) can be inferred. As long as no stronger statement is relevant, the effect an utterance of (16) would have in the given context is equivalent to the effect of an utterance of the official's *de dicto* belief.

Some authors, such as Parikh [Parikh, 1998] and Percus [Percus, 2013], went as far as to suggest that there is a special meaning or "use" of belief verbs whose nature is inferential: an agent *x* believes (in this special

sense) that φ iff φ can be *inferred* from what *x* believes (in the basic sense) together with what we know, or believe, or consider necessary. Percus suggests that this "use" is "responsible for some judgments that have been discussed in recent literature". Cable [Cable, 2011] attributes a similar idea to a reviewer of his paper (although does not endorse the idea himself), explicitly mentioning the interlocutors' Common Ground as the source of premises for the aforementioned inference.

4.2. Context dependence and Priest on "imported information"

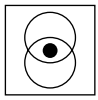
Cable made an important observation concerning the acceptability of non-standard Fodorian readings of sentences like his example in (13). He notes that (13) requires that Mary has no relevant *false* beliefs: "If, for example, Mary is assumed to falsely believe that you and I are practicing a breakdancing routine, then sentence [(13)] is… necessarily false". Similarly, we may add, (11) requires that Mary does not have a belief that manifestly contradicts *Sue is Catholic*, e.g. that Sue is Orthodox. This effect has remained mysterious so far, escaping the eye of Schwager [Schwager, 2009]. In the same vein, Ben-Yami [Ben-Yami, 2014, p. 180] notes about "specific opaque" readings (see fn. 6) that their assertability depends on whether the attitude holder has any beliefs that contradict the *de dicto* reading of the report.

Thus it seems that the agent's *de dicto* beliefs do unexpectedly play a role in the determination of which *de re* attitude ascriptions can be made[9]. Intuitively, the appeal to CS here starts to make sense: if all worlds in CS verify that Mary takes Sue to to be Orthodox, then the update with *Mary believes that Sue is Catholic* will yield the empty set; but not so if Mary does not hold such a contradicting belief about Sue's confession.

Recently it has been brought to attention by Priest [Priest, 2015] that similar effects obtain in conditionals. Priest emphasises that we naturally understand conditionals as holding under certain assumptions, together called *imported information*, that "carr[y] over from the actual world". This is a sense also holds in the traditional Lewis-style semantics, where a counterfactual is deemed true iff the consequent holds in *@-closest* worlds where the antecedent holds [Lewis, 1973]. Priest's claim is, however, that the set of assumptions in play depends on the context and in a given context may be explicitly formulated. This is illustrated with the following pair of examples:

(17) If this car were a photon, then some cars would travel at about 3×10^8 m/sec.

[9] On the other hand, (15) does not seem to be subject to this effect.



(18) If this car were a photon, then some photons would travel at about 3 m/sec.

According to Priest, both (17) and (18) can be made sense of at the actual world; it is only that they differ as to what information gets imported: for (17) it is that photons travel with the speed of light; for (18), that this car is traveling at the rather mediocre speed of 11 km/h.

4.3. Ascribing attitudes

The crucial claim of the present section is that at each level of embedding in attitude reports there is a possibility to update CS with some contextually salient piece of information. Consider for instance (11), and take the corresponding *de dicto* reading of

(19) Mary believes that Sue is of the same religion as John.

Assume further that it has already been established in conversation that John is Catholic. Therefore, all worlds in CS verify *John is Catholic*. Now, even if Mary does not believe John is Catholic (but has no belief to the contrary either), in *some* of her doxastic alternatives John may still be Catholic. Such alternatives will survive after the requirement that John be Catholic is imposed onto CS, whereas other alternatives of Mary's will disappear. Thus, in CS updated with *John is Catholic* all remaining alternatives of Mary will verify *Sue is Catholic* (as they verify both *John is Catholic* and *Sue is of the same religion as John*). Hence either the update with (11) or the update with (19) will be vacuous, eliminating no worlds, as CS already supports both. In this sense (11), although not literally (= *de dicto*) true, results in the same state of CS as the *de dicto* true (19). This entitles the speaker to utter (11) instead of (19) in a given conversational situation.

This rather simple picture already suffices to explain the aforementioned blocking effect noticed by Cable. Indeed, if Mary believes that Sue is Orthodox, the preliminary update with *John is Catholic* will leave no doxastic alternatives of Mary's within CS. As this would represent Mary as believing everything (as the empty set of accessible worlds verifies every necessity claim), this interpretative strategy is dispreferred (i.e. the update with *John is Catholic* is avoided), so (11) cannot be successfully asserted.

So far we have made no use of our stratification of worlds, which led us above in Section 3 to the replacement of the simple view on CS as consisting of worlds with the frame-based view. As a result, we performed an operation which was not sufficiently justified: we removed some alternatives of Mary's basing on what we believe ourselves (namely, that John is Catholic); but obviously whatever we believe cannot influence Mary's beliefs directly. Let us therefore recast the explanation in the tree-frame semantics.

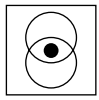
Under the tree-frame view, what constitutes a CS and what, correspondingly, gets removed in updates, is whole tree frames, whose root worlds are candidates for the role of the actual world. Therefore, if we impose the restriction on CS to the effect that John is Catholic, all frames where there is at least one world (at any level) where John is not Catholic get removed from CS. Incidentally, the "actual frame" (the one whose root world is @) is also removed (even if it had previously been in CS[10]), since in some of Mary's belief worlds there John is not Catholic. This is again undesired, as not having the actual world in CS means having arrived at a falsity. Is there a way to preserve the actual world within CS while still being able to make an update after which (11) would become assertible?

I suggest that this should be done by defining a new kind of update, which I call *neglect*. Intuitively, this operation corresponds to "disregarding" in each of the frames within CS worlds that do not satisfy some contextually salient conditions, whereas the rest of the frame remains intact. The neglect operation in (20) inspects, for a given world, whether that world or any other worlds accessible from it via any number of accessibility arrows falsify the condition φ; if a world falsifies it, then it is eliminated together with the worlds accessible from it via any number of arrows. The definition in (20) is recursive: having neglected non-φ worlds at level *n*, one goes on to inspect if there are worlds at level (*n* + 1) that does not comply with φ, and so on. (*wRv* means "*v* is R-accessible from *w*".)

(20) $\mathrm{CS} * \varphi = \{ w \mid \exists v \text{ in CS} : \varphi \text{ holds at } v \;\&$
v is in propositional (= atomic) harmony with w &
$\{ u \mid wRu \} = (\{ u \mid vRu \} * \varphi) \}$

Let us now apply the neglect operation in (20) to the case of (11). First, all worlds where John is not Catholic are neglected. The actual world is not one of those (so it is not removed from CS), although some worlds accessible from it are (and they are removed). As above, in any remaining world accessible for Mary from the root world, whoever is of the same religion as John is Catholic. Hence the equivalence of (11) and (19) in this setting. On the other hand, should Mary believe that Sue is Orthodox, no alternatives of Mary's at the root @ will remain after the neglect operation has applied. Thus the unacceptability of (11) in case Mary has a *de dicto* belief to the contrary – this is how the blocking effect mentioned above gets derived.

[10] The anonymous reviewer notes that one should not be forgetful of the existence of false beliefs. In case the conversational participants hold at least one false belief, their CS will not include the actual frame. However, this possibility is not particularly relevant to the needs of the present discussion: what is important is, first, that the actual frame should not accidentally get removed from CS if it had been there and, second, that even if the interlocutors are mistaken about the world they live in, the CS our theory attributes to them should be faithful to what they actually believe.



What if we apply similar considerations to the case of (7)? Obviously, Mary's desires are unspecific w.r.t. whether Bill should have the same type of coat as Mary herself. However, if Mary has no desire to the contrary (i.e. if she does not want Bill to have a different sort of coat), then in some of her desire worlds Bill has the same coat he actually has. Therefore, the neglect-style update of CS with *Bill has a coat of kind X* will preserve some of Mary's desire worlds; so the new CS will make updates with (7) and with (21) equivalent.

(21) Mary wants to buy a coat of kind *X*.

5. Conclusion and outlook

The motivation behind the proposal of the present paper has been to give a simple and intuitive semantic view on *de re* attitude reports that do not (easily) fit into the existing proposals. Those are primarily some cases of Fodorian readings which display context dependence in their acceptability. I took this context dependence at face value and proposed that *de re* reports – at least a subgroup of them – are *de dicto* reports evaluated against the Context Set of the conversation modified in certain ways in accordance with what the interlocutors know. The acceptability of a *de re* report is thus conditional on the preliminary update of the CS with the salient information. As can be seen, in such cases the speaker's ability to ascribe an attitude in the *de re* mode has nothing to do with the attitude holder's "causal *rapport*" with the object of the attitude. (Sometimes there is even no object, only a property or a proposition, as in (14)–(15).)

It was not my ambition to give an analysis of all sorts of *de re* in one fell swoop. For instance, for many cases such as those discussed by [Percus, 2000] and others we do need variables over possible worlds in the syntax. Another major group of *de re* readings targets referential and quantificational expressions and has been approached in terms of concept generators. As for those, I think a reduction to the present analysis is possible. Here, in the spirit of van Fraassen's example (16) above (see also [Sæbø, 2015]), what constitutes the preliminary update is a certain identity statement, e.g. *the man Ralph saw on the first encounter = Ortcutt* for (2)/(6). Moreover, the literature on CGs provides data that suggest where in the syntactic structure the choice of the appropriate CG is encoded; I take it that the very same data, once taken in the light of the present discussion, constitute evidence for a covert operator that triggers the neglect operation[11].

[11] The particular piece of information that is added in each case may be dependent on some quantificational elements higher in the syntactic structure of the attitude report. E. g. *Every boy believes that Ortcutt is a spy* may be true if Billy thinks, "The man in brown hat is a spy", Tommy thinks, "The man with a suitcase is a spy", etc., where the underlined descriptions in fact all pick up Ortcutt. Thus the choice of the piece of

The final issue I would like to address here is whether the interpretation I proposed for Fodorian cases constitutes a separate *reading* of attitude reports as opposed to their *de dicto* reading. The issues of "readinghood" are sometimes rather complicated. For instance, van Rooy & Zimmermann [Rooy, Zimmerman, 1996] suggest that Intentional Identity [Geach, 1967] does not constitute a special reading of the corresponding sentences but is rather derived from their normal readings via a pragmatically driven mechanism of re-interpretation. Pross [Pross, 2015] goes even further as he argues that what we usually take to be distinct readings of attitude reports (including Fodorian readings) are rather various ways for the speaker to justify her report, which is itself not ambiguous. On the opposite side of the debate, Percus & Sauerland [Percus, Sauerland, 2003] dedicated a special section to showing that *de se* and *de re* reports have distinct Logical Forms. So the question for the present inquiry is: Does it take a separate reading to evaluate an attitude report against a modified CS (as above) as opposed to normal, *de dicto* evaluation? This is too complex an issue to attempt at a thorough discussion here, but, as I have conjectured, Percus and Sauerland's cases may fall into the scope of my proposal; thus what they have said about there being distinct readings (and what their opponents, such as Anand [Anand, 2006] and Maier [Maier, 2011], have said to the contrary should be considered relevant.

Список литературы

Aloni, 2001 – *Aloni M.* Quantification under conceptual covers. PhD thesis. University of Amsterdam, 2001. 204 p.

Anand, 2006 – *Anand P.* De de se. PhD thesis. MIT. 2006. 170 p.

Bäuerle, 1983 – *Bäuerle R.* Pragmatisch-semantische Aspekte der NP-Interpretation // Allgemeine Sprachwissenschaft, Sprachtypologie und Textlinguistik. Tübingen: Narr, 1983. P. 121–131.

Ben-Yami, 2014 – *Ben-Yami H.* Bare quantifiers? // Pacific Philosophical Quarterly. 2014. Vol. 95. No. 2. P. 175–188.

Cable, 2011 – *Cable S.* A new argument for lexical decomposition: transparent readings of verbs // Linguistic Inquiry. 2011. Vol. 42. No. 1. P. 131–138.

Charlow, Sharvit – *Charlow S., Sharvit Y.* Bound 'de re' pronouns and the LFs of attitude reports // Semantics and Pragmatics. 2014. Vol. 7. P. 1–43.

Crawford, 2008 – *Crawford S.* Quantifiers and propositional attitudes: Quine revisited // Synthese. 2008. Vol. 160. No. 1. P. 75–96.

Cresswell, Stechow, 1982 – *Cresswell M., von Stechow A. De re* belief generalized // Linguistics and Philosophy. 1982. Vol. 5. No. 4. P. 503–535.

information depends on the choice of the boy indicated by *every boy*. This is similar to how concept generator variables behave (see Section 2.1); cf. an argument in [Tiskin, 2015] for locating quantification over CGs in a particular location within the embedded clause; the argument there carries over to the case of updates.

Egré, 2014 – Egré P. Hyperintensionality and *de re* beliefs // Epistemology, Context and Formalism. Dordrecht: Springer, 2014. P. 213–243.

von Fintel, Heim, 2011 – *von Fintel K., Heim I.* Intensional Semantics. Unpublished lecture notes. Cambridge: MIT University Press, 2011. vii + 133 p.

Fodor, 1970 – *Fodor J. D.* The linguistic description of opaque contexts. PhD thesis. MIT, 1970. 388 p.

van Fraassen, 1979 – *van Fraassen B.* Propositional attitudes in weak pragmatics // Studia Logica. 1979. Vol. 38. No. 4. P. 365–374.

Frege, 1982 – *Frege G.* Über Sinn und Bedeutung // Zeitschrift für Philosophie und philosophische Kritik. 1892. Bd. 100. S. 25–50.

Geach, 1967 – *Geach P.* Intentional Identity // Journal of Philosophy. 1967. Vol. 64. No. 20. P. 627–632.

Gerbrandy, 1999 – *Gerbrandy J. D.* Bisimulations on planet Kripke. PhD thesis, University of Amsterdam, 1999. 184 p.

Hughes, Cresswell, 1996 – *Hughes, G.E., Cresswell, M.J.* A new introduction to modal logic. L.; N. Y.: Routledge, 1996. 432 p.

Kaplan, 1968 – *Kaplan D.* Quantifying in // Synthese. 1968. Vol. 19. No. 1–2. P. 178–214.

Kusliy, 2013 – *Куслий П.С.* Проблема третьего прочтения в семантике сообщений о верованиях // Философия языка и формальная семантика / Под ред. П.С. Куслия. М.: Альфа-М, 2013. С. 129–160.

Lewis, 1968 – *Lewis D.* Counterpart theory and quantified modal logic // Journal of Philosophy. 1968. Vol. 65. No. 5. P. 113–126.

Lewis, 1973 – *Lewis D.* Counterfactuals. Oxford: Blackwell, 1973. x + 150 p.

Lewis, 1979 – *Lewis D.* Attitudes *de dicto* and *de se* // Philosophical Review. 1979. Vol. 88. No. 4. P. 513–543.

Lomuschio, 1999 – *Lomuschio A.* Knowledge sharing among ideal agents. PhD thesis. University of Birmingham. 1999. 170 p.

Maier, 2011 – *Maier E.* On the roads to *de se* // Proceedings of SALT 21. 2011. P. 393–412.

Parikh, 1998 – *Parikh R.* Propositions, propositional attitudes and belief revision // Proceedings of Advances in Modal Logic 2. 1998. P. 381–400

Percus, 2000 – *Percus O.* Constraints on some other variables in syntax // Natural Language Semantics. 2000. Vol. 8. No. 3. P. 173–229.

Percus, 2013 – *Percus O.* Res-marking in belief reports. Edited transcript of a talk given at the Workshop on Attitudinal Semantics. Keio University, 2013. 67 p.

Percus, Sauerland, 2003 – *Percus O., Sauerland U.* On the LFs of attitude reports // Proceedings of Sinn und Bedeutung 7. Universität Konstanz, 2003. P. 228–242.

Priest, 2015 – *Priest G.* Some new thoughts on conditionals. Proceedings of the 20th Amsterdam Colloquium. University of Amsterdam, 2015. P. 13–19.

Pross, 2015 – *Pross T.* On reporting attitudes: an analysis of desire reports and their reading-establishing scenarios // Proceedings of the 20th Amsterdam Colloquium. University of Amsterdam, 2015. P. 323–332.

Quine, 1956 – *Quine W.V.O.* Quantifiers and propositional attitudes // Journal of Philosophy. 1956. Vol. 53. No. 5. P.177–87.

Quine, 1960 – *Quine W.V.O.* Word and Object. Cambridge: MIT Press, 1960. 375 p.

Quine, 1977 – *Quine W.V.O*. Intensions revisited // Midwest Studies in Philosophy. 1977. Vol. 2. No. 1. P. 5–11.

van Rooy, Zimmerman, 1996 – *van Rooy R., Zimmermann T.E.* An externalist account of Intentional Identity // *Proceedings* of the Konstanz Workshop "Reference and Anaphoric Relations". 1996. P. 123–136.

Russel, 1905 – *Russell B.* On denoting // Mind. 1905. Vol. 14. No. 56. P. 479–493.

Russel, 1910 – 1911 – *Russell B.* Knowledge by acquaintance and knowledge by description // Proceedings of the Aristotelian Society, 1910–1911. Vol. 11. P. 108–128.

Sæbø, 2015 – *Sæbø K.J.* Lessons from descriptive indexicals // Mind. 2015. Vol. 124. No. 496. P. 1111–1161.

Salmon, 1995 – *Salmon N.* Being of two minds: belief with doubt // Noûs. 1995. Vol. 29. No. 1. P. 1–20.

Salmon, 1997 – *Salmon N.* Is *de re* belief reducible to *de dicto*? // Canadian Journal of Philosophy. 1997. Vol. 27. No. sup1. P. 85–110.

Santorio, 2013 – *Santorio P.* Descriptions as variables // Philosophical Studies. 2013. Vol. 164. No. 1. P. 41–59.

Santorio P. *On the plurality of indices.* Draft paper, 2014. URL: http://paolosantorio.net/opi.draft3b.pdf (дата обращения: 15.08.2016).

Schwager, 2009 – Schwager M. Speaking of qualities // Proceedings of SALT 19. 2009. P. 395–412.

Stalnaker, 1978 – *Stalnaker R.* Assertion // Syntax and Semantics. 1978. Vol. 9. P. 315–332.

Szabó, 2010 – *Szabó Z. G.* Specific, yet opaque // Logic, Language and Meaning: 17th Amsterdam Colloquium, Amsterdam, the Netherlands, December 16–18, 2009, Revised Selected Papers. Dordrecht: Springer, 2010. P. 32–41.

Szabó, 2011 – *Szabó Z. G.* Bare quantifiers // *Philosophical Review*. 2011. Vol. 120. No. 2. P. 247–283.

Sudo, 2014 – *Sudo Y.* On *de re* predicates // Proceedings of WCCFL 31. Cascadilla Proceedings Project, 2014. P. 447–456.

Tiskin, 2014 – *Tiskin D.* Specific opaque readings and proportional determiners. Semantics Archive draft, 2014. 45 p.

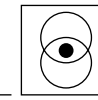
Tiskin, 2015 – *Tiskin D.* Locating hidden quantifiers in *de re* reports // Proceedings of the 20th Amsterdam Colloquium. University of Amsterdam, 2015. P. 398–407.

Tiskin, 2016 – *Tiskin D*. Transparent readings and privileged worlds // Logical Investigations. 2016. Vol. 22. № 2. P. 16–30.

Yalcin, 2015 – *Yalcin S.* Quantifying in from the Fregean perspective // Philosophical Review. 2015. Vol. 124. No. 2. P. 207–253.

Yanovich, 2011 – *Yanovich I.* The problem of counterfactual *de re* attitudes // Proceedings of SALT 21. 2011. P. 56–75.

Yanovich, 2014 – *Yanovich I.* Is de re without syntax feasible? Talk given at Utrecht University, 2014. 30 p.



References

Aloni M. *Quantification under conceptual covers.* PhD thesis. University of Amsterdam, 2001, 204 p.

Anand P. *De* de se. PhD thesis. MIT, 2006. 170 p.

Bäuerle R. Pragmatisch-semantische Aspekte der NP-Interpretation. In: *Allgemeine Sprachwissenschaft, Sprachtypologie und Textlinguistik*. Narr, 1983, pp. 121–131.

Ben-Yami H. Bare quantifiers? *Pacific Philosophical Quarterly*, 2014, vol. 95, no. 2, pp. 175–188.

Cable S. A new argument for lexical decomposition: transparent readings of verbs. *Linguistic Inquiry*, 2011, vol. 42, no. 1, pp. 131–138.

Charlow S., Sharvit Y. Bound 'de re' pronouns and the LFs of attitude reports. *Semantics and Pragmatics*, 2014, vol. 7, pp. 1–43.

Crawford S. Quantifiers and propositional attitudes: Quine revisited. *Synthese*, 2008, vol. 160, no. 1, pp. 75–96.

Cresswell M., von Stechow A. *De re* belief generalized. *Linguistics and Philosophy*, 1982, vol. 5, no. 4, pp. 503–535.

Egré P. Hyperintensionality and *de re* beliefs. In: *Epistemology, Context and Formalism.* Dordrecht: Springer, 2014, pp. 213–243.

von Fintel K., Heim I. *Intensional Semantics.* Unpublished lecture notes. MIT, 2011. vii + 133 p.

Fodor J. D. *The linguistic description of opaque contexts.* PhD thesis. MIT, 1970. 388 p.

van Fraassen B. Propositional attitudes in weak pragmatics. *Studia Logica*, 1979, vol. 38, no. 4, pp. 365–374.

Frege G. Über Sinn und Bedeutung. *Zeitschrift für Philosophie und philosophische Kritik, 1892,* Bd. 100, S. 25–50.

Geach P. Intentional Identity. *Journal of Philosophy*, 1967, vol. 64, no. 20, pp. 627–632.

Gerbrandy J. D. *Bisimulations on planet Kripke.* PhD thesis, University of Amsterdam. 1999. 184 p.

Hughes, G. E., Cresswell, M. J. *A new introduction to modal logic.* London, New York: Routledge, 1996. 432 p.

Kaplan D. Quantifying in. *Synthese*, 1968, vol. 19, no. 1–2, pp. 178–214.

Kusliy P. Problema tret'ego prochteniya i semantika soobshcheniy o verovaniyakh [The problem of the third reading and the semantics of belief]. In: P. Kusliy (ed.). *Filosofiya yazyka i formal'naya semantika* [Philosophy of Language and Formal Semantics]. Moscow: Al'fa-M Publ., 2013, pp. 129–160. (In Russsian)

Lewis D. Counterpart theory and quantified modal logic. *Journal of Philosophy*, 1968, vol. 65, no. 5, pp. 113–126.

Lewis D. *Counterfactuals.* Oxford: Blackwell, 1973. x + 150 p.

Lewis D. Attitudes *de dicto* and *de se*. *Philosophical Review*, 1979, vol. 88, no. 4, pp. 513–543.

Lomuschio A. *Knowledge sharing among ideal agents.* PhD thesis, University of Birmingham. 1999. 170 p.

Maier E. On the roads to *de se*. *Proceedings of SALT 21*, 2011, pp. 393–412.

Parikh R. Propositions, propositional attitudes and belief revision. *Proceedings of Advances in Modal Logic 2*, 1998, pp. 381–400.

Percus O. Constraints on some other variables in syntax. *Natural Language Semantics*, 2000, vol. 8, no. 3, pp. 173–229.

Percus O. *Res-marking in belief reports.* Edited transcript of a talk given at the Workshop on Attitudinal Semantics. Keio University, 2013. 67 p.

Percus O., Sauerland U. On the LFs of attitude reports. *Proceedings of Sinn und Bedeutung 7*. Universität Konstanz, 2003, pp. 228–242.

Priest G. Some new thoughts on conditionals. In: *Proceedings of the 20th Amsterdam Colloquium.* University of Amsterdam, 2015, pp. 13–19.

Pross T. On reporting attitudes: an analysis of desire reports and their reading-establishing scenarios. In: *Proceedings of the 20th Amsterdam Colloquium.* University of Amsterdam, 2015, pp. 323–332.

Quine W. V. O. Quantifiers and propositional attitudes. *Journal of Philosophy*, 1956, vol. 53, no. 5, pp. 177–87.

Quine W. V. O. *Word and Object.* Cambridge: MIT Press, 1960. 375 p.

Quine W. V. O. Intensions revisited. *Midwest Studies in Philosophy*, 1977, vol. 2, no. 1, pp. 5–11.

van Rooy R., Zimmermann T. E. An externalist account of Intentional Identity. *Proceedings of the Konstanz Workshop "Reference and Anaphoric Relations"*, 1996, pp. 123–136.

Russell B. On denoting. *Mind*, 1905, vol. 14, no. 56, pp. 479–493.

Russell B. Knowledge by acquaintance and knowledge by description. *Proceedings of the Aristotelian Society*, 1910–1911, vol. 11, 108–128.

Sæbø K. J. Lessons from descriptive indexicals. *Mind*, 2015, vol. 124, no. 496, pp. 1111–1161.

Salmon N. Being of two minds: belief with doubt. *Noûs*, 1995, vol. 29, no. 1, pp. 1–20.

Salmon N. Is *de re* belief reducible to *de dicto*? *Canadian Journal of Philosophy*, 1997, vol. 27, no. sup. 1, pp. 85–110.

Santorio P. Descriptions as variables. *Philosophical Studies*, 2013, vol. 164, no. 1, pp. 41–59.

Santorio P. On the plurality of indices. Draft paper, 2014. [http://paolosantorio.net/opi.draft3b.pdf, accessed on 15.08.2016]

Schwager M. Speaking of qualities. *Proceedings of SALT 19*, 2009, pp. 395–412.

Stalnaker R. Assertion. *Syntax and Semantics*, 1978, vol. 9, pp. 315–332.

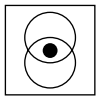
Szabó Z. G. Specific, yet opaque. In: *Logic, Language and Meaning: 17th Amsterdam Colloquium, Amsterdam, the Netherlands, December 16–18, 2009, Revised Selected Papers.* Springer, 2010, pp. 32–41.

Szabó Z. G. Bare quantifiers. *Philosophical Review*, 2011, vol. 120, no. 2, pp. 247–283.

Sudo Y. On *de re* predicates. *Proceedings of WCCFL 31.* Cascadilla Proceedings Project, 2014, pp. 447–456.

Tiskin D. *Specific opaque readings and proportional determiners.* Semantics Archive draft, 2014. 45 p.

Tiskin D. Locating hidden quantifiers in *de re* reports. *Proceedings of the 20th Amsterdam Colloquium.* University of Amsterdam, 2015, pp. 398–407.



Tiskin D. Transparent readings and privileged worlds. To appear in: *Logical Investigations*, 2016. vol. 22, no. 2, pp. 16–30.

Yalcin S. Quantifying in from the Fregean perspective. *Philosophical Review*, 2015, vol. 124, no. 2, pp. 207–253.

Yanovich I. The problem of counterfactual *de re* attitudes. *Proceedings of SALT 21*, 2011, pp. 56–75.

Yanovich I. *Is* de re *without syntax feasible?* Talk given at Utrecht University, 2014. 30 p.