DESIRES, SCOPE AND TENSE

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I want to discuss a certain argument for the claim that definite descriptions are ambiguous between a Russellian quantificational interpretation and a predicational interpretation. The argument is found in James McCawley's (1981) book Everything Linguists Have Always Wanted to Know about Logic (but were ashamed to ask). The argument has also been resuscitated by Richard Larson and Gabriel Segal in their more recent (1995) book Knowledge of Meaning. If successful, the argument would not only show that descriptions have both quantificational and predicational interpretations, but would also provide confirmation for the commonly held view that the verb 'to be' is ambiguous in its interpretation—that it sometimes expresses the "is' of identity" and sometimes the "is' of predication." But the argument is not successful; it contains an obvious flaw. What's interesting is that when you try to correct the flaw, certain puzzles arise about the nature of propositional attitudes and the semantics of their ascriptions.

1 The Argument

McCawley's argument for the ambiguity of definite descriptions is based on an alleged contrast between two sorts of desire ascription.

- (1) Harry wants to meet the mayor of Kenai.
- (2) Harry wants to be the mayor of Kenai.

In outline, the argument is this: sentence (1) is two-ways ambiguous while sentence (2) is three-ways ambiguous; the two-way ambiguity of (1) is easily accounted for by Russellians as a scope ambiguity, but the three-way ambiguity of (2) cannot be accounted for simply as a scope ambiguity; instead, to capture the three readings of (2), the definite description must be alternately interpreted

(i) as a quantified noun phrase taking wide scope, (ii) as a quantified noun phrase taking narrow scope, and (iii) as a predicate.

The argument begins with a standard spiel. Sentence (1) is two-ways ambiguous since it may be used to attribute to Harry a *de re* desire to meet the mayor of Kenai, "that very person," whom Harry may or may not know to be mayor; and it may be used to attribute to Harry a *de dicto* desire to meet the mayor of Kenai, a desire to meet the mayor "whoever that individual may turn out to be." According to contemporary Russellians, definite descriptions are quantified noun phrases.³ At the level of surface grammatical form a definite description occurs in a position occupiable by a singular term, while at the level of logical form we find that it has "moved" out of its surface position to adjoin to some sentence or clause containing it as a constituent, leaving behind a bound variable, as illustrated by the pair in (3):

- (3) a. George knows the author of Waverley,
 - b. [the author of Waverley] \hat{x} George knows x, (The author of Waverley is an x such that George knows x).

Scope ambiguities can arise for definite descriptions, and quantified noun phrases more generally, when there is more than one sentence or clause available for the description to adjoin to. Sentences containing propositional attitude verbs that take a 'that'-clause complement straightforwardly provide for such ambiguity:

- (4) a. Ralph believes that someone is a spy,
 - b. [someone] \hat{x} Ralph believes that x is a spy,
 - c. Ralph believes that [someone] \hat{x} x is a spy.

As Quine (1956) puts it, [4b] attributes to Ralph a "relational" belief in spies—Ralph's belief relates him to a particular individual whom he believes to be a spy; while (4c) attributes to Ralph a "notional" belief in spies—a belief that the world is not spy-less. Sentences like (1), which contain propositional attitude verbs that appear to take not a sentence but an infinitival verb phrase as complement, provide for such ambiguity only slightly less straightforwardly. The complement of 'wants' in (1) is arguably a full clause with an unpronounced subject with the same reference as the subject of the main clause, as made explicit in (5). This provides the needed extra adjunction site for a scope ambiguity.

- (5) a. Harry wants Harry to meet the mayor of Kenai.
 - b. [the mayor of Kenai] \hat{x} Harry wants Harry to meet x.
 - c. Harry wants [the mayor of Kenai] \hat{x} Harry to meet x.

The *de re* desire is attributed by the wide-scope disambiguation (5b), while the *de dicto* desire is attributed by the narrow-scope disambiguation, (5c).

Turn now to sentence (2), 'Harry wants to be the mayor of Kenai'. This sentence, the argument goes, is three-ways ambiguous while its 'meet' counterpart, sentence (1), was only two-ways ambiguous. On two of the three readings, the sentence is taken to ascribe to Harry a desire to change his identity. On one of these readings, the sentence ascribes to Harry a de re desire to change his identity: the mayor of Kenai is such that Harry wants to be identical to him, "that very person," whom Harry may or may not know to be mayor. On the other of these two readings, the sentence ascribes to Harry a de dicto desire to change identity: Harry wants to be identical to the mayor of Kenai, "whoever that person may turn out to be." And then there is a third reading of the sentence—the most natural reading of the sentence—which ascribes to Harry a less fanciful sort of desire, a desire to change his job—a desire to become mayor of Kenai, to hold that office. (Throughout, I presume that Harry is not in fact the mayor of Kenai.)

Now, claim McCawley and Larson and Segal, the Russellian can handle only those readings of the sentence that ascribe to Harry a desire to change identity, by providing a treatment that is parallel to the treatment of sentence (1) already considered:

- (6) a. Harry wants Harry to be the mayor of Kenai,
 - b. [the mayor of Kenai] \hat{x} Harry wants Harry = x,
 - c. Harry wants [the mayor of Kenai] \hat{x} Harry = x.

To capture the *de re* desire to change identity, the Russellian lets the description move out of its argument position to take wide scope with respect to the attitude verb, as represented in (6b); while to capture the *de dicto* desire to change identity, the Russellian lets the description move out of its argument position to take narrow scope with respect to the attitude verb, as represented in (6c).

But how, ask McCawley and Larson and Segal is the Russellian to account for the natural reading of the sentence, the reading that ascribes to Harry the plain desire to have a certain job? For on the Russellian view an *n*-way scope ambiguity can arise only when there are at least *n* clauses for a description to adjoin to. But with sentence (6a) there are only two such clauses: (i) the main clause and (ii) the embedded clause that is the complement of the attitude verb. It seems, then, that on the Russellian view, there is no way to capture the third reading of the sentence since there is no third logical form available.

An important thing to note is that in the logical forms (6b) and (6c), the verb 'be' is getting represented by the identity sign—'be' is being treated as a relation expression, the 'is' of identity. There is a reason for this. On the Russellian view, the position occupied by a description at the level of surface grammatical form is occupied by an individual-level variable at the level of logical form. That position, therefore, must be an argument position of some predicate or relation expression. Thus, the verb 'to be' when complemented by a description, cannot be the 'is' of predication (as in 'Harry wants to be tall').

since this is not a relation expression; instead it must be the 'is' of identity. This holds in fact for the Russellian view of indefinite descriptions as well. Although the 'to be' verb in the sentence 'Scott is human' is the 'is' of predication, the 'to be' verb in 'Scott is a man' is on the Russellian view the 'is' of identity.

At this point, McCawley and Larson and Segal propose that the missing reading be captured by letting the description also take a predicational interpretation (as indicated by the use of curly braces as opposed to square brackets), in which case the description can remain, as they say, *in situ* as the complement of the 'to be' verb, now interpreted as the semantically vacuous 'is' of predication.

(6) d. Harry wants Harry to be {the mayor of Kenai}.

To say that the description here is being interpreted as a predicate expression rather than as a quantified noun phrase, is to say that it is being interpreted as having a predicate-type semantic value, which for concreteness I'll here take to be the predicate's extension—a set of individuals. In order to understand what truth conditions are being associated with the logical form (6d), we still need to say what set that is. There is more than one option, but if we follow Russell in thinking that definite descriptions semantically involve a uniqueness condition, then we say that a predicate definite description 'the F' is true of an individual just in case F is true of that individual and of nothing else. This is exactly what McCawley and Larson and Segal do. Thus the extension of the predicate description 'the F' is just the extension of F if that is a singleton set, and is the empty set otherwise. The embedded clause of (6c) is true on this proposal just in case Harry is mayor of Kenai and no-one else is, which does seem to capture the content of Harry's plain desire to change jobs.

So that's the argument. Just to recap: the claim is that sentence (2) is three-ways ambiguous, but that the Russellian account allows only for a two-way ambiguity. In order to account for the third, most natural reading of the sentence, a predicational interpretation for descriptions must be admitted.

2 The Problem with the Argument

We are taking it that a predicate description 'the F' has as its semantic value the extension of F if that is a singleton set and the empty set otherwise. We have not yet been similarly explicit about the semantics of definite descriptions on the Russellian proposal that they are quantified noun phrases. For concreteness, I will here assume that a quantified noun phrase has as its semantic value a generalized quantifier—a set of sets of individuals. For example, on the generalized quantifier approach, we may say that the quantified noun phrase 'every man' has as its semantic value the set of those sets of individuals that have every man as a member. Then (7) is true just in case the extension of the predicate abstract ' \hat{x} Josh knows x' is a member of that set, x in other words, if the set of

individuals that Josh knows is among those sets that contain every man as member.

(7) a. Josh knows every man.b. [every man] x Josh knows x.

From this perspective, to be a Russellian is to hold that the semantic value of a definite description 'the F' is the set of those sets of individuals that contain exactly one member of the extension of F, and also every member of the extension of F. In particular, the semantic value of 'the mayor of Kenai' would be the set of those sets of individuals that contain exactly one mayor of Kenai and also every mayor of Kenai. So (5b) is true just in case the extension of the predicate abstract ' \hat{x} Harry wants Harry to meet x' is a member of that set, equivalently, if exactly one mayor of Kenai is among those individuals whom Harry wants to meet, and every mayor of Kenai is among those individuals whom Harry wants to meet. Similarly, (5c) is true just in case Harry wants it to be that exactly one mayor of Kenai and also every mayor of Kenai is among those individuals whom Harry meets.

Now let's turn to what I take to be an incontrovertible problem with the McCawley-Larson-Segal argument. It concerns the logical forms (6c) and (6d) that they offer to capture two of the different readings of the sentence 'Harry wants to be the mayor of Kenai'. The problem is that the embedded clauses in (6c) and (6d) have been assigned the same truth conditions.

- (6) c. Harry wants [the mayor of Kenai] \hat{x} Harry = x.
 - d. Harry wants Harry to be {the mayor of Kenai}.

In general, you can't be identical to something that has a property without having that property yourself; and you can't have a property without being identical to something (namely yourself) that has that property. In our case in particular, there is just a straightforward mutual implication between being identical to something that has the property of uniquely being mayor, and just having that property yourself. How then are the two logical forms represented by (6c) and (6d) supposed to represent ascriptions of the very different desires which we've been calling the de dicto desire to change identity and the plain desire to change jobs? Given the straightforward equivalence of the embedded clauses, the wholes should be equivalent as well. Note that it is not merely that the embedded clauses here are metaphysically necessarily equivalent, as is the case (some think) when we have intersubstitution of coreferring names, or when we have metaphysically necessary truths such as true mathematical claims. The embedded clauses here are logically equivalent. They also seem to be equivalent in some stronger sense that I won't attempt to formulate precisely, in that in addition to being logically equivalent, they also have the same subject matter. While McCawley and Larson and Segal briefly allude to this equivalence, they do not acknowledge its damaging significance for their argument.

Still, one could insist that despite the equivalence of the embedded clauses in (6c) and (6d), the wholes are *not* equivalent. In fact, to be fair to Larson and Segal, I should mention that they do affirm an extremely fine-grained conception of propositions. On their view, propositions are "interpreted logical forms," syntactic structures with semantic values tacked onto them. ¹⁰ For a sentence 'Harry wants S' to be true, it must be that Harry bears the propositional attitude of wanting to the interpreted logical form associated with S. The view is designed in part to account for substitution puzzles: how it could be right to say that Lois wants to marry Superman yet wrong to say that Lois wants to marry Clark Kent given that Clark Kent and Superman are the same person. Since 'Lois to marry Superman' contains the name 'Superman' while 'Lois to marry Clark Kent' does not, the two clauses are not associated with the same "ILF," which allows for the possibility that it's right to say that Lois wants to marry Superman because that's *true*, while wrong to say that Lois wants to marry Clark because that's *not* true.

So despite the equivalence of truth conditions of the embedded clauses in (6c) and (6d), the wholes need not be equivalent on Larson and Segal's view, since one ascribes an attitude borne to one ILF, the other to another. But the problem of capturing the different readings they claim for sentence (2) cannot be solved that easily. For we still want to know why it should be that the proposition represented by the embedded clause in (6c) corresponds to a change in identity while the proposition represented by the embedded clause in (6d) corresponds to a mere change in job. The difference between the clauses embedded in (6c) and (6d) seems more like the difference between an active-voice sentence and its passive counterpart than like the difference between sentences involved in substitution puzzles.

With a little effort, I suppose, we can imagine that Harry is someone who has a strange interest in bearing relations (any relation will do) to holders of government offices. Among other things, bearing the identity relation to some holder of a government office is something Harry finds appealing. We can imagine him saying, "Look, it would be great to be mayor of Kenai, but I'd be really happy also to be identical to the mayor of Kenai. Having the property is something that interests me for its own sake, but to the extent that having the property furthers my interest in bearing a relation to something with a property of that kind, so much the better." An ILF theorist might conceivably say that (6c) attributes to Harry this strange combination of desires while (6d) does not. But that is not what's needed. The desire to be identical in the future to someone (namely, oneself) who is mayor at that time is very different from what we've been calling the *de dicto* desire to change identity—different, that is, from the desire to be identical in the future to someone currently distinct from oneself, the person (whoever it is) who is mayor now. Given this, I'll take it that any appeal to extremely fine-grained propositions here is just beside the point. So in dealing with the present problem we might as well assume some more coarse-grained view of propositions, on which the embedded clauses in (6c) and (6d) stand for just the same proposition, so that the wholes do as well.¹¹

The interesting puzzle we're now faced with, which I want to discuss for the remainder of the paper, is: how then are we to account for the datum we started with, which might now be suspect, namely, that sentence (2) is three-ways ambiguous?

3 The Solution to the Puzzle?

A solution to what has now become the McCawley-Larson-Segal puzzle is forthcoming, I think, if we pay more careful attention to the way tense is involved in the desires being attributed to Harry on the three readings claimed for sentence (2). Even if the solution I propose is not correct, reflection on it will show at the very least that the Russellian need not accept that (1) and (2) differ with respect to how many disambiguations they have. Ultimately, I do doubt the correctness of the solution, and in the final section of the paper I'll explain why I'm suspicious of the ambiguity claims that generated the puzzle in the first place. But first, the solution.

The leading idea is that wanting seems to involve an element of futurity. When Harry wants to be the mayor, what he wants is that the future take some specific course. If in order to capture this feature of Harry's desire we posit a future-tense operator in the scope of the desire ascription, then it will turn out that there are after all really three scope possibilities for the definite description in the sentence:

- (8) a. Harry wants FUTURE Harry to be the mayor of Kenai,
 - b. [the mayor of Kenai] \hat{x} Harry wants FUTURE Harry = x,
 - c. Harry wants [the mayor of Kenai] \hat{x} FUTURE Harry = x,
 - d. Harry wants FUTURE [the mayor of Kenai] \hat{x} Harry = x.

Moreover, these three scope possibilities seem to capture exactly the readings we want. In order to capture the reading that ascribes to Harry the *de re* desire to change identity, we let the description take widest scope as in (8b) to get: The mayor of Kenai is such that Harry wants that in the future he be identical to him. In order to capture the reading which ascribes to Harry the *de dicto* desire to change identity, we let the description take intermediate scope as in (8c) to get: Harry wants that the mayor of Kenai be such that in the future he (Harry) is identical to him. In order to capture the reading which ascribes to Harry the plain desire to change jobs, we let the description take narrowest scope as in (8d) to get: Harry wants that in the future, the mayor of Kenai be such that he (Harry) is identical to him—in other words, that in the future he be mayor.

Note that corresponding to each of the three scope disambiguations in (8) is a parallel disambiguation for sentence (1), 'Harry wants to meet the mayor', to which the Russellian who posits a future tense operator is now committed:

- (9) a. Harry wants FUTURE Harry to meet the mayor of Kenai,
 - b. [the mayor of Kenai] \hat{x} Harry wants FUTURE Harry to meet x,
 - c. Harry wants [the mayor of Kenai] \hat{x} FUTURE Harry to meet x,
 - d. Harry wants FUTURE [the mayor of Kenai] \hat{x} Harry to meet x.

(9b) attributes to Harry a *de re* desire to meet in the future the current mayor of Kenai, that very individual; (9c) attributes to Harry a desire to meet in the future the current mayor of Kenai, whoever that may turn out to be; while (9d) attributes to Harry a desire to meet in the future the person who is mayor of Kenai at the time of the meeting. Any considerations in favor of a three-way ambiguity for sentence (2) are equally considerations in favor of such an ambiguity for sentence (1).

It is mysterious, though, what the source of the posited future tense operator could be. It cannot be the main verb 'wants', since that is in the present tense, indicating that the desire ascribed to Harry is one that he has now. But it also cannot be the verb of the embedded clause, since that is in the infinitive, and the distinctive feature of infinitive verb forms is that they are tenseless.

It may be that the source is some connection between tense and aspect. We can use progressive or perfective infinitives to indicate whether it is the process or the culmination of an event that's of special interest to Harry.

- (10) a. Harry wants to be meeting the mayor of Kenai.
 - b. Harry wants to have met the mayor of Kenai.
- (11) a. Harry wants to be building a house.
 - b. Harry wants to have built a house.

For reasons that are not entirely clear to me, only these aspectually marked forms can be readily interpreted as attributing to Harry a present-directed want as opposed to a future-directed one. Harold Hodes and Jay Wallace have emphasized to me that these present-directed wants are probably better thought of as wishes or hopes than as *desires*. For example, think of (10a) as being uttered in either of the following situations: (i) Harry is being introduced to the mayor of New York City, while furtively looking around the room for someone higher up on his PEOPLE I WANT TO MEET list; (ii) Harry is at a party where every guest is a mayor of some U.S. city, and is currently being introduced to someone named 'John'. We might say that an utterance of (10a) in situation (i) attributes to Harry a present-directed wish, he wishes he were now meeting the mayor of Kenai instead of the mayor of New York City; while an utterance of (10a) in situation (ii) attributes to Harry a presented-directed hope, he hopes that the person he is in fact now meeting is the mayor of Kenai.

In contrast, the aspectually unmarked forms 'Harry wants to meet the mayor of Kenai' and 'Harry wants to build a house' can be naturally interpreted only as attributing to Harry a future-directed want. But special interests in processes or culminations of events can be future-directed as well:

(12) a. Harry wants to be meeting the mayor of Kenai this time next week, b. Harry wants to have built a house by 2010.

So even though the aspectually marked infinitives are not themselves tensed, there does seem to be some connection between aspect and tense which could be appealed to as the source of a hidden future tense operator for sentences (1) and (2).

On the other hand, it may be that there is no independent motivation for positing a future tense operator in aspectually unmarked infinitival clauses that are embedded in propositional attitude constructions. I would take that as reason to hunt for another solution. The important point for our discussion here is that in considering this solution we have revealed that the Russellian need not accept the initial contrast claimed to hold between sentence (1) and (2). In the abstract, we have distinguished three desires Harry might have: (i) a de re desire to bear, in the future, relation R to the person who is mayor of Kenai when the desire is attributed, (ii) a de dicto desire to bear, in the future, relation R to the person who is mayor when the desire is attributed, and (iii) a de dicto desire to bear, in the future, relation R to the person who is mayor of Kenai when the desire is satisfied. If anything, the claim that these are three distinct desires is less controversial when R is the meeting relation than when it is the identity relation. No reason has been given for thinking that the 'be' sentence does, but that the 'meet' sentence does not, have a disambiguation corresponding to each of the three associated desires.

4 A Problem with the Solution?

I want in this section to incite a bit of doubt that the so-called desires to change identity that we have been discussing really are adequately captured by giving the 'to be' verb an identity interpretation. In particular, I want to suggest that it is not as obvious as I made it out to be in the previous section that (8c) does actually attribute to Harry a *de dicto* desire to be someone other than himself—the mayor of Kenai, whoever that turns out to be.

One point is that identity is a symmetric relation. Yet when I fantasize about being Marlene Dietrich, say, or Hank Aaron, no symmetric relation is involved in my fantasy. The thought of Marlene being *me* would not be nearly as enjoyable to entertain as the reverse thought would be, if I could entertain it. But I'm not even sure that I can entertain it. (What it seems that I'm imagining when I imagine being Hank Aaron is not a change in identity, but rather a radical change in my qualities. I imagine myself looking such and such a way,

and wearing such and such a uniform, and feeling the power in my swing as I break Babe Ruth's home-run record. To imagine myself being Hank Aaron is not to imagine a change in identity, but to imagine myself having certain of his more well-known qualities. Here's a speculative thought: When I have a fantasy with the content I'd convey to you by saying: "In my imagination, I am Hank Aaron," the 'to be' verb here, even though flanked by a name and an indexical, is still the 'is' of predication, not of identity; the name 'Hank Aaron' in its complement position is a predicate expression, not a referring expression; and while in normal cases this name would be the predicate that's necessarily true of Hank Aaron and no-one else, in this special case, like when we say "He's a real Machiavelli," it's a predicate true of things that have certain of Aaron's salient qualities.)

A second point is that identity and distinctness are, necessarily, permanent relations. It is not possible to be distinct, or identical, to something at one time, yet not so at a later time. With this point in mind, reconsider the logical form (8c) which on my proposed solution was supposed to represent Harry's *de dicto* desire to change identity.

(8) c. Harry wants [the mayor of Kenai] \hat{x} FUTURE Harry = x.

Let us assume for now—although I'll question this assumption in what follows—that (8c) is true at a time t just in case Harry has a want at t whose content is the proposition expressed at t by the embedded clause '[the mayor of Kenai] \hat{x} FUTURE Harry = x'. This proposition is true at a possible world w just in case in w, Harry is identical at some time after t to the person who in w is mayor of Kenai at t. Given that distinctness is permanent, as a matter of necessity, this proposition is true at a possible world w just in case Harry is mayor of Kenai at t in w (and is also, perhaps we should add, still around to be self-identical at some time after t). How then are we to distinguish (8c) from an ascription to Harry of a future-directed want to have been mayor of Kenai at a certain time, namely, now? The general form of the problem is that if Harry wants a change in identity, then he wants something impossible; but the embedded clause in (8c) does not stand for an impossible proposition.

It will at this point occur to many philosophers of language that we can fix the solution by "rigidifying" the definite description in (8c), by means of some device such as the modal adjective 'actual':

(13) Harry wants [the ACTUAL mayor of Kenai] \hat{x} FUTURE Harry = x.

Does the fix work? Let now be time t. Given that at t Williams is mayor of Kenai in the actual world, Williams is the actual mayor of Kenai at t in every possible world. So the embedded clause '[the ACTUAL mayor of Kenai] \hat{x} FUTURE Harry = x' is true at a world w at time t just in case Harry is in w identical to Williams at some time after t. So the desire attributed to Harry in

(13), on the fixed solution, is a desire that has the same satisfaction conditions as the *de re* desire to change identity. But the so-called *de dicto* desire to change identity was not supposed to be as object-dependent as that. Rather, I take it, this was to be a desire that would be satisfied at a world w just in case Harry is identical after t, in w, to whoever was at t mayor of Kenai in w.

But wait. In the last sentence of the preceding paragraph, I merely repeated the satisfaction conditions of the desire ascribed by the repudiated (8c)—a desire whose satisfaction, as we've already discussed, would require nothing so fanciful as a change in identity, but merely that Harry himself have been mayor at t. It is now starting to seem that we cannot even state the satisfaction conditions of Harry's de dicto desire to change identity without collapsing the distinction between the de dicto desire to change identity and either the de re desire to change identity or a plain desire (or wish, or hope) to have had a certain job.

Perhaps the collapse can be avoided. We might introduce, in addition to all the possible worlds, some impossible worlds—allowing for there to be worlds in which, per impossibile, identities and distinctnesses are sometimes temporary. The move allows us to say that it suffices for the distinctness of two desires that they are not satisfied at just the same worlds, even if they are satisfied at just the same possible worlds. Williams is actually the mayor of Kenai in 2003. No-one other than Williams is actually the mayor of Kenai in 2003. Williams, Jones and Harry are actually pairwise distinct. Now consider an impossible world in which Jones alone is mayor of Kenai in 2003. Harry is distinct from Jones in 2003, but becomes identical to him in 2010. In 2010, Kenai no longer has a mayor at all. Williams is out of the picture—he lives in California, has never held a public office, and has never been and never will be identical to either Harry or Jones. Now this, I take it, is the sort of situation envisioned to be one in which Harry's de dicto desire to be identical to the mayor of Kenai is satisfied, while neither his de re desire to be identical to the (actual) mayor nor his plain desire to hold or have held the office of mayor is satisfied. Evidently, Leibniz' Law does not hold in the year 2010 in this impossible world—since in 2010 Jones has, but Harry lacks, the property of having been mayor in 2003. 12 So one might question whether the relation Harry bears to Jones in 2010 can in any sense be thought of as the identity relation. (Calling it "identity" doesn't make it identity.) The incautious Russellian who, unfazed by that worry, distinguishes desire contents in this way—by reference to their satisfaction conditions not just in possible worlds but in impossible worlds as well can thus block the objection from permanence of distinctness, and maintain the future tense-operator solution to our puzzle in its original, pre-fix form.

5 Some problems with the Puzzle

We noted, on behalf of the Russellian, that McCawley and Larson and Segal are wrong in claiming there to be an asymmetry between (1) and (2) with respect to the number of disambiguations they have. If we can distinguish a

relational desire to be the current mayor of Kenai from a notional desire to be the current mayor of Kenai, then we can distinguish a relational desire to meet the current mayor of Kenai from a notional desire to meet the current mayor of Kenai. And of course, just as we can make sense of Harry's desiring to be in the future the person who is at that time mayor of Kenai, we can make sense of his desiring to *meet* in the future the person who is at that time mayor of Kenai. We have no reason to think that the three desires each correspond to a disambiguation in the case of the 'be' sentence but not in the case of the 'meet' sentence. If anything, our difficulty in saying exactly what the de dicto desire to change identity amounts to points to the reverse. In the case of the 'meet' sentence, the Russellian can account for the three-way ambiguity as a scope ambiguity given a hidden future tense operator. But not so in the case of the 'be' sentence, due to a distinctive feature of the identity relation, namely, the necessary permanence of it and its negation. The puzzle we've been addressing is the puzzle of finding some way of accounting for the three-way ambiguity in the case of the 'be' sentence. I now want to question whether the ambiguity claims generating the puzzle are justified.

We can distinguish three progressively steep components of an ambiguity claim for a desire ascription S to agent A.

- I. Desires $d_1...d_n$ are distinct desires.
- II. A's having any of desires $d_1...d_n$ would suffice to verify ascription S.
- III. For each desire $d_1...d_n$, there is a disambiguation of ascription S which is true if and only if A has that desire, regardless of whether he has any of the other desires.

I am most concerned to criticize the leap frequently made from grade II to grade III. But in the case of our puzzling desire ascription to Harry, it may be that a mistake was made already at the first grade.

What is the distinction between a *de re* attitude and a *de dicto* attitude? On one standard usage, a *de re* attitude is an attitude towards an individual, while a *de dicto* attitude is an attitude towards a proposition. Given Russellian propositional functions that map an individual to a "singular" proposition concerning that individual, independently of how that individual is conceived or described—*de re* attitudes can be recast as a special kind of propositional attitude, an attitude towards a singular proposition. Put this way, it seems as if you must have some intimate acquaintance with a thing before you could have a *de re* attitude concerning it; for if you can pick out an individual only by description, how could you bear an attitude to a proposition concerning that individual whose content is insensitive to the ways the individual might be described? But surely there is not a general principle here. I can pick out the tallest man in the world only by means of the description I just used. But still, I bear the *shorter than* relation to that man, and my bearing this relation to him is independent of how he is described. I bear the relation to him, *that guy*, whoever he is.

When we say that Harry wants to be the mayor of Kenai or meet the mayor of Kenai whoever that individual may turn out to be, we indicate first that Harry does not know who the mayor of Kenai is and second that the desire is an elastic one—his having the desire does not depend on who the mayor is. 13 Do these two things preclude the desire's being a de re one? It seems to me not. The appropriateness of adding a Donnellan-style "whoever that is," or "whoever that may turn out to be," qualification does not rule out the possibility of a de re attitude. For imagine that you've just bought a new car. You've told me lots about this make of car-I have uniquely identifying information about it in fact, even apart from the information that it's the make owned by you-and the car sounds so wonderful that I want one too. I don't, however, know what make of car it is, and for this reason, I may appropriately say that I want to own the same make of car as you, "whatever that is." But as I'm imagining the case, what I want is not that you and I own the same make of car. My bearing the owns-thesame-make-of-car relation to you is not something that interests me at all. What I want to own is a car of the make you actually just bought, whatever that make is. Your current or continued ownership of a car of this make is a matter of complete indifference to me.

(14) The make of car you own is such that I want to own it, that very make, whatever that make is.

The appropriateness of the "whatever that is" addition derives from the fact that I do not know what make of car you just bought. What's required for the truth of a knowledge-who or knowledge-what claim is notoriously context-sensitive. But typically, and in the cases at hand, knowledge-who or knowledge-what requires name-knowledge. If I know the name of the mayor of Kenai, then (defeasibly in certain contexts) I know who the mayor of Kenai is; if I know the name of the make of car you just bought, then I know what make of car you just bought (again, defeasibly). Lack of such knowledge is what renders a "whoever or whatever that is" locution appropriate. But surely it cannot be the presence or absence of knowledge of something's name that makes for the difference in the ability to have a de re attitude about that thing. To hold otherwise would be to hold what Hilary Putnam calls in Reason, Truth and History a "magical theory of reference," a theory according to which knowledge of a thing's name gives you special powers over it, in this case, the special power to have a de re attitude about it.

The appropriateness of "whoever or whatever that is" locutions depends on the truth of highly context-sensitive knowledge-who or knowledge-what claims, which in turn may depend on the presence of knowledge of highly trivial facts, such as knowledge of a thing's name, which surely cannot make or break the possibility of having a *de re* attitude. So we must not take the appropriateness of a "whoever or whatever that is" locution in an attitude ascription to signal that the attitude ascribed is not an attitude *de re*, and in particular we must not take

it that the appropriateness of the locution precludes quantifying in. In the car case I described, I have a *de re* attitude towards the make of car you just bought, though I do not know what make that is.

In the case of Harry, we cannot assume that the desire ascribed to him in saying that he wants to be or meet the mayor of Kenai, whoever that may turn out to be, cannot be the same desire as that ascribed to him in saying that he wants to be or meet the mayor of Kenai, that very person. The two cases may be alike in the content of the desire ascribed to Harry, and differ only in what he *knows* about the object of his desire.

Still, the definiteness of the description in our sentence is probably obscuring a relevant distinction. So let's consider a new sentence involving an indefinite description.

(15) Harry wants to meet a United States senator.

In the *de re* case, there's a particular senator whom Harry wants to meet. In the *de dicto* case Harry is indifferent; any senator would do. But we have already distinguished two senses in which a meeting of any senator would do. On the one hand it may be that Harry's desire is one that would be satisfied by any future meeting of a current senator, whether or not that person is a senator at the time of the meeting; on the other hand it may be that Harry's desire is one that would be satisfied by any future meeting of someone who is a senator at the time of the meeting, whether or not that person is a senator now. If this is a genuine ambiguity then the Russellian, if given the future tense operator, can account it for as a scope ambiguity as in the earlier case:

- (16) a. Harry wants FUTURE Harry to meet a U.S. senator,
 - b. [a U.S. senator] \hat{x} Harry wants FUTURE Harry to meet x,
 - c. Harry wants [a U.S. senator] \hat{x} FUTURE Harry to meet x,
 - d. Harry wants FUTURE [a U.S. senator] \hat{x} Harry to meet x.

But there is yet a third indifferent desire in the vicinity which Harry might have. It might be that Harry has what Vann McGee and Agustín Rayo (2000) have called an attitude *de rebus*, where an attitude *de rebus* is like an attitude *de re*, except that it concerns a plurality rather than an individual. According to McGee and Rayo there is a *de rebus* reading of the sentence 'Ralph believes there are critics who admire only one another', according to which there are some critics of whom Ralph believes that they admire only one another. ¹⁴ Similarly in our case, it may be there there is a group of one-hundred people, all U.S. senators, and that Harry has a desire, with respect to the group, that he meet at least one of them, he does not care which. How are we to account for this reading of sentence (15)? Unlike McGee and Rayo's sentence, ours contains a singular rather than a plural indefinite. Consequently, if we let the indefinite description take wide scope with respect to the attitude verb, as in (16b), the

desire ascribed is no longer an indifferent one. But if we let the indefinite description take intermediate scope, even while helping ourselves to the 'actual' adjective, we do not get the desired result.

(17) Harry wants [an ACTUAL U.S. senator] \hat{x} FUTURE Harry to meet x,

Perhaps we have here yet another (a fifth!) reading of sentence (15), but it is not the *de rebus* one. For *senator-hood* is not part of the content of Harry's *de rebus* desire. Imagine that Harry regularly goes to a club, where he is fairly well known, but where there are one-hundred people that he sees all the time, but to whom he simply cannot get an introduction. He has no idea what these people do or why they are so difficult to meet, and is maddened by the situation. He feels no need to meet all of these people, mind you. But if only he could just meet one of them... Now I, who know these people to be the one-hundred U.S. senators, report Harry's desire to you with an utterance of (15).

Must we now find some distinct logical form to associate with sentence (15) in order to capture the *de rebus* reading of the sentence? And must we accept, in the case of (1) or (2), that if Harry's having any of desires d_1 , d_2 or d_3 would suffice to verify the sentence, then for each of these three desires we must accommodate a disambiguation of the sentence? The push to this sort of requirement involves a slide from grade II to grade III of ambiguity involvement. But why should there be a one-one correspondence between the desires which, if the relevant agent had them, would verify an attitude ascription and the disambiguations of that ascription? There is not in general a one-one correspondence between the states of affairs which would verify a given sentence and the disambiguations of that sentence. There is no reading of the sentence 'Ina is taller than Mara' that is true if Ina is one inch taller than Mara, but false if she is two inches taller.

Consider even Quine's simple example involving Ralph. Certainly there are both the relational and notional senses of believing in spies that Quine describes, and as Quine points out there are unambiguous English sentences to express them: "There is someone whom Ralph believes to be a spy," and "Ralph believes that there are spies." What is less certain is that (4a) itself may be used to express either. In particular, it is not at all clear that there is a reading of (4a) that is false if Ralph has only the notional belief. I might say, "It's not true that Ralph believes that someone is a spy." By a principle of charity you should interpret my utterance as true if possible (subject to qualifications we won't elaborate here). But can you interpret my utterance as true if you know Ralph to have the notional but not the relational belief? I don't think so. If Ralph notionally believes in spies, then my utterance is false. There is no "reading" of my utterance with these truth conditions: $\neg \exists x$ (Ralph believes that x is a spy). At least some caution about unnecessarily multiplying scope ambiguities is warranted here since the scope of quantified noun phrases is not always completely free. Relative clauses, for example, seem to be scope islands. 'Ralph knows someone who loves everyone' cannot mean that everyone is such that Ralph knows someone who loves that person. Sentential conjunction also seems to create scope islands. My favorite example is this:

(18) Many professors are quitting smoking and no student is starting.

This cannot mean that no student is an x such that: many professors are quitting smoking and x is starting smoking. For if it could, then (18) could be true in the situation where all professors are gung ho smokers with no intention of quitting and all students are avidly taking up the habit. Quine himself only tentatively attributes both the relational and notional readings to (4a). He writes, "Both may *perhaps* be ambiguously phrased as 'Ralph believes that someone is a spy'," (emphasis added).

There is a principle that underwrites the slide from grade II to grade III, and which is therefore largely responsible for generating the puzzles over missing logical forms. The principle requires that the clause embedded in a propositional attitude ascription at the level of logical form specifies exactly the content of the attitude ascribed. Following Kent Bach (1997) we can call this the "specification principle." The specification principle is closely related to but distinct from what often gets called the relational analysis of attitude ascriptions. According to the relational analysis of attitude ascriptions, an attitude ascription is true on a disambiguation just in case the subject of the ascription bears the relevant relation—belief, desire, etc.—to the proposition expressed (or denoted, or as some even say, referred to) by the embedded clause in the logical form of that disambiguation.

My statements of the specification principle and the relational analysis are not completely accurate for logical forms involving quantifying in. But rather than attempt improvement, I'll illustrate their application by applying them to what would standardly be thought of as the two logical forms associated with sentence (15):

(19) a. [a U.S. senator] \hat{x} Harry wants Harry to meet x, b. Harry wants [a U.S. senator] \hat{x} Harry to meet x.

We will need to assume there to be a propositional function h that maps each individual to the proposition that Harry meets that individual. According to the relational analysis, (19a) is true just in case some U.S. senator is an x such that Harry bears the *desire* relation to the proposition h(x), while (19b) is true just case Harry bears the *desire* relation to the proposition that some U.S. senator is an x such that Harry meets x. According to the specification principle, (19a) is true just in case at least one U.S. senator is an x such that Harry has a desire with h(x) as its content, while (19b) is true just case Ralph has a desire with the content that some U.S. senator be an x such that Harry meets x.

The specification principle dictates that if Harry's having a desire with the content that in the future he meet some current senator would suffice to verify (15), then (15) must be associated with a logical form that has an embedded clause specifying that content; and it dictates also that if Harry's having a desire with the content that in the future he meet some person who is senator at that time, then (15) must be associated with a different logical form that has an embedded clause specifying *that* content. It is true that in the case of existential quantification in—as with (19a)—the specification principle allows for a single logical form to be verified by Harry's having any one of a number of *de re* desires from a certain class. But in general, the specification principle requires that logical forms—and hence disambiguations—be sufficiently multiplied to accommodate the many distinct desires that we have been admitting as verifying desires for the ascriptions under discussion.

Should we accept the specification principle? I want to close by considering two sorts of examples which suggest that we should not. The first set of examples involves ascriptions of desires and related attitudes in which the clause embedded in the ascription stands for a proposition that is more general than what is wanted, hoped or wished for by the agent.

- (20) a. David wants to catch a fish.
 - b. Max hopes to get a pet for Christmas.
 - c. Will wishes he were somewhere warmer.

It may be that for each of these cases there is a wide-scope or specific reading for the embedded indefinite or existential. It may be (though I am skeptical) that there is a reading of (20a), for example, that is true just in case David has some relational desire to catch a fish. As before, I am skeptical that there is any disambiguation of (20a) that is *false* if David is in the more normal situation of having only the notional desire. But let us just focus on the narrow-scope or non-specific readings of these sentences. I take it that (on the narrow-scope or non-specific reading) (20a) can be true even if David has no desire that is satisfied if he catches a scrawny and diseased guppy; that (20b) can be true even if Max has no hope which is satisfied if he gets a pet flea for Christmas; and that (20c) can be true even if Will has no wish which would be satisfied (fulfilled) if he were in the middle of the desert in July under a blazing sun at noon (Will has never in fact been anywhere as hot as that).

I accept the following principle for desires, hopes and wishes:

Content-Satisfaction Principle: If one has a desire/hope/wish with the exact content that P, then one has a desire/hope/wish which is satisfied in any possible world in which it is true that P.

From this principle together with the preceding considerations it follows that (20a) can be true even if David does not have a desire with the exact

content that he catch a fish, that (20b) can be true even if Max does not have a hope with the exact content that he get a pet for Christmas, and that (20c) can be true even if Will does not have a wish with the exact content that he be somewhere warmer (than the place he is in now). This is all in direct conflict with the specification principle. So how might a proponent of the specification principle respond?

Response I.

If David, Max and Will are picky about the fish, pets, or climes that will satisfy their "preferences" (just to have a neutral term), then the ascriptions in (20) simply are not true of them. We might nonetheless utter (20a), for example, in the situation where what David really wants is to catch an edible and tasty fish that's large enough for a main course, because although false, (20a) is close enough to the truth, given that David's true desire is not an unconventional one, for our conversational partner to easily identify those states of affairs we mean to be excluding, and would exclude if it didn't take so much effort to always say exactly what we mean.

In reply I would say first that I am not in the camp of those who think that it must only be a last resort to adopt a theory which has it that a significant portion of what we say is false, even when we are sincere and apprised of the relevant facts. I am not in that camp because I think we do speak falsely all the time for the sake of convenience; we say what is false but close enough to the truth for our given purposes in order to avoid the excessive wordiness that's required to be precise and to say exactly what we mean. I am inclined to think, however, that we can typically recognize ourselves as doing this when we do it, and that a false-talk theory simply seems insufficiently motivated in this case.

Response II.

A more interesting response would be to question my grounds for saying that David has no desire that is satisfied if he catches a scrawny and diseased guppy. A person's *desires* may be satisfied without that *person's* thereby being satisfied. If David wants to catch a fish, then if he catches a scrawny and diseased guppy his desire is satisfied, since a scrawny and diseased guppy is a fish. It is David, not his desire, that is not satisfied in that case.

In reply I would acknowledge that a person's desire can be satisfied without that person's being satisfied. There are at least three sorts of case when appeal to this distinction seems on the mark. One case is when one's strictly instrumental desire is satisfied without one's goal desire being satisfied. There are also two monkey's-paw sorts of case: when the satisfaction of one's desire is the effect of an unwanted cause; or when the satisfaction of one's desire is the cause of an unwanted effect. The first sort of case seems most relevant here. The idea would be that David wants to catch a fish in order to make a nice meal (or what have you), but catching a scrawny and diseased guppy does not enable him to do this. But since I am free to stipulate that what David wants is to catch a sizeable and healthy fish (whether for instrumental reasons or not),

while having no desire which is satisfied if he catches a scrawny and diseased guppy, the pertinent question is whether, if things are as I have just stipulated, it is or it is not true that David wants to catch a fish. It seems to me that it is true.

Here is a sketch of an alternative to the specification principle that accords both with my intuitions and with the Content-Satisfaction Principle: A desire (or related attitude) ascription of the form 'A wants C' is true just in case A has a desire (or hope, etc.) with proposition Q as its exact content for some Q that entails the proposition expressed by the embedded clause C. Suppose Max has a hope with the exact content that he get a pet kitten or a pet puppy for Christmas. Max's getting either a pet kitten or a pet puppy for Christmas entails that he gets a pet for Christmas. So on my alternative, (20b) is true, as desired in my judgment, even though Max does not have any hope with the exact content specified by its embedded clause. The account can be refined in a variety of ways, since there is more than one notion of entailment. The entailment involved can be more restrictive than metaphysical entailment.

Even if we give up the specification principle in favor of an alternative with the form just proposed, it is still open to us to retain the relational analysis of desire ascriptions. This is difficult to appreciate, since the specification principle and the relational analysis can be equated via a seemingly trivial biconditional: one has a belief (desire, etc.) with proposition P as its exact content just in case one bears the belief (desire, etc.) relation to the proposition P. But the belief and desire relations, I take it, are the relations that the verbs 'believes' and 'desires' stand for. So we may say that 'A believes (desires) C' is true just in case A bears the belief (desire) relation to the proposition expressed by the embedded clause C. Given my alternative to the specification principle, we must say that A bears the belief (desire) relation to the proposition expressed by C, just in case A has a belief (desire) with Q as its exact content for some Q that entails C. In other words, those who want to keep the relational analysis, perhaps on purely linguistic grounds, are free to give up the specification principle by allowing that one can bear the belief relation to a proposition without having a belief with that proposition as its exact content. This is no more problematic than adopting a convention whereby one flags a problem with an argument by hoisting a flag emblazoned with some problematic consequences of the premises or conclusion of that argument, rather than a flag emblazoned with a statement of the problem one finds with the argument.

I turn now briefly to another sort example, derived from a discussion in Kit Fine's (1975) paper "Vagueness, Truth and Logic," that strikes me as problematic for the specification principle.

(21) The Contessa believes that Don Juan has had many lovers.

As Fine puts it, the sentence could be a vague report of a precise belief, or a precise report of a vague belief. Putting a slightly different spin on the claim and

elaborating somewhat, we could say that the sentence is true if, for example, the Contessa has the "precise" belief that Don Juan has had exactly 682 lovers, since that is many lovers, whether or not the Contessa herself thinks so. But the sentence could also be true if the Contessa has the "vague" belief that Don Juan has had some or other large number of lovers. Note that neither of these cases is to be accounted for by allowing the noun phrase 'many lovers' to take wide scope. It is true that there is a non-relational sense of 'lover' (Don Juan himself is a lover in this sense), but the use of the verb 'had' (as opposed to 'met', say) signals that the embedded occurrence of 'lover' is the relational one, with its implicit argument anaphoric on the name 'Don Juan'. For this reason, we change the sense of the sentence entirely if we allow the noun phrase 'many lovers' to take wide scope: Many lovers are such that Don Juan has had them. Also, whether the Contessa has the precise belief that Don Juan has had exactly 682 lovers or the vague belief that he has had some or other large number of lovers, she may either way have no belief, of any particular individual, that Don Juan has had that person as a lover. Yet in the case where the Contessa has the "precise" belief that Don Juan has had exactly 682 lovers, although the sentence is true, the embedded that-clause need not specify the propositional content of any belief of the Contessa's: for as it happens the Contessa does not believe that 682 lovers is very many at all.

Similarly, consider the sentence (22).

(22) Harry wants to eat many bananas.

Suppose that what Harry wants is to eat exactly seventeen bananas. He positively wants not to eat more than seventeen or less than seventeen. Seventeen bananas is many bananas. So we may truly say that Harry wants to eat many bananas. (I'm imagining that there are no particular bananas such that Harry wants to eat them.) Yet if Harry miscounts and eats eighteen bananas instead of seventeen, then he has no desire which is satisfied. Yet in such a world, the embedded sentence 'Harry eats many bananas' is true. Therefore, by the Content-Satisfaction principle, Harry does not have a desire with the content that he eat many bananas, yet still, the claim that he wants to eat many bananas is a true claim. It is true because Harry has the more specific desire.

6 Conclusion

When a philosopher of language or a semanticist says that such and such a sentence has such and such a "reading," we can read what they say in two ways. On one reading of the word 'reading', a reading of a sentence is a disambiguation of it. In this sense, to say that there is a reading of the sentence 'everyone loves someone' on which 'someone' takes wide scope, is to say not only that one can utter the sentence to say something true in the situation where there is a single person loved by all, but also to say something *false* in the situation where there is

no single person loved by all, even if in that situation everyone loves someone or other. There is, it seems to me, a weaker reading of the word 'reading', on which a sentence may have more than one reading without being ambiguous at all. In the weaker sense, a sentence S may have a reading on which it (or the person who utters it) says that P, if (i) its being the case that P is one of the ways for S to be true, if in addition (ii) the circumstances in which S is uttered make it probable that if S is to be true in *this* circumstance it will be due to its being the case that P, even though its being the case that Q or R would also have sufficed to render S true, and finally if (iii) the speaker exploits this fact in order to communicate that P by saying S. The upshot is that in this way, one can communicate a proposition that is more specific than the one one literally asserts. A case like this came up in section three, concerning sentence (10a), 'Harry wants to be meeting the mayor of Kenai'. One could in saying this succeed in communicating that Harry hopes that the person he is in fact meeting is mayor of Kenai, or one could in saying this succeed in communicating that Harry wishes that he were meeting the mayor of Kenai, instead of, say, the mayor of New York City, whom he is in fact meeting. This is not to say that the sentence is ambiguous—that one could utter it to say something false in the case where Harry has the wish but not the hope. Rather it's to say that the speaker can succeed in communicating that Harry has the wish rather than the hope, if it is common knowledge to speaker and hearer that Harry knows that the person he is in fact meeting is mayor of New York City. That is because in this situation it is overwhelmingly unlikely that the sentence would get to be true in virtue of Harry's hoping to be meeting the mayor of Kenai, since it is overwhelmingly likely that Harry takes it for granted that no-one is simultaneously mayor of two cities, certainly not if one of those cities is New York City. I suspect that with many of the ambiguity claims that I've presented in reviewing the various arguments of the paper, a genuine existence of a multiplicity of readings in the weak sense was too readily admitted as a multiplicity of readings in the stronger sense.

Russell gave us an algorithm for generating different scope readings for natural language sentences. Unfortunately, we too often let our facility in applying the algorithm, rather than our facility with our language, guide our judgments about ambiguity claims. McCawley unwittingly gave us a new algorithm for generating differently tensed readings of propositional attitude ascriptions that take infinitival clauses as complements. McCawley himself applied the algorithm only to one sentence (the one involving 'be'), but it can be applied widely if anywhere. McGee and Rayo have now taught us how to identify *de rebus* readings of attitude ascriptions where we didn't see them before. In combination, the multiplicity of readings generated for a given propositional attitude ascription becomes staggering. Given the specification principle, these readings become full-fledged disambiguations, with the result that the burden on syntax to furnish us with logical forms for all these disambiguations becomes too great.

The larger goal of the paper was to incite skepticism about free-wheeling ambiguity claims. The smaller goal of the paper was to defend a view I reject

(Russell's Theory of Descriptions) from an argument for a conclusion I endorse (Descriptions are, at least sometimes, Predicates).

Notes

I thank audiences at Columbia University, the Massachusetts Institute of Technology, Syracuse University, Union College, and the University of California at Berkeley where earlier versions of this material were presented. For discussion and comments I thank Kent Bach, Cian Dorr, Michael Fara, Michael Glanzberg, Gilbert Harman, Irene Heim, John Hawthorne, Harold Hodes, Richard Holton, Christopher Kennedy, Jeffrey King, David Lewis, Peter Ludlow, Trenton Merricks, Anthony Newman, James Pryor, Susanna Siegel, Scott Soames, Robert Stalnaker, Jason Stanley, Zoltán Gendler Szabó, Jay Wallace, Timothy Williamson and Dean Zimmerman.

- 1. See Russell (1905) for Russell's theory of descriptions.
- One cannot be absolutely certain from reading Larson and Segal's text that they endorse McCawley's argument. In any case, they present the argument without criticizing it.
- 3. See Stephen Neale's (1990) *Descriptions* for the most detailed presentation and extended defense to date of Russell's theory of definite descriptions.
- 4. Quine, of course, is skeptical that any sense can be made of (4b) as written.
- 5. Another candidate relation might be the *dress up as for Halloween* relation, or in a different sentence, the constitution relation.
- 6. As does Partee (1987), who also allows definite descriptions to have either predicate-type or quantifier-type semantic values. In "Descriptions as Predicates" (2001) I defend the view that definite descriptions are to be interpreted invariably as predicates.
- 7. See Barwise & Cooper (1981).
- 8. Here I follow Heim & Kratzer (1998, ch. 7) in treating '\$\hat{x}\$ Josh knows \$x\$' as a syntactic and semantic constituent, rather than treat '[every man]\$\hat{x}\$' or its more complex variant '[every \$x\$: man \$x\$]' as an inseparable unit.
- 9. This treatment is Russellian, but it does not fully accord with Russell's own, since it allows definite descriptions to have "meaning in isolation," on at least one interpretation of that phrase.
- 10. See Larson & Segal (1995, ch. 11) and also Larson & Ludlow (1993).
- 11. The graining need only be coarse enough to preclude there being (obviously) logically equivalent sentences with the same subject matter that stand for distinct propositions.
- 12. Or else Harry does in 2010 have the property of having been mayor in 2003, despite not having, in 2003, the property of being mayor. It is difficult to say which alternative is less coherent.
- 13. Had we said instead, "Harry wants to meet or be the mayor of Kenai, whoever that is," we would have indicated that we are the ones who do not know who the mayor is.
- 14. I think that they are wrong about this. The sentence 'Ralph believes there are critics who admire only one another' does not have the *de rebus* interpretation; a better example would have been: 'Ralph believes that some critics admire only

- one another'. Relatedly, as Quine (1956) noticed, 'Ralph believes that there are spies' unambiguously attributes to Ralph the notional belief in spies.
- 15. Bach calls it the "specification assumption."
- 16. David Shier (1996) has more extensively explored this kind of proposal, but as an alternative to the relational analysis rather than to the specification principle.

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