

## Scott Soames Cognitive Propositions

My topic is the notion of information needed in the study of language and mind.<sup>1</sup> It is widely acknowledged that knowing the meaning of an ordinary declarative sentence or the content of a representational mental state involves knowing which things it represents as being which ways. Knowing this gives one knowledge of the truth conditions of the sentence or state, which are ways the world must be in order to conform to how it is represented. Intensional semantics provide precise models of truth conditions in this sense, which are approximations of meaning and content. *But models that roughly approximate is all they are.* Meanings and cognitive contents are *not* truth conditions; which are severely limited even as models of meaning and content. In order to continue to progress in semantics, the philosophy of language, and the philosophy of mind, we must overcome these limitations by identifying what information really is.

Pieces of information are called “propositions.” The two leading conceptions are the structured-proposition conception descending from Frege and Russell, and the truth-conditional conception from intensional semantics. Both suffer from intractable problems. Rather than detailing the problems, I will sketch a positive alternative.<sup>2</sup> The construction of this alternative is guided by three traditional constraints – to wit, propositions *aren’t* things we *interpret*, they *are* the interpretations we give; propositions *aren’t instruments* we use to

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<sup>1</sup> This paper tracks talks on this topic given at the Arche *Philosophy of Semantics Workshop* on May 25, 2013 in St. Andrews and the 6th annual *Semantics and Philosophy in Europe* in St. Petersburg on June 10, 2013. Those talks, in turn, were derived from my three *Hempel Lectures* given April 18-22, 2013 at Princeton University, which were followed by a workshop at the philosophy department at NYU on April 30 and by three similar *Hempel Lectures in Peru* May 15, 16, and 17, 2013 at the Centro de Estudios Filosoficos of the Pontificia Universidad Catolica del Peru. The points touched on in this paper, along with many others, are developed in much more detail in *Rethinking Language, Mind, and Meaning* forthcoming from Princeton University Press.

<sup>2</sup> The chief problems are summarized in chapter 1 of *Rethinking Language, Mind, and Meaning*, in chapter 3 of King, Soames, and Speaks *New Thinking About Propositions*, forthcoming from Oxford University Press, and in chapters 2-4 of Soames *What is Meaning?*, Princeton: Princeton University Press, 2010.

carry information, they are the information carried; and propositions *aren't* things we *endow* with intentionality; *they are inherently representational entities capable of being true or false, independent of any actual use to which we put them*. It is ironic, in light of the importance of these constraints, that they played central roles in leading Frege and Russell to what can now be seen to be the fundamental defect in their accounts of propositions.

The most fundamental defect of their accounts is the idea that the intentionality of propositions is conceptually and explanatorily prior to that of agents who bear attitudes to them. On those accounts, agents who entertain propositions cognitively represent things as bearing certain properties *because* the propositions they entertain do. The problem with trying to derive the intentionality of agents from the intentionality of propositions is that we have no understanding (i) of what such primitively representational entities are, (ii) of what cognizing them amounts to, or (iii) of how or why *our* cognizing them in the required way results in *our* representing things as bearing properties. Faced with these conundrums, we should, I think, start at the other end, with the obvious fact that *agents* represent things as being certain ways when they think of them as being those ways. Next we solve for two unknowns. What kind of entity P and what relation R can play the roles of propositions and entertaining, by *guaranteeing* that agents who bear R to an entity of kind P thereby represent things as being a certain way? If we find such a P and R, we can explain the intentionality of entities of kind P by deriving it from the intentionality of agents who bear R to them. If for A to bear R to  $p_1$  *just is* for A to represent object o as *being red*;  $p_1$  might then be deemed true iff that way of representing o represents it as it really is.

When we pose the problem this way, an answer to the question “What are propositions and what is it to entertain one?” jumps out. *Propositions are repeatable, purely representational, cognitive acts or operations; to entertain one is to perform it*. When I

perceive or think of a certain ball B as red, I perform the act *predicating redness* of B, which is to *represent B as red*. The act itself represents B as red in a sense similar to that in which some acts are said to be intelligent, stupid, thoughtful or irresponsible. For *an act* to be intelligent is *not* for it to have a high IQ; for it to be stupid is *not* for it to be a slow learner; for it to be thoughtful is *not* for it to be empathetic; for it to be irresponsible is *not* for it to be heedless of its obligations. For *an act* to be one of these *is* for it to be one the performance of which involves behaving intelligently, stupidly, thoughtfully, or irresponsibly -- which is how intelligent, stupid, thoughtful or irresponsible agents often act. The connection between the sense in which representational acts represent and the sense in which the agents do is like that *only more so*. To perform the act of representing B as red *just is* to represent B as red. When to perceive or think of B in this way is to represent B *accurately*, we identify a property this act of perceiving or thinking has. The bearer of the property is the proposition that B is red, which is the minimal cognitive or perceptual act or operation in which one predicates *redness* of B. The property is truth, which the act has iff to perform it is to represent B as it really is.

To *entertain* this proposition is *not*, as Frege and Russell maintained, to *think of it* in a special way; it is to perform it. This is the attitude on which other attitudes are based. To *judge* that B is red is perform the predication while affirming and accepting it as a possible basis for further action. To *believe B is red* is to be disposed to judge that it is. To *know* that B is red is for B to be red, to believe B is red, and to be safe or cognitively justified, in so believing. To *assert* that B is red is to commit oneself, by uttering something, to treating the proposition as something one knows. These attitudes -- judgment, belief, knowledge, and assertion -- aim at truth. The story is the same for attitudes -- doubting, denying, disproving, and imagining -- that don't aim at truth. Since their objects -- the things doubted, denied, disproved, or imagined -- are identical with the objects of the truth-normed attitudes (as

indicated by the fact that something that is believed by one person may be doubted, denied, disproved, or merely imagined by another), the objects of the non-truth-normed attitudes may be true or false, just as the objects of truth-normed attitudes are. This suggests that it is *not* any of these *attitudes*, but *their objects* that represent things as being certain ways, and so have truth conditions independent of agents' affirmative, negative, or non-committal stance toward them.<sup>3</sup>

This is the basis of a naturalistic epistemology of propositions. Since entertaining, believing, and knowing *p* don't require cognizing *p*, any organism that can perceive or think of things in its environment as being certain ways can bear these attitudes to propositions, whether or not it can predicate properties of propositions. Knowing things *about* propositions requires a further ability humans have, but some unsophisticated agents don't -- the ability to focus on one's cognitive acts and distinguish them from one another. One who can do this can ascribe propositional attitudes to oneself and others, and predicate properties of propositions. Focusing on their own cognitions, sophisticated agents discriminate different propositions as different thought or perception types. This allows them to acquire the notion of truth, in part from examples -- "the proposition that *o* is red is true if *o* is red" -- and in part by recognizing the general point that *p* is true iff things are as *p* represents them to be.

That's the idea behind propositions as purely representational cognitive acts or operations. In the simplest case, the act is predicating a property of an object. In other work I identify cognitive acts expressed by sentences involving complex singular terms, complex

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<sup>3</sup> One attitude -- *entertainment* -- is, of course, an exception. Note that *p* and *entertaining p* are cognitive acts; in fact, identical acts. This is what lies behind the insight that it is our intentionality -- the fact that for *us* to represent is for *us* to bear *the ur-attitude* of performing to the bearer of truth conditions -- that is conceptually responsible for the proposition's intentionality, despite the fact that our subsequent cognitive attitudes toward it (such as affirming, doubting, denying, etc.) depend on, rather than constitute, the proposition's intentionality.

predicates, quantification, and extensional, intensional, and hyperintensional operators.<sup>4</sup> The idea is the same as in simple cases. In speaking of predications and other operations as *acts*, I *don't* mean they are always intentional or conscious. They aren't. But they are *doings* in which things are cognized as being one way or another. What a proposition represents is read off the sequence of acts with which it is identified. From this we derive its truth conditions. P is true at world-state w iff were w instantiated, things would be as p represents them. *What p represents* is *not* indexed to world-states; p represents what any conceivable agent who entertains p would represent by performing it. Since this doesn't vary from state to state, p's truth conditions don't vary. It follows that no one has to entertain p for p to be true.<sup>5</sup>

Although the foundational advantages of this account are great, there is also an objection. *Propositions can't be acts because propositions aren't things we do!* We can entertain the proposition that arithmetic is incomplete, the objection continues, but we can't *do* it; to think otherwise is to make a category mistake. I disagree; to think otherwise is to realize that our task isn't to capture "intuitions" about our untutored thought and talk, but to articulate a conception capable of playing the proposition-role in our theories. Hence, ordinary-language arguments about propositional identity aren't decisive.<sup>6</sup> Intuitively, we take propositions to be ways of thinking of things. I modify this; they are acts of thinking of things as being various ways. To me, this is a small price to pay for fruitful theorizing.

### **Cognitively Distinct But Representationally Identical Propositions - 1**

I now turn to a key advantage of cognitive propositions – the recognition of cognitively distinct but representationally identical propositions. The first illustrations are (1) and (2).

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<sup>4</sup> Chapter 2 of *Rethinking Language, Mind, and Meaning*.

<sup>5</sup> Existence conditions for propositions are discussed in chapter 6 of *New Thinking About Propositions*, and in chapter 2 of *Rethinking Language, Mind, and Meaning*.

<sup>6</sup> This is argued in last two sections of chapter 12 of *New Thinking About Propositions*.

- 1a. Russell tried to prove (the proposition) that arithmetic is reducible to logic.
- b. Russell tried to prove logicism.
- 2a. Mary believes that Russell tried to prove that arithmetic is reducible to logic.
- b. Mary believes that Russell tried to prove logicism.

Here, ‘logicism’ is a Millian name for the proposition L *that arithmetic is reducible to logic*, designated by the directly referential *that*-clause. Although L is what the two terms contribute to the representational contents of (1) and (2), (2a) and (2b) can differ in truth value. If Mary picked up the name ‘logicism’ by hearing it used to designate some thesis in the philosophy of mathematics that Russell tried to prove, (2b) may be true, even if she has no clue what he thought about arithmetic, in which case (2a) is false. How can this be?<sup>7</sup>

The cognitive conception of propositions tells us. According to it, understanding (1b) and entertaining the proposition it expresses requires thinking of L and predicating *trying to prove* of Russell and L. Since one can think of L using the name ‘logicism’, without knowing much about its referent, one who has picked up the name can entertain proposition (1b) without being able to informatively identify L. By contrast, to understand (1a) and entertain the proposition expressed, one must first predicate *being reducible* of arithmetic and logic, thereby entertaining L. Next, one predicates *trying to prove* of Russell and L. *So, to entertain proposition (1a) is to entertain proposition (1b), but not conversely*, from which the different truth conditions of (2a) and (2b) follow. Because propositions are acts of cognizing things and predicating properties of them, p and q can place different constraints on how one who entertains them cognizes their predication target, even if their truth conditions result from predicating the same property of the same thing. (1a) and (1b) predicate the same property of the same proposition, but only (1a) requires it to be entertained. This illustrates two aspects of

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<sup>7</sup> This issue was originally addressed in Richard, “Articulated Terms,” *Philosophical Perspectives* 7 (1993): 207–30. It was also discussed in Soames, “What are Natural Kinds?” *Philosophical Topics* 35 (2007): 329–42, reprinted in Soames *Analytic Philosophy in America and other Historical and Contemporary Essays*, Princeton University Press, 2014..

propositional content: *representational content* (which imposes conditions on the world necessary for truth) and *cognitive content* (which imposes conditions on the mind necessary to entertain it). With this bipartite conception of content, we characterize the meaning of the term ‘logicism’ as its contribution, L, to the representational content of proposition (1b). The meaning of the clause ‘that arithmetic is reducible to logic’ consists of that same contribution to representational content *plus* its contribution to the cognitive content of proposition (1a), which requires L to be cognized by entertaining it.

## **Distinct But Representationally Identical Propositions 2**

Distinguishing representational from cognitive content also provides a new analysis of *de se* attitudes, such as my belief that *I am making a mess*, as opposed to my belief, of someone whose reflection I see in a security mirror – who in fact is me – that he is making a mess. The analysis distinguishes predicating P of an agent A cognized *in the first person way* from predicating P of A however cognized. Since doing the first is also doing the second, but not conversely, the acts are different. Since the same property is predicated of the same thing, they are cognitively distinct but representationally identical propositions. This subverts the current orthodoxy that takes representationally identical propositions to be absolutely identical. According to this orthodoxy, a *de se* epiphany – My gosh, *I am the one making a mess* -- can’t involve coming to believe a proposition not previously believed. Either it involves believing an old proposition – *he is making a mess* -- in a new way (as John Perry argued), or it involves believing *a property* one “self-ascribes” (as David Lewis maintained).<sup>8</sup> The Perry account fails to respect our conviction that in *de se* cases one believes something

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<sup>8</sup> John Perry, “Frege on Demonstratives,” *Philosophical Review*, 69, 1977, 474-497; John Perry, “The Problem of the Essential Indexical,” *Nous* 13, 1979, 3-21; David Lewis, “Attitudes *De Dicto* and *De Se*,” *Philosophical Review*, 88, 1979, 513-543.

new; the Lewis account misses the fact that *to believe truly is to believe something true* (which *making a mess* isn't).<sup>9</sup> The cognitive account transcends this dilemma.

What others call A's self-ascribing P is A's believing the proposition that predicates P of A, requiring one who entertains it to cognize A the 1<sup>st</sup>-person way. Let S contain 'I' or 'me' and P be the property expressed by the result, S(x), of replacing the pronoun with a variable. Lewis tells us that an agent A who accepts S *self-ascribes* P. I agree, adding that to do this is predicate P of A, endorsing that predication and identifying A in the 1<sup>st</sup>-person way. To do this is to accept a proposition only A can entertain plus a second, representationally identical, proposition that anyone can. I also agree with Perry's claim that A comes to believe, in a new way, a proposition A already believed. To this, I add that the new way of believing the old proposition is itself a way of believing a *de se* proposition representationally identical to it. Thus, we capture the motivations of Lewis and Perry, while avoiding their shortcomings.

(3) extends this analysis to attitude ascriptions.

- 3a. Every F believes that he or she is G.
- b. Every x: Fx (x believes that x is G)

(3a) can be used to report *de re* or *de se* beliefs. On the *de se* understanding, the proposition predicates *assigning a truth to every F* of the function that assigns to each agent A the proposition that predicates *believing* of A and another proposition  $p_{de-se}$  that predicates *being G* of A, *requiring one who entertains  $p_{de-se}$  to cognize A in the 1<sup>st</sup>-person way*. The *de re* understanding is the same except entertaining the representationally identical  $p_{de-re}$  doesn't require *1<sup>st</sup>-person* cognition of A.<sup>10</sup>

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<sup>9</sup> This elegant way of putting a basic criticism of the Lewis account is due to Jeff Speaks, in chapter 5 of *New Thinking About Propositions. Rethinking Language, Mind, and Meaning* contains a more detailed critique.

<sup>10</sup> Here and throughout *Rethinking Language, Mind, and Meaning*, I use propositional functions as convenient stand-ins to play the role of complex properties in analyses of quantification and related constructions.



The analysis is extended to (4a) by taking the antecedent/anaphor relation to introduce a variable-binding relation.

4a. *Mary* believes that *she* is in danger.

$\lambda x$  (x believes that x is in danger) Mary

I can use (4b) to simultaneously assert my belief in a *de se* and a *de re* proposition.

4b. I believe that I am such-and-such.

Correctly identifying what I asserted, my audience may use the *de se* understanding of (c) to report my beliefs, while using (4d) to assess them.<sup>11</sup>

4c. *SS* believes that *he* is such-and-such.

d. That belief is true/false, necessary/contingent.

I can also use (4e) to predicate *being believed by Martha to be in danger* of me, thinking of myself in the first-person way.

4e. Martha believes that I am in danger.

$\lambda x$  (Martha believes x is in danger) me

What about semantics and pragmatics? My ability to entertain 1<sup>st</sup>-person propositions is not due to any linguistic rule. The key difference between my believing *that SS is in danger* and my believing *that I am in danger* is tied to motivation. While I may believe the former without worry, believing the latter gives me immediate cause for concern. This motivationally efficacious way of believing is shared by all agents who can think of themselves as distinct from others, whether they speak a language or not. So the ability to believe 1<sup>st</sup>-person propositions can't depend on mastering a linguistic rule. How, then, is the meaning of 'I' related to the 1<sup>st</sup>-person way of bearing attitudes to propositions? The answer begins with Kaplan's rule: *A use of the 1<sup>st</sup>-person singular pronoun by an agent A directly refers to A.* Since the semantic content of such use is just the agent A, the information semantically

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<sup>11</sup> My audience can identify the *de se* and the *de re* propositions I assert by uttering (4b). They can also determine what it is for both to be true, and thereby come to believe that both are true, or that both are false, even though they can entertain only the latter proposition.

encoded by my use of [I am F] is the same as that encoded by your use of [SS is F]. First-person cognition enters when I use the word ‘I’, *knowing in the first-person way that I am using it*. Combining this knowledge with knowledge of the semantic rule, I know, *in the 1<sup>st</sup> person way*, that my use of ‘I am in danger’ predicates *being in danger of me*. This underwrites *de se* assertions without any rule assigning *de se* semantic content to uses of 1<sup>st</sup>-person sentences.<sup>12</sup>

### Distinct But Representationally Identical Propositions 3

Just as for each person p there is a 1<sup>st</sup>-person way of cognizing p no one else can use to cognize p, so, for each time t there is a “present-tense” way of cognizing t *at t* that can’t be used at other times to cognize t. Suppose I plan to attend a meeting I know will start at t – noon, June 13, 2013. Not wanting to be late, I remind myself of this on the morning of June 13<sup>th</sup>. Still when I hear the clock strike noon, I utter (5a), and my behavior changes.

5a. Oh, the meeting starts now!

Coming to believe of t *in the present-tense way* that the meeting starts then motivates me to hurry off. Had I not believed this, I wouldn’t have done so, even though I would have continued to believe, of t, that the meeting starts then. Just as the 1<sup>st</sup>-person way of believing is motivationally efficacious, so is the present-tense way of believing. In both cases coming to believe in the special way is coming to believe something new, as indicated by the *truth* of my report (5b) at t.

5b. I only just realized that the meeting starts now!

For this report to be true, the proposition to which I have only just come to bear the *realizing* relation must be one that predicates starting at t of the meeting, the entertainment of which

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<sup>12</sup>One remaining open question concerns how (nonsemantic) *de se* cases involving 1<sup>st</sup>-person pronouns are related to what have been seen to be similar (more plausibly semantic) *de se cases* involving the phonologically null element ‘PRO’ posited by linguists.

requires *t* to be cognized in the present-tense way. This is the proposition asserted, *not* semantically expressed. Most of the main conclusions about the 1<sup>st</sup>-person case carry over here.

That said, there is a difference between the 1<sup>st</sup>-person and present-tense cases that bears noting. The time period designated by a use of ‘now’, or of the present tense, can vary in length depending on the context. If you ask, “Are you hungry yet,” and I answer, “Yes, I am hungry now,” the referent of ‘now’ would presumably be the present moment. But if you ask, “What are you teaching now?” and I answer “I am teaching a graduate seminar now” my answer may be correct, even though I am not teaching anything at the present moment. In such a case, my use of ‘now’ may designate a period of time lasting months, even though I doubt there is a special motivationally efficacious way of cognizing a period of that length. Rather, I suspect, the target of the special “present-tense” way of cognizing a time is always centered on the present moment. Nevertheless, sequences of adjoining moments that are motivationally all but indistinguishable from that moment may, in different circumstances, enjoy a special status.

The point is illustrated by my utterance of (5b). The proposition asserted is about the time *t* of utterance designated by my use of ‘now’, cognized in the special present-tense way. What time was that exactly? Clearly it included the exact *instant of utterance*. However, recognizing that it may have included more can help explain a relevant fact; I wouldn’t have uttered (5b) had I not lost track of the time (even if for only a few minutes) prior to coming to my realization about the meeting.<sup>13</sup> Had I been tracking the time minute by minute before noon, when I knew the meeting would begin, I would *not* have been willing to assert that I hadn’t, prior to a moment ago, “realized that the meeting starts *now*.” Why not? The answer rests on four points: (i) the *time t* designated by my use of ‘now’ in uttering (5b) was a *brief*

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<sup>13</sup> Thanks to Barbara Partee for pointing out the need to explain this.

*period* that included at least several minutes before *the instant of utterance*; (ii) during the early part of *t* I had lost track of the time and didn't anticipate the imminent start of the meeting; (iii) had I not lost track of the time, I would, in these early moments of *t*, have counted as cognizing *t* (the period in question) *in the present-tense way*, realizing that the meeting started at *t*; (iv) what I (truly) asserted in uttering (5b) was that, I had not, until just before the instant of utterance, cognized *t* in the present-tense way, realizing that the meeting started at *t* (because for each moment prior to that, either I had not cognized *t* in the present-tense way at all, or, during moments within *t* when I had so cognized *t*, I didn't then realize *in the present tense way* that the meeting started at *t*).

Examples like this illustrate a respect in which the semantics and pragmatics of 'now' include complications quite different from anything we find with the 1<sup>st</sup>-person singular pronoun. However, the crucial point remains. Both the pronoun and the temporal indexical are very often used to assert propositions the cognitive contents of which require restricted and special motivationally efficacious forms of cognition (not required by the representationally identical singular propositions that are their semantic contents).<sup>14</sup>

#### **Distinct But Representationally Identical Propositions - 4**

Linguistic cognition is another source of representationally identical, but cognitively distinct propositions. In addition to allowing us to share antecedent nonlinguistic cognitions with others, language also allows us to perform cognitions we couldn't otherwise perform. For example, many names and natural kind terms designate items with which we have had little or no perceptual contact. Learning a language involves learning how to identify targets

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<sup>14</sup> The extent to which the semantics and pragmatics of other indexicals – including 'you', 'he', 'she', 'that', 'that so-and-so', 'actually', and 'this very world state' – parallel those discussed here, and the extent to which they do not, is examined in *Rethinking Language, Mind, and Meaning*. Although these other indexicals are not associated with their own motivationally special forms of cognition, they can make (non-semantic) contributions to the cognitive contents of propositions asserted by uses of sentences containing them that distinguish those propositions from their ordinary, representationally identical counterparts.

of cognitive operations linguistically, thereby using sentences to *perform* the propositions they express. One who understands the sentence ‘Plato was human’ uses the name to pick out the man; the noun to pick out humanity, and the phrase ‘is human’ to predicate *being human* of the man.

Suppose *S* expresses *p*. The act *using S to perform, i.e. to entertain, p* is itself a representational act that qualifies as a proposition *p\**, distinct from, but representationally identical to, *p*. Here, we start with the act *predicating humanity of Plato*. One way to perform it is to use the words ‘is human’ as one’s means of predicating humanity of the man picked out using his name. Since this second act meets the conditions needed for a cognitive act to count as a proposition, both are propositions.<sup>15</sup> Since entertaining the second, linguistically enhanced, proposition counts as entertaining the first, but not conversely, they are distinct but representationally identical. Because these cognitive acts are real, the account multiplies propositions without multiplying entities. Calling them ‘propositions’ doesn’t add to one’s ontology.

The real question is whether doing so allows us to solve problems. With this in mind, consider (6).

- 6a. Carl Hempel was a famous philosopher.
- b. Peter Hempel was a famous philosopher.
- c. *x* was a famous philosopher (relative to an assignment of Mr. Hempel as value of ‘*x*’)

Let *p* be expressed by (6c). *P<sub>C</sub>* is a proposition representationally identical to *p* which requires one who entertains it to cognize Mr. Hempel via the name ‘Carl Hempel’. *P<sub>p</sub>* requires cognition via the name ‘Peter Hempel’. Utterances of (6a) assert both *P<sub>C</sub>* and *p*; utterances of (6b) assert *P<sub>p</sub>* and *p*. With this, we reconcile a pair of hard-to-combine insights: *one who accepts (6a) may, as Frege noted, believe something different from what one believes in*

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<sup>15</sup> These conditions are discussed in chapter 2 of *Rethinking Language, Mind, and Meaning*.

*accepting (6b), even though the propositions believed are representationally identical, as intimated by Kripke.*

The difference between propositions  $P_c$  and  $P_p$  is a difference in *modes of presentation*. What Frege missed, because of his Platonic conception of propositions, is that these modes are *ways doing things* that are *not* constituents of the proposition (the thing done), and *do not* affect its truth conditions or representational content. I illustrate with a story. Shortly after arriving at Princeton in 1980 as an Assistant Professor, I encountered a distinguished man whom others called ‘Peter Hempel’. Later I discovered he was the famous philosopher Carl Hempel. Then, I could have truly reported my epistemic state using (7a), but not (7b).

- 7a. I have only just now realized that Peter Hempel is the famous philosopher Carl Hempel.
- b. I have only just now realized that Carl Hempel is the famous philosopher Carl Hempel.

The truth reported with (7a) is that I hadn’t previously believed the enhanced identity claim the entertainment of which requires cognizing Mr. Hempel using ‘Peter Hempel’ to designate the first argument and ‘Carl Hempel’ to designate the second, even though I had believed the bare singular proposition. Two points are central to this explanation: (i) To cognize an object  $o$  via a name  $n$  that designates  $o$  does *not* involve *predicating being named  $n$  of  $o$*  (any more than cognizing oneself in the first-person way involves predicating of oneself that one is so-cognized); (ii) The truth I reported using (7a) is *not* semantically expressed by the sentence.

The non-semantic nature of linguistic enhancement is illustrated by my use of

- 8. John asked whether Martha was my wife.

to report John’s inquiry, even though he didn’t know Martha’s name. The proposition I use the content clause to contribute to *what I assert* is *not* one the entertainment of which *requires* one to identify her by name. This might be problematic if the *semantic content* of the clause required that. But it doesn’t. There are cases of both kinds: those in which information about the use of names by agents of reported attitudes is presupposed, and those in which it isn’t.

This variation, which has been the bane of *semantic* solutions to Frege's puzzle, suggests that propositions *semantically expressed* by sentences containing names *don't require* those who entertain them to do so in any special linguistic way. Linguistic enhancements are simply candidates for pragmatic enrichment. In this way, the cognitive theory of propositions allows us to incorporate some of what Nathan Salmon calls "guises" (by which items are picked out in entertaining a proposition) into propositions themselves, *without changing representational content*, and without semantic encoding.<sup>16</sup>

Next consider the special names 'Hesperus' and 'Phosphorus'. Being names, their representational content is simply their common referent. What makes them special is that *understanding* the names requires having certain standard information. Those who use them are expected to know that saying "Hesperus is a planet" tells us about something visible in the evening, while saying "Phosphorus is planet" tells us about something visible in the morning. One who thought uses of 'Hesperus' carry information about the morning, while uses of 'Phosphorus' carry information about the evening, would misunderstand the names.

Next, consider an utterance of (9) by a speaker A addressing a hearer B, both presupposing that the two *understand* the names.

#### 9. Hesperus is Phosphorus

A asserts not only the bare singular proposition that predicates identity of Venus and Venus, but also the linguistically enhanced proposition entertainable only by those who identify Venus via the two names. Although this enhanced proposition merely represents Venus as being Venus, B is able to extract more information from it. Presupposing that A *understands* the names, B reasons that A is committed to the claim that *the object Hesperus, visible in the evening, is identical with the object Phosphorus, visible in the morning*. Realizing that A

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<sup>16</sup> Nathan Salmon, *Frege's Puzzle*, Cambridge: MIT Press, 1986.

expects B to so reason, B correctly concludes that A *asserted* that descriptively enriched proposition.

The extra assertive content attached to A's remark arises from (i) the linguistically enhanced proposition asserted, (ii) the presupposition that A and B understand the names, and (iii) the standard descriptive information that comes with such understanding. With this in mind, suppose the conversation between A and B were to continue as in (10).

10a. If Hesperus's orbit had been different it wouldn't have appeared in the evening. *Said by A*

10b. In that case would Hesperus still have been Phosphorus? *Asked by B*

10c. Of course. Hesperus would have been Phosphorus no matter what. *A again*

A's final utterance commits him to the necessity of the linguistically enhanced proposition that Hesperus is Phosphorus, but not to the absurdity that *no matter what the planet's orbit had been, the unique thing that was both Hesperus and visible in the evening would have been the unique thing that was both Phosphorus and visible in the morning*. The difference between the descriptive enrichment of A's use of (9) and the lack of such enrichment of A's use of the modal sentence (10c) hinges on what *understanding* the names requires. It requires knowing that most agents familiar enough to use them take, and expect other users to take, "Hesperus" to stand for something seen in the evening and "Phosphorus" to stand for something seen in the morning. Presupposing this, A and B assign descriptive content to A's utterance of (9). Since taking the names to refer to things *actually* seen at certain times tells one *nothing* about when they are seen at *possible* world-states, A and B don't descriptively enrich the modal assertion by A's utterance of (10c).

Although nothing could be simpler, the contrast between (9) and (10c) has been difficult for theorists to accommodate. Some contemporary followers of Mill, fixated on cases like (10c), have mistakenly distrusted descriptive enrichment of assertive content in examples like



(9), in many cases wrongly identifying the proposition asserted by an utterance of a sentence with the semantic content of the sentence. While followers of Frege have correctly taken propositions asserted by utterances of sentences like (9) to include descriptive contents, they have had trouble with examples like (10c). Their trouble is grounded in a misunderstanding of the way descriptive information is tied to *understanding* expressions. Many descriptivists have wrongly assumed that the descriptive information needed to understand special names like 'Hesperus' and 'Phosphorus', ordinary names, and natural kind terms are their semantic contents. Since they think that all such expressions have semantic contents, they think that the expressions must all have descriptive Fregean senses of one or another sort.

This view is based on three cardinal errors:

- (a) the idea that names like 'Hesperus' and 'Phosphorus', which impose substantive descriptive conditions on what it takes to (fully) understand them, are representative of names in general,
- (b) the assumption that conditions on understanding terms – including those like 'Hesperus' and 'Phosphorus' -- are incorporated in descriptive senses (meanings) that determine their referents, and that are the contributions these terms make to the propositions semantically expressed by (uses of) sentences containing them, and
- (c) the presumption that the “cognitive significance” (inferential potential) of a proposition *p* for one who entertains it is exhausted by *p*'s representational content.

(a) is false because there is no standard (reference determining) descriptive information that must be known by those who use most ordinary names; (c) is false because, as I have used (9) to illustrate, referentially identical propositions can differ in their inference potential; (b) is false because it wrongly incorporates conditions on *understanding* into a term's meaning or semantic content. Outliers like 'Hesperus' and 'Phosphorous' aside, this error doesn't show up much in our ordinary talk of names, because we don't normally speak of *what the names* 'Saul Kripke' or 'David Lewis' *mean*, or of whether one *understands* them. Rather, we are inclined to ask whether one *is familiar* with the names. We *are* more prone to error with

general terms like ‘water’ and ‘heat’. These are directly referential designators of kinds – one a chemical kind involving hydrogen and oxygen, one a physical kind involving the motion of molecules. In each case, the kind *K* is the content that the general term *G* contributes to propositions semantically expressed by sentences containing *G*. Given this, one is tempted to think: (i) knowing *what G means* and *understanding G* are the same; (ii) knowing that *K* is the meaning of *G* is necessary and sufficient for knowing *what G means*, and (iii) therefore, knowing that *K* is the meaning of *G* is necessary and sufficient for understanding *G*.

That can’t be right. One of the easiest things one can come to know is that a certain general term *G* means or stands for *K*. But, contrary to (i) - (iii), this is typically *not* sufficient for *understanding G*, let alone for *fully understanding G* -- in the sense in which we ordinarily speak of understanding a term. Such understanding requires more than minimal competence with the term, which is simply the ability to use it to designate what it conventionally designates. To understand a term is to have the knowledge and recognitional ability to use it to communicate in ways widely presupposed in the linguistic community. This dynamic, illustrated using ‘Hesperus’ and ‘Phosphorus’ but otherwise employed sparingly with ordinary names, is nearly always present with natural kind terms. Understanding them -- in the sense needed to use them to communicate in ways widely presupposed by members of one’s linguistic community -- requires more than knowing of the kinds that the terms designate them. For example, understanding ‘water’ requires knowing such obvious facts as that it stands for something that can take the form of a colorless drinkable liquid, something that falls from the sky in rain, and so on.

*Understanding* in this sense is *not* a semantic notion in the sense of theories of linguistic meaning or semantic content. Our ordinary notions of *understanding E* and *knowing what E means* track information commonly presupposed by most speakers who use *E* -- which is only

distantly related to the technical notion *semantic content*. For a semantic theory that assigns a given content to E to be correct, most minimally competent speakers must use E with that content, which in turn must typically appear as a constituent of the contents of speech acts performed using E. Widely shared presuppositions about information normally carried by uses of sentences containing E go much further.

Elsewhere I argue that these ideas -- combining linguistically enhanced propositions with the ordinary sense of *understanding* an expression – can be used to great advantage in defusing Frege-puzzle cases involving natural kind terms, attitude ascriptions, and even cases involving ascription of attitudes to agents who speak other languages.<sup>17</sup> Linguistic enhancement also gives a twist to the treatment of John Perry’s example of the amnesiac Rudolf Lingens in a library reading a story about himself.<sup>18</sup> From his reading, he knows of Rudolph, i.e. *himself*, that he is named ‘Rudolf’, but doesn’t know this *in the 1<sup>st</sup>-person way*, and so doesn’t self-ascribe being so named. This changes when he remembers “who he is” and *truthfully* says, “*I have just realized my name is ‘Rudolf’.*” The truth of his remark requires that the proposition to which he previously had *not* bore the *realizing* relation is one requiring him to be identified in the 1<sup>st</sup>-person way.

Suppose, however, that Rudolf expresses his epiphany using (11a).

11a. I have just realized that I am Rudolf Lingens.

How can his assertion be true? Suppose the library has a mirror; looking in it, the amnesiac says “I am he” demonstrating RL. In so doing, RL self-ascribes *being RL*, realizing in the 1<sup>st</sup>-

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<sup>17</sup> This is done in chapter 4 of *Rethinking Language, Mind, and Meaning*, which also uses linguistically enhanced propositions to shed light on Saul Kripke’s puzzling suggestion, expressed in “A Puzzle About Belief,” in A. Margalit, ed., *Meaning and Use*, Dordrecht: Reidel, 1979, 239-283, that the difficulty we have in answering the question “Does Pierre believe that London is pretty?” with a simple ‘yes’ or ‘no’ illustrates *the breakdown* of our practices of interpretation and belief attribution, along with our notion of *the content of an assertion* and the *proposition* expressed by an assertive utterance.

<sup>18</sup> Perry, “Frege on Demonstratives.”

person way that he is RL. Although this threatens the truth of (11a) on Lewis- or Perry-style accounts, the cognitive analysis of propositions avoids the threat. Starting from the semantic content (11b), we first reorganize that content in a form (11c) suitable for representing self-ascription, and then proceed with pragmatic enrichment.

11b. Only just now has it been so that: *RL realizes that RL is RL*

c. Only just now has it been so that:  $\lambda x [x \text{ realizes that } x = RL] RL$

In this case, there are two pragmatic enrichments: one requiring the target of *realizing one is identical with RL* to be cognized in the 1<sup>st</sup>-person way, and one requiring the second argument of the identity relation to be cognized via the name ‘Rudolf Lingens’.<sup>19</sup>

The second-person singular pronoun provides another twist. Suppose the amnesiac Otto is reading the same story over Rudolf’s shoulder when Otto recovers his memory and says “*I have just realized you are Rudolf.*” Here, we have no trouble explaining Otto’s epiphany, and how communication of it might naturally lead to Rudolf’s epiphany. *But we must also explain how Otto’s remark succeeds in asserting something true and nothing false.* The proposition he asserts is that *only just now* has he, Otto, realized something in the first-person way. This something realized is the proposition he uses the clause ‘that you are Rudolf’ to contribute to his assertion. What proposition is that? It can’t be the proposition semantically expressed, since Otto has long realized, in the first person way, that Rudolf is Rudolf. Nor can it be the proposition *that the person he, Otto, addresses is Rudolf*. Otto doesn’t *assert* that he is *addressing anyone*. What he truly asserted himself to only recently realize is the proposition that predicates identity of Rudolf and Rudolf, identifying the first argument of identity using the second person singular pronoun, which he understands, and the second argument using the

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<sup>19</sup> Although (11c) serves the purposes of this example, a more complicated representation -- *Only just now has it been so that:  $\lambda x [x \text{ realizes that } \lambda y (y = RL) RL] RL$*  (with two first-person enrichments)– is needed for some cases. See chapters 3 and 4 of *Rethinking Language, Mind, and Meaning*.

name ‘Rudolf’. The larger lesson here is that since all *de se* cases, original or extended, are at bottom variants of Frege’s Puzzle, they should be solved in parallel.

### **Distinct But Representationally Identical Propositions - 5**

Perception is another *mode of presentation*. Here is a simple illustration. Agent A watches bird B hop from branch to branch. A perceptually predicates first one, then another other, property of B, identifying his target by visually focusing on B. In so doing A performs a cognitive act – predicating *being red* of an item B *one cognizes visually* – that is a special case of the more general act of predicating *being red* of B. These are, for the usual reasons, distinct but representationally identical propositions. Next consider *predicating being Tom’s pet (or being a cardinal) of the item B one cognizes visually*. Although B is Tom’s pet cardinal, which he previously told A about, A is surprised when you say, demonstrating B, “That is Tom’s pet cardinal.” “Oh,” A responds, “*I didn’t realize it was Tom’s pet, or that it was a cardinal.*” These assertions are *true*, even if A retained his previous knowledge that B is a cardinal and Tom’s pet. For A’s *new* assertions to be true, the propositions A claims not to have known must *not* be the singular propositions A knows from Tom’s testimony. They are representationally identical versions of those propositions the entertainment of which requires B to be visually identified.<sup>20</sup>

Another case involves Frank Jackson’s “Black-and-White Mary,” a scientist purported to know all physical truths, despite never leaving a black-and white-room, and so never seeing objects as red.<sup>21</sup> Since, for Jackson, physicalism required all truths to be apriori consequences of physical truths, every truth must already be known by Mary or derivable apriori from what

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<sup>20</sup> This case is taken further in chapter 5 of *Rethinking Language, Mind, and Meaning* where it is used to illustrate the role of perceptually enhanced propositions as objects ‘know’, ‘realize’, and ‘recognize’, and to illuminate a continuum of more and more finely-grained modes of perceptual presentation that may occur in propositions believed, but which face natural limitations on the freedom with which they can be asserted.

<sup>21</sup> Frank Jackson, “Epiphenomenal Qualia,” *Philosophical Quarterly*, XXXII, 1982, 127-136; and “What Mary Didn’t Know,” *Journal of Philosophy*, 83, 1986, 191-195.

she knows. But surely, she doesn't *know* and can't figure out *what red things look like*. Were she to see red things, she would fill this gap in her knowledge. But if there is a gap, then physicalism, as he construed it, is false. That was his knowledge-objection to physicalism.

What is *knowing what red things look like*? Well, if we showed Mary a representative sample of red things, saying "Red things look like that (or like they do)," she would take herself to have learned something. What she learned is expressible using (12a,b) to predicate the  $\lambda$ -properties given in (12a+,b+) of the property *being red, when both that property and the objects demonstrated are identified by sight*.

12a. For all objects x, if x is red, then x looks like that (said demonstrating a sample of red objects).

12a+.  $\lambda P$  [for all x, if Px, then x looks like  $o_1 \dots o_n$ ] *Red*

12b. For all objects x, if redness is the color of x, then x looks like that (said demonstrating a sample of red objects ).

12b+  $\lambda z$  [for all x, if z is the color of x, then x looks like  $o_1 \dots o_n$ ] *redness*

Being physically omniscient, Mary already knew the ordinary propositions (12a+,2+). But she didn't know propositions representationally identical to them that require one to visually identify the objects as red. After entertaining these propositions, she will retain the disposition to endorse them when presented, and so know them, even when not entertaining them. If our sample objects was well chosen she will also be disposed to endorse propositions involving different red things (other than  $o_1 \dots o_n$ ) when the propositions are visually entertained.<sup>22</sup> So, she *knows what red things look like*. Of course, her knowledge of new truths *just is* her new ability to visually recognize red things. But that is no objection. As before, a new way of

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<sup>22</sup> Remember, Jackson's stipulated scenario guarantees that Mary already knew, before seeing red things, all ordinary, non-visually enhanced truths corresponding to (12a+) and (12b+) that involve different red objects.

knowing old truths counts as knowledge of new truths representationally identical to those already known (and so no threat to physicalism).<sup>23</sup>

### **Distinct But Representationally Identical Propositions - 6**

My final example is inspired by Kit Fine's Relationism.<sup>24</sup> The notion we need is *recognizing* something previously cognized.<sup>25</sup> This is a matter of how one's present cognition is related to earlier cognitions. When one has cognized *x* before, in predicating *being F* of *x*, and one now *recognizes x* when predicating *being G* of *x*, one may predicate *being both F and G* of *x* without appeal to further premises. When one doesn't recognize *x*, this isn't so. Even if one did cognize *x* before and now, when cognizing *x* again, one *suspects* that the items cognized are identical, or *believes*, by virtue of weighing the evidence, that they are, one does not, thereby, *recognize* the recurrence. To recognize recurrence is to immediately and noninferentially connect the information carried by one cognition with information carried by one or more other cognitions.

Recognition of this kind can occur in, and across, different cognitive modalities. For example, just as one can recognize *x* through different perceptions of *x*, so one can recognize *x* first by being presented with *x* visually and then by being presented with *x* cognitively, either linguistically or in nonlinguistic thought. One may recognize *x* recurring through different linguistic presentations either by recognizing one expression presenting *x* through various recurrences of that expression, or by recognizing the recurrence of *x* through occurrences of cognitively equivalent expressions. Either way, a single content is recognized as recurring.

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<sup>23</sup> See chapter 5 of *Rethinking Language, Mind, and Meaning* for other cases in which perceptually enhanced propositions may contribute to resolving philosophical problems, including those of spectrum inversion and of Nagel's "What is it like to be a bat?", *Philosophical Review*, 83, 1974, 435-450.

<sup>24</sup> Fine, *Semantic Relationism*, London: Blackwell, 2007.

<sup>25</sup> See Nathan Salmon, "Recurrence," *Philosophical Studies*, 159, 2012, 407-441.

Because of this, one may be *tempted* to think that understanding sentences (13a,b) *always* allows one to accept (13c,d). Similar remarks could be made about the sentences in (14).

- 13a. n is F and n is G.
- b. n bears R to n.
- c. Some x, namely n, is both F and G.
- d. Some x, namely n, bears R to itself.
- 14a. A believes/knows that n is F and n is G.
- b. A believes/knows that n bears R to n.
- c. A believes/knows something from which A can infer that some x is both F and G.
- d. A believes/knows something from which A can infer that some x bears R to itself.

If this were so, it might suggest that sentences of this sort *semantically* express propositions that can be entertained only by agents who recognize recurrences of the semantic contents of the recurring expressions. I don't believe it is so, not because I doubt the cognitive significance of recurrence-recognition but because there is no evidence that such recognition is *semantically encoded*, and much evidence that it isn't. Recognition of recurrence – which connects elements both within individual propositions we entertain and across multiple propositions -- is ubiquitous in cognition. What needs to be shown is (i) that such recognition is a genuine Millian mode of presentation that distinguishes propositions incorporating it from their representationally identical counterparts, and (ii) that propositions incorporating this Millian mode are the *meanings* (semantic contents) of some sentences.

However, (ii) can't be established, even if (i) is assumed. Here, we may usefully distinguish three cognitively distinct propositions, each of which represents a given object o as bearing R to o and nothing more.

- P1. The act of identifying o as 1<sup>st</sup> and 2<sup>nd</sup> arguments and predicating R of the pair, *whether or not one recognizes o's recurrence*.
- P2. The act of identifying o as 1<sup>st</sup> and 2<sup>nd</sup> arguments and predicating R, *recognizing the recurrence of o*.
- P3. The act of identifying o as 1<sup>st</sup> and 2<sup>nd</sup> arguments and predicating R, *not recognizing any recurrence*.



Given this assumption, we grant that utterances of (13b) often result in the assertion of P2, which also counts as asserting P1. Similarly, we grant that utterances of (14b) often assert that the A knows/believes proposition P2, and thereby knows/believes P1. But we also notice that this is not always so.

This is illustrated by Kripke's example about Peter, who knows Paderewski to be a statesman he discusses with his political friends, while also knowing Paderewski to be a musician he discusses with his musical friends. In both cases, Peter uses the name 'Paderewski' of the famous statesman musician. For a long time it doesn't occur to Peter that he might be using that name on different occasions to refer to the same man. During this period, he doesn't *recognize* the name *recurring* in his speech, or the man *recurring* in his thoughts; in fact he mistakenly thinks he is using different names for different men. At some point, however, Peter starts having doubts about this and uses (15) to ask a pertinent question.

15. Is Paderewski the musician the same man as Paderewski the statesman?

In so doing, he uses the same name twice to present the same content without recognizing recurrence of name or content. He *understands* this sentence; he doesn't misunderstand or misuse it to ask a defective or an incoherent question -- which he would do, if the interrogative sentence *semantically required* recognition of recurrence. So, understanding a sentence that contains recurrences of a name *does not* require recognizing the recurrence, and entertaining the proposition the sentence semantically expresses *does not* require recognizing recurrence of the individual designated. Recognition of recurrence is *not* a part of semantic content; it is a potential pragmatic enrichment.

Further evidence is provided by (16).

16. John fooled Mary into believing that he, John, wasn't John.

Typically, a speaker using (16) will recognize John recurring in the proposition expressed, as will the audience. But it would be absurd to ascribe to Mary belief in a proposition from which it could trivially be inferred *that John is non-self-identical*. The proposition she is reported, i.e. asserted, to believe is the negation of the proposition that predicates identity of John and John, *with no requirement that one who entertains it recognize John's recurrence*. So, the proposition *semantically encoded* by the content clause doesn't require recognition.<sup>26</sup> This result should not be surprising. The very pervasiveness of recognition in all of our thought, talk, and reasoning strongly suggests that it not a semantic feature of this or that expression, arising from specific linguistic conventions; rather it is a general pragmatic feature of thought that agents bring to all their experience, linguistic and nonlinguistic.<sup>27</sup>

Having come this far, we now return to the earlier assumption (i), *that such recognition is a genuine Millian mode of presentation incorporated within some propositions that distinguishes them from their representationally identical counterparts*. The evidence supporting (i) comes from examples in which recognition-of-recurrence-requiring propositions – *RR-propositions* for short -- are asserted or communicated by utterances of sentences instead of, or in addition to, the propositions they semantically express. As I argue elsewhere, such evidence is provided uses of attitude ascriptions like (17a).<sup>28</sup>

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<sup>26</sup> The argument based on this and similar examples is given in Soames, "Two Versions of Millianism," in Campbell, Joseph, Michael O'Rourke, and Harry Silverstein, eds, *Reference and Referring, Topics in Philosophy, Vol. 10* (Cambridge: MIT Press), 83-118. See in particular the explanation of why examples along the lines of (16) cannot be handled by (i) taking recognition of recurrence to be semantically encoded, but (ii) treating certain attitude ascriptions as systematically ambiguous, having one reading that ignores requirements of recognition of recurrence in their complement clauses and another reading that does not. This won't work because variants of (16) and other problematic examples can be constructed in which the recurrence of certain elements must be recognized while the recurrence of other elements need or must not be. These examples suggest that requirements that recurrence be recognized are never semantically encoded, but, at best, might be added opportunistically to any or all recurring elements as demanded by the presuppositions of speaker-hearers in contexts of utterance.

<sup>27</sup> See section 3 of "Recurrence" for extensive discussion.

<sup>28</sup> See chapters 6 and 7 of *Rethinking Language, Mind, and Meaning*.

17a. I have only recently believed that aRa.

The case is one in which I recognize the recurrence of individual a in the RR-proposition believed, despite in the past not recognizing a's recurrence when entertaining and affirming the bare singular proposition semantically expressed by 'aRa'. The imagined utterance of (17a) is one in which I assert something true, and nothing false, because the RR-proposition my assertion reports me as only recently believing is the pragmatic enrichment of that bare singular proposition.

It is important to note that you, my audience, can correctly report my assertion, *whether or not you recognize the recurrence, despite the fact that you can't entertain the proposition I asserted if you don't*. To see why this isn't a threat, it is useful to review how the issue is dealt with in a first-person case in which I use (18a) to assert something true and nothing false at the denouement of John Perry's messy shopper example.<sup>29</sup>

18a. Only now do I realize that I made the mess.

The semantic content of this sentence relative to the context is represented by (18b).

18b. [Only now has it been so] SS realize that SS made the mess.

Since (in the imagined scenario) I realized for some time that he [looking at myself in the security mirror] made the mess, this proposition is false. What I asserted was not that proposition, but the true, first-person enrichment (18c) resulting from my self-ascription of realizing *in the first person way* that I made the mess.

18c. [Only just now has it been so]  $\lambda x$  [ x realizes:  $\lambda y$  (*y made the mess*) I] I (used by SS)

Although you, my audience, can't entertain this proposition, you should be able to identify and report my assertion of it using (19a) to say something true and nothing false.

19a. *Scott* asserted that only now has *he* realized that *he* made a mess.

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<sup>29</sup> Perry, "The Problem of the Essential Indexical".

What does this involve? First, we take the anaphora to give us (19b).

19b.  $\lambda x$  (x asserted [only now has it been so:  $\lambda y$  (y realizes: y made the mess) x] SS

Since the proposition here expressed is false (on the assumption that my utterance of (18a) asserted nothing false), your utterance of (19a) must be pragmatically enriched. The semantic content undergoing enrichment predicates *being true of SS* of a certain propositional function *pf1*.<sup>30</sup> That function assigns to each object *o* the proposition that predicates *asserting proposition*  $P_o$  of *o*. Proposition  $P_o$  is the result of applying the operation *only now has it been so* to the proposition  $P_o^*$  that predicates *being true of o* to propositional function *pf2*. This propositional function assigns to any object  $o^*$ , the proposition that assigns to each  $o^*$  the proposition  $R_{o^*}$  that  $o^*$  realizes that  $o^*$  made the mess. This proposition --  $R_{o^*}$  -- predicates the realizing relation of  $o^*$  and the proposition  $R_{o^*}^*$  that predicates *being one who made the mess* of  $o^*$ . To get the needed pragmatic enrichment, it is sufficient to substitute  $pf2^{1st-person}$  for *pf2*. Informally put,  $pf2^{1st-person}$  assigns to any object  $o^*$  the proposition  $R_{o^* 1st-person}$  that  $o^*$  (cognized in the first-person way) realizes in the first-person way that  $o^*$  made the mess. This proposition predicates *realizing* of  $o^*$  (cognized in the first-person way) and the proposition  $R_{o^* 1st-person}^*$  that predicates *being one who made the mess* of  $o^*$  identifying  $o^*$  in the first-person way.<sup>31</sup> Although you don't entertain the proposition I asserted, you do succeed in identifying and reporting precisely what I asserted. So, the communication is, for all intents and purposes, perfect. Two things are crucial to your success. (i) You have the concept *cognizing oneself* in the first-person way. (ii) You can recognize that my assertion reported one of my cognitions of this kind.

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<sup>30</sup> As previously intimated, I hope that something more cognitively realistic might ultimately be found to replace propositional functions in their role as stand-ins for complex properties.

<sup>31</sup> The parenthesized material doesn't affect the present result and so is optional.

Now return to my use of (17a) in a context in which I recognize the recurrence of the individual *a*, despite not recognizing that recurrence in the past when entertaining and affirming the bare singular proposition that *a* bears *R* to *a*.

17a. I only recently came to believe that *aRa*.

The fact that the proposition I asserted incorporates recognition of *a*'s recurrence explains its truth. Now imagine that you, my audience, recognize my assertive intention, without yourself recognizing the recurrence because you fear you might be in a Peter-'Paderewski' type situation regarding the name '*a*' and its bearer. You don't believe you are in that situation; you are just cautious and don't take it for granted that you aren't. This prevents you from entertaining the RR-proposition of limited accessibility that the analysis claims I asserted. But surely, if I did assert it and you recognized my intention, you ought to be able to correctly answer the question, "What did Scott just assert?," using (17b), with the right intention.

17b. *Scott* said that *he* has only recently believed that *aRa*.

Would you thereby assert? As with (19b), you assert a pragmatic enrichment of the semantic content of the sentence uttered. Here, (17c) represents that semantic content.

17c.  $\lambda x (x \text{ said: } [\text{only recently has it been so: } x \text{ believe } aRa]) \text{ SS}$

This content predicates *being true of SS* of a propositional function *pf* that assigns to each object *o* the proposition that predicates *asserting proposition*  $P_o$  of *o*.  $P_o$  is the result of applying the operation *only recently has it been so* to the proposition  $P_o^*$  that *that o believes that aRa*.  $P_o^*$  predicates *believing* of *o* and the proposition *P* that predicates *R* of the pair of arguments *a* and *a*. The needed pragmatic enrichment substitutes a new propositional function  $pf^{RR}$  for *pf*, which replaces the proposition  $P_o^*$  with the proposition *that o believes that aRa (recognizing the recurrence)*.

In this way, you succeed in identifying and reporting precisely what I asserted, without yourself entertaining the proposition I asserted. As in other cases of this sort, the communication is, successful.<sup>32</sup> Also as in other cases, two things are crucial for you to be able to perform the needed enrichment. (i) You must have the concept of a cognition in which one *recognizes the recurrence of elements*. (ii) Something about my utterance must tip you to the fact that the cognition I am reporting is a cognition of that type. It is, as I argue in chapter 7 of *Rethinking Language, Mind, and Meaning*, plausible that you satisfy (i) and (ii).

## Conclusion

To sum up, we need a new cognitive conception of propositions and the epistemic relations agents bear to them. According to that conception, propositions have *two types of content: representational and cognitive*. Every proposition represents the world as being some way, and so imposes conditions it must satisfy if the proposition is to be true. Propositions also impose cognitive conditions on agents who entertain them. Because the two types of content are partially independent they generate *representationally identical but cognitively distinct propositions*. These expand the solution-space for several outstanding problems involving language and mind. If I am right, then just as structured propositions make analyses available that are wrongly excluded when propositions are identified with sets of possible world-states, so cognitive propositions make needed analyses available that are excluded by traditional accounts of structured propositions.

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<sup>32</sup> Chapter 7 of *Rethinking Language, Mind, and Meaning* extends these results to include the communication of propositions of limited accessibility involving present-tense and perceptual cognition.