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Context and Coherence: The Logic and Grammar of Prominence , by Una Stojnić

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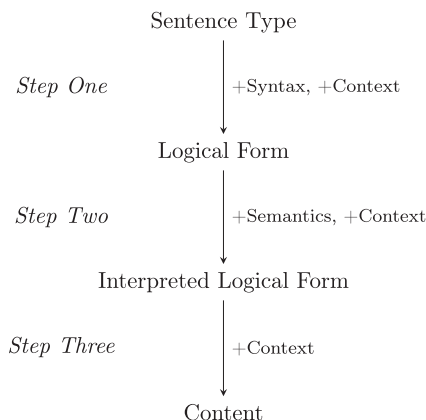


Book Review

Context and Coherence: The Logic and Grammar of Prominence,
by Una Stojnić. Oxford: Oxford University Press, 2021. Pp. vii + 219.

1. Introduction

According to long-standing orthodoxy in contemporary analytic philosophy of language, the content of a sentence (that is, the information it encodes and what one asserts when one utters it) as used on a particular occasion is determined by the lexical meanings of its parts (and syntax) and the extra-linguistic context of use. Moving from sentence type to content, in steps, we have something like:



Step One involves the syntax of the language generating a set of possible logical forms for the sentence type and then context selecting from among them the unique logical form for the sentence type as used in that context—it is at this step that structural ambiguities are resolved. Step Two involves the semantics of the language assigning a character (a function from contexts to contents; see [Kaplan 1989](#)) to each of the meaningful parts of the logical form (this may be done in conjunction with the context of utterance, if there are any polysemous expressions or free enrichment operations at this stage). Finally, in Step Three,

character, together with the extra-linguistic context, determines a content of the sentence as used in the context. Something like this framework can be used to frame many debates in philosophy of language and linguistics today.

Mostly due to the influence of Kaplan (1989), there is general agreement today that the extra-linguistic context plays at least some role, perhaps even its most substantial role, in Step Three. In her provocative new book, Una Stojnić argues against this consensus, holding instead that the extra-linguistic context plays no role in the step from interpreted logical form to content. Instead, according to her view, summarized here, interpreted logical forms determine contents uniquely:

Context-sensitive expressions are best thought of as pure indexicals in the sense that their character—their linguistic meaning—determines their content given a context, where the context, too, is maintained and manipulated by linguistic rules, encoded in the dynamic layer of meaning of a discourse . . . the extra-linguistic features of context (e.g., world-knowledge and speaker's mental states) do not play a role as determinants of semantic content. So, it is the linguistic meaning of an expression, together with linguistic mechanisms governing contextual parameters that determine the referent; no extra-linguistic supplementation is required. (p. 171)

This is a bold and surprising claim, one I think few philosophers could have seen coming. Despite many of the details of Kaplan's theory having recently come under intense scrutiny (see, for instance, Lewis 1980; Stanley 1997; Schlenker 2003; Ninan 2010; Rabern 2013), one feature of his view that has struck many as 'uncontrovertible and largely uncontroversial' (Kaplan 1989, p. 489) is that some expressions do depend on the extra-linguistic context for their content.

Nonetheless, I actually think Stojnić's claim is less radical than it sounds (though it is still provocative and interesting). Start with Kaplan 101:

(1) I am sitting.

Suppose I (Justin Khoo) utter (1). Then the content I express by uttering (1) is that Justin Khoo is sitting. And suppose that Una Stojnić utters (1). Then the content she expresses by uttering (1) is that Una Stojnić is sitting. These points seem obvious, and explain why it is that we do not agree about what we say, why the truth conditions of what we say are different, and so on. Since the only difference in our utterances is the extra-linguistic context (who is speaking), this seems like a good argument that the contents of some expressions depend on the extra-linguistic context.

I suspect that Stojnić would concede this point. It is a part of the extra-linguistic context who is speaking, and there is no linguistic mechanism that governs this parameter of the context (so, for instance, I don't have to say 'I am speaking' to be speaking). So I think the quote above probably overstates the view as intended: Stojnić's real target is the view that *how* context fixes content is *automatic* and *controlled by linguistic expressions*. There is still a real debate to be had here, but the thesis makes for less of a headline, so I won't begrudge Stojnić the hyperbole.

Take demonstrative uses of pronouns, like:

(2) He drank the water.

According to a widely shared view, *he* refers directly to some man, and this reference is not determined automatically (in contrast to *I*, which automatically refers to the speaker) but rather in conjunction with extra-linguistic facts about the context in which (2) is uttered (perhaps facts about who the speaker intended to refer to, or which man was salient).

Stojnić argues that this kind of view is wrong (for reasons I'll discuss in §2). In its place, Stojnić proposes a simple and general theory, which I'll call the Prominence Theory:

Prominence Theory

- (i) The content of a context-sensitive expression *X* (perhaps of some restricted class of expressions) in a context is whatever *X*-candidate content is most prominent in the context at the time of use (p. 40), where
- (ii) 'the dynamics of contextual prominence is governed by linguistic mechanisms' (p. 172).

In addition to showing how Prominence Theory allows for a plausible unified semantics for pronouns (chs. 2–7), Stojnić argues that the view dissolves challenges to classical logic and undermines recent motivations for non-propositional accounts of modals and conditionals (chs. 8–11).

In this review, I'll explain why I am largely unconvinced by the proposed motivation for Prominence Theory stemming from pronouns (§2) and from modals and conditionals (§3). So, while I think Stojnić's view is ultimately unmotivated (as of yet), the theory is bold and original, and should force those of us in the Kaplanian orthodoxy to re-examine the grounds on which we have accepted many of our views about context-dependence.

2. Motivating prominence theory: pronouns

Suppose the speaker points at Joe, intending to refer to Joe, while saying (2):

(2) He drank the water.

Then what they say is (plausibly) that Joe drank the water. According to most views of deictic uses of pronouns, their semantic value depends on features of the extra-linguistic context. In the case above, perhaps the semantic value of *he* is whatever the speaker intended to refer to by using it (Schiffer 1972; Loar 1981; Kaplan 1989; Reimer 1992; Bach 2005, 2013; Neale 2004; Buchanan and Schiller 2021; with additional bells and whistles, this camp also includes King 2014), or perhaps the most salient entity in the context (Wettstein 1984). Theories of the former kind hold that the pointing gesture is merely helpful

evidence of the speaker's referential intentions, while theories of the latter kind hold that its role is to make a particular object salient (where salience is a matter of the psychological states of the agents in the context—what they are in fact attending to).

According to Stojnić, neither of these proposals is correct. Instead, the pronoun's semantic value is the most prominent entity in the context meeting the pronoun's phi-features (+male, +singular, –speaker, –addressee), where contextual prominence is determined entirely by linguistic mechanisms like gestures or prosody. For Stojnić, such mechanisms are *linguistic* in the sense that they are lexical items which appear in the logical form of sentences as uttered; for example, 'a demonstrative gesture . . . is an expression along [with] others, with its own conventionally specified contribution, that of an attention-shifting update' (p. 46). The content of this linguistic mechanism automatically changes the prominence ranking of objects in the context, thus automatically determining the semantic value of various pronouns following it.

But why represent the demonstrative gesture as a lexical item in the logical form of (a use of) (2)? Stojnić argues for this claim by appealing to three observations (I'll return to discuss a further, theoretical motivation—that the view can preserve a tight connection between validity and logical form—below):

- (1) Demonstrations appear to be conventionalized: 'the association between a form and shape of a gesture and its semantic effect is arbitrary, learned, and it varies across different linguistic communities' (pp. 46–7).
- (2) An explicit demonstration, or some other conventionalized linguistic effect, seems to be required for deictic readings (pp. 49–50).
- (3) Overriding the demonstration is difficult or impossible (pp. 50–1).

On the first point, Stojnić does seem right that how we demonstrate is conventionally constrained—she cites [Kendon \(2004\)](#) for further support. But it is still unclear why we should conclude from this that the demonstration should be a part of the logical form of the sentence. Just as it is a convention that English speakers use their index fingers to point rather than thumbs (usually), it is a convention at MIT to start classes five minutes after the printed start time. Yet it would be quite a leap to infer that the logical forms of sentences indicating the run-time of MIT classes must therefore contain an element corresponding to '+5 minutes'. Merely being conventional is not sufficient for being a constituent of logical form.

In a footnote (p. 53), Stojnić responds to a similar concern. There, she clarifies that the inference from 'is conventionalized' to 'is part of logical form' is made stronger when the conventionalized effects affect truth conditions and underwrite logical inference. But this claim is itself unsupported,

and furthermore, just begs the question against her opponent, who holds that the extra-linguistic context can affect truth conditions and which inferences are logically valid. She also claims that the requirement that the demonstration be in sync with the utterance of the deictic pronoun is evidence that the demonstration should be represented in the logical form. I didn't see any argument for this point, and anyway, I doubt that there is any such strong requirement of synchrony (I can point to a dog and then wait a few seconds and refer to it using *that*, or I can refer to a dog using *that* and then wait and then point to it afterwards).

To motivate Observation 2—that demonstrations, or some other conventionalized linguistic effects, are necessary for deictic readings—Stojnić offers the following case. Suppose the following sentence is uttered (with flat intonation) while Mary is jumping up and down, making her the most salient entity in the speech situation:

(3) A woman came in. She sat down.

Despite Mary's salience, Stojnić reports that the anaphoric reading (on which (3) is equivalent to 'There was a woman who came in and sat down') is the one that is recovered. I agree with Stojnić that, without further contextual clues, it is hard to get a reading of (3) where *she* is deictic and refers to Mary. But this just shows that (i) salience isn't enough to secure demonstrative reference, and (ii) there is a strong interpretative default to interpret pronouns anaphorically (in the absence of an explicit demonstration). An alternative explanation of (ii) is that hearers have default expectations about speaker intentions, and hearers' expectations of speaker intentions play an important role in determining the contents of deictic pronouns (cf. King 2013, 2014).

Consider a different context for (3):

Abe, the head of psychiatric care, looks over his schedule. He is slated to talk with Beth, a resident psychiatrist, whom he knows had been taking care of Mary, a patient suffering from an acute phobia of sitting. Beth enters his office in a hurry and says, 'During yesterday's session, a woman came in. She sat down. It was a major accomplishment in her treatment.'

In this context, it seems clear that, as uttered by Beth (and even with flat intonation), *she* refers to Mary (not the woman who came in). However, this is in direct opposition to Observation 2, since there are no demonstrations, and plausibly no other conventionalized linguistic mechanisms, in place to get *she* to refer to Mary. Instead, the observation here is naturally explained by a suitably enriched speaker intention theory: Beth has the intention to refer to Mary with these pronouns, and Abe is in a position to recover that intention given his understanding of Beth's role. So an alternative conclusion to draw from Stojnić's example above is that default expectations of speaker intentions play an important role in determining the content of a (use of a)

deictic pronoun, and such default expectations are difficult, though not impossible, to override without explicit linguistic mechanisms.

That's not to say that Prominence Theory can't also account for these facts—I'll discuss below how the theory might be able to appeal to discourse relations in the logical form to handle cases of deixis without demonstration. The point is simply that Observation 2 doesn't motivate Prominence Theory, since it isn't true!

This brings us to Observation 3. Suppose Abe intends to refer and point to Mary when saying (4), but accidentally points to Sue instead:

(4) She is a jerk.

Stojnić claims that although Abe intended to refer to Mary, Abe actually said of Sue that she was a jerk; and moreover, even if it's common ground in the context that Abe actually likes Sue (and thus was unlikely to have intended to refer to Sue), it would still be the case that Abe said of Sue that she was a jerk. Evidence for this comes from the fact that Abe is under some obligation to apologize to Sue for insulting her.

If these judgements are correct, it is a challenge to intention-based theories, and a motivation for views on which the demonstration is part of logical form and automatically determines the referent of the pronoun. But I'm not sure the judgements here are correct. While I agree that Abe ought to apologize to Sue, it isn't immediately clear why. Stojnić's answer is that he said of her that she was a jerk. But an alternative answer is that he ought to apologize (and clarify), not because he said this, but because he made it reasonable for someone overhearing him to believe that he thinks Sue was a jerk (and thus made it more likely that someone would come to believe that Sue was a jerk). An argument for the second answer is that, if Sue reproaches Abe for what he said, Abe has a reasonable response at hand: he didn't mean that! After that exchange, Sue pressing the point that he did nonetheless *say* it, seems to me much less forceful.

Furthermore, not all pointings are demonstrations. Many politicians point straight ahead while speaking, for emphasis. Suppose Abe is running for political office and it's common ground that his opponent is a woman. At some point in his speech, while pointing at a woman in the audience who is not his political opponent, he says:

(5) She is going to lose in November.

Clearly, he says that Mary (his political opponent) is going to lose, not that the person in front of him is going to lose.

Suffice to say that I'm unimpressed with these motivations for Prominence Theory. But I suspect that these observations are not the right place to look for a motivation for Prominence Theory in the first place. The reason is that Prominence Theory is actually compatible with the falsity of Observations 2 and 3 as well. To see why, consider the following case:

Sam is attending a one act play put on by Saul Kripke, who is playing the role of David Lewis (he has on a large forked beard and glasses). Sam points in Kripke's direction and says, 'He is the greatest philosopher of the twentieth century'.

It seems clear that whether Sam said that Kripke is the greatest philosopher of the twentieth century or that Lewis is the greatest philosopher of the twentieth century depends on whether Sam intended to point to Kripke or to point to Lewis by way of Kripke (deferred ostention). Stojnić discusses similar examples and holds that they involve an ambiguity: the logical form of Sam's sentence includes either a demonstration of Kripke or a demonstration of Lewis, and which one depends on Sam's intentions: 'pointing gestures are ambiguous between multiple possible forms' (p. 54). Given this concession, then, according to Prominence Theory, speaker intentions (and thus extra-linguistic contexts) *do* play a quite significant role in determining content—just not in resolving context-dependence: 'such resources are exploited in recognizing the form uttered, not in contributing meaning to an underspecified form' (p. 54).

Making this concession opens up space for the theory to predict the falsity of Observation 2. Recall the case:

Abe, the head of psychiatric care, looks over his schedule. He is slated to talk with Beth, a resident psychiatrist, whom he knows had been taking care of Mary, a patient suffering from an acute phobia of sitting. Beth enters his office in a hurry and says, 'During yesterday's session, a woman came in. She sat down. It was a major accomplishment in her treatment.'

In chapter 12, Stojnić proposes handling discourse-initial uses of demonstratives by positing a discourse coherence relation connecting the demonstrative with some object in the situation the utterance is about (p. 174). Thus the theory could hold that the logical form of Beth's sentence contains some coherence relation *R* connected to Mary articulated next to 'she', thus predicting that 'she' refers to Mary.

So Stojnić's theory is actually compatible with the falsity of Observation 2. And it is also compatible with the falsity of Observation 3. As we saw above, not all pointings are demonstrations of things. Thus, Stojnić should allow for the possibility of someone pointing at something while making an utterance and no demonstration appearing in the logical form of the sentence uttered. And given that relation *R* can appear articulated next to 'she' when there is no accompanying pointing gesture, it should be possible to find it articulated next to 'she' even when there is an accompanying pointing gesture (as long as that gesture does not generate a demonstration in the logical form). Thus it should be possible for the relation *R* to connect the pronoun to someone other than the individual pointed to. But then the theory will predict cases like (5) above, where Abe refers to Mary even though he's pointing to someone else.

The take-home message from all this is that, for the most plausible version of Stojnić's theory, the extra-linguistic context's role in disambiguating logical forms will generate many of the predictions that would be made by a standard theory assigning contents to context-sensitive expressions. In both theories, the resolution is not automatic and would instead appeal to default pragmatic principles of interpretation. This makes empirically distinguishing the two theories much more difficult.

Stojnić also articulates a different possible motivation for Prominence Theory: representing these context-dependencies as controlled by linguistic mechanisms is the best way to make sense of necessary truths in natural languages (see in particular pp. 28, 31, 51, 86, 152). Take:

(6) That is that.

Is this sentence necessarily true? According to the standard view, whether it is depends on the context (which assignment function is initialized and how the indexing of the demonstratives line up). According to Stojnić, whether it is depends on whether it is logically valid, which in turn depends on its logical form. If its LF is something like

That [demonstrating x] is that [demonstrating x],

then it is valid and necessary. But if its LF is something like

That [demonstrating x] is that [demonstrating y],

then it is invalid and not necessary. Thus whether it is necessary is entirely a matter of its logical form.

This is an intriguing view and, I think, a potentially more compelling motivation for Prominence Theory than the considerations discussed above. However, I remain unclear about the argumentation here as well. I agree with Stojnić that we have intuitions about whether various utterances of (6) are necessarily true or not, and that we would like an explanation of them, just as we would like an account of why we think some utterances of the string (7) constitute a valid argument and others don't:

(7) Mary danced and sang. So she sang.

But I don't know why we should or must explain our intuitions about the necessity or contingency of utterances of (6) by way of a notion of logical validity that involves these sentences' logical forms, as opposed to their propositional contents. If we go the latter way, there is still an important issue to work out, which is how to generate the right propositional contents given that the context might shift mid-sentence or between sentences (an issue Stojnić helpfully highlights in various places). But there are theories on the market designed to do this (see, for instance, [Glick 2017](#); [Pickel, Rabern and Dever 2018](#)). I find 'one context per word' theories

reasonably compelling, though I think Stojnić has also shown that hers is a promising alternative.

3. On the application to modals and conditionals

Building on the argument from validity for Prominence Theory, Stojnić discusses some applications to modals and conditionals, in particular arguing that the theory provides a plausible diagnosis of various alleged counterexamples to prima facie valid rules of inference.

(I will set aside the discussion in chapters 7–9 of how the theory can help resist an argument for non-propositionalism about modals, which comes from Gillies 2000 and Yalcin 2007, 2011, and stems from the persistent infelicity of strings like

- (8) It's raining and it might not be raining.

Stojnić argues that the infelicity here results from *might* being anaphoric, via a discourse relation called 'elaboration', to the possibility introduced by the first clause, resulting in a contradiction. Such strategies are reasonable, but have also been proposed before, in very different frameworks—see Dorr and Hawthorne 2013 and Mandelkern 2019, as Stojnić notes—and so it is unclear to me how they would motivate the specific commitments of Prominence Theory, especially its commitment to discourse relations in logical form.)

Consider some alleged counterexamples to *modus ponens* and *modus tollens*.

Modus ponens: $A, A \rightarrow B \vDash B$

Modus tollens: $A \rightarrow B, \neg B \vDash \neg A$

MP Dice. Joe rolled a twenty-sided die and kept the result hidden. Knowing that the die was fair, you should be certain that:

- (9) If Joe rolled above 18, then if he didn't roll 19, he rolled 20.
 $j > 18 \rightarrow (j \neq 19 \rightarrow j = 20)$

You should also think it's 0.9 likely that:

- (10) Joe rolled above 18.
 $j > 18$

And yet you should think it's only 0.05 likely that:

- (11) If Joe didn't roll 19, he rolled 20.
 $j \neq 19 \rightarrow j = 20$

This is a prima facie counterexample to *modus ponens* (inspired by McGee 1985; see also Khoo and Santorio 2018), since the rational probability of the

conjunction of premisses of a logically valid argument cannot exceed the rational probability of its conclusion (see Adams 1975, 1998). Compare the following case, inspired by Yalcin (2012):

MT Dice. Same context: Joe rolled a fair twenty-sided die and kept the result hidden. It's true that:

- (12) If Joe rolled above 15, he likely rolled even.

$$j > 15 \rightarrow \text{Likely even}(j)$$

Since of the five outcomes above 15 (16, 17, 18, 19, 20) three are even and two are odd, making it 2/3 likely that he rolled even given he rolled above 15.

- (13) It's not the case that Joe likely rolled even.

$$\neg \text{Likely Even}(j)$$

This also is true, since he wasn't more likely to roll even than odd. But it doesn't follow from these premisses that:

- (14) Joe didn't roll above 15.

$$j \neq 15$$

After all, we have no evidence about how Joe rolled.

In response, Stojnić argues that neither counterexample is genuine, though in different ways. Stojnić holds that the argument in MP Dice is an instance of *modus ponens*, and is valid (contrary to the intuition above); and she holds that the argument in MT Dice is not an instance of *modus tollens*, and is invalid (its premisses could be true and the conclusion false).

In support of her claim about Yalcin's *modus tollens* case, Stojnić holds that for the premisses and conclusion to instantiate *modus tollens*, the consequent of the major premiss must be truth-conditionally incompatible with the minor premiss. She then argues that in so far as we find the major premiss intuitively plausible, its consequent is *not* truth-conditionally incompatible with the minor premiss, and so we don't have a genuine instance of *modus tollens*.

As we saw above, the natural interpretation of MT Dice goes as follows:

- (12) If Joe rolled above 15, he likely rolled even.

True if and only if the probability that Joe rolled even given that he rolled above 15 is greater than 0.5.

- (13) It's not the case that Joe likely rolled even.

True if and only if the probability that Joe rolled even is not greater than 0.5.

Why does this mean that these premisses do not instantiate the premisses of *modus tollens*? Answer: the domain of possibilities relative to which we evaluate the consequent of (12) is not the same as the one relative to which we evaluate (13), and so the contents of these sentences are not incompatible.

Stojnić predicts this result by letting the consequent of (12) contain the ELABORATION discourse relation, which takes the set of worlds made salient by the *if*-clause—the set of epistemic possibilities in which Joe rolled above 15—and uses it to restrict the domain of the prominence-sensitive modal *likely* (see p. 160). As a result, the content of the consequent of (12) (*Joe likely rolled even*) is true if and only if:

The probability (given E^+ , which entails that Joe rolled greater than 15) that Joe rolled even is greater than 0.5.

However, the minor premiss (13) contains the CONTRAST discourse relation, which ensures that its occurrence of *likely* is evaluated relative to the set of global epistemic possibilities E , which does not entail that Joe rolled greater than 15. Thus the content of (13) is predicted to be true if and only if:

The probability (given E) that Joe rolled even is not greater than 0.5.

Thus the content of (13) is not the negation of the content assigned to the consequent of the major premiss, and so we don't have an instance of *modus tollens*.

I think this is a promising strategy to pursue. I'll make three remarks in response. First, I am a bit puzzled why Stojnić doesn't also thereby draw the same conclusion about McGee's *modus ponens* case. Just as with the thought about *modus tollens*, we might think that we have an instance of *modus ponens* only if the conclusion is truth-conditionally equivalent to the consequent of the major premiss. In so far as we find the major premiss (*If Joe rolled above 18, then if he didn't roll 19, he rolled 20*) certainly true, we are evaluating the embedded conditional (*if Joe didn't roll 19, he rolled 20*) relative to the information E^+ , which entails that Joe rolled above 18. But in so far as we find the conclusion (*if Joe didn't roll 19, he rolled 20*) unlikely, it must be because we evaluate it relative to the global information state E , which does not entail that Joe rolled above 18. Hence it seems, by the same reasoning as in the *modus tollens* case, we should conclude that MP Dice doesn't instantiate *modus ponens*. That Stojnić doesn't argue this way is thus somewhat surprising. What is the difference between the two cases?

My second thought is that it remains unclear *why* exactly we should think of *modus ponens* and *modus tollens* in the way Stojnić proposes (as operating on the truth-conditional contents of the sentences involved), rather than in the way McGee and Yalcin propose (as operating on the sentences themselves). It seems plausible to me that there are simply two distinct kinds of logical principles we may use in evaluating natural language arguments, each with its own application, neither having more claim to the labels '*modus ponens*' and '*modus tollens*' than the other. This thought is compatible with Stojnić's strategy, though it rephrases its

upshot (see Khoo and Mandelkern 2019 for further discussion and application to a range of examples).

My third reaction is to compare Stojnić's theory with the more standard Kratzerian analysis of conditionals, which predicts similar results (see Kratzer 1986, 1991, 2012). According to Kratzer's restrictor theory, we define the meaning of a conditional operator as follows (where i is a modal base function from possible worlds to sets of possible worlds, and $i^A(w) = i(w) \cap A$):

$$\llbracket A \rightarrow B \rrbracket^{i,w} = 1 \text{ if and only if } \llbracket B \rrbracket^{i^A,w} = 1$$

This says that $A \rightarrow B$ is true if and only if B is true relative to the information state restricted by the proposition expressed by A . Kratzer then posits covert modals in the syntax for bare conditionals (a move I suspect Stojnić must follow, given her analysis of modalized conditionals like *if A, likely B* on p. 160—see Khoo 2011 for discussion). So *if Joe didn't roll 19, he rolled 20* is analysed as:

$$\llbracket j \neq 19 \rightarrow \Box(j = 20) \rrbracket^{i,w} = 1 \text{ if and only if } \llbracket \Box(j = 20) \rrbracket^{j \neq 19, w} = 1$$

where

$$\llbracket \Box A \rrbracket^{i,w} = 1 \text{ if and only if } \forall w' \in i(w) : \llbracket A \rrbracket^{i,w'} = 1$$

Given this, the Kratzerian can say something similar about McGee and Yalcin's cases (see Khoo 2013 for additional details). For MP Dice, the content of the embedded conditional (*if Joe didn't roll 19, he rolled 20*) in the major premiss is:

$$\left\{ w : \llbracket j \neq 19 \rightarrow \Box(j = 20) \rrbracket^{j > 18, w} = 1 \right\}$$

But the content of the conclusion is:

$$\left\{ w : \llbracket j \neq 19 \rightarrow \Box(j = 20) \rrbracket^{i,w} = 1 \right\}$$

And these propositions are not equivalent. Similarly, in MT Dice, the content of the consequent of the major premiss (*Joe likely rolled even*) is:

$$\left\{ w : \llbracket \text{Likely even}(j) \rrbracket^{j > 15, w} = 1 \right\}$$

where

$$\llbracket \text{Likely } A \rrbracket^{i,w} = 1 \text{ if and only if } \Pr_{i(w)}(A) > 0.5$$

But the content of the minor premiss (*it's not the case that Joe likely rolled even*) doesn't contradict this:

$$\left\{ w : \llbracket \text{Likely even}(j) \rrbracket^{i,w} = 0 \right\}$$

Thus the Kratzerian can say the same thing as Stojnić regarding MP Dice and MT Dice, without positing discourse coherence relations in logical form.

This isn't to say, however, that there is no advantage to implementing these ideas using discourse coherence relations. As Stojnić notes (p. 123; see

also Kratzer 2012, p. 108), we still need some mechanism to account for modal restriction via cross-sentential anaphora, as in:

- (15) If Joe rolls a number greater than 18, he will win \$1,000,000.
 ... Joe will buy a boat.

Here, the natural interpretation of the second sentence is as conditional, equivalent to *if Joe rolls a number greater than 18 and wins \$1,000,000, he will buy a boat*. Stojnić's theory has the advantage of only needing to appeal to a single mechanism to handle both inter-sentential domain restricting and cross-sentential domain restricting.

That said, I am not totally sure it is an advantage to handle these phenomena with a single mechanism. Restriction via *if*-clause is automatic—note that there is no interpretation of the first sentence of (15) where it is equivalent to *Joe will win \$1,000,000*—and so has some claim to be conventionalized. But cross-sentential restriction is not automatic—there is a possible unconditional interpretation of the second sentence of (15)—which is a mark against it being conventionalized. Thus a natural thought here is that intra-sentential *if*-restricting is conventionalized as part of the meaning of *if*, but cross-sentential modal anaphora is not. Stojnić might instead hold that this just shows that which discourse coherence relation enters into the logical form of the second sentence of (15) will depend on the extra-linguistic context. So far, we have at best a tie. But that shows that the argument here isn't a particularly compelling one for Prominence Theory over Kratzer's restrictor theory of conditionals.

4. Conclusion

Despite my doubts about the motivations articulated for its central thesis, I found Stojnić's book a fascinating read. While some of the details are cumbersome and can be difficult to follow, the central guiding insight is novel and unexpected and thought-provoking—definitely the sign of good philosophical work. My recommendation to readers is to approach the book as a progress report of an extensive and large-scale ongoing research programme. Given that we are still in the early stages of development of this theory, I wouldn't be surprised if future work uncovers even more compelling evidence and arguments in its favour, and I look forward to continuing to think about and discuss its merits in relation to other, more entrenched, theories of context-dependence.

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