Act-Based Conceptions of Propositional Content

CONTEMPORARY AND HISTORICAL PERSPECTIVES





Edited by
Friederike Moltmann and Mark Textor

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CONTENTS

PART ONE **Historical Perspectives**

3. Adolf Reinach: Excerpts from <i>On the Theory of the Negative Judgm</i> introduction by Mark Textor) 61	ent (with an			
Kazimierz Twardowski: Actions and Products: Some Remarks from the Borderline of Psychology, Grammar, and Logic 78				
. Wioletta A. Miskiewicz: The Theory of Objects in <i>On Actions and Products</i> : A Note for the English-Speaking Reader 105				
4.3. Kazimierz Twardowski: The Psychology of Thinking 114				
4.4. Kazimierz Twardowski: Theory of Judgments 141				
 Wioletta A. Miskiewicz: On Actions and Products (1911) by Kazimie Twardowski: Its Historical Genesis and Philosophical Impact 161 				
PART TWO Contemporary Perspectives				
6. Scott Soames: For Want of Cognitively Defined Propositions: A Hist Insights and Missed Philosophical Opportunities 181	tory of			
7. Robert Fiengo: Austin's Cube: The Speech Acts of Asserting 209				
8. Peter Hanks: Propositions, Synonymy, and Compositional Semantic	es 235			
 Friederike Moltmann: Cognitive Products and the Semantics of Att and Deontic Modals 254 	itude Verbs			
10. Mark Textor: Judgment, Perception, and Predication 290				
11. David Ripley: Bilateralism, Coherence, Warrant 307				
12. Matthias Gerner: Actions and Products Worldwide 325				

Introduction by Friederike Moltmann and Mark Textor vii

1. Edmund Husserl: Excerpts from Logical Investigations 3

Bilateralism, Coherence, Warrant

David Ripley

1. Introduction

Just about everybody agrees that linguistic meaning is determined at least in part by *use*. Although the pattern of letters "dog" means *dog* in English, if we were to use the same pattern of letters, or of sounds, in a way very different from how we in fact use it, it might come to mean *cat*, or *look out!*, or nothing at all.

This is about where agreement runs out, however. Just which aspects of the use of an expression are involved in fixing its meaning is a matter of much dispute. This paper is an attempt to sort out some issues that arise in addressing this question.

In the rest of the introduction, I present the two binary choices that will occupy me here. The first is a choice between *unilateralism* and *bilateralism*; a unilateralist theory is one based only on assertion conditions, while a bilateralist theory is based on both assertion and denial conditions. I accept a bilateralist theory, of the sort outlined in Ripley (2013a), and I will argue for bilateralism over unilateralism in the remainder of the paper. The second choice is between *warrant*- and *coherence*-based understandings of assertion and denial conditions; this choice too will play a key role in the paper. Section 2 argues that warrant-based unilateralisms struggle to give a workable theory of disjunction. Section 3 argues that coherence-based unilateralisms struggle in related ways with negation. Putting these together, section 4 concludes.

1.1 TWO CHOICES

There is some loose agreement on *two* key aspects of use involved in grounding meaning. Speaking Dummettian, one can point to them as follows:

Learning to use a statement of a given form involves, then, learning two things: the conditions under which one is justified in making the statement;

and what constitutes acceptance of it, i.e. the consequences of accepting it. (Dummett, 1973, 453)

Speaking Brandomian, this is pronounced as follows:

Understanding or grasping a propositional content is . . . practical mastery of a certain kind of inferentially articulated doing: responding differentially according to the circumstances of proper application of a concept, and distinguishing the proper inferential consequences of such an application. (Brandom, 2000, 63-64)

Set in different theoretical idioms, these quotes nonetheless (at a certain level of abstraction) point to the same two things. What Dummett is calling "the conditions under which one is justified in making the statement" corresponds to what Brandom is calling "the circumstances of proper application of a concept": what *leads to* or *allows* a judgment, what premise-like things allow us to use the judgment as a *conclusion*. Similarly, what Dummett is calling "the consequences of accepting it" corresponds to what Brandom is calling "the inferential consequences of such an application": what a judgment, once made, *allows*, what *leads from* it, what conclusion-like things allow us to use the judgment as a *premise*.¹

It is these two aspects of the content of a judgment that raise the first theoretical distinction in play in this paper: Do these two aspects stem jointly from a single underlying feature of our use of language, or do we need to take (at least) two underlying features of our use into account? I'll focus on two particular ways to answer this question, for concreteness. These ways see the two aspects as stemming from conditions governing speech acts.²

One approach, *unilateralism*, holds that conditions governing the speech act of *assertion* are enough to build a theory of content on. (For examples, see Dummett 1976, Prawitz 1977, and Tennant 1987.) The other approach I'll consider, *bilateralism*, holds that we must consider conditions governing the speech acts of *assertion* and *denial*. For a bilateralism to genuinely be *bi*, then, it must hold that denial conditions cannot themselves be understood as deriving only from assertion conditions. Indeed, this is what bilateralists hold (see, for example, Price 1983, Rumfitt 2000, Restall 2005, and Smiley 1996).

To see the other theoretical distinction I will discuss here, focus on the notion of *conditions* shared by unilateralist and bilateralist accounts. Almost all of the participants in the unilateralism/bilateralism debate share a common view about these conditions, but there is at least one noteworthy competitor account available,

¹I use the phrases "premise-like things" and "conclusion-like things" to leave open the possibility that these are not linguistic items at all, at least in some cases. See, for example, Brandom (1994, chap. 4) or Humberstone (1988).

² Just how this stemming goes is itself an interesting topic, but one I won't address here. See, for example, Prawitz (1965) and Restall (2005) for (quite different!) example accounts.

and I will consider both the orthodox view and its competitor in what follows. Indeed, one of my subsidiary goals in this paper is to help flesh out this competitor.

The orthodox view is that the *conditions* invoked by both unilateralists and bilateralists are conditions under which an assertion or denial is *warranted*. On this warrant-based account, a sentence's assertion conditions are the conditions under which it may be *warrantedly* asserted; for bilateralists, its denial conditions are in addition the conditions under which it may be warrantedly denied. Semantics, on this view, is at root *epistemological*; it is a matter of justification, whatever justification in the end itself amounts to. This warrant-based conception is common to many unilateralists and bilateralists alike (witness, for example, Dummett 1991, Price 1983, Rumfitt 2000, and Tennant 1987).

The conception I want to oppose to this is inspired by Restall (2005, 2009b, 2013). This conception, which I recommend in Ripley (2013a), sees a sentence's assertion conditions—in the sense relevant for fixing its meaning—as conditions under which it is *coherent* to assert the sentence, and similarly for denial conditions.

I hasten to point out that building an account of content from these warrant or coherence norms on assertions and denials in no way requires supposing that warrant or coherence provide the *only* norms governing assertion and denial, or even that they are the only norms governing them *qua* assertion and denial. Perhaps assertion and denial are subject to any or all of warrant norms, coherence norms, knowledge norms, truth norms, cooperativeness norms, sincerity norms, kindness norms, or other norms; and perhaps being subject to some or all of these norms is part of *what it is* to be an assertion or a denial. I have no quarrel with any of that. All I'm presently focused on is the question of which norms our account of meaning should draw on, not an exhaustive catalogue of norms governing or even constituting the acts themselves. (In this connection, note that I will not here offer any account of what assertion and denial *are*; that's an important question, but it too must be taken up elsewhere.)

1.2 WARRANT AND COHERENCE

Since the coherence-based conception I will draw on is less familiar than some of its warrant-based alternatives, I'll take a moment to sketch a few of its features, and contrast it to more usual warrant-based approaches to assertion and denial conditions.

First, where warrant is an epistemological notion, the notion of coherence that I'm interested in here is a *social* or *conversational* notion.³ The idea is this: in order to manage social interactions of various sorts, it is convenient to understand each other (and ourselves) as adopting *positions* of various sorts that hang together more or less well. This provides valuable tools for coordinating our actions with

³The "coherence" I have in mind is very much *not* the "coherence" of coherence-based epistemologies, as will become apparent. It is closer to the "coherence" drawn on in Field (2008, 119–20).

each other. When we share information about a topic, we often understand the situation as one in which we come to the conversation occupying certain *points of view*, which we then seek to fit together as best we can. When we form expectations about how other people will act in various situations, we take into account *what they think* is the case. We often understand *changing one's mind* in these terms; this is what happens when someone moves from one position to another one incompatible with the first. And so on.⁴

We do not just *assume* that the people around us have coherent points of view, though. We also *expect* them to; we hold them to norms of coherence.⁵ This is perhaps easiest to see by considering a certain variety of conversational move, one sometimes framed as follows: "Wait a minute. Just a moment ago you said x. But now you're saying y!" This sort of conversational move is appropriate just when, by saying x and then y, the interlocutor has adopted an incoherent position. Since we suppose incoherent positions are ruled out, there is at least implicit in this criticism a request for clarification: "Since the position actually adopted was incoherent, which coherent position would you like to be credited with?"

Note that there is nothing interestingly *logical* about the notion of incoherence in play here. The notion that we can find playing a role in our conversational practices is a *material* one. Here the approach I am recommending sits nicely with the approach recommended by Brandom (e.g., in Brandom 2000). The notion of incoherence deployed here is not far off from his notion of "material incompatibility." The main differences are not in the notions themselves, but rather in what they apply to. Brandom's material incompatibility is a binary relation between contents, while the notion of coherence I'm interested in here is a property of whole positions.

An example might make the *materiality* clearer (I owe this example to Bruce Langtry): the position adopted by asserting both "Napoleon died in 1815" and "Napoleon fought at the Battle of Waterloo in 1821" is (in usual contexts) incoherent. Importantly, on the present picture this does not reduce to a prior logical inconsistency, or anything like it. In particular, it is not because we tacitly assume "It's not the case that Napoleon both died in 1815 and fought at the Battle of Waterloo in 1821." Rather, we simply treat the claim that Napoleon died in 1815 as *directly* incompatible with the claim that he fought at the Battle of Waterloo in 1821. It is from this prior ability to treat things as incoherent that negation gets its content, not vice versa.⁶

⁴Frankly, I suspect that we are too internally disorganized for this way of thinking to be very accurate at all about our psychology. But for my purposes here, it doesn't really matter whether this way of thinking is spot on, merely a heuristic, or something in between. It's important to our managing a wide variety of our interactions with each other, and that's all that's immediately relevant.

⁵ These norms have different strengths, motivations, and contours in different conversational contexts; I won't consider such contextual variation here, though.

⁶Although there are differences on the details, this kind of account of negation's content is familiar. See, for example, Millikan (1984), Price (1990), Restall (1999), and Tennant (1999).

The second important difference between warrant and coherence is that warrant applies directly only to *full* assertions and denials, not also for assertions and denials *under suppositions*. For example, consider the following conversation, which involves a supposing:

ZEBRA: What if kangaroos really don't have tails?

ALICE: Then we've been subject to a massive kangaroo conspiracy!

Alice has not asserted that we've been subject to a conspiracy full stop; she has rather made her assertion *under the supposition* that kangaroos don't have tails. To evaluate this assertion for warrant, we don't evaluate it simply as it is: presumably Alice actually has no warrant at all for the claim that we've been subject to a massive kangaroo conspiracy, and yet her assertion can nonetheless be perfectly warranted. Nor is it the case that, under the supposition, Alice would have warrant for this claim: under the supposition, presumably the conspiracy was effective, and Alice would still have no such warrant.

Rather, if Alice's assertion-under-supposition is warranted, it is because she actually has warrant for an *inference*: if Alice were to discover that kangaroos in fact have no tails, she would be warranted in inferring that we've been subject to a massive kangaroo conspiracy. (Or, perhaps, because she actually has warrant for the *conditional* "If kangaroos have no tails, then we've been subject to a massive kangaroo conspiracy.")

So warrant applies to assertions and denials under suppositions at best *indirectly*. Coherence, though, is different. Assertions and denials under supposition enter into coherence relations *directly*, in the very same way that full assertions and denials do. If Alice continues the conversation above by going on to deny, under the same supposition, that we've been subject to a massive kangaroo conspiracy, then her position under that supposition is not coherent: she has asserted and denied the same thing. This is just as incoherent as if she were to do these things fully, rather than under supposition, and for just the same reasons.

The effect of suppositions on coherence is not to modify the inner workings of coherence at all, but rather to *isolate* certain assertions and denials from each other. If Alice were to continue the above conversation by denying that we are subject to a massive kangaroo conspiracy—not denying under supposition, but denying full stop—she would remain perfectly coherent; her denial-full-stop would not clash with her assertion-under-supposition. (At least unless kangaroos *do* turn out to have no tails!)⁷

 $^{^{7}}$ For more on this isolation, see Restall (2012). This feature of coherence is the key to answering an objection to Restall's account of consequence due to Rumfitt (2008, 80). Rumfitt says:

Restall (2005) overplays his hand in suggesting that "Y is a multiple-conclusion consequence of X" can be explained as meaning "The mental state of accepting all of X and rejecting all of Y would be self-defeating." The mental state that consists of accepting that there will never be sufficient grounds for accepting or rejecting "There is a god," while rejecting that very statement, is self-defeating. But "There is a god" is in no sense a consequence of "There will never be sufficient grounds for accepting or rejecting 'There is a god."

The third main difference between warrant and coherence, although this will not much detain us, is that warrant applies in the first place to single assertions or denials. Collections of assertions and denials can be warranted, of course, but this is a derivative status. (The most natural way to do the deriving seems to be to take a collection to be warranted iff all its members are.)⁸ By contrast, coherence applies in the first place to *collections* of acts: they clash with each other or they do not. Single assertions or denials can be coherent, of course, but this is usually a question of whether they can be coherently *added* to some existing collection of acts. (Sometimes it is the question of whether the tiny collection containing just the one act is itself coherent.)

2. Disjunction

I suppose that anyone in the business of spelling out a theory of meaning ought to want meanings to be *compositional*, such that the meanings of compounds depend only on the meanings of their components and the method of composition. As an example, the meaning of "A or B" ought to depend on the meanings of A and B in a predictable way.⁹

Both the unilateralist and the bilateralist will need to specify assertion conditions, then, for "A or B," in terms of their respective meanings for A and B. (Bilateralists will also owe denial conditions, but I focus here on assertion conditions.) In this section, I argue that a warrant-based unilateralist approach is not very well-positioned to do the job; warrant-based bilateralists or coherence-based approaches fare better.

2.1 WARRANT AND THE SIMPLE-MINDED ACCOUNT

Here is a simple-minded account of assertion conditions for a disjunction; call it *the simple-minded account*:

The simple-minded account: "A or B" is assertible iff A is assertible or B is assertible.

This, though, misunderstands Restall's account. There is nothing at all incoherent (pace verificationists) about *supposing* that there is a god, but that there will never be sufficient grounds for accepting or rejecting "There is a god." But coherence (in the relevant sense) is the same under supposition and not; so there is nothing incoherent (in the relevant sense) about the actual pattern of acceptances and rejections Rumfitt points to. Rumfitt has too broad a conception of "self-defeat" in mind. (Restall makes this point in a blog post [Restall 2009a], but so far as I know, nowhere in print.)

⁸ This is not, perhaps despite appearances, to reject "coherence"-based theories of warrant, such as those discussed in Olsson (2005). Such theories don't maintain that warrant applies in the first place to collections of *speech acts*, but rather to collections of *beliefs* or something cognate. Warrant is then passed to speech acts one by one, say when those speech acts express beliefs that are part of some warranted assembly. (Remember, too, that their "coherence" is not mine!)

⁹For my purposes here, I won't distinguish the separate contributions made by the meaning of "or" on one hand and the method of composition on the other; together, those should still determine a meaning for "A or B," given meanings for A and B.

This is at the very least a tempting first thing to try to arrive at compositional assertion conditions. After all, theorists who base their theories of meaning on *truth* conditions have had reasonable success with a cognate strategy. But if assertibility is *warranted* assertibility, then the simple-minded account has a problem: it's obviously false.

Warrant for either disjunct, it seems safe to assume, will also be warrant for the full disjunction. Thus, the right-to-left direction of the simple-minded account is fine on this reading. But the left-to-right direction is hopeless: it's far too easy to have warrant for a disjunction without having warrant for either disjunct.

Here are some counterexamples to the left-to-right direction of the simple-minded account, if assertibility is warranted assertibility.

Perceptual evidence: You come home and don't see your roommate, who likes to hide. You tell your friend on the phone "either my roommate's out, or they're hiding." Your assertion is surely warranted, but you easily might have no warrant for either disjunct.

Testimonial evidence: A reliable source tells you "A or B," but you have no other evidence bearing on either A or B. Now you have warrant for "A or B," since the testimony of a reliable source is surely enough for warrant. But you have no warrant for A and no warrant for B.

Inferential evidence: You know that a certain spaceship has a self-destruct button, that the spaceship is functioning properly and will only self-destruct if the button is pressed, and that Alice and Zebra are the only potential button-pressers aboard the ship. You see the spaceship undergo its self-destruct process, destroying (alas!) Alice, Zebra, and all records or evidence about what was on the ship before its destruction. Putting this all together, you conclude that either Alice or Zebra pressed the self-destruct button. This conclusion is surely warranted, but you have, and can have, no evidence about which one of them it was.

The problem is structurally the same in all these cases: there are uncontroversial sources of warrant (perception, testimony, inference) that can give warrant directly to a disjunction without having anything at all to offer about either disjunct. The simple-minded account of disjunction's assertibility is not tenable if assertibility is warranted assertibility. The defender of a warrant-based account of assertibility needs another account. I think no satisfying account is available to the warrant-based unilateralist, though.

The above cases do not just reveal a symptom: they get at the underlying malady as well. Warranted assertibility really isn't compositionally determined. That is, warrant is simply not where *use* and *compositionality* come together, if use is understood as involving assertion only. As such, the defenders of a warrant-based unilateralism face a dilemma: either their account strays too far from actual use to serve its original goal (tying meaning to use), or else their account gives up on an important kind of compositionality. To illustrate, I'll consider two possible alternative accounts of disjunction's assertion conditions: first, an account developed

by Prawitz and Dummett based on a notion of "canonical warrant," which takes the first horn of this dilemma; and second, an account suggested by some remarks of Price, which takes the second horn.

2.2 CANONICAL WARRANT

The idea behind the "canonical warrant" strategy is to identify a special kind of warrant that *does* obey the simple-minded account or something like it, and then use this special kind of warrant in a compositional meaning theory. Canonical warrant is this special kind of warrant: having canonical warrant for an assertion is sufficient, but not necessary, for its being warranted simpliciter. The warrant in the above cases will (crucially!) not count as canonical.

For both Prawitz and Dummett, the canonical warrant conditions for disjunction are given by its introduction rule in Gentzen's natural deduction formulation of intuitionist logic. This rule allows "A or B" to be inferred from A, and it also allows "A or B" to be inferred from B, and it does not allow "A or B" to be inferred in any other way. Thus, the account is this: an assertion of "A or B" is canonically warranted iff either an assertion of A is warranted or an assertion of B is warranted.¹⁰

In order to evaluate this claim, we need to see just what the *canonical* part of canonical warrant is meant to amount to. Dummett offers the following account:

A statement may frequently be established by *indirect* means, but to label certain [restricted] means "canonical" is to claim that, whenever we are justified in asserting the statement, we *could have* arrived at our entitlement to do so by those restricted means. (Dummett 1991, 252; emphasis in original)

This idea is tied quite closely to certain interesting facts about normalization in natural-deduction systems.¹¹ Interesting as those facts are, however, they don't provide the kind of bridge we are after between use and meaning. Given this understanding of canonicity, the account of disjunction under consideration entails that whenever an assertion of "A or B" is warranted, we *could have* either warrant for an assertion of A or warrant for an assertion of B. What *this* claim in turn amounts to depends on the sense of "could have" in play: if the sense is very narrow (say, actual practical possibility), then the claim is quite strong; but if the sense is very broad (say, possibility in principle for some agent somewhere), then the claim is weaker. (For Dummett's discussion of this issue, see Dummett 1991, 265–272.)

The trouble with any approach along these lines is that all versions of this claim fail to connect to our *actual use* of language (which was, after all, the original

¹⁰For Prawitz, any warrant for A or for B will do; for Dummett, the warrant for A or for B must itself be canonical. This difference won't matter here; see Prawitz (2006) and (Dummett (1991, chap. 11) for discussion.

¹¹ For details, see Prawitz (1965).

idea), and the narrower, stronger versions of the claim are anyway completely implausible.

Warrant *is* intimately tied to our use of language; this is presumably why it provides such a tempting basis for use-based theories of meaning. We often attempt to assert or deny only what we are warranted in asserting and denying, surely, but the connections go much deeper than that. For example, cooperative conversational partners can often be induced to *withdraw* an assertion or denial if it comes to light that they did not have warrant for it. Even more strikingly, various sources of warrant (or at least evidence, which is intimately related) are *grammaticalized* in a number of languages. ¹² There is also a plausible line of thought according to which warrant-based norms are part of what makes assertions *assertions*. ¹³ But these connections, strong as they are, are of no help to the canonical-warrant theorist, as they all involve *actual* warrant, rather than the merely hypothetical sort of warrant needed.

In brief: if the canonical-warrant account of disjunction is right, then whenever we have warrant for a disjunction, we could have had warrant for its disjuncts—and this possibility must be *reflected* in our use, on pain of breaking the connection between use and meaning. But the kinds of warrant that are directly connected to our use of language are not plausibly understood as merely possible warrants: they are the *actual* ones.

In addition, the stronger versions of Dummett's claim straightforwardly conflict with easy variations on cases considered above. For example, return to the inferential evidence case. The only sense in which you "could have" arrived at warrant to assert that Alice pressed the button, or warrant to assert that Zebra pressed the button, would be by having had some access to the spaceship before it was destroyed, or by having some way to reconstruct the button-pressing post hoc. But it is a simple matter of imagination to fill the case in so that these are as difficult to achieve as you like.

Of course there is much more to be said here; Prawitz and Dummett, along with others, have done much to develop this way of thinking that I haven't addressed. But I've said enough, I hope, to indicate my reasons for dissatisfaction with this sort of approach. So I'll move on, and consider another option a warrant-based unilateralist might adopt.

2.3 PRICEAN WARRANT

Here, I'll consider another warrant-based unilateralist option, suggested by some remarks in Price (1983, 168). Price doesn't mean to endorse this account, as he is giving a *bilateralist* theory, but certainly someone might endorse it, and it's worth considering, as it repairs the above-mentioned problems with the canonical warrant approach. Rather than shifting its attention to a special kind of warrant, this

¹² For an overview, see Aikhenvald (2006).

¹³ For discussion, see, for example, Lackey (2007).

account stays at the level of ordinary warrant, which plausibly affects our actual use of language. The idea is this: an assertion of "A or B" is warranted iff an assertion of A is warranted, *or* an assertion of B is warranted, *or* there is warrant to infer A from "Not B," *or* there is warrant to infer B from "Not A." Call this "the Pricean account." The last two disjuncts go beyond the simple-minded account in a way that helps the Pricean account address the above cases.

For example, consider the testimony case. You have warrant for "A or B" without having warrant either for A or for B. But, given your state of information, you do have warrant to infer A from "Not B," and B from "Not A." So the Pricean account is not threatened by this case. The other cases work in just the same way; in each case, although there is no warrant for either disjunct, there *is* warrant to infer each disjunct from the negation of the other, precisely *because* there is warrant for the disjunction.

Two potential worries about the Pricean account should be set aside immediately. First, the account seems to involve appeal to richer resources than merely the conditions under which an assertion is warranted, and so there might be a worry that a strict unilateralist is not entitled to such an account. After all, as stated here, it involves not just the notion of a warranted *assertion*, but also the notion of a warranted *inference*. However, there are unilateralist accounts of warrant for inferences that explain it in terms of warrant for assertion, such as the account offered by Prawitz (1965)—although see Schroeder-Heister (2012) for worries. So a unilateralist may well be entitled to the Pricean account of disjunction. For present purposes, then, I'll assume the unilateralist has some way of understanding warranted inference, and I won't worry about the details. (If they do not, so much the worse for them.)

Second, the account might seem to get an important *direction of explanation* wrong. The worry is this: when we appeal to compositionality as a constraint on theories of meaning, we do not simply require some law-like connection or other between the meaning of a compound sentence and those of its components (together with the mode of combination); we want the meaning of the compound to be *explained by* the meanings of its components (together with the mode of combination).¹⁵ Yet when we apply the Pricean account to any of the cases above, it seems to proceed in the opposite direction. In the testimony case, you have warrant for inferring A from "Not B," and B from "Not A," precisely *because* you have warranted belief in "A or B," having been told this by a reliable informant. To then use this warranted inference itself as part of the story about why asserting "A or B" is warranted, the objection would have it, creates a vicious explanatory circle: it seems that an assertion of "A or B" is warranted, in such a case, only because it is.

¹⁴I suppose we allow warranted inference to appeal to warranted side information, as this seems unobjectionable, and is anyway needed to give this strategy a hope of working.

¹⁵There is a plausible case to be made that this part-to-whole direction of explanation should be inverted when the whole is an atomic sentence, and the parts are purely subsentential. See, for example, the "top-down" approach of Brandom (2000, 12–15). But in the case of disjunctions and their disjuncts, part-to-whole is clearly the way to proceed, even if the direction is controversial in some other cases.

There is a slip in the above reasoning, however, which undermines the objection. It is your warranted *belief* in "A or B" that explains your warrant to *infer* A from "Not B," and this warrant to infer that explains why an *assertion* of "A or B" is warranted. The explanation here is not circular at all: warranted belief explains warrant for inference, which in turn explains warrant to assert. This potential worry, then, is also best set aside.

So the Pricean account faces none of the trouble faced by the "canonical warrant" approach, and it seems to get at a plausible story about when assertions of disjunctions are warranted. In addition, at least two initial worries one might have about the account turn out to be groundless: the account is available to the unilateralist, and it is not circular. So it seems, at least so far, like a viable option for the warrant-based unilateralist. Unfortunately, the Pricean account faces a serious problem it cannot overcome: it's not compositional. "Not A" doesn't occur in "A or B," and neither does "Not B." So tying the meaning of "A or B" to "Not A" and "Not B" leaves it tied to things that are not components of it.

This might seem like a trivial point. After all, the usual *reason* for demanding compositionality of a meaning theory, one might think, has to do with its role in explaining *productivity*: the fact that competent speakers can successfully understand and generate completely novel utterances. And although the Pricean account of disjunction is not compositional strictly speaking, it might still seem compositional *enough*, as it were, to play this explanatory role. The explanatory role requires only that it be possible for speakers and hearers to predict the meaning of a compound from the meanings of its components. At least when coupled with a workable account of negation, the Pricean account of disjunction can give us just this: so long as the warranted assertions (and inferences) involving "A and B are settled, then these will settle the warranted assertions (and inferences) involving "Not A" and "Not B," and *all* this will in turn settle the warranted assertions involving "A or B." So we can have our explanation for productivity, even with an account that isn't compositional.

But I think there are separate reasons to be worried about the Pricean account's noncompositionality. The problem is not that it prevents us from explaining productivity: it does not prevent this, as the previous paragraph makes clear. Rather, the problem is that it ties the meaning of "A or B" directly to both the negation of A and the negation of B. There are at least two good reasons to think that this kind of tie does not, in fact, hold.¹⁶

The first comes from languages without negation. If the Pricean account is right, such languages cannot include disjunctions like ours, since negation plays a crucial role in the Pricean account of disjunction. Either the Pricean account would not apply to such languages at all, or else it would reduce to the simple-minded account for such languages. Either result is unwelcome, though: it is not

 $^{^{16}}$ These parallel, in a more restricted setting, some of the arguments for bilateralism in Restall (2005).

plausible that languages without negation can have no disjunction, nor is the simple-minded account any more plausible for such languages than it is for ours.

The second comes from nonstandard accounts of negation. These accounts might easily affect the circumstances under which someone who accepts them is warranted in asserting a negation, but without affecting their warrant for disjunctions at all. For example, according to some theorists we cannot conclude B from "A or B" and the negation of A, because A and its negation might both be true (see, for example, Priest 2006b or Beall 2009). Such theorists, it seems clear, can be warranted in asserting "A or B" in, say, the testimony case above, because they justifiably trust their interlocutor; but they may have no warrant at all for asserting A or asserting B, or for inferring A from the negation of B, or B from the negation of A, owing to their beliefs about negation. So the Pricean account of disjunction cannot work for such theorists. But they don't have a nonstandard theory of disjunction, only of negation. The Pricean account is enforcing a tie between negation and disjunction that simply isn't there.

So I conclude that the Pricean account is not a satisfactory account of the assertion conditions for disjunction. Warrant-based unilateralists are in trouble. However, there is a *bilateralist* variation of the Pricean account that is fully compositional and addresses the above concerns. (This variation was suggested to me in conversation by Graeme McLean.) The idea is this: rather than appealing to facts about A's and B's *negations*, we might instead appeal to A's and B's *denial* conditions. Supposing on behalf of the warrant-based theorist that following from is to be understood in terms of some kind of transformation on warrants, this amounts to something like the following: an assertion of "A or B" is warranted iff an assertion of A is warranted, *or* an assertion of B is warranted, *or* there is a way to transform warrant for a denial of B into warrant for an assertion of B.¹⁷

Since denial is something that can be done even in negationless languages, the first of my objections to the unilateralist Pricean account is overcome by this bilateralist variant. The second objection is overcome, too: the question of how closely to link negation and denial is an independent moving part of an account of negation, and need not constrain our account of disjunction. In fact, nonstandard theories of negation are typically quite clear in divorcing negation from denial. Bilateralists, then, might have the resources to make something like the Pricean account of warranted assertion work. But unilateralists do not.

I have not fully argued here that warrant-based unilateralists *cannot* produce an appropriately compositional account of disjunction, but I have made a start. I have considered both the usual candidate for such an account (the canonical-warrant approach) and a promising competitor (the Pricean account), and argued

 $^{^{17}}$ If one way to "transform" an x into a y is to throw the x out and produce a y, the first two disjuncts are redundant here, so the account can be simplified. But this would viciously betray good and wholesome relevantist scruples.

¹⁸ See, for example, Priest (2006a) and Field (2008)—but see Ripley (2015) for worries.

that neither can fit the bill. I take it that the ball is at least now in the warrant-based unilateralist's court.

2.4 COHERENCE AND DISJUNCTION

Unlike warrant, coherence can provide unilateralists just the sort of link they need: it is directly linked to our use of language, and it allows for an account of disjunction that is compositional in just the right way. In fact, the simple-minded account of disjunction makes perfect sense on a coherence-based account.

Recall the simple-minded account: "A or B" is assertible iff A is assertible or B is assertible. On a coherence-based approach, this amounts to the claim that it's coherent to assert "A or B" iff it's coherent to assert A or it's coherent to assert B. To evaluate this biconditional, let's break it down into its two directions.

First, the right-to-left direction. If it's coherent to assert A, clearly it's coherent to assert "A or B." This requires only the assumption that coherence is closed under consequence. Similarly, if it's coherent to assert B then it's coherent to assert "A or B." This direction is eminently plausible, just as it was on the warrant-based reading.

The left-to-right direction is the direction of the simple-minded account that was not available on a warrant-based reading of "assertible," and it is where the interesting differences between warrant-based and coherence-based accounts can be seen. This direction is *true* on a coherence-based reading. It's easiest to see its truth contrapositively: suppose you've gotten yourself in a situation where asserting A would be incoherent and asserting B would also be incoherent. In such a situation, could it be coherent to assert "A or B"? Clearly not. Committing yourself to a disjunction of incoherent things is itself incoherent. This is strikingly different from the situation with warrant, in just the right way. As we've seen, it's all too easy to have warrant for a disjunction of unwarranted things; that was why the simple-minded account could not work for the warrant-based unilateralist.

This claim of incoherence might be disputed by certain sorts of supervaluationists, whose theories rely precisely on asserting disjunctions of things that would be incoherent to assert on their own. I won't pursue the difference here, except to point out that the standard objections to supervaluationism strike exactly here: we already know that supervaluationism is committed to a bad theory of disjunction. That their theory of disjunction is incompatible with this reading of the simple-minded account is a feature, not a bug. The simple-minded account is not, and is not intended to be, neutral: it gives us guidance in these controversial cases, and its guidance is correct. (I'll leave the issue there, since it's a digression. (For further discussion, see Field 2008 and Ripley 2013b.)

So when we consider unilateralist assertion conditions for disjunction, a coherence-based account outperforms a warrant-based account. It's a requirement on a use-based theory of meaning that it give us some place where use and

¹⁹ This is the "Third Incoherence Principle" of Field (2008, 120).

compositionality both live. Warrant cannot serve the unilateralist as such a place, because of the way disjunction and warrant interact; but coherence can serve the unilateralist in giving a theory of disjunction.

3. Negation

The purpose of this section, then, is to turn to coherence-based unilateralism, and argue that it, too, faces difficulties in giving an appropriately compositional theory. Here the problem is not disjunction; it's negation. It's perhaps worth noting that there do not seem to be any coherence-based unilateralists. Despite that, I don't believe that this section is merely swinging at straw: it's worth laying out some *reasons* not to be a coherence-based unilateralist, rather than simply noting their absence. This is especially so because coherence seems to serve the needs of the unilateralist so cleanly when it comes to disjunction.

I should open by noting that nobody—warrant-based or coherence-based, unilateralist or bilateralist—should want a homophonic account of assertion conditions for negation. Consider the following bad idea:

A bad idea: "Not A" is assertible iff A is not assertible.

It is all too easy to come up with counterexamples to this claim, whether assertibility is understood as warranted assertibility or as coherent assertibility. The trouble on the warrant side is that there are very many cases in which *neither* an assertion of A or one of "Not A" is warranted: just take a case where there is no evidence to be had either way. The trouble on the coherence side is that there are very many cases in which *either* assertion is coherent: just consider a case in which nothing already claimed is incompatible with either assertion.

This is not to say that there are any cases in which asserting both of A and "Not A" would be coherent; on usual accounts of negation, presumably there aren't. Suppose I haven't told you anything that bears on what I like on my burgers. Then it would be coherent for me to assert that I like beetroot on my burgers, and it would also be coherent for me to assert that I don't like beetroot on my burgers. For all that, it would presumably be incoherent for me to assert both of them. But even the open choice is enough to counterexample the bad idea.

3.1 UNILATERALIST NEGATION

Warrant-based unilateralists have a standard account of negation to appeal to: an assertion of "Not A" is warranted, they say, when there is warrant for the claim that there is no warrant for asserting A. The coherence-based unilateralist's best bet would be to try to adapt this:

Coherence-based unilateralist negation: "Not A" is coherently assertible iff "A is not coherently assertible" is coherently assertible.

But this account is not satisfactory. Some of its problems are precisely parallel to familiar problems for the warrant-based unilateralist. On any unilateralist account, sameness of assertibility conditions yields sameness of content. That's the whole point. So on this account, "Not A" and "A is not coherently assertible" would have the same content.

Whatever we want a theory of content to do, it should not draw this conclusion. For example, we can get no grip on aboutness in this way: "A is not coherently assertible" is about A, while "Not A" is about whatever A is about. Nor do assertions of them have the same effects on conversational context. Nor do they behave the same under embeddings. Nor do they have the same truth conditions. These problems are all familiar problems for unilateralist accounts of negation, which have yet to be addressed in any satisfactory way.²⁰

But there is an additional problem introduced by the switch from warrant to coherence: it's easy to simply counterexample the account. Suppose I assert "It's coherent to assert that I like beetroot on my burgers," in a similar context to the earlier beetroot example—one in which I've said nothing else bearing on my burger-related preferences. After I make that assertion, it is not coherent for me to go on and assert "It's not coherent to assert that I like beetroot on my burgers," but it would be perfectly coherent to go on to assert "I don't like beetroot on my burgers." So the claim that "Not A" and "A is not coherently assertible" are coherently assertible in the same situations is simply false: they are not.

It's possible that there is some other account of negations' assertion conditions available to the coherence-based unilateralist that does not encounter these difficulties—but if there is, I do not see what it can be. Again, the ball is in the unilateralist's court.

3.2 BILATERALIST NEGATION

Bilateralism, by contrast, was built to perform here. Negation is the ground on which bilateralism is typically defended; it is a clear strong point of bilateralist approaches. Here is the standard account, which I recommend: "Not A" is assertible iff A is deniable, and deniable iff A is assertible. Negation simply switches assertion and denial around.

This account works for both warrant-based and coherence-based bilateralisms; I'll focus on a coherence-based approach. On such an approach, we can break the account down into four conditional claims:

- 1. If "Not A" is coherently assertible, then A is coherently deniable.
- 2. If A is coherently deniable, then "Not A" is coherently assertible.
- 3. If "Not A" is coherently deniable, then A is coherently assertible.
- 4. If A is coherently assertible, then "Not A" is coherently deniable.

²⁰ For discussion, see Price (1983) and Williamson (1988).

Here, claims 1 and 2 connect assertions of "Not A" to denials of A, and claims 3 and 4 connect denials of "Not A" to assertions of A.

None of these claims is uncontroversial; they constitute a substantive theory of negation. Taken together, they capture the classical "flip-flop" behavior of negation; they are thus disputed by nonclassical approaches of many sorts.

For example, the approach to paradoxes advanced in [Field, 2008] requires rejecting 2 and 3: a paradoxical A, on Field's account, is one such that neither A nor "Not A" is coherently assertible, but both are coherently deniable (and indeed, should be denied). By contrast, the dialetheic approach presented in Priest (2006b) can be read as rejecting 1 and 4 (although discussion in Priest [2006a, chap. 6] complicates this reading).

Paradoxes, though, are not the only reasons for rejecting these claims. For example, typical intuitionist approaches to negation reject 3 on its own, while the dual intuitionist will reject 4, both for reasons that have nothing at all to do with paradox. (Intuitionist and dual-intuitionist logics struggle with the paradoxes no less than classical logics.)

I won't argue for this classical approach to negation here; I take it to have been adequately defended elsewhere, for example in Price (1990). As Restall (2013) points out, bilateralism itself is not committed to this classical theory; other theories of negation can be formulated in bilateralist terms as well. Interestingly, though, some familiar paracomplete and paraconsistent theories of negation turn out to be noncompositional on a bilateralist reading (see Ripley 2013a for discussion).

Just as with disjunction, then, we have a compositional coherence-based theory of negation. It is not neutral between different theories of negation, any more than the theory of disjunction was; both are unapologetically classical. Objections to such classical treatments of disjunction and negation, then, extend to these accounts. But for classically minded theorists, coherence-based bilateralism has the goods. (I have not given any argument here against warrant-based bilateralisms; they may well also have the goods.)

4. Conclusion

We want our theories of meaning to connect to use, and to be compositional. In the service of the former goal, both unilateralist and bilateralist theories have been advanced. But unilateralist theories struggle with the latter goal: warrant-based unilateralisms when it comes to disjunction, and coherence-based unilateralisms when it comes to disjunction. I conclude that bilateralist theories are simply better suited to achieve these two goals simultaneously, and have sketched a coherence-based bilateralist approach to these cases.²¹

²¹ Many thanks to audiences at Charles Sturt University and the University of Melbourne, who helped me think through these issues.

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