THE ALETHIC PLATITUDES, DEFLATIONISM, AND ADVERBIAL QUANTIFICATION

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Alethic pluralists often claim that accommodating certain alethic platitudes motivates rejecting deflationism in favour of a pluralist inflationism about truth. Deflationists claim that the logical role of the truth predicate, viz providing something equivalent to variables for sentence-in-use positions and quantifiers governing them, is sufficient to account for the appeal to truth in the alethic platitudes. Surprisingly, however, most deflationists face an insufficiently acknowledged problem with respect to explaining how this mode of generalizing works. The standard substitutional or higher-order interpretations of sentential quantifiers and variables do not meet two desiderata that we claim any adequate account of them must satisfy. To address this issue, we review and extend A. N. Prior's adverbal understanding of sentential quantification, explain how it satisfies the desiderata, and respond to some objections. This shows that deflationists can accommodate and account for the alethic platitudes by applying this non-nominal understanding of generalizing on sentence positions.

Keywords: truth, deflationism, alethic platitudes, pluralism, Prior.

We divide truth-theorizing into two main camps: traditional substantival theories that focus on providing an account of an alleged truth property (or properties) and newer deflationary (sometimes called 'minimalist') accounts that take truth to be insubstantial, playing only an expressive role¹ in our talk and thought.² While the latter extends back at least to F. P. Ramsey's work in the late 1920s and was developed substantially in the 1970s,³ awareness of deflationism greatly expanded with the publication of Paul Horwich's *Truth* in 1990.⁴ Partly in response to Horwich's Minimalism, a new approach within the substantivalist camp emerged soon after with Crispin Wright's *Truth and*

¹ The kind of expressiveness in focus is logical rather than emotive/attitudinal.

² Substantive theories also acknowledge the logically expressive role that the notion of truth plays; they just maintain that this is not the whole story about the notion.

³ See Quine (1970/1986), Grover, Camp, and Belnap (1975), and Leeds (1978).

⁴ This was the first edition from Blackwell Publishers; the second edition was published by Oxford University Press in 1998. All references here are to the second edition.

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Objectivity: 5 alethic pluralism, which holds that there is more than one truth property, with different ones applying to different domains of discourse.⁶ Wright and the other pluralists he has inspired have developed a methodology for truth-theorizing that focuses on a collection of intuitive principles or purported truisms about truth—what we will call the alethic platitudes. They have in mind claims such as the following:

that to assert is to present as true;

that any truth-apt content has a significant negation which is likewise truth-apt;

that to be true is to correspond to the facts;

that a statement may be justified without being true, and vice versa [.]⁸

Michael Lynch has formulated a similar list of 'core truisms' about truth:⁹

Objectivity: True propositions are those such that when we believe them, things are as we believe them to be.

End of Inquiry: True propositions are those we should aim to believe when engaging in

Norm of Belief. True propositions are those that are correct to believe.

For what follows, we focus on Lynch's list, along with the following variant of Wright's platitude connecting truth with assertion:

Assertion: To assert a proposition is to present it (linguistically) as true.

Alethic pluralists have claimed that accommodating these platitudes thwarts deflationism's aspiration of taking truth to be an insubstantial, merely expressive notion, 10 on the grounds that the notion of truth is doing something more substantive in these claims than simply playing a logically expressive role. A standard deflationary response to this challenge maintains that the notion of truth just plays its special generalizing role in these platitudes and then glosses this point by appealing to sentential variables and quantifiers. These formal devices are controversial, but many deflationists have relied heavily on them, albeit without adequately attending to how they are to be unpacked or understood. Most deflationists who appeal to them have either simply assumed that giving them a substitutional interpretation is sufficient or explained

⁵ Wright (1992).

⁶ A less 'top-down' or 'domain-first' construal takes the subject matter and structure of a proposition to determine which of the various truth properties is relevant to its truth value (cf. Lynch 2013).

⁷ See Lynch (2009, 2013), Edwards (2008, 2011), Pedersen (2006, 2010), and Wright (2005, 2010).

⁸ Wright (1992: 34).

⁹ See Lynch (2013: 24).

¹⁰ The specific argument for this conclusion that Wright (*Ibid.*: 15-24) offers has been controversial (see Rumfitt 1995), but accommodating the alethic platitudes continues to be offered as a motivation for adopting a substantive alethic pluralism over a deflationary view (cf. Lynch 2013 and 2006).

these devices by stipulating some ad hoc logical machinery. But the former approach suffers from what we call the *fragmentation problem*, and the latter approach misses the availability of an account that avoids ad hoc stipulation. This situation raises questions about whether deflationists have adequately, or at least optimally, explained alethic generalizations. These questions lead to serious concerns about whether deflationists have adequately addressed the challenges issued by alethic pluralists. The purpose of this essay is to explain why accommodating the alethic platitudes constitutes an abiding challenge for deflationism and to offer a response to this challenge.

The plan is as follows: After a brief rehearsal of deflationism and of how deflationists have attempted to accommodate the alethic platitudes, we explain why the typical deflationary approaches to them, via appeals to substitutional quantification or to some made-to-order technical device, remain problematic. We then explain how a particular deflationary approach can solve the problems that thwart the typical deflationary accounts of the alethic platitudes by reviving and extending a neglected understanding of sentential variables and quantifiers originally developed by A. N. Prior.

I. DEFLATIONISM AND THE ALETHIC PLATITUDES

A useful way to think of deflationary approaches to (the topic of) truth is as primarily accounts of truth-*talk*, ¹¹ that fragment of discourse centred around the *alethic locutions* (e.g. 'true' and 'false'). By contrast with substantive ('inflationary') theories *of truth*, which presuppose that these expressions are ordinary predicates that attribute properties, deflationists explain the alethic locutions as mere linguistic devices that function to extend the expressive power of a language. ¹² The most frequently highlighted expressive extension is a new level of generalizing that truth-talk allows by providing something equivalent to variables for sentence-in-use positions and quantifiers governing them.

The usual explanation of the expressive role of truth-talk begins with a scenario involving the aim of generalizing on the embedded sentence positions in a claim like:

1) If the Oracle says that birds are dinosaurs, then birds are dinosaurs.

Now imagine we want to generalize the relationship indicated here, beyond just what the Oracle says about birds to anything she might say. What we want

¹¹ To see in what ways deflationary theories amount to accounts of truth-talk, see Quine (*Ibid.*), Grover *et al.* (*Ibid.*), Leeds (*Ibid.*), Brandom (1988), Field (1994), Devitt (2002), and Armour-Garb and Woodbridge (forthcoming).

¹² Horwich (1990/1998) is a bit of an outlier here, since he maintains that 'is true' expresses a 'logical property', just not a substantive property with an underlying nature. However, he still maintains that truth-talk's logical expressive role exhausts its functions.

to do is generalize on the embedded sentence-in-use positions, so we need a (declarative) sentential variable, 'p', to yield

(2) If the Oracle says that p, then p.

But even in this quasi-formal notation, (2) is just a *schema*, a string that stands for a sentence *form* rather than presenting a complete sentence. What we want is a way of capturing something along the lines of

(3) For all p, if the Oracle says that p, then p.

The problem is that we cannot formulate this with our most familiar way of generalizing because the 'p' in the consequent is in a sentence-in-use position rather than in a mentioned/nominalized-sentence position (as it is in the antecedent) that would be replaceable with an object variable.

This is where truth-talk comes in. What we do in order to generalize in the way under consideration is employ the truth predicate with an object variable to produce the complete sentence:

(4) Everything is such that, if the Oracle says it, then it is true.

This amounts to a way of expressing something equivalent to (3) because the truth predicate generates every instance of (some version of) the (generalized) equivalence schema for 'true':

(ES) [p] is true iff $p.^{13}$

Since the form '[p]' nominalizes the sentential variable, 'p', it amounts to a nominal expression functioning (apparently) as an object variable. So 'it is true' is the English rendering of '[p] is true', every instance of which is, via the relevant instance of (ES), equivalent to the matching filling of 'p'. In this way, the truth predicate generates something that functions like a sentential variable by using standard object variables already familiar in ordinary language ('it') and the usual object quantifiers ('everything') that govern them. ¹⁴ That is a nifty, logically expressive addition to the language, accomplished with the familiar logical devices already available in it. ¹⁵ Deflationists claim that explaining this

¹³ The square brackets indicate the application of some nominalizing device or other, e.g. 'that'-clause formation on, or giving a structural description of, or giving a quotation-name of, whatever sentence goes in for 'p'. Hence, (ES) is the 'generalized' equivalence schema, with different nominalizing devices (and different readings of 'iff') yielding different 'versions'.

¹⁴ Picollo and Schindler (2018), and especially in their (2022), provide further elaboration on, and rigorous proof of, the thesis that a disquotational truth predicate amounts to a first-order surrogate for higher-order quantification into sentence positions.

¹⁵ As we mentioned above, substantive or inflationary theories of truth also recognize that the notion of truth accomplishes this. But they also think that there is more to the notion than just this sort of expressive role. They take it that there is a substantive underlying basis for the instances of (ES) holding in virtue of the underlying nature(s) of the property (or properties) that the instances of truth-talk attribute. Deflationists reject these theses.

expressive addition to a language exhausts what there is to say about the notion of truth; its purpose is to play this sort of logical role rather than to play any sort of semantic or explanatory role.

While usually associated with Quine (1970/1986), this understanding of the function of truth-talk also appears in a 'reverse order of explanation' in what is arguably the first fully deflationary account of truth-talk, viz Ramsey's view. Ramsey is often associated with a simple Redundancy Theory, ¹⁶ covering just the basic transparent instances of truth-talk with the form 'It is true that p' and explaining them as synonymous with a direct assertion of the sentence that goes in for the variable, 'p', but he actually provides a more robust account that amounts to the first version of what we will call *sentential-variable deflationism* (SVD), viz an account of truth-talk that attempts to explain its operation in terms of quantification into sentence positions, where these 'new' quantifiers and variables are given some prior and independent explanation. ¹⁷ Ramsey introduces sentential variables and quantifiers by analogy with Bertrand Russell's account of objectual quantification, analysing (or defining) an opaque instance of truth-talk like 'B is true' as

 $(\exists p)$ (B is a belief that p & p). 18

Ramsey also introduces the notion of a 'pro-sentence' as an understanding of sentential variables, and this idea has been substantially developed by some later deflationists (e.g. Dorothy Grover *et al.* and Robert Brandom). ¹⁹

One prominent deflationist who should not be considered a sentential-variable deflationist is Quine, despite his explaining the truth predicate's operation in terms of 'disquotation' and the fact that sentential variables are used in what is now called the 'disquotational schema' [the sentential version of (ES)],

(DS) 'p' is true iff p.

¹⁶ Horwich (*Ibid.*: 38).

¹⁷ Ramsey (1927, 1929). Cf. Grover et al. (Ibid.: 73–7) and Picollo and Schindler (2018: 333). The latter note, '[t]he idea that the truth predicate allows for quantification into sentence positions was anticipated by Ramsey, who claimed that truth could be eliminated if sentential quantifiers were in our toolbox [Ramsey (1927: 39)]' (emphasis added). Note the reversal of the previous order of explanation here, i.e. that of Quine's approach to the matter and of Picollo and Schindler's results. Quine and Picollo and Schindler all purport to rely on some separate account of a disquotational truth predicate that they then relate to sentential quantification. Quine points to Tarski's work for a definition of 'true', and Picollo and Schindler appeal to a contemporary axiomatic definition of a disquotational truth predicate. So, for them, there is no appeal to a prior, independent account of sentential variables and quantifiers in the service of providing an account of truth-talk. But the direction of explanation just mentioned is precisely that of the SVD approach.

¹⁸ Ramsey (1929: 15, n. 7). We have updated the Russellian dot-notation to parentheses.

¹⁹ Ramsey (*Ibid.*: 10). Evidently, Ramsey's use of 'pro-sentence' was anticipated by Franz Brentano's use of 'Fürsatz'. For details, see Künne (2003: 68). For prosentential accounts of truth-talk, see Grover *et al.* (*Ibid.*) and Brandom (*Ibid.*) and (1904: ch. 5).

While (DS) employs sentential variables, Quine rejects appealing to such devices to explain the truth predicate when he sets out his view. He does this in part because he assumes that logical variables can only be individual or nominal. He explains the operation of the truth predicate directly in terms of a disquotational function, but he explicitly maintains that (DS) does not provide an account of any sort, since even as a quasi-formal schema, it is really just about the sixteenth letter of the English alphabet. On Quine's view, the point of the truth predicate is to provide a surrogate for sentential variables, in particular, a first-order logical device that would mimic them, so we cannot appeal to variables of this kind to explain the truth predicate. Treating the truth predicate as a first-order logical device avoids certain challenges, but Quine's disquotationalism leads to various problems for applications of truth-talk beyond one's own idiolect and to things like beliefs and theories. On the surface of the provided in the surface of the surface o

In explaining his Minimalism, Horwich rejects the direction of explanation that SVDists employ, claiming that we lack an independent understanding of sentential quantification (interpreted substitutionally) that does not rely on the notion of truth, so we cannot use such a formalism to account for truth-talk. Rather, he maintains, our grasp of truth via grasp of (understood in terms of a disposition to accept) the infinite collection of (non-paradoxical) instances of the propositional version of (ES) is what provides us with our understanding of this logical device. Truth-talk is not only a way of incorporating a surrogate for such a device into natural language, the former also explains the latter, rather than vice versa, as SVD maintains. A problem with Horwich's proposed direction of explanation, however, is that making the individual instances of the equivalence schema fundamental saddles him with the Generalization Problem, as Anil Gupta (1993) has explained, and it raises a prior problem of how one can express a genuine generalization at all using truth-talk.

Hartry Field is a contemporary disquotationalist along Quinian lines, but unlike Quine, he should be counted as a quasi-SVDist. Field initially explains the truth predicate's functioning directly, but he later goes on to rely on sentential-variable formulations like (DS) to capture what the truth predicate does, even offering a revisionist proposal that incorporates schematic sentential variables directly into natural language. Field's (2001) take on how sentence variables function moves closer to prosententialism, thereby moving him even closer to SVD. However, as we explain below, Field's understanding of the quantifiers governing sentential variables generates problems for his view that are similar to those just mentioned for Horwichian Minimalism.

²⁰ Quine (*Ibid.*: 13).

²¹ For discussion of some of these problems, see Field (1994), David (1994), Horwich (*Ibid*.: 99–101), and Armour-Garb and Woodbridge (forthcoming).

²² Horwich (*Ibid*.: 25–6).

²³ Field (*Ibid*.).

We maintain that SVD offers the best approach to accommodating the alethic platitudes (as well as related logical concerns). In response to that challenge, deflationists in general maintain that, in the claims presenting these cases, the alethic locutions just play their standard generalizing role. Sentential-variable deflationists attempt to accommodate the alethic platitudes by rerendering them in terms of quantified-sentential-variable (QSV) translations. The alethic platitudes are thus supposedly understood along the following lines:

Objectivity: True propositions are those such that when we believe them, things are as we believe them to be.

QSV Re-rendering: For all p, if p and we believe that p, then things are as we believe them to be.

End of Inquiry: True propositions are those we should aim to believe when engaging in inquiry.

QSV Re-rendering: For all p, if p, then we should aim to believe that p when engaging in inquiry.

Norm of Belief: True propositions are those that are correct to believe.

QSV Re-rendering: For all p, if p, then it is correct to believe that p.

Assertion: To assert a proposition is to present it (linguistically) as true.

QSV Re-rendering: To assert that p is to present the world (linguistically) as being such that, in it, p. 24

SVD maintains that the QSV re-renderings both *capture* and *explain* what the truth-talk-involving presentations of the platitudes express.²⁵ But, for this strategy to work, two *desiderata* must be satisfied:

- (i) We need an independent account of quantification over variables in sentence-in-use positions, preferably one that does not amount to an ad hoc, technical stipulation.
- (ii) The account of these logical devices must underwrite uses of them that yield genuine, unified generalizations.

If desideratum (i) is not met by an account of the sentential quantifiers, then the analysis does not provide a genuine account of the role that truth-talk plays

²⁴ This platitude is slightly more complicated for two reasons. First, it is generally presented more schematically than the other platitudes, and second, it involves the use of the phrase 'as true', instead of offering a claim about propositions that are true (cf. Bar-On and Simmons 2007). Moreover, in virtue of the latter, accommodating the platitude in a way that covers assertions employing empty names or predicates thus requires the additional framing construction 'present the world as being such that, in it'. For further explanation, see Armour-Garb and Woodbridge (forthcoming).

²⁵ Even deflationists who are not explicitly sentential-variable deflationists sometimes appeal to schemas employing sentential variables in accounting for some of the alethic platitudes (see, for example, both Horwich (2010: 49), and Field (*Ibid.*: 264–5), on the Norm of Belief). But then these deflationists also presuppose some account of sentential variables that is sufficiently independent to make their appeals to these schemata explanatory, or at least illuminating. Absence of such an account thus threatens deflationism with inscrutability.

in alethic generalizations, and if the analysis involves the stipulation of ad hoc technical devices when a non-ad hoc analysis is available, then the account is suboptimal. If desideratum (ii) is not met, then the proposed deflationary analyses of the alethic platitudes could 'fragment' these seemingly unified principles (the aforementioned fragmentation problem). By this, we mean that the QSV re-renderings would only yield each of the individual instances of the schemas prefixed by the sentential quantifiers. As a result, these deflationary re-renderings would not capture the general claims that we take to be expressed by the original platitudes.

II. THE PROBLEMS FOR TYPICAL DEFLATIONARY READINGS OF SENTENTIAL QUANTIFIERS

It might seem surprising that there are problems with how most deflationists have understood sentential variables and quantifiers, but in fact, these problems have persisted throughout the development of deflationism. For example, Ramsey appeals to sentential variables and quantifiers but does not provide enough of an account of how we are to understand these formal devices. His reliance on drawing an analogy with Russell's understanding of objectual quantification does not satisfy desideratum (i) because Russell analysed quantification in terms of predication, identity, and *truth*. For example, according to Russell, the proposition that is expressed by 'Everything is self-identical' predicates of the relevant propositional function that it maps every object into a true proposition.²⁶ As mentioned above, Ramsey eventually describes the sentential variable 'p' as functioning as a 'pro-sentence', but even with this addition, the question remains as to how we are to understand the quantifiers that govern these sentential variables.

One of the most common approaches that deflationists take to these quantifiers is to treat them substitutionally, using the symbols ' Π ' and ' Σ ' for the universal and particular quantification, respectively.²⁷ These quantifiers come with substitution classes of linguistic items that get 'slotted into' the places held for them by the substitutional variables in the strings that the quantifiers prefix. This makes the operation performed by these devices *intralinguistic*, but in a way that 'shadows' the extralinguistic value-assignment operation of objectual quantification. The initial problem with an appeal to substitutional quantification in providing a deflationary account of the alethic platitudes is that the original explanation of substitutional quantification does not satisfy desideratum (i). This is because it typically proceeds in terms of *truth*, specifically in terms of every (' Π ') or at least one (' Σ ') sentence formed by filling the

²⁶ Cf. Soames (2014: 191–9).

²⁷ See Field (*Ibid.*) for this use of substitutional quantification.

variable(s) in the prefixed string with linguistic items from the substitution class *being true*. ²⁸ Consequently, the operation of these quantifiers cannot explain the operation of the truth predicate, on pain of circularity.

To avoid this circularity worry, Field has deployed an alternative understanding of how substitutional quantifiers work that takes them to encode potentially infinite conjunctions of the fillings of the prefixed string generated from the substitution class (for ' Π ') or potentially infinite disjunctions of all the fillings (for ' Σ ').²⁹ But this alternative is also problematic because it does not satisfy desideratum (ii). In particular, when it comes to universal substitutional quantification, the 'encoding' account glosses over the logical fact that even an infinite conjunction of instances does not constitute a genuine generalization. If collecting all of the instances together is what 'For all p' is doing in the QSV re-renderings of the alethic platitudes, then this will yield the fragmentation problem, with the result that the deflationary analyses will not state any unified principles concerning objectivity, inquiry, correctness of belief, or the nature of assertion. A deflationist cannot avoid this problem simply by assuming a version of substitution quantification that implements something 'a bit stronger than infinite conjunctions' without providing an account of how the quantification manages to do this (and of how we are to understand the formal device in question). Absent such an account, an assumption of this sort will not satisfy desideratum (i).

A different approach to interpreting the sentential variables and quantifiers related to this last point attempts to explain the formalism in a kind of made-to-order fashion, as deploying logical devices that supposedly take sentences or propositions as things (to be the values of nominal variables used for indicating the relata of propositional attitudes, like beliefs, or of linguistic acts, like sayings, statings, etc.) and then also has these objects somehow providing fillings for sentence-in-use variables (with something that expresses the relevant proposition, perhaps). But positing ad hoc technical machinery of this sort, with exactly the sort of 'dual function' needed, will not satisfy desideratum (i) in the most optimal way. One should not resort to an ad hoc account unless one must. Moreover, if there is an alternative non-ad hoc account that can do the job, then it should be preferred over one that is ad hoc.

Occasionally, deflationists (or even non-deflationists discussing this approach) have claimed that the notion of truth can be explained in terms of 'propositional quantification' or 'higher-order quantification', but these appeals turn out not to be alternative ways of understanding sentential variables

²⁸ Cf. Parsons (1971: 231–7); Kripke (1976), David (1994: 85–90), and Horwich (*Ibid.*: 25–6).

²⁹ Cf. Field (*Ibid*.: 264, n. 17) and David (*Ibid*.: 99).

³⁰ Field (Ibid)

³¹ Cf. Azzouni (2001: 338) and Hill (2002: 18–21). The account of sentential quantification that Hill offers is additionally an inferentialist one, but Horwich (*Ibid*) argues that this strategy does not work for deflationists.

and quantifiers, distinct from the problematic ones just discussed. Grover et al. identify the sentential quantifiers they employ as 'propositional', but it is clear that they just take these devices to implement substitutional quantification, which they mistakenly take to be unproblematic.³² In an earlier discussion focused on explaining propositional variables as prosentences, Grover divides the functioning of propositional quantifiers into both a substitutional operation and a domain-and-values operation.³³ But this amounts to another made-toorder account, since it too simply restates the explanatory challenge pertaining to sentential variables and quantifiers as if it were a solution. A similar concern holds for the notion of 'higher-order objectual quantification over propositions' that Scott Soames claims a redundancy theorist of sorts could use to define truth.³⁴ This quantification is also supposed somehow to fill sentence-in-use variables 'p' with objectually specified propositions, but he provides no explanation of how this is actually accomplished. The proposed formalism thus amounts to yet another case of the ad hoc made-to-order approach that does not satisfy desideratum (i).

To avoid these problems with ad hoc solutions, the best way for an SVDist to explain sentential quantifiers is by relating them to the operations of elements of a natural language. This is one way of interpreting another Quinian theme that Agustín Rayo and Stephen Yablo (2001: 90) emphasize when they note that '[I]ogical formalisms are explained in natural language—what else?' We maintain that stipulating ad hoc, essentially formal devices that function in precisely the manner needed amount to more of a technical *replacement* for the truth predicate than the best explanation of its actual role in alethic generalizations. So, if a deflationist aims to account for these generalizations via an appeal to QSV re-renderings and can offer something other than a stipulated, made-to-order interpretation of sentential variables and quantifiers, that is to be preferred. We claim that exactly this sort of account is available.

III. ADVERBIAL QUANTIFICATION AS THE SOLUTION

Deflationists can fulfil SVD goals most optimally by extending Prior's take on sentential variables and quantifiers. Inspired by Ludwig Wittgenstein, Prior understands 'This is *how* things are' (Prior's italics) to function as a sentential variable.³⁵ In this vein, as a means for "improving standard English",

³² Grover et al. (Ibid.: 74-7).

³³ Grover (1972).

³⁴ Soames (1999: 48). Soames's point is that this will yield a property of truth for propositions, *contra* a redundancy theorist's aims, but our point here is that there is a prior problem that this approach presents for any would-be sentential-variable deflationist.

³⁵ Prior (1971: 37–8); Wittgenstein (1953: §134). Prior calls this a 'propositional variable', but he means this in the Wittgenstein/Ramsey, sentence-in-use sense of 'proposition', not the current abstract-content-object understanding of the notion.

with respect to its "paucity of quantifiers", Prior introduces a kind of *adverbial* quantification to govern variables for presentations of 'how things are' (i.e., sentential variables). While other philosophers have used Prior's introduction of sentential variables and 'propositional quantifiers' as a starting point, their path from there has tended to focus exclusively on the anaphoric aspect of the variables. This tunnel-vision has led them to miss the significance of the adverbial nature of Prior's formalism and to attempt to account for the quantificational anaphora with substitutional quantification. This adverbial aspect really makes the operation of these devices just 'quasi-anaphoric', since the quantifiers are neither intralinguistic nor metalinguistic. So, Prior's quantification is not substitutional (and thus avoids the problems that that interpretation generates). As one can see, from Prior's explanation of the variables in terms of 'how things are' and from the fact that there is no domain of 'hows' to quantify over, his quantification is also neither nominal nor objectual but instead provides a different, *sui generis* form of generalization.

To see the different kind of generalizing implemented with Prior's adverbial understanding of sentential variables and quantifiers, note the interpretation he provides of (a slightly more symbolic version of) the quasi-formal string offered above as a generalization on embedded sentence positions,

(3) For all p (the Oracle says that $p \rightarrow p$).

To provide a sense for how we are to understand these quantifiers and variables adverbially, Prior coins the natural-language quantifier neologisms, 'anywhether', 'everywhether', and 'somewhether', derived from the adverbial question-word 'whether', along with a made-up corresponding 'th-' answerword, 'thether', to serve as the sentential variable they govern. On this approach, we can re-render a string with sentential variables and quantifiers like (3) informally, using Prior's neologisms, as

(5) For anywhether, if the Oracle says that thether, then thether.

Analogously, we can see how the particular quantifier works in the Loglish string, expressing that things are as the Oracle said they are,

(6) For some p (the Oracle said that p & p),

³⁶ Prior (*Ibid.*) and (1956: 201).

³⁷ Prior (citing Ramsey on this point) notes the anaphoric aspect of sentential variables and embraces the label 'pro-sentence' in Prior (1967: 229). See Grover *et al.* (*Ibid.*: 88–9), as an example of theorists citing Prior but shifting focus just to anaphora.

³⁸ Grover *et al.* (*Ibid.*: 74–7) and Brandom (1994).

³⁹ Prior (1971). See Künne (2008: 157–80) and Yablo (1996: 266–7).

 $^{^{40}}$ Prior sometimes discusses sentential quantification more formally, using the quantifier symbols ' Π ' and ' Σ '. To avoid confusion with the use of these symbols for substitutional quantifiers, along with the complication of Prior's use of Polish notation in formal strings, we will stick with quasi-formal strings employing the 'Loglish' expressions, 'For all p' and 'For some p', combined with contemporary logical notation.

by reading this string informally in terms of the neologistic sentence,

(7) For somewhether, the Oracle said that thether, and thether. 41

While Prior's neologisms maintain a kind of 'structural' clarity (more on this presently), they provide only an impressionistic grasp of his adverbial reading of sentential variables and quantifiers. To satisfy desideratum (i), however, we need an interpretation of his reading that grounds it in language that we already understand, so we need to go beyond these neologisms. Prior himself suggests how to do this when he briefly notes that one can understand 'For some p, p' in terms of 'Things are somehow' and 'For all p, if he says that p, then p' in terms of 'However he says things are, thus they are (or, that's how they are)'. 42 Following up on this suggestion, we can see that there are 'ordinary' (or at least proper grammatical) English ways of re-rendering an adverbial reading of sentential quantification generally. If we take 'this is how things are' and its 'linking' variant 'that is how things are' as English adverbial sentential variables, 43 then we can express the OSV strings considered above in English 'how-talk', using the ordinary English adverbial quantifier expressions 'however' (for 'For all p') and 'somehow' (for 'For some p' or 'there is some p such that'). We will start with the latter, since it is more straightforward. The particular sentential quantifier string (6) is to be understood in terms of the sentence.

(8) Things are somehow such that the Oracle said that that is how things are, and that is how things are. 44

⁴¹ Prior's uses of 'somewhether' and 'thether' in accounting for truth-talk is adopted and developed in Williams (1976) and (1992). While Williams does not bury the adverbial element of the formalism the way that Grover *et al.* (*Ibid.*) do when they explicitly switch from Prior's 'thether' to Grover's more 'nominal' neologism 'thatt', there is still an over emphasis on the prosentential aspect in his account, to the extent that Williams (1976: 1–2, 10–15) explicitly embraces a substitutional interpretation of the sentential quantifiers, saddling his view with the aforementioned problems that generates.

⁴² Prior (1967: 229) and (1971: 38).

⁴³ If one wishes to remain neutral with respect to an ontological commitment to *things*, with the added bonus of also keeping the focus on the more 'global' notion of 'how' needed to account for specifically *sentential* variables (as opposed to the 'how' that provides *predicate*-variables, the focus of Rayo and Yablo *Ibid.*), there are alternative formulations of English adverbial sentential variables, like 'that is how reality is' or 'that is how the world is'. We stick with the 'how things are' formulations here because they have a more natural, colloquial sound to them, but the neutral alternatives would work at least as well. Part of the point of Prior's neologisms was likely to avoid the appearance of the variables having any internal subject-predicate structure and the quantification being into some subsentential position.

⁴⁴ If one balks at the grammaticality of the construction 'things are somehow', the phrase 'things are situated somehow' (or, perhaps, 'things persist somehow') will work in its place, with the sentential-variable expression modified to 'that is how things are situated'. Similarly, for sentence (9), the word 'situated' can be added after 'are' where desired. Or one could embrace Sellars's use of 'how things hang together' and replace the relevant uses of 'how things are' with that. There is also the option of reading how-talk as adjectival (following Rayo and Yablo *Ibid.*) rather than adverbial. While we prefer Prior's adverbial take, we are open to this alternative reading. The main point is that how-talk involves quantification that is non-nominal and non-objectual.

The universal sentential quantifier string (3) can be understood in terms of the sentence,

(9) However things are, they are such that, if the Oracle says that that is how things are, then that is how things are.

The interpretations that we just provided are intentionally formulated in a way that tracks the structure of the QSV strings that they interpret (the way that Prior's neologisms are designed to do). But the following variant how-talk interpretations (ones closer to Prior's original suggestions) are also possible:

- (8') The Oracle said that things are somehow, and that's how they are.
- (9') However the Oracle says things are, that's how they are.

These latter variants illustrate how more colloquial how-talk quantification often involves a kind of 'variable-absorption', where a sentential variable is absorbed into the quantifier that binds it. This is similar to how the object variable 'it' sometimes gets absorbed into the English quantifiers 'something' or 'everything' in more colloquial interpretations, e.g. in providing the English-language sentence

(R) Rufus enjoyed everything he ate

as an interpretation of

$$(R') \forall x (A(r, x) \rightarrow E(r, x)).$$

One difference between (R') and either (8') or (9') is that, in how-talk quantification, absorption sometimes seems mandatory.

To see how the method of using how-talk to give a natural-language interpretation (NLI) of a QSV Loglish string works more generally, beyond Prior's mentions of possible interpretations of 'For some p, p' and 'For all p, if he says that p, then p', consider

This QSV string cannot just be mechanically interpreted with 'However things are, that is how things are' because this sentence already involves variable-absorption, really being an NLI of 'For all p ($p \rightarrow p$)'. To give a how-talk NLI of (10), we need to revive the archaic expression 'everyhow' to produce,

(11) Everyhow is such that that is how things are.

A potentially more colloquial variant might be 'Everyhow is how things are' or even 'Things are everyhow'. While admittedly not common coin nowadays, both (II) and its absorption-variants do not employ neologisms and can be understood by English speakers, even if speakers also recognize that the claims are false and perhaps even lead to contradictions.

In some instances, the how-talk NLI of a QSV string *requires* the absorption of not just the bound sentential variable but also of some logical operator that is applied to it. This is the situation in the case of the Loglish string,

(12) For some p, \sim p.

This string has as its NLI the English sentence,

(13) Things are not somehow,

since a sentence with no absorption, such as 'Things are somehow such that that is not how things are' amounts to a contradiction, rather than what (12) expresses.

A similar situation holds for the use of negation with a universal adverbial quantifier, as in the Loglish sentence,

(14) For all p, \sim p.

Here, in absorbing the negation along with the sentential variable into the how-talk quantifier, the NLI employs a variant of the more usual quantifier 'however' to yield the English sentence,

(15) Things are not anyhow.⁴⁵

The how-talk NLI procedure also extends to Loglish strings involving multiple adverbial quantifiers. For example, a relative of Wright's platitude regarding the interaction of negation with truth-aptitude, of the form

(16) For every true proposition, there is a negation of it that is a false proposition,

would have a quasi-formal QSV re-rendering along the lines of

(17) For all p, there is some q such that ((p & ([q] = [\sim p])) $\rightarrow \sim$ q). 46

On the models of (9') and (13), both of the un-nominalized sentential variables (along with the connectives applied to them) in (17) get absorbed into the how-talk quantifiers that bind them. The (admittedly awkward, yet still grammatical) NLI that results for this QSV string is

⁴⁶ We note that the use of nominalized sentence variables, '[q]' and '[~p]', in (17) is just the QSV 'non-entity-implicating' rendering of Wright's (*Ibid*.: 34) talk of truth-apt *contents* and their negations.

⁴⁵ We recognize that (14) and (15) might yield paradox; our point here is merely that (14) is formulatable in Loglish and (15) provides its NLI. Prior (*Ibid*.: 39–43) discusses dealing with the putative paradox via a ramified theory of types for sentential variables, combined, via Ramsey, with Wittgenstein's early understanding of universal and particular quantification in terms of infinite conjunction and infinite disjunction. However, we have already noted that this approach to quantification leads to fragmentation and thus constitutes a failure to satisfy desideratum (ii), so we will not endorse it. As a result, the threat of paradox must be dealt with by other means.

(18) However things are, things are not somehow else, if the latter being how things are just is the former not being how things are.⁴⁷

We maintain that the how-talk NLI approach satisfies desiderata (i) and (ii) for an account of sentential variables and quantifiers: It explains the logical devices in independent terms and ultimately in ordinary language that we already understand, and the kind of generalizing that the quantifiers of English how-talk implement does not generate any fragmentation. Applying this treatment of sentential variables and quantifiers to the deflationary QSV re-renderings of the original truth-talk-involving versions of the central alethic platitudes, we can produce an NLI for each as follows:⁴⁸

Objectivity in QSV: For all p, if p and we believe that p, then things are as we believe them to be.

NLI: However things are, if we believe that that is how they are, and that is how they are, then things are as we believe them to be.

End of Inquiry in QSV: For all p, if p, then we should aim to believe that p when engaging in inquiry.

NLI: However things are, if that is how they are, then we should aim to believe that that is how they are when engaging in inquiry.

Norm of Belief in QSV: For all p, if p, then it is correct to believe that p.

NLI: However things are, if that is how they are, then it is correct to believe that that is how they are.

Assertion in QSV: To assert that p is to present the world as being such that, in it, p.

NLI: To assert that things are somehow is to present the world as being such that, in it, that is how things are.⁴⁹

What this shows is that ordinary grammatical English already has the means for expressing genuine generalizations on sentence positions without any need for objects to quantify over (e.g. propositions) or a property to attribute to them with a descriptive predicate (as truth-talk appears on its surface to involve doing). The examples we have provided here also indicate how to extend our how-talk NLI procedure to any QSV rendering of any instance of truth-talk.

The most striking aspect of the how-talk NLI approach that we develop from Prior's suggestions is that it deploys a kind of non-nominal quantification, i.e., quantification that does not involve a domain of entities that serve as the values of the variables (no 'hows'), or even a class of linguistic items that serve as the

⁴⁷ The gerundial phrase 'that being how things are' is a nominalization of 'that is how things are' and thus functions as an interpretation of a nominalized sentence variable like '[q]'.

⁴⁸ These NLIs are formulated to track the logical structure of the QSV strings; there are, of

These NLIs are formulated to track the logical structure of the QSV strings; there are, of course, also more colloquial variants involving absorption of sentential variables and connectives.

⁴⁹ The more schematic presentation of this platitude in terms of the phrase 'to assert that p' involves a covert quantifier, hence the NLI's use of the phrase 'to assert that things are somehow', employing the particular adverbial quantifier to fit with the original alethic platitude's adverbial specification of the presenting involved as being presentation *as* true (instead of it making a general claim about true propositions).

substitutends of the sentential variables. There are no things of any sort that get associated with the sentential variables; the quantifiers that govern them implement an entirely *sui generis* type of generalizing.

IV. OBJECTIONS AND REPLIES

IV.1 Challenge to desideratum (i): Prior's adverbial view is mysterious

Mark Richard (2013: 139) contends that Prior's account of 'propositional quantification' is mysterious because he does not provide a systematic account of its semantics. In effect, Richard's complaint is that Prior does not provide truth-conditions for sentences that involve sentential variables and quantifiers, and thus does not satisfy desideratum (i).

We noted above that where Prior introduces these logical devices as adverbial, his account remains fairly impressionistic, given both his insistence that this kind of quantification is *sui generis* and his use of neologisms to account for it. This might seem to leave it obscure. But in Section III, we developed Prior's suggestions for how to provide natural-language interpretations—NLIs, as we called them—for Loglish strings employing sentential variables and quantifiers, and we indicated how this how-talk-NLI procedure can be extended to uses of these logical devices generally. As we explained there, our procedure provides non-technical, ordinary-language interpretations of the uses of the sentential variables and quantifiers; it provides as basic an understanding of these logical devices as one could want. The NLIs generated via our procedure can even be used to state the truth conditions for the Loglish strings that employ sentential variables and quantifiers—for example, taking (9) to state the truth conditions for (3)—thereby demystifying what worried Richard and satisfying desideratum (i).

IV.2 Challenge to desideratum (ii): concerns regarding non-nominal quantification

A standard view about quantification stemming from Quine is that all quantification or generalization is nominal and objectual. Even non-Quinians, who embrace substitutional quantification, still consider the substitutional variables to be associated with a class of things (in particular, linguistic items). As we mentioned above, the type of quantification we advocate here rejects both of these dicta. This might make one leary of what we are doing and raise suspicion that our proposal does not satisfy desideratum (ii). A Quinian might even declare that our view is illegitimate [and in virtue of not satisfying desideratum (i)], unless one further analyses how-talk quantification as nominal quantification over ways. Such an objector will claim that the most accurate NLI for (3) is not (9) but rather

(g*) Whatever way things are, they are such that, if the Oracle says that is the way things are, then that is the way things are.

We maintain that non-nominal quantification is legitimate and satisfies both desiderata. In fact, for a deflationist, in accounting for sentential variables, we think that our account is to be preferred. On the legitimacy point, our response is that, while one can understand sentential variables and the quantifiers that govern them in terms of nominal quantification over ways, one is not *required* to do this. Siding with Prior, and more recently with Agustin Rayo and Stephen Yablo, we maintain that non-nominal quantification is a completely legitimate *sui generis* kind of generalizing.⁵⁰ After all, how-talk is perfectly legitimate English, and no one not in the grips of a theory would demand that English how-talk be explained or explicated in terms of English ways-talk. In fact, a claim like 'I'll do it somehow' is no less clear, if not clearer than, the claim 'I'll do it in some way'. Thus, we are in complete agreement with Prior (1971: 37–8), when he notes:

[N]o grammarian would count 'somehow' as anything but an adverb, functioning in 'I hurt him somehow' exactly as the adverbial phrase 'by treading on his toe' does in 'I hurt him by treading on his toe'. Once again, we might also say 'I hurt him in some way', and argue that by so speaking we are 'ontologically committed' to the real existence of 'ways'; but once again, there is no *need* to do it this way, or to accept this suggestion. [Italics original]

The non-nominal aspect of how-talk quantification is actually the element of the how-talk NLI procedure that facilitates its satisfaction of desideratum (ii). Since the quantifier 'however' neither ranges over a domain of discrete, individual how-entities nor comes with a substitution class of linguistic substituends, the generalizations it expresses cannot turn out to be fragmented ersatz generalizations. Since our procedure thereby avoids a central challenge facing deflationary accounts of generalizations involving truth-talk, and since it clearly involves generalizing of some sort, it is not clear what argument could be made to the effect that it does not satisfy desideratum (ii).

While we maintain the legitimacy of non-nominal adverbial quantification and of deploying it in accommodating the alethic platitudes, we did acknowledge that one *can* understand adverbial quantification in terms of nominal quantification over ways, if one wants to do so. Künne (2003: 333–8) offers an account of truth that is close to SVD, where he explains sentential variables and quantifiers ultimately in terms of quantification over ways. He describes his view as a 'modest account', which he maintains is not deflationary, and employs what he takes to be higher-order quantification over propositions as

⁵⁰ Prior (1971: 37–8); Rayo and Yablo (*Ibid.*). An earlier rejection of the Quinian doctrine being set aside here, namely that the only legitimate generalizing device is singular objectual quantification, occurs in Boolos (1984).

straightforward objectual quantification. To this end, he offers the following formula as an account of truth:

(MOD)
$$\forall x (x \text{ is true} \leftrightarrow \exists p (x = [p] \& p)),$$

where '[p]' is a singular term that is meant to be read as 'the proposition that p'.⁵¹

We think that his take on his own view is confused and, in line with Hofweber (2005), contend that the quantification he employs is actually over ways. 52 To see why, note that, given (MOD), Künne accounts for an instance of truth-talk like

(A) Everything the oracle said is true

in terms of quantification binding sentential variables with a formula like

(B) $\forall p$ (the oracle says that $p \rightarrow p$).⁵³

But he also maintains that the English phrase 'things are that way' is a natural-language sentential variable that functions prosententially.⁵⁴ Thus, he takes (B) to be renderable in English as

(C) For all ways things may be said to be, if the oracle says that things are that way, then things are that way. 55

While the 'may be said to be' restriction applied to the quantifier in (C) might suggest quantification over 'saybales', i.e., propositions, if we take the sentence at face value, it clearly involves quantification over ways rather than over propositions.

On its own, this might not seem like a serious problem, and perhaps Künne would be fine with just having quantification over ways. Be that as it may, accounting for the sentential variables employed in (MOD) or the QSV renderings of the alethic platitudes in terms of quantifying over ways would be problematic for a deflationist (and not just because of the loss of ontological parsimony due to having an ontological commitment to ways). Specifically, a would-be deflationist who attempts to follow Künne's approach ends up with an internal conflict that can and should be avoided.

⁵¹ Künne (2003: 337).

⁵² Hofweber (2005: 137) takes Künne's ways to be properties, but the latter's (*Ibid.*: 334, 336) preference for the totalizing subject-expression of the German phrases 'es ist so' or 'es verhält sich so' over the use of 'things' in the English 'things are that way', and his claim that even the English phrase does not really function as something with subject-predicate structure, suggest a 'global' understanding of ways rather than Hofweber's finer-grained understanding of them as properties.

⁵³ Künne (*Ibid*.: 368).

⁵⁴ *Ibid*.: 336.

⁵⁵ Ibid.: 367.

The conflict arises as follows: If there are ways, then a natural understanding of the 'global' sort of ways that Künne's approach quantifies over, to fit with his English interpretation of the bound sentential variable 'p' as 'things are that way', is as possible worlds, whatever view one has of the latter.⁵⁶ But then there would be sets of possible worlds, which would amount to propositions (at least of a coarse-grained, unstructured sort). If there are propositions of this sort, then, as Field (1992: 322–3) notes, it follows quite directly that, for any proposition, there is a basic set-theoretic property—having the actual world as a member—that amounts to the property being true. So, quantifying over ways would support a line of reasoning to the conclusion that the truth predicate serves to attribute a property to propositions. This conclusion conflicts with the earlier deflationary conclusion that the truth predicate is just a linguistic device of convenience that allows us to cover what is otherwise expressed with sentential variables and quantifiers. But both of these conclusions follow from an approach that explains the role of the truth predicate in terms of these logical devices, and then goes on to explain those devices along the lines Künne offers. So, the appeal to objectual quantification over ways, specifically in the context of SVD, generates an internal conflict. By contrast, if one wants to make sentential variables and quantifiers an explanatory starting point for truthtalk, then explaining those formal devices as fundamentally and irreducibly adverbial avoids the internal tension generated by attempting to explain them with quantifying over ways. All that emerges with the non-nominal, adverbial quantification approach is the more thoroughly deflationary position that views the truth predicate as just a linguistic device of convenience; no propertyattribution view of the truth predicate competes with it in this framework.

V. CONCLUDING REMARKS

Taking stock, we have argued that a deflationist can accommodate the alethic platitudes by approaching them via SVD, maintaining that truth-talk does no more than express what is otherwise expressible via sentential variables and quantifiers, with the latter providing an account of the former. We have also demonstrated that the best understanding of these 'non-standard' logical devices is the adverbial one that Prior introduces, and that, so understood, these devices of generalization already exist in English how-talk. Since this means that what we express with truth-talk is already expressible in English without it, the question arises, why does English also have a *truth predicate*?

 $^{^{56}}$ See footnote 52 on why ways are best understood as 'global' rather than finer-grained in Künne's approach. Both Lewis (1986) and Stalnaker (1976) identify such 'global' ways with possible worlds.

The reason is that English how-talk involves only a rough and not-quite-regimented mode of generalization [witness the complex constructions involved in (18) above]. After all, as we have emphasized, this is not ordinary nominal, objectual quantification, and how-talk quantification frequently does not even keep sentential variables and the quantifiers that bind them separate. This makes this adverbial quantification 'clunkier'—less fine-grained and less flexible—than the kind of generalizing one gets with objectual quantification (or even with substitutional quantification). This is in part because absorption is never mandatory with NLIs of formal strings employing the latter sorts of quantifiers; a long-form variant that keeps the bound variable separate from the quantifier is always possible with them.

To improve on the 'clunkiness' of how-talk, one might want to cover what this adverbial quantification expresses via a more rigorously formalizable framework, one that is more flexible and more easily integrated with other formal theorizing in first-order logic. The most direct way to do this is by having objects on hand for objectual quantification. With this in mind, one might introduce *propositions* as objects that 'encapsulate' presentings of things being somehow, which we can now quantify over. But since this nominalizes presentings of things being somehow, we need a way to denominalize that result, to return to presentings of things being somehow. That is what the truth predicate does. It undoes the nominalizing to yield a sentence-in-use, a presenting of things being somehow. This allows us to reap the benefits of replacing non-nominal adverbial quantification with a 'faux-nominal' objectual quantification that can be regimented within first-order logic. So, the main reason for using truth-talk (and proposition-talk) to cover what the how-talk quantificational claims express is that the object-and-property combination of those discourses provides expressive advantages over just sticking with howtalk.57

We contend that this is how a deflationist should understand the function and purpose of truth-talk. Indeed, this is where deflationary talk of the truth predicate being 'merely a formal device' has bearing. A deflationist can think of bringing in the framework of propositions as just implementing a form of semantic ascent, from talk about the world and how it is to talk of these supposed objects, posited as entities that specify the world as being somehow. And she can claim that the point of introducing truth-talk here is to implement a kind of semantic descent, to undo the semantic ascent implemented by introducing objects over which we can quantify, returning our focus to how the world is. We can see a suggestion of this understanding in some of what Prior says. In his adverbial sentential-variable account of truth-talk, he follows

⁵⁷ Cf. Yablo (*Ibid*.: 267–70), where he points out some of the analogous expressive advantages that quantifying over ways has in comparison to generalizing with how-talk in explaining modal discourse.

Ramsey in maintaining generally that no instance of truth-talk is really about any proposition (being instead "about whatever the proposition is about"⁵⁸). However, Prior still allows that one might engage in proposition-talk (as we just quoted him doing), including talking 'about them' being true or being false. But he considers this kind of talk just to involve a figure of speech about logical constructs, or talk of 'quasi-properties of quasi-objects', rather than being some genuinely ontologically committing form of discourse.⁵⁹ This is how a deflationist should think of the introduction of the framework of propositions, with one central role of truth-talk being to 'logically unconstruct' applications of that framework.⁶⁰

Since deflationists can claim that semantic ascent and descent are the central functions of proposition-talk and truth-talk, one should not take these ways of talking to reflect anything substantive in the world—or even in our conceptual scheme. So, we should not take these fragments of discourse as ineliminable elements of various platitudes that we use them to express. They are formal devices that provide certain theoretical advantages in expressing something that one could express without them, where these advantages include the fine-grainedness and flexibility of incorporation into the rigorously formalized framework of first-order logic. SVD can thus fully accommodate the alethic platitudes typically expressed via talk of propositions and the application of a truth predicate, once sentence variables and the quantifiers governing them are understood adverbially. Accommodating the alethic platitudes, therefore, provides no motivation for endorsing alethic pluralism (or any other inflationary view) over deflationism.

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⁵⁸ Prior (1971: 21).

⁵⁹ *Ibid.*: 29–30, 98. Cf. Prior (1967: 229).

⁶⁰ Note that Prior's comments regarding figures of speech about 'logical constructs' and 'quasi-properties of quasi-objects' fit especially well with *alethic fictionalism*, i.e., fictionalism about truth-talk. On alethic fictionalism, see Price (1988, 2003), Burgess and Burgess (2011: 127–31), and Armour-Garb and Woodbridge (2015: ch. 4).

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