This article was downloaded by: [University of Nebraska, Lincoln]

On: 28 October 2012, At: 17:49

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH,

UK



Australasian Journal of Philosophy

Publication details, including instructions for authors and subscription information:

http://www.tandfonline.com/loi/rajp20

'Ought' and Control

Matthew Chrisman ^a

^a University of Edinburgh

Version of record first published: 17 Oct 2011.

To cite this article: Matthew Chrisman (2012): 'Ought' and Control, Australasian Journal

of Philosophy, 90:3, 433-451

To link to this article: http://dx.doi.org/10.1080/00048402.2011.611151

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: http://www.tandfonline.com/page/terms-and-conditions

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sublicensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.



'OUGHT' AND CONTROL

Matthew Chrisman

Ethical theorists often assume that the verb 'ought' means roughly 'has an obligation'; however, this assumption is belied by the diversity of 'flavours' of ought-sentences in English. A natural response is that 'ought' is ambiguous. However, this response is incompatible with the standard treatment of 'ought' by theoretical semanticists, who classify 'ought' as a member of the family of modal verbs, which are treated uniformly as operators. To many ethical theorists, however, this popular treatment in linguistics seems to elide an important distinction between agential and non-agential ought-statements. The thought is that 'ought' must have at least two senses, one implicating agency and connected to obligations, and another covering other uses. In this paper, I pursue some resolution of this tension between semantic theory and ethical theory with respect to the meaning of 'ought'. To this end, I consider what I believe to be the most linguistically sophisticated argument for the view that the word 'ought' is ambiguous between agential and non-agential senses. This argument, due to Mark Schroeder, is instructive but based on a false claim about the syntax of agential ought-sentences—or so I attempt to show by first situating Schroeder's argument in its proper linguistic background and then discussing some syntactic evidence that he fails to appreciate. Then, I use the failure of this argument to motivate some more general reflections on how the standard treatment of 'ought' by theoretical semanticists might be refined in the light of the distinction important to ethical theory between agential and non-agential ought-statements, but also on how ethical theory might benefit from more careful study of the dominant treatment of modals as operators in theoretical semantics.

Keywords: deliberative 'ought', deontic modality, control syntax, semantics, metaethics, root modality

1. Introduction

Ethical theorists are interested in the meaning of the word 'ought' largely because the paradigmatic way in English to state general moral principles as well as specific practical conclusions is with an ought-sentence. For example, Kant's initial statement of the Categorical Imperative reads: 'I ought never to act except in such a way that I could also will that my maxim should become a universal law' [1785: 402]. And one of the most famous claims of

¹This is Ellington's translation. In the original German, Kant uses 'sollen', which is etymologically related to the English word 'should'. For my purposes here, I will be ignoring any distinction between 'should' and 'ought'.

applied ethics is Singer's contention that 'we ought, morally, to be working full time to relieve great suffering of the sort that occurs as a result of famine or other disasters' [1972: 238]. Although we can state ethical principles and conclusions in other ways, I think it is no mistake that we often reach for 'ought' to do so. But what does 'ought' mean?

Ethical theorists often seem to assume tacitly what Singer makes explicit in writing, "I have an obligation to" means no more, and no less, than "I ought to" [ibid.: 233]. This assumption is belied, however, by the diversity of ought-claims in ordinary English. In addition to moral 'ought's like the ones mentioned above, we also say things like

PRUDENTIAL: Bob ought to give up smoking (for his personal wellbeing).

TELEOLOGICAL: One ought to use anchor bolts (in order to support a loft bed).

BOULETIC: Jean ought to come too (as my husband would like it).

EVALUATIVE: Milton, you ought to be alive at this hour (as England needs you).2

EPISTEMIC: The storm ought to hit shore before midnight (given its speed).

I doubt any of these are plausibly interpreted in terms of obligations, but surely not all of them are.

Ethical theorists tend to respond to this diversity by suggesting (or, more often, tacitly assuming) that 'ought' is ambiguous. For instance, Harman writes 'One would intuitively distinguish at least four senses of the word ought ...' [1973: 235]. And I think most ethical theorists would agree with him that it is important to distinguish the ethical and prudential senses of 'ought' from the other apparently non-practical senses of 'ought'. The basic idea is that these 'ought's are the ones relevant to the projects of moral philosophy, metaethics and deontic logic. The meaning, truth and implication of all of the others can be ignored, or at least put off to a later stage in our theorizing. I suspect there is a kernel of truth in this idea, but as a linguistic thesis it is implausible that 'ought' is multiply ambiguous.

Now, when philosophers and linguists suggest that a word has multiple senses or is 'ambiguous', it is not always clear what they mean or that they mean the same thing; moreover, a sentence can admit of multiple reasonable interpretations or be 'ambiguous' even though none of its words is, since its unarticulated constituents may differ. What I mean when I say that it is linguistically implausible that the word 'ought' is multiply ambiguous is not merely that it is not a homonym.³ Rather, I mean that it is linguistically implausible that there are multiple semantic rules for the verb 'ought'

²This is a modernization of a line in Wordsworth's poem England, 1802, which is discussed also by Wedgwood [2007]. It has been called 'evaluative' because it seems to say that some, alas impossible, situation, would be good. In this way it is like saying it 'It ought not to have happened' about a natural disaster which killed many people.

³Indeed the use of 'ought' as an antiquated variant of 'naught' is a homonym of the various uses of the modal verb 'ought' which are at issue in this paper, but that is irrelevant.

implicit in the linguistic competence of ordinary speakers. I take it that one of the core projects of semantic theory is to articulate such rules. In my view, a much more plausible hypothesis is that there is a single semantic rule for 'ought', which, by reference to constituents which often go unarticulated in ought-sentences, can generate multiple reasonable interpretations and the various 'flavours' of ought-sentences illustrated above. This view is by no means novel to me. It is borne out by the standard treatment of 'ought' by both lexicographers and theoretical semanticists, but, as we shall see, some philosophers deny it.

In any case, I think most linguists would agree that we should not posit four or five (or more) distinct entries for 'ought' in the English lexicon, on pain of making it mysterious how language learners master their uses. Moreover, most of the different 'senses' of 'ought' appear to be systematically manifested in other languages and in other words in the system of English modals. This is why the orthodox view in theoretical semantics is that 'ought' is a monosemous operator (akin to deontic necessity) but semantically underdetermined, such that its uses require significant contextual augmentation to determine a definite sense.4

This orthodoxy neatly explains the diverse flavours of ought-sentences mentioned above. There are various important details to be worked out, but the basic idea is to gloss all ought-sentences in terms of its being somehow necessary that some proposition is true. For instance, Kant's statement of the categorical imperative might be glossed as saying that it is morally necessary—i.e. necessary in the light of the laws of morality—that I act in such a way that I could also will that my maxim become universal law. This is easy to contrast with the prudential ought-statement above, which might be glossed as saying that it is *prudentially* necessary—i.e. necessary for a particular person's life to go best, all things considered—that Bob give up smoking. Likewise with the bouletic ought-statement above, which might be glossed as saying that it is *bouletically* necessary—i.e. necessary in order to fully satisfy some assumed preference set—that Jean come too. And this even seems to work to a first approximation for the epistemic oughtstatement above, which might be glossed as saying that it is epistemically necessary—i.e. necessary to believe in the light of standards of good belief formation, some evidence about the storm's speed and an assumption about things going as they usually do—that the storm will hit shore before midnight.⁵ And so on, for any ought-statement.

⁴Although she doesn't focus on 'ought', the canonical sources in formal semantics for this kind of view are

⁵As I said, there are various important details to be worked out, especially capturing the apparent distinction between 'ought' and 'must' and developing an adequate model-theory for perspicuous representation of the formal structure of arbitrary ought-sentences. The former challenge is illustrated most baldly in the epistemic case, where to get a plausible necessity-analysis one has to deploy an assumption about things going as they usually do. Working out the precise way to do this takes some care. Compare McNamara [1996a, 1996b], Ninan [2005], von Fintel and Iatridou [2008], Portner [2009: 79-82], Finlay [2010], and Chrisman and Ridge [unpublished] for more discussion of this issue. The latter challenge is illustrated in attempts to get the entailment relations between ought-sentences to come out intuitively correctly. The literature here is vast, but for some recent important discussion see Dreier [2009], Finlay [2010], Kolodny and MacFarlane [2010], Björnsson and Finlay [2010], Cariani [forthcoming], and Dowell [unpublished]. The important point here is that these details motivate elaborations and refinements of the monosemy view about the semantic contribution of 'ought' rather than posit multiple semantic rules or distinct lexical entries for the word.

In spite of the unity of this proposal and its popularity among theoretical semanticists, there is a pervasive view among philosophers who have considered the question that the core or most important use of 'ought' is to say what some agent *ought to do* and not what proposition *ought to be* true. The thought is that it is only the former which expresses the specifically practical relation holding between agents and actions that is relevant to ethics. Prichard expresses this sentiment most baldly, writing: 'The word "ought" refers to actions and to actions alone. The proper language is never "So and so ought to be", but "I ought to do so and so" [1912: 24].

If this is meant as a description of English, I think the examples given above clearly show it to be wrong. However, several philosophers have suggested, in a more nuanced way, that there might be two distinct senses of 'ought': the 'agential' sense and the 'non-agential' sense. The idea is that the former involves someone's agency and is related to practical deliberations and obligations; it is the sense of 'ought' which implies the 'can' having to do with the kind of control we have over our own actions. The latter is something else.

Perhaps, if this is a linguistically defensible claim, the projects of ethical theory can proceed by focusing on the agential sense of 'ought' and mostly ignoring the non-agential sense(s). That is, normative ethicists can go on assuming, without too much offence to ordinary language, that (agential) 'ought' is intimately tied to obligation and practical reasons. Moral psychologists can go on assuming that (agential) ought-claims are interestingly practical in a sense that animates competing articulations of ethical internalism and externalism, as well as the debate between Humeans and anti-Humeans about motivation. Metaethicists can go on debating the existence, nature and epistemology of the special ethical relation purportedly represented by an (agential) ought-claim. And deontic logicians, well, they might have to give up locating their subject as a species of modal logic; but, if Geach [1982] is right, this may be just the cure for most of the so-called paradoxes of deontic logic.

But is it really linguistically defensible to claim that 'ought' is ambiguous between agential and non-agential senses? I think many linguists looking at the whole family of modal verbs in English, as well as cognates in other languages, would find this suggestion too particular to 'ought' and motivated by philosophical considerations exogenous to the systematic aspirations of semantic theory to take seriously. However, Schroeder [2011] has recently offered a philosophically and linguistically sophisticated

⁶Compare Sidgwick's [1874: 33] discussion of the 'political' 'ought' as distinct from the agentive 'ought' of ethics, Moore's [1903: §90] distinction between statements of what ought to be and what we ought to do, Castañeda's [1963] non-standard deontic logic for 'ought-to-do's, Sellars's [1969] distinction between 'rules of criticism' and 'rules of action', Humberstone's [1971] discussion of the 'agent-involving' sense of 'ought', B. Williams's [1981] discussion of 'deliberative' and 'non-deliberative' 'ought's, and Feldman's [1986] discussion of 'ought-to-be' vs 'ought-to-do'. Clearly, the terminology here is not uniform, and some of this terminology can be misleading. Here, I mostly use the terminology 'agential' vs 'non-agential', but when I discuss Schroeder's [2011] argument below, I follow him in using Williams's term 'deliberative' as a cognate of 'agential'.

attempt to defend the suggestion that there are agential and non-agential senses of the word 'ought'.

In this paper, I want to argue that, despite what it teaches us, his attempt fails. That is not because I doubt the importance of the agential/nonagential distinction for ethical theory. But I do doubt that viewing this distinction as manifested semantically as a subtle ambiguity in the word 'ought' brings us closer to the goals of both ethical and semantic theory with respect to the meaning of 'ought'. Rather, in my view, this distinction presents a challenge from ethical theory that a more orthodox monosemy view in semantic theory will, with some refinements, meet. In this context, I think the failure of Schroeder's argument provides a good forum to draw some lessons for both ethical and semantic theory.

2. Linguistic Background

I start not with Schroeder's argument but some background in the semantics of English modals and the syntax of subject control, which is helpful for understanding and evaluating his argument. In theoretical semantics and linguistic typology, modal words like 'must', 'may' and 'ought' are typically divided into their epistemic uses and their root uses.8 The former have to do with the strength of evidence for a proposition, whereas the latter have to do with duties, values and practical reasons. For instance, the first sentence of each of the following pairs is naturally given an epistemic interpretation, whereas the second is naturally given a root interpretation:

- a. The ground is soaked; it must have rained hard.
 - b. If you want to get there in an hour, you must fly.
- (2) a. She may have the disease but not be showing symptoms.
 - b. You may stay out till 11 o'clock, but no later.
- (3) a. If they left an hour ago, they ought to be home by now.
 - b. We ought to do more for the poor and for the deranged.

⁷Compare also Harman [1973: 235–6, 1975: 3–13]. An influential early response to Harman was by Williams [1981], though his response seems to me to be fallacious in ways pointed out by Lee [1987] and Broome [forthcoming]. In a linguistic context, Brennan [1993: §§2.1-2.2] has also defended a view very similar to Schroeder's, and Portner [2009: 188] suggests briefly that something like it might be true, although I believe both of them would draw different conclusions about what this means for the orthodox view in linguistics of the semantics of modal verbs.

⁸Although I think Portner [2009: 135] is right to reject the umbrella category of *root* modals in favour of a more fine-grained distinction that treats deontic, teleological, and bouletic modals as species of priority modals, which he then contrasts with both epistemic modals and dynamic modals, here I shall follow standard practice in linguistics of using the term root to refer to non-epistemic modals. This causes no confusion in the present context since 'must', 'may', and 'ought' do not appear ever to function as dynamic modals. This means that for them the traditional epistemic-root distinction comes to the same thing as Portner's epistemic-priority distinction.

Because of this distinction, sometimes a single sentence admits of two plausible interpretations. For example, each of the following sentences admit of both epistemic and root interpretations:

- (4) a. Tara must help James with his work
 - ... otherwise it is inexplicable how he manages to do it.
 - ... the regulations require it.
 - b. Tara may help James with his work
 - ... that's one possible explanation of how he finishes so quickly.
 - ... but not so much that he gains an unfair advantage.
 - c. Tara ought to help James with his work
 - ... since she's usually around to pitch in.
 - ... since she promised.

An old and bold suggestion in theoretical linguistics is that we can distinguish epistemic and root interpretations of these sentences *syntactically*. For instance, Ross [1969: 87–8] and Perlmutter [1970: 115] suggest that epistemic modals evoke *raising-verb* structure, while root modals evoke *control-verb* structure. Both raising verbs and control verbs can occur as the head verb in sentences or clauses with a subordinate non-finite verb that has no explicit subject. For example,

- (5) a. Tara seemed to help James with his work.
 - b. Tara tried to help James with his work.

are paradigmatic examples of, respectively, raising-verb and control-verb structures. In both cases, the head verb ('seemed' or 'tried') is followed by a subordinate non-finite verb ('help') that has no explicit subject. However, these sentences differ syntactically in an important way.

In (5a), the verb 'seemed' does not semantically require an external argument for a subject. ¹⁰ This means that we might represent its meaning as something like

SEEMED [Tara helped James with his work] proposition.

However, the syntactic rules of English require every sentence to have a subject. In this case, the name 'Tara' does that job. By contrast, in (5b), the

⁹Since they came first, I am going to call this 'Ross and Perlmutter's thesis', but the view has been defended in more detail by Jackendoff [1972], Zubizarreta [1982], Roberts [1985], and E. Williams [1985]. See also Newmeyer [1975: 27–34], Bhatt [1998], Wurmbrand [1999], and Fukuda [2007] for further critical discussion beyond the little bit that follows here.

¹⁰It may require an external argument for the person to whom it seemed that Tara helped James with his work. This is irrelevant to my argument here and I will suppress this complication in what follows.

verb 'tried' does semantically require an external argument for a subject. Nothing is tried unless there is someone or something who is trying. In this case it is Tara who is the trier. Hence, we might represent its meaning as something like

[Tara]_{agent} TRIED [PRO_{agent} helps James with his work]_{action-description}.

It is this kind of difference between (5a) and (5b) that motivates the distinction between raising-verb syntax and control-verb syntax. A raisingverb syntax is one where the subject can be thought of as 'raised' from its position as the subject of the subordinate verb to serve as the subject of the whole sentence or clause. For example, in (5a), we can think of the subject 'Tara' as syntactically raised from the subject of 'to help' to be the subject of the whole sentence. A control-verb syntax, in contrast, is one where the subject semantically 'controls' both the main verb and the subordinate verb. For example, in (5b), the subject 'Tara' can be thought of as the controller of both verbs in the sentence.¹¹

One test that is widely thought to be probative of this distinction has to do with the sorts of restrictions that a verb puts on what can be its syntactic subject without anomaly. The syntactic subject of a raising verb is not restricted for any particular thematic role. For example, it is fine to 'lower' the raised subject in (5a) by replacing it with the explicative 'it', as in 'It seemed that Tara helped James with his work'. The verb 'seem' can also take subjects without restriction on thematic role. For example, we can use a sentential subject as in 'That she helped him with his work seemed to please James'; and we can use an idiomatic or non-agentive subject with a raising verb as in 'All hell seemed to break loose'. These features are characteristic of raising-verb structures since the raised subject is not, so to speak, the real (semantic) subject of the verb, but only a syntactic stand-in forced on us by English syntax. By contrast, the verb 'try' semantically restricts its subject to something with the thematic role of an agent (i.e. something that can cogently be thought of as the one who tries). This is why we cannot legitimately use an explicative subject as in 'It tried that Tara helped James with his work', or a sentential subject as in 'That she helped him with his work tried to please Tara', or an idiomatic or non-agentive subject as in 'All hell tried to break loose'. These features are characteristic of control-verb structures since the controlling subject is, so to speak, the real (semantic) subject of the verb.

In the light of this distinction between raising and control structures, Ross and Perlmutter's hypothesis can be put as follows. Unlike the verbs 'seems' and 'tries', which evoke only one syntactic structure, modal verbs like 'must', 'may' and 'ought' can evoke either raising or control syntax; and the difference between epistemic and root readings lines up with the difference between raising and control syntaxes. This is why the sentences in (6) are most naturally given epistemic rather than root interpretations:

¹¹The general issue of verb control in theoretical syntax is much more complicated than the initial distinction between raising and control verbs that I will discuss here. These complications are not relevant here, but I encourage the reader to consult Landau [2000: 1-24] for a more general introduction.

- (6) a. It must be the case that Tara helps James with his work.
 - b. James may be helped with his work by Tara.
 - c. That Tara is present ought to help James with his work.

The more general suggestion is that this is why sentences that force raising structure interpretations are most plausibly given epistemic rather than root interpretations.

This is an elegant hypothesis, but it is important in the present context to understand why it is not at all credible. There are clear cases where a modal in a raising structure deserves a root interpretation, e.g.:

- (7) a. There must be no punching below the belt, and no throttling.
 - b. There may be beer and cider at the party, but I refuse to permit spirits in the house. 12
 - c. There ought to be more salt in this soup; it tastes bland.

These are raising structures because they deploy the explicative subject 'there', but they deserve root interpretations because they have to do with duties, values and practical reasons rather than strength of evidence. Also consider the following sentences, which deploy a sentential subject and embed 'ought' in an idiomatic construction:

- (8) a. That she helped him with his work ought to please James.
 - b. If Tara doesn't help James with his work, all hell ought to break loose.

We can get a root interpretation of (8a) if it is said in a context where it is common ground that James is generally culpably ungrateful for Tara's generous help. Similarly, we can get a root interpretation of (8b) if it is said in a context where it is common ground that James has silently acquiesced time and time again as Tara has neglected helping him in even the most trivial ways.

I bring up this relatively old and settled debate about whether the epistemic/root distinction in modal semantics lines up with the raising/control distinction in verb syntax because Schroeder's argument that 'ought' is subtly ambiguous turns on the claim that it evokes control syntax in some uses but raising syntax in others. Rather than seeking to line this up with the root/epistemic distinction, as Ross and Perlmutter did, Schroeder seeks to line it up with the agential/non-agential distinction I mentioned above. This saves him from the obvious counterexamples, but his claim is still highly dubious, as I shall argue in the following two sections.

¹²Sentences (7a) and (7b) are from Pullum and Wilson [1977: 784]. They cite Newmeyer [1975] and Lakoff [1972] as giving similar examples and further evidence for interpreting 'virtually all' the modals with raising syntax—whether or not they are associated with epistemic or root readings. See also Brennan [1993], Warner [1993: 16], and Wurmbrand [1999] for further arguments against assimilating the epistemic—root distinction to the raising—control structure distinction.

3. 'Deliberative' 'Ought's and Control

Following B. Williams [1981], Schroeder refers to the distinctive sense of 'ought' he believes to be involved in agential ought-statements as the deliberative 'ought'; and he suggests five 'hallmarks of deliberative "ought"s' [2011: 9–10]: (i) they matter directly for advice in the sense that knowing what someone ought to do is knowing what is advisable for them to do, (ii) they *close* practical deliberation in the sense that knowing what one ought to do is settling the question of what to do, ¹³ (iii) they are closely related to the notion of accountability, (iv) they, unlike other oughtstatements, support the principle that 'ought' implies 'can', and (v) they are closely related to the notion of obligation.

He then argues that the distinction between all of the 'ought's that do bear these features and those that do not can be explained in terms of the distinction between control and raising syntax. One reason he thinks this is a promising hypothesis is that, in addition to the restriction on thematic role of the subject mentioned above, another test generally thought to be probative of the raising/control distinction is that sentences evoking raising verb structure admit of active/passive synonymy, whereas sentences evoking control verb structures do not. For example, with a paradigmatic raising verb like 'seems', we appear to get active/passive synonymy:

- a. Bill seemed to kiss Lucy.
 - b. Lucy seemed to be kissed by Bill.

The same is not true of a paradigmatic control verb like 'tries':

- (10)a. Bill tried to kiss Lucy.
 - b. Lucy tried to be kissed by Bill.

Intuitively, this is because raising verbs operate on a proposition, which could be expressed in the active or passive voice, while control verbs relate a thematic-role restricted subject to a complement.

Schroeder's idea is that we can use this test to show how deliberative 'ought's evoke control structure while all of the other 'ought's evoke raising structure. Consider his leading example:

- (11)a. Bill ought to kiss Lucy.
 - b. Lucy ought to be kissed by Bill.

To get the difference he is after, imagine that we are discussing Bill's infatuation with Lucy and we think that his kissing her is the thing for him to do at this moment in their evolving courtship. In such a case, the 'ought'

¹³According to Schroeder, the qualification 'directly' and the idea of 'closing' deliberation are important, as many non-deliberative 'ought's are indirectly relevant for advice and factor somehow in practical deliberation.

in (11a) can seem to relate Bill to the action we would advise him to undertake: to kiss Lucy. More generally, it seems to bear the hallmarks of the deliberative 'ought'. By contrast, Schroeder thinks (11b) is never plausibly interpreted as bearing the hallmarks of the deliberative 'ought'. That does not mean it involves an epistemic 'ought'. Perhaps there are contexts in which this ought-sentence could be epistemic, but we might also say (11b) in a context where we think it would be somehow ideal or would satisfy someone's preferences if Lucy were kissed by Bill, but we would not presume to advise him to do so or hold him accountable. Imagine for instance that we are Lucy's older relatives and we think Lucy's being kissed by Bill would be a risk-free way to scare off undesirable suitors. In such a case, the 'ought' in (11b) can seem merely to evaluate the desirability of some state of affairs, and so not to be synonymous with (11a) on the deliberative interpretation. Schroeder's suggestion is that this non-synonymy between (11a) and (11b) is best explained by positing different syntactic structures evoked by the verb 'ought': raising vs control.

On Schroeder's view, the situation here is complicated by the fact that (11a) can also be used non-deliberatively. That is, it could be substituted with (11b) in the types of contexts where (11b) is appropriate. Then, however, Schroeder argues that it should be not be understood as deploying the deliberative 'ought' and it can be assigned raising syntax rather than control syntax. He writes, 'When I say that "ought" is "ambiguous" between these two "senses", I just mean this: even when we exclude "epistemic" readings, the word "ought" sometimes exhibits raising syntax, and sometimes exhibits control syntax, and its semantic significance is different in each of these cases—each of the hallmarks of the deliberative "ought" is exhibited in all and only the cases exhibiting control syntax' [ibid.: 18].

Despite its obvious similarity to Ross and Perlmutter's thesis discussed above, Schroeder's view differs in two important respects. First, it is focused on the word 'ought' (he does not mention other modals like 'must' and 'may' in his paper). Second, as I already mentioned, it is not an attempt to distinguish a root sense of 'ought' from an epistemic sense of 'ought' but rather an attempt to distinguish the deliberative sense of 'ought' from all of the others (including epistemic 'ought's and evaluative 'ought's). However, he claims that if his view is correct it presents a serious challenge to the orthodoxy in theoretical semantics, which (as we've seen) treats 'ought as a monosemous operator akin to more familiar sorts of necessity modals. That is, Schroeder contends that this orthodoxy needs to be rethought in so far as it entails that there is 'no argument-place for an agent in any relation expressed by "ought", nor is there any argument-place for an action' [ibid.: 2]. His argument is that the deliberative 'ought' evokes control-verb syntax

¹⁴It is not obvious to me that the orthodoxy does entail this. If the argument places for the agent and action are at a lower syntactic position than the modal, then the modal could still operate semantically on a proposition that is determined, in such cases, by the values in the argument places for agent and action. It is worth noting in this regard that Kratzer [1991: 650] explicitly allows for different syntactic structures in modal sentences and tries to show how they are semantically predictable depending on the modal base she assigns to the relevant modal. As Hacquard [2010] shows, this argument is problematic, but, even within an orthodox model-theoretic semantics for modals like 'ought', we might still pursue an explanation of why different flavours of modality line up with different syntactic manifestations in particular languages like English. I pursue this idea more in §5.

and so should be viewed as expressing a relation between agents and actions rather than effecting a modal operation. Because of this, he thinks 'ought' is ambiguous, since he agrees that all of the other 'ought's evoke raising verb syntax and so can be plausibly interpreted as a kind of modal operator.

4. Why This is Wrong

Although Schroeder's view does not face the obvious counterexamples undermining Ross and Perlmutter's thesis, there are examples similar to those that I believe muddy the water enough to call into doubt Schroeder's claim that the 'hallmarks of the deliberative "ought" pick out a special sense of the word distinguished by the syntactic structure it evokes.

Consider the first hallmark having to do with advice. I think Schroeder is right that we often track an intuitive contrast between ought-claims used to evaluate the desirability of a situation and ought-claims used to give advice. Clearly, sentences like (12a) play a different sort of role from sentences like (12b):

- a. Larry ought to win the lottery (as he has had the fate of Job recently). (12)
 - b. Larry ought to spend his money on food (rather than lottery tickets).

However, if Schroeder is right that this is because the former evokes raising structure while the latter evokes control structure, then we should expect other 'ought's of advice to put thematic-role restrictions on their subjects as well—after all, that is one of the signature features of control verbs. But there are apparent counterexamples:

- (13)a. Invitations ought to go out by post. (Wedding Advice)
 - b. Rump roast ought to cook slowly. (Cooking Advice)
 - c. Americanized spelling ought to be eliminated. (Editorial Advice)

Clearly these play a role much more like (12b) than (12a), in that they can be said in the context of giving advice. However, they cannot be assigned control syntax since their syntactic subjects do not conform to thematic-role restrictions.

Schroeder's response will be that the 'ought's in (13) might be relevant for advice, but they are not *directly* relevant for advice. Recall (n. 13 above) that a deliberative 'ought' is supposed to be directly relevant for advice in the sense that 'knowing what someone ought to do, in the deliberative sense, settles the question of what is advisable for them to do' [2011: 9fn]. However, if, for example, I've called my mother for advice about how to cook rump roast, and she asserts (13b), knowing it to be true, then surely this settles the question of what is advisable for me to do regarding the rump roast. At least, it seems to be as settled as when an assertion of (12b), known

to be true, settles the question of what is advisable for Larry to do with his money. In order for Schroeder to use a distinction between direct and indirect relevance to advice to block such counterexamples, he needs to provide a non-question-begging account of the difference, and I cannot see how he could do this.

Admittedly, these examples are not clear-cut counterexamples. Although he won't convince those who, like me, hear (12b) and (13b) in a very similar way, Schroeder could, perhaps, lean heavily on the distinction between something's being directly or indirectly relevant for advice and then simply deny that the sentences in (13) represent cases of the deliberative sense of 'ought', as he is thinking of that category. But recall that he insists that there is a 'very clearly a reading' [ibid.: 14] of sentences like (11a) and (11b) on which they don't admit of all of the same possible readings. This is because, as he writes, '... one of the important data about this example is that (11a) has a deliberative reading that is unavailable for (11b)' [ibid., italics in the original, numbering altered]. In my opinion, however, for that to be a datum with any theoretical weight, it also needs to be very clear that a deliberative reading is unavailable for sentences like those in (13). Yet a comparison with the sentences in (13) leads me to suspect that, in so far as there is a distinct category of 'deliberative' 'ought's, a deliberative reading of (11b) is probably possible even if it's less natural than with (11a).

Imagine, for instance, a context in which some actors Lucy, Tom and Bill are rehearsing a new piece, and Lucy (playing the heroine) is kissed by Tom (playing the hero). But this is wrong, so the director interrupts the rehearsal to explain the script. Then he says: 'Start again, but this time Lucy ought to be kissed by Bill—not Tom.' To my ear, this sounds like direct advice, clearly relevant to the practical deliberations of the actors. This may not refute the idea that that a deliberative reading is unavailable for (11b), but examples like these do lead me to be sceptical that things break as *clearly* the other way as Schroeder's argument requires.

Now that the water is sufficiently muddy, let me try to clear it up by considering two further tests for control syntax. Above we encountered two linguistic tests for control: thematic-role restriction on the syntactic subject and active/passive non-synonymy. Schroeder discusses both of these. Here is a third test he does not mention. In English, control verbs admit of -er nominalization but raising verbs do not. For example, from 'tries', we can get 'trier' as the person who tries; from 'want' we can get 'wanter' as the person who wants, etc. This contrasts with raising verbs. From 'seems' we cannot get 'seemer' as the person who seems; from 'appears' we cannot get 'appearer' as the person who appears, etc. 15,16

¹⁵With some verbs it is not completely clear how to adjudicate this test. Do we get 'continuer' as the one who continues, 'beginner' as the one who begins? I think we do, but each of these verbs has been suggested as evoking both control and raising structures. So there may be contexts where these verbs are used but no one fills the role denoted by the correlative -er nominalization. See Perlmutter [1970] and Fukuda [2007] for discussion of this test. Further difficult cases are the verbs 'need' and 'dare'. Their syntax is complicated by the fact that they can function as modal auxiliaries or lexical verbs.

¹⁶It is worth mentioning that Perlmutter [1970] alludes to another test for control structure that I think 'ought' always fails. He claims that control verbs can be used in an imperative formation, while raising verbs cannot. For example, one might think it makes sense to say 'Try harder!' but it does not make sense to say 'Appear to kiss Lucy!'. But I am unsure whether this test is probative of the control/raising distinction. For I

This is exactly what we should expect if raising verbs operate semantically on propositions; for many of the propositions that could seem or appear to be true will be ones where it doesn't make sense to ask who is the person who seems or appears. By contrast, if control verbs relate a subject who must fill the thematic role of an agent to some complement, it makes perfect sense that we could ask who is the person who tries/wants.

Now, consider 'ought'. From 'ought', can we get 'oughter' as the one who oughts? I don't think so. But if that is right, and this test is probative, then Schroeder's view is false.

A fourth test for control verb structure derived from Wurmbrand [1999: 5– 6] has to do with the fact that control verbs can be passivized in ways that raising verbs cannot. For example, both pairs of the following are admissible:

- a. Someone tried to kiss Lucy.
 - b. Kissing Lucy was tried by someone.
- (15)a. Someone wanted to kiss Lucy.
 - b. Kissing Lucy was wanted by someone. 17

But the same does not hold of paradigmatic raising verbs:

- (16)a. Someone seemed to kiss Lucy.
 - b. Kissing Lucy was seemed by someone. (?)
- (17)a. Someone appeared to kiss Lucy.
 - b. Kissing Lucy was appeared by someone. (?)

This is what we should expect if control verbs have an external argument place so that they can semantically relate a subject and some object, while raising verbs have no external argument place so that they can semantically operate on a proposition. In the former case, we can make the object the subject of the sentence by passivization, but in the latter case, while we can passivize the statement of the proposition, we cannot passivize the propositional operator itself.

Now, consider 'ought'. Is anything like the following passive transformation admissible?

- (18)a. Someone ought to kiss Lucy.
 - b. Kissing Lucy is/was oughted by someone. (?)

suspect it is cogent for the theatre director to use the raising verb 'seem' to say something like: 'You don't have to really do it, but at least seem to kiss Lucy!' However, informants seem to have mixed opinions on

¹⁷For some control verbs, a preposition is needed to make the passive sentence, e.g. 'Kissing Lucy was hoped for by someone' and 'Kissing Lucy was planned on by someone'.

Again, I don't think so. But, again, if that is right, and this test is probative, then Schroeder's view is false.

So, unless there is some special account of 'ought's refusal of -er nominalization and these passive constructions, ¹⁸ it looks like these tests tell against *ever* assigning ought-claims control syntax, even when they deploy what ethical theorists might like to think of as the special agential or 'deliberative' sense of 'ought'. And because it is far from clear that there are ought-claims passing the thematic-role restriction and active/passive non-synonymy tests for control, I think the balance of evidence is against Schroeder's view.

5. Conclusion: Some Lessons

In §§3–4, I explained and argued against Schroeder's view that we should think of the verb 'ought' as having two different senses—deliberative and non-deliberative—distinguishable in terms of whether the word evokes control syntax or raising syntax. This is not, I would like to stress, because I think there is nothing of importance in the distinction between agential and non-agential ought-claims. On their most natural interpretation, sentences like those in (11):

- (11) a. Bill ought to kiss Lucy.
 - b. Lucy ought to be kissed by Bill.

certainly seem to differ in precisely the fact that the former says something about what someone ought to *do*, whereas the latter says only what ought to *be* the case and is neutral on who (if anyone) ought to do something. However, I've given what I take to be very strong reasons for doubting that this is due to two different senses of the word 'ought' manifested in the kind of syntactic structures they evoke.

Why does this matter? Ethical theorists are interested in the meaning of 'ought' because it serves in the paradigmatic statement of general ethical principles and specific practical conclusions. Semantic theorists are interested in the meaning of 'ought' because ought-statements exhibit the puzzling diversity of flavours illustrated in §1. This diversity might lead ethical theorists to campaign against the use of 'ought' in ethics, urging perhaps the use of less 'flavourful' words such as 'obligation' and 'duty'. However, I think this would be to miss a mutually beneficial opportunity for both ethical theory and semantic theory. (And there's no hope anyway of changing the way 'ought' is used in ordinary speech about practical matters

¹⁸The strength of both of these tests may seem to be weakened by the fact that English modals like 'ought' are 'defective' verbs in that they refuse tense and person morphology. Perhaps this, rather than 'ought's semantic function, explains the lack of -er nominalization and passivization. However, the semi-modal 'has to', which seems to be semantically very closely related to 'ought to' is non-defective and yet it too does not pass either test for control syntax. Moreover, German modal verbs are not defective in that they do take tense and person morphology ('ought' = sollen: pres. soll, solls, sollen, past sollte, solltest, sollte, sollten). And yet similar tests for German show German sollen to be a raising verb rather than a control verb.

including ethics, so there would always remain a question of the connection between this usage and straightforwardly deontic notions like obligation and duty.)

For all I've argued above, however, the diversity of ought-statements could still be the result of a frustrating sort of polysemy in the verb 'ought'. Perhaps there are a lot of different uses of 'ought', which are closely enough related that there's no clean distinction to be drawn between senses, but also different enough to make one doubt that we could ever articulate a unified semantic rule. I suspect many ethical theorists who are alive to debates in theoretical semantics assume or at least hope that such a polysemy view is correct. This is a more linguistically subtle descendant of the ambiguity view I mentioned in §1. And, if we accept it, then perhaps it's fine to say that there's an agential sense of 'ought' along with many others, and it's only this one that is of central concern to ethical theory.

If, instead, we continue to work within the orthodox view in theoretical semantics (viz. that 'ought' is a monosemous operator whose semantic contribution is typically underdetermined or in need of contextual augmentation to generate a definite content for ought-statements), then the discussion in ethical theory about the difference between agential and non-agential ought-statements generates a challenge to semantic theory that may have some payoffs in ethical theory as well. I want to conclude this paper with some programmatic comments meant to explain why I favour the monosemy approach over the polysemy approach.

Here are two initial (and admittedly defeasible) reasons. First, defenders of polysemy owe us difficult explanations of how 'ought' came to have this diversity of meanings and how language learners are able to master it as easily as they often do. 19 Second, the verb 'ought' appears to participate in a system of modal notions that is inter-linguistically and intra-linguistically robust; so commitment to complicated polysemy about 'ought' would seem to force commitment to complicated polysemy about other words in this system (e.g. 'must', 'may', 'has to', 'can', etc.), which exacerbates the difficulties in the etymological and developmental explanations.

Here is a more positive reason for favouring the monosemy approach. Obviously, the assumption of an underlying semantic unity puts more of a constraint on what ethical theorists can cogently say about the meaning of 'ought', but I think it also generates underappreciated theoretical opportunities. For instance, if we take the philosophical distinction between agential and non-agential ought-statements to represent a desideratum on the pursuit of semantic unity in theoretical semantics, then it—along with other considerations—can guide the investigation of how diverse oughtsentences (and other modal sentences) get projected from some unified semantic core. For instance, on the kind of monosemy view popular in theoretical semantics, there remains significant room for debate and refinement about the way modal words operate.

¹⁹For attempts, see especially Traugott [1989], Sweetser [1990: ch. 2], but see also Papafragou [2000] for critical discussion of the implications for the monosemy view.

In characterizing the orthodox view above, I briefly alluded to different species of *necessity* that are standardly used to cash out the semantic contribution of 'ought' in various flavours. This is often explained in terms of whether it is, say, moral ideals, prudential maxims, efficacy to some end, satisfaction of preferences, etc., that is crucial to the way in which a prejacent proposition is claimed to be necessary. However, this could be made more precise or altered in interesting ways in order to mark the agential/non-agential distinction.

For example, some moral ideals might themselves be thought of as agential (action-norms), whereas others might be thought of as merely situational (state-norms). Hence, assuming that we're in a context where it makes sense to interpret them as *moral* ought-claims in the first place, this would allow us to distinguish interpretations of, e.g.:

- (12) a. Larry ought to win the lottery (as he has had the fate of Job recently).
 - b. Larry ought to spend his money on food rather than lottery tickets.

by glossing (12a) as alluding to what is necessary in the light of certain moral state-norms, while glossing (12b) as alluding to what is necessary in the light of different moral action-norms. Similarly, some prudential maxims might be thought of as agential (the maxim is not merely or even that some state of affairs be achieved but rather that some agent do something) while others might be thought of as merely situational (where all that matters is that some state of affairs is achieved, whether or not a particular agent's agency is involved). Hence, assuming that we're in a context where it makes sense to interpret them as *prudential* ought-claims in the first place, this would allow us to distinguish interpretations of, e.g.:

- (11) a. Bill ought to kiss Lucy.
 - b. Lucy ought to be kissed by Bill.

by glossing (11a) in terms of what is necessary in the light of certain prudential maxims requiring Bill's agency, while glossing (11b) in terms of what is necessary in the light of other prudential maxims where all that matters is that some state of affairs is achieved. Not all of the flavours of ought-statements will admit of this more fine-grained distinction, but several seem to and it would be a way for the propositional operator interpretation of 'ought' to incorporate the agential/non-agential distinction, while retaining its value as a systematic account of the semantic contribution of 'ought' in each of a diversity of kinds of ought-sentences.

A different but perhaps compatible strategy for capturing the agential/non-agential distinction is to be more precise about the semantic object on which 'ought' is thought to operate. My gloss of the orthodox view in §1 may have given the impression that there is a one-to-one correspondence between an ought-sentence and this object (e.g., that, for any sentence of the form 'X ought to Y', you just remove the 'ought' and then conjugate the infinitive verb properly to get a proposition which is the object on which

'ought' is thought to operate semantically). However, this appearance is superficial and there needn't be a commitment to such one-to-one correspondence in the monosemy view.

Because of this, it's actually quite easy to generate many different possible interpretations of an ought-sentence, some of which implicate an agent while others don't, depending on how we specify the semantic object on which 'ought' operates. For example, both (11a) and (11b) could be glossed—depending on context—as making implicit reference to any number of particular agents, as in 'It ought to be the case that the director sees to it that Bill kisses Lucy' or 'It ought to be the case that Lucy's relatives ensure that Bill kisses Lucy', but it could also be glossed as taking no stand at all about which agent, if any, is relevant, as in 'It ought to be the case that Lucy is kissed by Bill'. Indeed, although it's orthodox to conceive of the semantic object on which 'ought' operates as a proposition, this too is not required for the monosemy view. For example, Castañeda [1975: ch. 2, ch. 7] argues for a basic duality between action-descriptions considered as propositions and action-descriptions considered practically (i.e. as the possible contents of intentions or prescriptions, which he argues are not propositions). Nevertheless, he too treats the verb 'ought' as a monosemous modal operator taking both propositional and non-propositional arguments. Whatever the object of the 'ought' is, it is interpreted as saying that this object is somehow necessary—e.g., necessarily true in the light of what's preferable, necessarily true for a person's life to go best overall, or necessary to do in order to live up to the counsels of morality.

Given this flexibility, there will be infinitely many possible interpretations of sentences like (11a/b); however, when made in context, only a very small number of these will be candidate interpretations of what the speaker actually meant to convey.²⁰ And my suggestion here is that the difference between agential and non-agential ought-statements might also be captured in whether a semantic object on which 'ought' operates specifies an agent qua agent and one of her possible courses of action.

I mention these strategies for capturing the agential/non-agential distinction within the monosemy view as examples; there may be other fruitful strategies. The important point is that they are strategies for refining a piece of semantic theory that are motivated by that intuitive distinction drawn from ethical theory. As such, I believe they represent an attractive sort of theoretical cross-pollination, where our semantic theory can be refined by attending to aspects of ethical theory. This is lost in the retreat to polysemy mentioned above.

Importantly, the opportunity for theoretical cross-pollination extends in the other direction as well. For example, I think the monosemy view can

²⁰So, I demur at Schroeder's [2011: 13] suggestion that the 'agency-in-the-prejacent' strategy overgenerates interpretations of ought-sentences. To be sure, it can be used to generate many interpretations of any oughtsentence that are not at all plausible in the context in which the sentence is used. But this is true of any semantic view of any sentence, as long as the view posits unarticulated constituents. These views assume that ordinary speakers use various strategies to narrow down the number of plausible interpretations worth serious consideration. Schroeder also argues that the agency-in-the-prejacent strategy undergenerates interpretations of ought-sentences. However, this argument depends on the claim that there is 'very clearly a reading' of sentence (11a) on which it has a meaning 'unavailable' for (11b), which is a claim I criticized in §4 above.

point towards new clues about the nature and structure of normative judgment. If ought-claims are a species of necessity-claims, then perhaps we should think about the psychological role of the judgments they express more like we think of the psychological role of other kinds of necessity judgments. Philosophers as diverse and influential as Hume, Kant, Frege, Wittgenstein, Ramsey, Quine and Sellars have suggested that necessity judgments play an importantly different role in our psychological economies from ordinary judgments of fact. This is not the place to enter into the controversy about whether they are right about this, but if they are, the monosemy view about the semantic contribution of 'ought' might help us to see how a parallel view is the right one to take about ought-judgments, which in turn might provide crucial traction in debates about apparent differences in the psychological role of these judgments and ordinary judgments of fact.

Another example of possibly fruitful theoretical cross-pollination from semantic theory into ethical theory comes in metaethical debate about the existence, nature and epistemology of moral properties. Again, if 'ought' is a kind of modal operator, then perhaps we should think about the debate about what makes ought-claims true and how we know them to be true more like we think about the same debate about modal claims. To be sure, that wouldn't settle the debates—views like realism, fictionalism, expressivism and pragmatism are all just as much available in the modal domain as in the normative domain—however, it would provide a novel way to characterize and pursue them.

All of these issues warrant much more discussion than is appropriate here. However, I wanted to mention them in order to explain why I think we shouldn't let the implausibility of the original ambiguity view or the failure of Schroeder's more linguistically sophisticated argument force us to embrace a retreat to polysemy about 'ought'. I believe that by working across semantic and ethical theory a monosemy approach provides interesting opportunities for progress in both. ²¹

University of Edinburgh

Received: May 2011 Revised: July 2011

References

Bhatt, Rajesh 1998. Obligation and Possession, in Papers from the UPenn/MIT Roundtable on Argument Structure and Aspect, ed. H. Harley, Cambridge, MA: MITWPL: 21–40.

Björnsson, Gunnar and Stephen Finlay 2010. Metaethical Contextualism Defended, Ethics 121/1: 7–36.
Brennan, Virginia 1993. Root and Epistemic Modal Auxiliary Verbs, Ph.D. Thesis, University of Massachusetts, Amherst.

Broome, John forthcoming. Williams on Ought, in Luck, Value and Commitment: Themes from the Ethics of Bernard Williams, ed. Ulrike Heuer and Gerald Lang, Oxford: Oxford University Press.

Cariani, Fabrizio forthcoming. 'Ought' and Resolution Semantics, Noûs.

Castañeda, Hector-Neri 1963. Imperatives, Decisions, and 'Oughts': A Logico-Metaphysical Investigation, in Morality and the Language of Conduct, ed. Hector-Neri Castañeda and George Nakhnikian, Detroit: Wayne State University Press: 219–99.

²¹I appreciate support for research on this article provided by the Arts and Humanities Research Council. I would also like to thank John Broome, Davide Fassio, Stephen Finlay, Mark Schroeder, Alex Silk, and a referee for this journal for helpful feedback.

Castañeda, Hector-Neri 1975. Thinking and Doing: The Philosophical Foundations of Institutions, Dordrecht: Reidel.

Chrisman, Matthew and Michael Ridge unpublished. Ought and Must.

Dowell, Janice unpublished, Flexible Contextualism About 'Ought'.

Dreier, James 2009. Practical Conditionals, in Reasons for Action, ed. David Sobel and Steven Wall, Cambridge: Cambridge University Press.

Feldman, Fred 1986. Doing the Best We Can, Dordrecht: Reidel.

Finlay, Stephen 2010. What Ought Probably Means, and Why You Can't Detach It, Synthese 177/1: 67-89. Fintel, Kai von and Sabine Iatridou 2008. How to Say Ought in Foreign: The Composition of Weak Necessity Modals, in Time and Modality, ed. J. Guéron and J. Lecarme, Dordrecht: Springer: 115-41.

Fukuda, Shin 2007. On the Control/Raising Ambiguity with Aspectual Verbs: A Structural Account, in ZAS Papers in Linguistics 47: Studies in Complement Control, ed. Barbara Stiebels, Berlin: ZAS: 159-95.

Geach, Peter 1982. Whatever Happened to Deontic Logic?, Philosophia 11/1-2: 1-12.

Hacquard, Valentine 2010. On the Event Relativity of Modal Auxiliaries, Natural Language Semantics 18/1: 79-114.

Harman, Gilbert 1973. Review of 'The Significance of Sense: Meaning, Modality, and Morality', The Philosophical Review 82/2: 235-9.

Harman, Gilbert 1975. Reasons, Critica 7/21: 3-13.

Humberstone, I. L. 1971. Two Sorts of 'Ought's, Analysis 32/1: 8-11.

Jackendoff, Ray 1972. Semantic Interpretation in Generative Grammar, Cambridge, MA: MIT Press.

Kant, Immanuel 1785 (1985). Groundwork for the Metaphysics of Morals, ed./trans. James Ellington, Indianapolis: Hackett Publishing Co.

Kolodny, Niko and John MacFarlane 2010. Ifs and Oughts, Journal of Philosophy 107/3: 115-30.

Kratzer, Angelika 1977. What 'Must' and 'Can' Must and Can Mean, Linguistics and Philosophy 1/3: 337-55. Kratzer, Angelika 1981. The Notional Category of Modality, in Words, Worlds, and Contexts, ed. Hans-Jürgen Eikmeyer and Hannes Reiser, Berlin: de Gruyter.

Kratzer, Angelika 1991. Conditionals, in Semantik: ein internationales Handbuch der zeitgenössischen Forschung, ed. Arnim v. Stechow and Dieter Wunderlich, Berlin and New York: de Gruyter.

Lakoff, George 1972. The Pragmatics of Modality, Papers from the 8th Regional Meeting, Chicago Linguistics Society: 229-46.

Landau, Idan 2000. Elements of Control, Dordrecht: Kluwer.

Lee, Richard 1987. Williams, Ought, and Logical Form, Analysis 47/3: 137-42.

McNamara, Paul 1996a, Doing Well Enough: Toward a Logic for Common Sense Morality, Studia Logica 57/1: 167-92.

McNamara, Paul 1996b. Must I Do What I Ought?, in Deontic Logic, Agency and Normative Systems, ed. M. A. Brown and José Carmo, Berlin: Springer Verlag.

Moore, G. E. 1903. Principia Ethica, Cambridge: University Press.

Newmeyer, Frederick 1975. English Aspectual Verbs, Paris: Mouton.

Ninan, Dilip 2005. Two Puzzles about Deontic Necesstity, New Work on Modality, MIT Working Papers in Linguistics 5, ed. J. Gajewski, V. Hacquard, B. Nickel, and S. Yalcin, Cambridge, MA: 149-78.

Papafragou, Anna 2000. Modality: Issues in the Semantics-Pragmatics Interface, New York: Elsevier Science. Perlmutter, David 1970. The Two Verbs Begin, in Readings in English Transformational Grammar, ed. Rodrick Jacobs and Peter Rosenbaum, Washington DC: Georgetown University School of Language. Portner, Paul 2009. Modality, New York: Oxford University Press.

Prichard, H. J. 1912. Does Moral Philosophy Rest on a Mistake?, Mind 21/81: 21-37.

Pullum, Geoffrey and Deirdre Wilson 1977. Autonomous Syntax and the Analysis of Auxiliaries, Language 53/4: 741-88.

Roberts, Ian 1985. Agreement Parameters and the Development of English Auxiliaries, Natural Language and Linguistic Theory 3/1: 21-58.

Ross, John 1969. Auxiliaries as Main Verbs, in Studies in Philosophical Linguistics, Series I, ed. W. Todd, Evanston: Great Expectations Press: 77–102.

Schroeder, Mark 2011. Oughts, Agents, and Actions, Philosophical Review 120/1: 1-41.

Sellars, Wilfrid 1969. Language as Thought and as Communication, Philosophy and Phenomenological Research 29/4: 506-27.

Sidgwick, Henry 1874 (1907). The Methods of Ethics, London: Macmillan and Company.

Singer, Peter 1972. Famine, Affluence and Morality, Philosophy and Public Affairs 1/3: 229-43.

Sweetser, Eve 1990. From Etymology to Pragmatics, Cambridge: Cambridge University Press.

Traugott, Elizabeth 1989. On the Rise of Epistemic Meanings in English: An Example of Subjectification in Semantic Change, Language 65/1: 31-55.

Warner, Anthony 1993. English Auxiliaries, Cambridge: Cambridge University Press.

Wedgwood, Ralph 2007. The Nature of Normativity, Oxford & New York: Oxford University Press.

Williams, Bernard 1981. Ought and Moral Obligation, Moral Luck, Oxford: Oxford University Press: 114–23.

Williams, Edwin 1985. PRO and the Subject of NP, Natural Language and Linguistic Theory 3/3: 297-315. Wurmbrand, Susi 1999. Modal Verbs Must Be Raising Verbs, Proceedings of the 18th West Coast Conference

on Formal Linguistics, Somerville, MA: Cascadilla Press. Zubizarreta, M. L. 1982. On the Relationship of the Lexicon to Syntax, Ph.D. Dissertation, MIT.