**Kratzer Semantics: Criticisms and Suggestions**

Michael Beebe

Mbeebe94960@yahoo.com

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**Abstract**

Kratzer’s semantics for the deontic modals ought, must, etc., is criticized and improvements are suggested. Specifically, a solution is offered for the strong/weak, must/ought contrast, based on connecting must to right and ought to good as their respective ordering norms. A formal treatment of the semantics of must is proposed. For the semantics of ought it is argued that good enough should replace best in the formula giving truth conditions. A semantics for supposed to slightly different from that for ought is proposed that connects interestingly with the “normative judgement internalism” problem. An extended analysis of the workings of the ordering source in Kratzer semantics reveals several problems and related possible solutions. And finally, it is argued that ‘We must do the right things” and “We ought to pursue good things” are provably necessary in Kratzer semantics, which is, I think, a welcome result, although, since formal, does not tell what are the right and good things.

**1.0 Kratzer on the deontic modals**

The most widely accepted and most influential account of the semantics for the modal verbs and quasi-modals, such as ought and should and supposed to and must and required to and have to and the like, is Kratzer’s (1977, 1981, 2012). The alethic modals of metaphysical necessity and possibility take a different account with a much longer history. Her theory of these words is clearly important for many areas of philosophy and especially so for theories of practical reason and moral philosophy. There are several unresolved difficulties with Kratzer’s account, even if it is right now clearly the best theory by far. In this paper I will take up some of those difficulties, and make suggestions toward resolutions of some of them.

Kratzer’s theory of the semantics of these words is now broadly accepted in linguistics and philosophy. It implements a possible worlds semantics and interprets ought and must and their relatives as, in effect, modal operators. Many other linguists have contributed,[[1]](#endnote-1) and before the linguists, philosophers. Partee (1989) provides a useful survey of the philosophical and linguistic history of the movement to a formal possible worlds semantics in linguistics. Heim and Kratzer (1998) offer a systematic introduction to this approach to semantics of natural language. Portner (2009) provides an approachable exposition and commentary on current thinking in linguistics about modality; Collins (2009) is also useful.

The semantics Kratzer proposes has three main elements: context dependence, possible worlds semantics, and a “that”-clause structure. I examine them briefly in turn.

Context dependence

Kratzer says that must and ought and can and might and the other deontic modal words have lexical meanings that are semantically incomplete and in use need to be supplemented by elements from context to enable the making of complete assertions. As a by-product, the apparent need for multiple senses, e.g., of ought, is eliminated by additional contextual and speaker-provided meaning-elements to be understood as different from and additional to the meanings of the words; the lexical meaning of the word, of ought or must, is what is context-invariant and the context-varying elements provide, among other things, the differentia among the various “flavors” of the deontic modals, e.g., the bouletic (about tastes, or preferences more broadly), the teleological (instrumental) about goals, the legal, the aesthetic, the moral, the epistemic; and possibly others, although that is unclear.[[2]](#endnote-2) The contextual elements handle these differences, which previously had seemed to require multiple sense of ought and must. The removal of the need for many senses of ought and must and can and may is a major point in favor of Kratzer’s account. Being forced to postulate numerous senses of these words, as linguists and philosophers previously seemed required to do, is dubious practice. The differences in the uses are reflected in the different senses, but the sameness in the uses, e.g., in the bouletic and teleological ought, is not captured or explained.

Here are some examples of the differences. All of the following sentences are proper in English; their philosophical status is usually not as obvious as their linguistic propriety, however:

1a) You ought to do the morally good (right, best) thing

 b) You must do the morally obligatory (required, right, correct) thing (And you ought to do it, too)

 c) You ought to obey the law legally (and prudentially and usually morally); legally you must obey the law

 d) You ought to choose the best means to your ends (Not: You must choose the best means to your ends)

 e) You ought to find that Bach is musically more significant that Monteverdi (Not: ‘You must find that Bach is…..’ except as a kind of emphasis)

 f) You ought to choose the chocolate bread pudding (since you like chocolate so much)

 g) You ought to believe what there is good evidence for; you must believe what there is certain evidence for

 h) John ought to be here by now, he left home an hour ago

Kratzer says that despite appearances the words ought and must are univocal in 1a) - h) above and that the semantic differences come from additional semantic content provided in some way by context.

Invoking context to supply additional semantic information is, however, a tricky matter. The standard thing to say about context-dependence acknowledges Kaplan (1978, 1989) for indexicals and Grice for conversational implicature, the rules of conversation and for speaker’s meaning (Grice ‘Meaning’ 1957, ‘Logic and Conversation’ 1967 respectively; both reprinted in Grice 1989). Actually displaying how these mechanisms are implemented in specific linguistic situations requires considerable care and ingenuity in argument. Dowell (2011, 2012, 2013, 2016) is especially insightful and useful here, and Silk (2016) extends and enhances this approach.

Possible worlds semantics The second main element in Kratzer’s theory is that the semantics of the deontic modals, and by this she means their truth-conditions, are to be represented as quantifications over possible worlds. That in some sense “possibilities” need to be invoked to explain modals seems inevitable; they are about possibilities, after all. Kratzer’s approach uses universal quantifications for must and have to and ought and should and supposed to and others like them, and we may think of these as examples of a practical necessity, as Kratzer calls it, to distinguish it from alethic necessity. She uses existential quantifications for can and may and might to link with permission or possibility. Thus ought-p is to be true iff p is true in some subset of all possible worlds. This seems very plausible, but the key issue will be how to identify the right subset.

In her semantics it is something in the context of utterance – speakers’ intentions, demonstratives, perhaps other mechanisms – that establishes a set of assumptions that are to be presumed to obtain in the situation. These will be both factual and normative. She calls these together the conversational background. The factual component is the set of circumstances in which or against which the truth of the statement is to be evaluated.[[3]](#endnote-3) The set of propositions (she denotes it by f) that makes up the factual component selects a set of possible worlds where they are true, and so ∩f(w) which I call F or F(w) is the set of worlds in which the propositions are all true. She calls this set of worlds the modal base. The conversational background also includes information about the rules or norms or values or standards (norms or rules or values for deontic modals and standards for epistemic modals) that are carried in the conversational background and are to be taken as applying in the instance. She calls the evaluative material the ordering source and symbolizes it as g.

For ought, the ordering source which is the norm or norms invoked, orders the worlds of the F(w), the modal base, in a better-than ordering, e.g., ordered as morally better than, aesthetically better than, instrumentally better than, better-liked than, more likely than for the epistemic, and so on. Then “best” in the statement of the truth-conditions selects, e.g., the morally best worlds as the set relevant to the truth-conditions of the sentence in question, namely:

 Ought-p is true iff p is true at all the best worlds of the modal base as ordered by the ordering source

There is still a lot that is puzzling about how the normative standards being invoked act to generate a betterness-ranking of the worlds of the base. The use of best in particular is an issue. Not all legitimate uses of ought seem clearly to link to best as the evaluative in the formula, some seem to link to good, as in good enough, as the evaluative. I will discuss that issue later where I will argue that good enough is probably the correct evaluative for ought; but the case is unclear.[[4]](#endnote-4) And I will argue also that in addition to the evaluative good (good-better-best) we need the evaluative right (right/not-right). I argue that the deontics must (and have to and required to and obligated to, etc.,) links with right or correct as their paired evaluative, while ought and should and supposed to link with good (good enough) as their paired evaluative.

The that-clause structure The third element of Kratzer’s semantics is that sentences using the modal deontic words are to be understood, for semantic purposes, as all involving that-clauses, so that

2a) It ought to be that (a is P)

is the semantically relevant form and not

 b) a ought to do or be P

and similarly for must and can and might and so on. The embedded that-clause is always to be taken in the simple indicative sense. This structure makes ought and the other deontic modal words something like operators on propositions, as in the sentence ‘Ought-p’. In the literature, p is called the prejacent proposition, and I will use that terminology.

What this structure indicates is that, in its contribution to the meaning of the whole, the modality of the prejacent proposition is being altered by the ought; and that, and not some supposed ought-relation being predicated between the entity a and the property P, is what is going on in the sentence. The ‘p’ itself is not modal, it is simple indicative, but the effect of embedding it inside a modal operator is to yield a modal understanding of it as part of the whole sentence. However, we can think of the ‘a ought to do P’ form as the de re meaning, in which we mean to say something like ‘It is true of the person a that it ought to be the case that they do P.’ This is not the same as the pure relational form, but it will do some of what the pure form does. Still, ought means something different from what it would have meant in the relational form.

My final comment regarding this new linguistic approach to the non-alethic modals is a caution that a great deal about it is still in flux. If the basic idea is clear and compelling, there are many different possible implementations of that basic idea and there are serious puzzles still unresolved. We shall have to wait to see which turn out to be the best approaches overall.

**2.0 Kratzer on must and ought**

Kratzer’s theory of the deontic modals is the currently dominant theory, so much so that even in the face of difficulties, most research is aimed at repair rather than replacement. That’s what my aim is also, since I too think that Kratzer’s approach is basically correct. Success will mean that each of the criticisms is resolved with relatively small alterations to Kratzer’s basic theory. I attempt to extend her theory in small ways which strengthen its usefulness and explanatory reach.

2.1 Kratzer’s generic Nec

The first attempt

In an early paper, Kratzer (1977; reprinted in 2012, 4-20) says of must, as in

3) I must go to the store

that it seems to be like an expression of the necessity of a deduction from suppressed premises, and so necessary relative to those premises; and in that paper she offers a premise semantics that she models in terms of a possible worlds semantics. She explains the three elements of her theory, the context-dependence, the that-clause structure, and the possible worlds semantics, but she explains the semantics in terms of the entailment of the prejacent ‘p’ of the ‘must-p’ from that set of suppressed premises. The conversational base is the presupposition-set, which is the set of suppressed premises provided by conversational implication. It is the set of propositions that identify the set of possible worlds in which the prejacent is said to be true together with the normative premises, and together the factual and normative propositions are said to entail the truth of the prejacent.

This early theory doesn’t work. On Kratzer’s theory cast as a premise semantics, the force of the must-statement derives from the logical relations embedded in the contextually implied body of facts, preferences, goals and normative rules expressed in the premise-set. The force of the must arises because, in light of the assumed truth of that body of common knowledge of both fact and value, I am required to go to the store. That “required” has the force of the threat of logical incoherence within my belief-and-value structure. But notice we have now lost the ability to distinguish, e.g., a moral ought from a prudential one because they are both now just about maintaining coherence. Something has gone wrong.

Generic Nec

Kratzer replaces her first attempt with something considerably more sophisticated in the next theory she offers. In ‘The Notional Category of Modality’ (Kratzer 1981, reprinted in Kratzer 2012) she introduces a practical necessity (symbolized ‘Nec’) that encompasses but does not distinguish must from ought or from have to or required to or should or supposed to and other similar phrases. This practical necessity is as it were the generic kind, and the speciation is yet to come. The criteria of speciation have become a much-discussed issue – this is the must vs. ought problem, the strong vs. weak necessity issue – and the matter is still unsettled. I will later offer a proposal towards a solution but for now I want to stay with the generic concept.

This theory of practical necessity introduces ordering as an element in addition to the factual background of the modal base, and thus allows considerably more flexibility. It works this way. The possible world or worlds in which the prejacent is to be true is selected first by being contained in the f(w) set of worlds which are those selected by the factual background, and then in the set F(w), i.e., ∩f(w), the worlds in which all the f’s are true. Then secondly by the ordering source which orders the worlds of F(w) in a better-than ordering based on the norms or evaluatives in the ordering source. And last, the semantic formula selects the best of the F(w) so ordered, meaning the highest-ranked of the F(w), to yield the following:

 Nec-p is true at the world of evaluation iff p is true at the best of the F(w) as ordered by the ordering source

It seems to me plausible that there are in fact only two core semantic constructions here, both based on Kratzer’s proposal for Nec. One will be the must-group and the other the ought-group, with the remaining deontic modals, e.g., required to and have to, and should and supposed to, explained as belonging to one or the other of the groups but with small variations on the theme. Explaining these variations is something that remains to be done, but if I am right, explaining the difference between must and ought is the big challenge to making effective use of Kratzer’s definition of the generic Nec-p. I will offer a treatment of must and ought below, which I claim distinguishes them properly. The idea that there are only two basic kinds of deontic modal is implicit in Bjornsson and Shanklin (2014). I believe they have the key insight and I discuss their proposal below.

2.2 On ought

The truth-conditions Kratzer gives for the generic ought statement are the same as those for generic Nec:

 Ought-p is true iff p is true at all the best worlds of the modal base as ordered by the ordering source g

These proposed truth-conditions seem to fit as applied to ought and in part this appears to be because ought registers the requirement to do the better thing as the thing with more value. The truth-condition makes sense, because the best worlds of the base will be the worlds where most deontic value will be generated. Chrisman (2015, 86) in his book on the subject, expresses the semantic rule for ought this way:

ought is the unary function from a proposition that gives the semantic value true just in case the proposition is true in all of the worlds of the modal base for which there is no higher-ranked world according to the ordering source

Elsewhere he says, usefully, that what the Kratzer formulation does is to divide up in an illuminating way the elements that go into the accessibility relation. Here is what he means by that. In standard possible worlds semantics, for some generic necessity operator N, one says something like:

 N-p is true at the world of evaluation iff p is true at all the worlds accessible from the world of evaluation

and what Kratzer does with her formulation using both the modal base and the ordering source, is to open up the accessibility relation to display its elements so that we can select and adjust them to fit the needs – the “meaning” – of the particular modal operator we want to understand and model. It gives her the ability to fine-tune accessibility relations to fit the needs of her semantics. She distinguishes the factual circumstances from the ordering source (the factual from the normative element), and uses both to craft the precise accessibility relation she needs.

To help us understand this, let us consider ought in a practical example. The example sentence is

4) You ought to go to the store and buy eggs

said by the wife to the husband, and the situation is a husband and wife on a Sunday morning considering the state of their refrigerator, what they would like to eat for breakfast, and what they should do given those facts and their wishes and other relevant constraints and considerations. The conversational background will contain the relevant information about the context of utterance and the situation they are in, especially including the couple’s preferences, the contents of the refrigerator, the relative nearness to the store and etc.

A question: do all potentially ordering norms – those about preferences or ends or norms or whatever is broadly normative – go in the ordering source? Or do some of them, the constraint norms, as we might call them, go in the base, leaving only the operative norm or goal or preference, the one driving the decision, to go into the ordering source? No, they all have to go in the ordering source because we have to balance them off against one another based on their relative importance, even though only one is the “motivating” value. They aren’t veto-like, they have varying importances in varying circumstances, and we must take that into account. So the ordering source will contain all preferences, norms and values, but somehow calling out breakfast as motivating. In this case it will be the ranking of what is the (non-morally) better thing to do overall, mixing likes and dislikes and goals and some moral norms acting as constraints (no stealing); and we need but don’t have a formal way to register the difference between the motivating norm and the constraint-norms. And of course the factual element will include all the non-normative facts about time and distance and what is practical and achievable and at what cost in effort and time.[[5]](#endnote-5) [[6]](#endnote-6)

The truth conditions will in general be as follows (retaining best for the moment but see below):

 Ought (p = they go to the store to buy eggs) is true iff they go to the store at all the best worlds of the modal base as ranked by the ordering source

This seems clear, and seems to work naturally and intuitively for ought. A very common thing to say about the nature of ought is that we ought to do the best we can, and Kratzer’s formulation gives us that. However, we still need more clarity and detail, and a technically more thorough definition. I introduce the technical material after taking up the good enough vs. best question.

2.3 Best vs. good enough

I said that I thought that if some world ranked as good enough – not best, just good enough – that that could make an ought-statement true. Note that good is not the same as good enough; good is to my ear a higher ranking than (just) good enough. Both are contextually established on a better/worse scale. See, e.g., Cresswell (1976), Kennedy (1999), Rett (2015) and Silk (2017) for useful discussions of the evaluative adjectives.

There are several reasons to think this to be so. First, there is the “degree of ought-ness” argument, then the misleading or misplaced uniqueness argument, then the “prima facie ought” argument, and last, the “not good enough” argument.

For the first, consider Sartre’s well-used example, in a variant phrasing:

5) You ought more to stay home to care for your aged mother than (you ought) to join the resistance

If this is a proper sentence in English, and it certainly seems to be, it suggests that oughts come in greater or lesser degrees of demandingness. And if that is true, if, in our example both those ought-statements are proper, as they appear to be and as they have to be if the sentence is to make sense, then best cannot be the correct evaluative word and rather good enough is. Lassiter (2011 and elsewhere) generally argues for a scalable ought, and he presents a number of examples like the above.

The next consideration is that using best forces the interpretation to be “best everything considered” which yields the unique thing that one ought to do. That is attractive: one can say ‘We ought to do the best we can’ and feel we are saying something both profound and sensible, not an easy thing to do. But notice that we can equally as well say ‘We ought to do all we can of things that are worth doing’ and that also sounds both profound and sensible. So one can come to feel that the uniqueness induced by best is artificial, is certainly misleading, and so, perhaps, should not be made the basis of a semantics for ought. For suppose one is in a situation where if you use good enough, you derive two oughts, an ought-p and an ought-q, and while one may be more demanding than the other, it is possible to do both. Should you not do both? Yet if you use the formula with best, you will be told to do only the better one, and fail to be told also to do the lesser, although you could have. But, a critic can answer, you should have evaluated p&q and p&q&r and so on, for all actions that do not conflict. Then best works right. True, but why not just use good enough? Why should you have to consider all combinations of the non-conflicting possibilities to get to an answer?

The next-to-final point concerns the usefulness of talk like ‘you ought prima facie to do p, and prima facie to do q’ and then on further reflection conclude that since they do conflict and you can only do one, you should do p as the more important. Using best blocks the prima facie ought-claim, while with good enough, you can generate the complete set of the candidate-oughts, the prima facie oughts, and then decide which of them is more demanding, and which you can do. This is not a separate argument, rather an observation about usefulness.

The last argument for good enough, is that with it there appears to be some point, some level of deontic value, at and above which ought-p is true, and below which it is false. But that means that an ought-p with deontic value below the critical level is false; yet the formula using best has ought-p being true no matter how low a deontic value it has but only so long as it is best. I think this is false of ought, that a miniscule level of deontic value cannot support a true ought-statement.

Yet counter to these arguments is the plain fact that we often use O-p to say which is the single, the uniquely deontically demanded thing: doesn’t that mean we need “best” in the truth-conditions? But equally, best would require us to say ought for even the smallest amount of deontic value. We appear to have complex, conflicting language usages here, and I do not know how they will ultimately be resolved. My currently favored resolution is that the use of O-p when it conveys the force of ‘ought-p, everything considered’ which is what the use of best yields, is to be understood as an aspect of the pragmatics, something related to Grice’s rules of conversation where one is expected and required to say the most relevant, most useful thing one can in the circumstances. That is to say, I tentatively propose that the uniqueness that is sometimes present is a matter of the pragmatics of the language and not of the semantics; and that that semantics of ought is based on good enough in the truth-formula and not on best.

**3.0 Kratzer on practical necessity, the technical material**

I want now to examine the technical definition Kratzer offers for practical necessity because the details matter, and the details give us something quite specific to key our discussion to.

Here is what she says about practical necessity (Kratzer 1981; 2012, 40 – the material occurs first in 1981 but I use the reprinted and amended version of 2012 as the more current). I will first present her semantics using best, and then present an alternative formulation using good enough.

3.1 Kratzer on necessity

Necessity

A proposition p is a necessity in w with respect to f and g iff for all u ∈ ∩f(w), there is a v∈ ∩f(w) such that

1. v ≤g(w) u

and

1. for all z ∈ ∩f(w): if z ≤g(w) v, then z ∈ p.

The f and g elements are the factual and the normative elements of the conversational background, respectively. f is the set of propositions that are conversationally implied by the speaker as true. We are to understand that a proposition p is to be identified with the set of possible worlds in which it is true. Thus ∩f(w) is to be interpreted as the intersection of the sets of worlds represented by each of the propositions. And that in turn yields the set of worlds in which all the propositions of f are true; ∩f(w) is that set and she calls it the modal base and I will refer to it as the set F or as F(w).

About this definition she says:

Simplifying slightly, a proposition is a necessity just in case it is true at all accessible worlds that come closest to the ideal determined by the ordering source

Here is what this means. As before, f is the factual background and so ∩f(w) are the worlds of the modal base, i.e. the worlds in which the propositions of the factual background are all true; and g is the normative element or elements, rule or norm or value, carried in the ordering source. The ordering source gives us ‘v ≤g(w) u’ which means that world v is as good as or better than world u, with respect to the ordering established by the ordering source g.

Thus a proposition p is a necessity, at the world of evaluation w, with respect to f and g, iff for any world u that is among the worlds of the modal base F(w), there is a world v also contained in the F(w) such that v ≤g(w) u; and for all z contained in the F(w), if z is as good as or better than v, then z is contained in (the set of possible worlds which is) p.

Now we need to move to the ordering source, where we will learn how to derive and understand ‘v ≤g(w) u’. Here is what Kratzer (2012, 39) says about ordering:

 Inducing the ordering ≤A

For all worlds w and z ∈W: w ≤A z iff {p: p ∈ A and z ∈ p} ⊆ {p: p ∈ A and w ∈ p}.

About this definition she says (2012, 39):

According to this definition, a world w is at least as close to an ideal or norm determined by a set of propositions A as a world z iff all propositions of A that are true in z are true in w as well. The relation ≤A is reflexive and transitive, but not necessarily connected. Technically, ≤A is a partial preorder, then. It is partial because worlds don’t have to be comparable, and it is a preorder because it is not necessarily antisymmetric.

Put in considerably more informal terms, what this definition of ordering does is the following. The set A of propositions identifies the set of norm-complying states of affairs in the worlds of F; which is to say, the instances of norm-compliance in F. As an example, think of it in terms of a simple set of laws, with the sole elements “Do not do B-things and do not do C-things.” Then the set A will be all the instances in the worlds of F(w) of ‘no B-things done’ and ‘no C-things done’.[[7]](#endnote-7)

Kratzer uses the set A of propositions to order the worlds as follows: a) there is equivalence in betterness-ranking between worlds when they contain the same propositions from A, b) one world is better than another when the better world contains one or more of the propositions of A that the lesser world does not, and c) the worlds are incomparable when each contains different propositions from A.[[8]](#endnote-8) Portner (2009, 63-64) provides a useful detailed discussion of how Kratzer’s ordering works.

3.2 And for Necessity with good enough

A proposition p is a necessity in w with respect to f and g iff for all u ∈ ∩f(w), there is a v∈ ∩f(w) such that

1. v ≤g(w) u

and

1. for all z ∈ ∩f(w): if z ≤g(w) V, then z ∈ p.

The f and g elements are the factual elements of the conversational background and the normative elements in the conversational background, respectively. The v, u, z and V are possible worlds of the ranking, the lower-case letters acting as variables and the upper-case V as a name. Worlds as good as or better than V (ranked as high or higher than V) support a true ought-statement, those less good do not. The location of V on the scale of betterness is a contextually determined matter.

And so, simplifying slightly:

 A proposition is a necessity just in case it is true in all accessible worlds that are ranked high enough (i.e., equal to or greater than the contextually determined standard V) in the ordering determined by the ordering source

**4.0 Must and right and ought and good**

As I said earlier, in light of her formal treatment as I’ve sketched it above, Kratzer has no theoretical means to differentiate the two basic kinds of deontic modals must and ought; for must/have to/obligated to/to be required to seem to form one group, and ought/should/supposed to seem to form a second group. How these two groups are to be distinguished is still unclear, and while there are a number of proposals in the literature (see e.g., Silk (2012b and 2014) as a guide to the literature), no one proposal is obviously correct. I will suggest below a way to differentiate must from ought which I think has considerable promise, but time and further investigation will decide.

4.1 Yes/no vs. more/less

As I have argued, the force of the deontic must and ought derives (must derive) from the deontic norms that grounds them. What one must do is what is deontically obligatory, and failing to do what is deontically obligatory is deontically forbidden. And that is why must-p is inconsistent with not-p: must/must not, obligatory/forbidden are yes/no sortings that have no middle ground, no more/less. And must when it is true sorts the prejacent into the right/obligatory/required group. For ought, by comparison, the norm yields deontic expressions of what it is deontically better to do, that is to say what is good enough or better or best to do. This much, right/not-right as a yes/no categorization, contrasted with good/better/best as a more/less ranking, seems intuitive. It seems to capture something natural about the difference between the words. Bjornnsson and Shanklin (2014) suggest that this contrast – between yes/no and more/less – is central to understanding the difference between must and ought. I think they are right, and I take that up below.

But before I do, I ask whether we can consider right/not-right, correct/incorrect as fully parallel to better/best? Are right/not-right and correct/incorrect evaluatives, that is to say, in the same way that good/better/best is?

Everyone feels comfortable that good (degree of goodness) is an evaluative: it is or generates a better-than ordering, a ranking, an “evaluation.” But how can right/not-right be an ordering? one can ask, puzzled because right/not-right doesn’t generate a scale, it is just a matter of yes/no. There is a history of allowing that better/worse is evaluative and denying that right/not-right is evaluative; of holding rather that right is a normative, presumably a sort of deontic modal term like ought and must. Wedgwood (2009) develops this idea; others do also. The problem with the view is that these examples seem so clear-cut:

6a) The right/correct answer to that trigonometry problem is …

 b) The right/correct financing choice is … (with the other you end up at five years owing more that the car is worth

 c) The right/correct action to choose is … (because it is obligatory in the circumstances; or, it is uniquely the best thing in the circumstances)

 d) The right/correct action is … (it is legally mandated in your circumstances)

In these cases right or correct is qualifying something in the typically evaluative way of the attributively used adjective; in just the same way we use good as an evaluative to say that something is good (a good book, a good choice, a good act). And it seems also that right used as an evaluative implies there is a reason for the rightness evaluation and that that substantive reason, whether moral, legal, or etc., can also be indicated by ‘right’. So ‘right’ seems to have the evaluative use as seen above; and perhaps also the predicative use; although there is a growing feeling that there is no purely predictive use for the evaluative adjectives, that all uses in the end are attributive or based on the attributive (Geach 1956; Thomson 2008; Cresswell 1976).

Those who hold that right has no evaluative, no attributive use must simply deny that 6a) through d) above are proper in English, or they must somehow reinterpret them as predicative uses throughout. But either of these alternatives is distinctly uncomfortable. Much better to allow that there are two uses, the attributive (evaluative) and the predicative. We know we cannot do without ‘good/better/best’ as an evaluative and we argue as to whether there is a predicative use; so the right, the correct thing to do for right (again, attributive uses) is to recognize the possibility of two uses of both right and good.

The confusion is exacerbated because while both better/worse and right/not-right are evaluatives, better/worse is the binary relation ‘x is better than y’ and thus can form orderings, while right/not-right is an unary relation and cannot form orderings. It can form sortings into the right and not-right groups, however, and an ordering is a particular kind of sorting. Only binary relations are candidates for generating orderings, of course, but all properties, unary, binary, trinary and higher, certainly generate sortings. (I will henceforth use ‘ordering’ to indicate sortings that are rankings, and ‘sorting’ to indicate the more general sort of ordering that all n-ary relations can achieve.)

So I hold that rightness is an evaluative property that induces a sorting that assigns the things evaluated to the right or the not-right groups. This is most intuitive in the case of laws and actions under the law: the values are legal and not-legal and there is no more/less element. Right and its parallel yes/no evaluative correct can model any evaluative that takes yes/no values, just a correct or right models true. And better/worse is an evaluative that can model binary relations that incorporate some scalable or semi-scalable property and so can generate orderings.

4.2 And ordering source for must

Now let’s see if we can find an ordering source treatment for must that gets the norm in the ordering source and respects the yes/no character of the sort of evaluative and norm required by must. If we can do that, we could use the best formulation of truth-conditions from Kratzer’s definition of Nec to find the right worlds since right will trivially be best. But I think it is preferable to reformulate the definition of Nec so that in must-p, the evaluative best no longer appears and we use right/correct. That will make the force of the must derive from the norm in the ordering source and at the same time be reflected in the rightness-condition in the decision rule.

As I said when I first introduced their ideas, Bjornsson and Shanklin (2014)[[9]](#endnote-9) argue that in ordinary talk must aligns with yes/no contrasts and ought with more/less contrasts. Thus for all the deontics, e.g., moral, legal, aesthetic, teleological, bouletic and etc., must will take the generic evaluative right/not-right; or, less generically, right/not-right for the moral, legal/illegal for law, and right/not-right or correct/not-correct for the instrumental and bouletic. By contrast, ought aligns with the more/less ordering of better-than. Thus ought aligns with the generic deontic value good, and must with the generic deontic value right. In epistemic contexts must aligns with certain/uncertain and ought with more/less likely. In instrumental and bouletic contexts we use must when there is only one choice that is at all acceptable, i.e. correct or right, otherwise ought. Legal contexts are yes/no in nature because the evaluative is legal/illegal and so they take only right/not-right. Moral contexts make full use of both evaluatives and there appear to be two distinct (but, we must presume, related) dimensions of evaluation, morally better/worse and morally right/not-right.

Thus my hypothesis is that the conversationally implicated norm in the ordering source for must always takes yes/no values of some kind appropriate to the type of must. So consider this for deontic must and ought:

 Must-p is true at the world of evaluation iff p is true at all the worlds of the modal base which the ordering source evaluates as realizing the deontic value right or correct

And more crisply

 Must-p is true iff p is true at all the “right” worlds of the modal base

And so then for ought we have:

 Ought-p is true iff p is true at all the worlds of the modal base which the ordering source evaluates as realizing a large enough deontic value of goodness

and more crisply, again:

 Ought-p is true iff p is true at all the “good enough” worlds of the modal base

For must, this treatment provides for both the truth of p, the rightness of p and the wrongness of not-p in the “right” worlds of the base, since if p is right, as it will be in all the “right” worlds, then not-p is not-right. And similarly for ought, it provides for the truth of p and the “good enough” deontic ranking of p in the worlds of the base, and the possibility that not-p is true in the not-good-enough worlds of the base.

4.3 Adapting Kratzer’s technical definition to right/not-right

What I am proposing is that we differentiate the generic necessity of Kratzer’s technical definition into a definition for ought that uses the better/worse ranking of worlds, and for must that uses the right/not-right sorting of worlds.

We have already seen the Nec-definition appropriate to ought. Here is the Nec-definition or must, as adapted using a right/not-right evaluative:

 M-p is true with respect to f and g iff

 for all u ∈ ∩f(w), u ∈ Rg(w) or u ∈ not-Rg(w)

 and

 for all z ∈ ∩f(w): if z ∈ Rg(w) then z ∈ p.

What this says is, first, that all worlds are sorted as “right’ or “not right” with respect to g, and second, that M-p is true iff p is true at all the Rg(w) worlds, i.e., the “right” worlds with respect to the rule or norm in g. I am of course using Rg(w) as the unary “right” relation counterpart of thev ≤g(w) u “better than” binary relation. Both of them are sortings of worlds, and those sortings are based on parallel ‘right’ and ‘better than’ evaluatives that apply to acts and states of affairs.

But we need still to relate Rformally to the norm, to show, that is to say, how the RA sorting is induced.

 Inducing the RA sorting:

 For all worlds w ∈W: w ∈ RA iff w ∈ {p : p ∈ A}

The A-list of propositions is the set of propositions that is generated by applying g, which is the relevant rule, norm or value, to the f(w). The set A lists the instances of right states of affairs that obtain in the worlds of ∩f(w), that is F(w), as derived by applying the g to those worlds. Notice that Rg(w) is a property of worlds, just as the binary relation v ≤g(w) u relates pairs of worlds, whereas the set A lists g-complying instances at worlds, i.e., instances of right conditions or outcomes. Locating the p : p∈A locates the propositions that record the instantiations of the norm and so display the rightness realized at the worlds, which is to say, the fact that they realize the deontic value rightness. And what Rg(w) means is not that the g(w) worlds are right but that the deontic value of rightness as applied to courses of action or outcomes is realized at them, i.e., they are “right”.

What we are concerned to do formally is to indicate the relationships among (1) the rule or norm or value invoked by the g, (2) the set A of compliance-instances generated by applying the rule or norm or value to the F(w), and (3) the evaluative result which is the better-than ranking or the right/not-right sorting. We report the better-than ordering as the ≤A ordering, and the right/not-right sorting as the RA sorting. This gives a technical definition of must that parallels Kratzer’s definition for ought. It tells us that Must-p is true iff p is true at all the “right” worlds of F, and that is the result we wanted.

4.4 Must/ought and strong vs. weak necessity

Strong vs. weak necessity

Must is typically said to express a strong necessity and ought a weak necessity, for consider:

7a) Must-p implies ought-p

 b) You must do the right thing, and of course that’s what you ought to do too

but the reverse does not hold, so that you can say

 c) I really ought to do it, but it’s not something I must do (after all, it’s a good thing but it’s not an obligation)

In d) below, by contrast, the # indicates something gone wrong

 d) #You ought to be helpful and courteous and so that’s what you must do

But the reverse is true:

 e) You must obey the rules and therefore you ought to, too

We have seen this illustrated humorously but to the point in the sentence

 f) Employees must wash their hands; everyone else really ought to

This fits with reasoning in standard moral theory as well: must links with duty, and ought links with what promotes the good. Sometimes the practice of using ought to express obligation obscures this difference, but I think if we press the matter we end up clarifying the contrast by going to must to convey strict obligation and duty, and ought to convey the pressure to bring about the good. Kratzer’s theory needs to explain the above patterns if it is to be fully satisfactory as a semantic theory for must and ought, yet as it stands, with only the undifferentiated Nec, it cannot do that.

Before I move on to my own suggested solution to the strong/weak *must/ought* issue, I need to comment that others take different approaches from mine. See Portner and Rubinstein (2016), von Fintel and Iatridou (2008) and Kolodny and MacFarlane (2010) among many others for interesting work on the topic. Portner and Rubinstein are especially interesting because they get almost to the right/not-right contrast, but then back away from it and treat it as a variant of the better/worse case. I won’t discuss these approaches here and will take up the necessary exercise in criticism and comparison at some other time.

But I need to acknowledge that Alex Silk (2012a, 44; 2012b; 2014) diagnoses the strong/weak problem very differently; he understands the linguistic data differently, which is a different and more problematic issue and why I need to discuss him briefly. In his (2012a) he makes an argument in exactly the opposite direction from mine, and I need to say why I think he is wrong. He offers these examples:

8a) I should help the poor. In fact, I must.

 b) I must help the poor. #In fact I should.

 c) I should help the poor but I don’t have to.

 d) #I must help the poor, but it’s not as if I should.

He marks what he takes to be the incorrect or inapt expression with the ‘#’ symbol.

In a) above he offers as apt a sentence that seems to suggest that should implies must. But it does not, and the appearance is an artifact of his use of the ‘in fact’ locution, for consider ‘I should help the poor and therefore I must’ which rates a #. What the ‘in fact’ is doing is precisely to disclaim that otherwise improper suggestion of entailment.

In b) he seems to be denying that must implies ought/should, but there the problem again is that the ‘in fact’ locution is being misused, as we can see if we take it out: “I must help the poor and so I should’ is unexceptionable. I think b) is anomalous because the ‘in fact’ phrase suggests some added emphasis, but what comes instead is the ‘should’ which is weaker. It is a pragmatic, a conversational infelicity to say the stronger and then add the weaker as if it were something even stronger.

In c) something more complicated is happening. I think it rates an # but for reasons not related to strong/weak. The entailment from should to must is being correctly denied, but we are still unhappy. I think that is because both ‘I should help the poor’ and ‘I must help the poor’ are generally felt to be true. I think our unhappiness with c) arises because it is affirming something we think is false, namely that we don’t have to help the poor. ‘Should’ doesn’t entail ‘have to’, but when both parts of ‘p but q’ are things we know to be true, we will not hear c) as the denial of an entailment, but rather as the affirmation of a falsehood.

And in d) Silk is right that the # is warranted and that is just because ‘must’ entails ‘should’.

We need examples that aren’t so ambiguous about the source of the ‘#’ condition. Typically one says ‘We must help the poor’ or ‘we should help the poor’ but then denies any obligation, stemming just from that, to help any particular poor person on any particular occasion. Additional circumstantial facts are needed before we can derive either ‘We must help this person’ or ‘We should help this person’. I hold that ‘We must help the poor’ is apt and true, ‘We should help the poor’ is apt and true, and ‘We must help the poor and so we should’ is apt and true. But ‘We should help the poor and so we must’ is inapt and rates a #. Consider ‘I should exercise today but I don’t have to’ and ‘I must exercise adequately and I should (but not necessarily today)’. Both of them are apt, depending on circumstances. The requirement is to exercise adequately, not to perform any particular instance of exercising. But ‘I should exercise adequately and so I must’ rates a #.

We can find other examples where the must to should inference seems fine, such as e), f) and g) below.

 8e) I say ‘We must come to that person’s aid’ and you say ‘Of course we should, it’s the morally good thing to do’

 f) I say ‘We must help the poor’ and you say ‘A person should help the poor generously and to the limit of a proper sense of what is due’

 g) I say ‘We must help the poor’ and you say ‘And we ought to begin by helping that man there’

In my examples, I have of course tried to shape my intended readings by couching the wording in certain ways. In e) I have the ‘should’ being used to affirm the duty, thus removing the unhappy suggestion of the weaker being used to replace the stronger, but rather to affirm or elucidate. In f) and g) I have shaped the examples as the classic case of ‘must’ stating a duty to do a kind of thing (help the poor) and the ‘ought’ or ‘should’ being used to provide urgency or to recommend a specific implementation.

Strong/weak, must/ought and right/good

Finally, I want to suggest that the Bjornsson and Shanklin (2014) ‘yes/no vs. more/less’ idea, which is to say the ‘right’ vs ‘better-than’ contrast, will explain the strong/weak necessity phenomenon. The answer lies in the clear-cut correctness of 9a) and b) below:

9a) If it is the right thing to do it is a good thing to do

 b) It can be a good thing to do, but not necessarily be the right thing to do (it may be good but not be required as a duty, or some other, conflicting thing may be required as a duty)

Here are some examples:

 c) It is always morally good to be polite but it is usually not demanded by what’s right

 d) It is the right thing to do to support and protect one’s spouse and one’s children, and of course that is always a good thing to do, too

The point here is the general one, that good aligns with moral requirements of value enhancement but not duty and obligation, whereas right aligns with moral requirements of duty and obligation. And if that is correct, then the underlying relations among the evaluatives explains the resulting relations among the ought- and must-sentences.

For these reasons, I think that Bjornsson and Shanklin are right about the yes/no vs. more/less issue, and I think that is what differentiates must from ought, and explains the strong/weak contrast. As always, however, we shall have to wait for comment and criticism to develop before we can feel certain.

**5.0 Supposed to and ought to**

Now I want to compare and contrast supposed to and ought. They are an interesting study. They are similar in that they are both modals of weak necessity (there is also should, which I take, at least for now, to be the same as ought) and both ought and supposed to fit with agents or non-agents as subjects, as in

10a) the world ought to be a better place

we can say, and

 b) the clock is supposed to strike at 12

But there are differences. You can say

 c) I’m supposed to add the spices in two steps but I’m not sure it matters

which seems fine, but d) looks odd:

 d) #I ought to add the spices in two steps but I’m not sure it matters

which seems to rate the # because adding the ‘not sure it matters’ seems to deny the force of the ought. But note that in the interest of speed you can accept a lesser outcome and yet not deny the ought:

 e) I ought to add the spices in two steps, the result will be better, but I’m in a hurry, I’ll accept second-best

When you say supposed to you seem able to disavow the recipe’s authority whereas you can’t do that with ought, you have to agree to take the less desirable consequence. Or this:

 f) ‘As a poet I’m supposed to think poetic thoughts’ my friend says, ‘but that’s bullshit’ he adds

 g) #‘As a poet I ought to think poetic thoughts’ my friend says, ‘but that’s bullshit’ he adds

Now, you could deny that this is a genuine instance, claim that he is speaking ironically, that the word poetic in what he says should be heard with scare-quotes. But maybe it’s not, because maybe he’s railing against the currently prevailing view in some quarters that poetry must be “poetic”. That’s not ironic, that’s invoking a received standard (supposed to be poetic) and denying it.

And he can do that with supposed to but not with ought. You just can’t do that with ought without being ironic or paradoxical throughout, yet with supposed to, you can say the sentence and mean it literally. You can say

 h) I’m supposed to add three teaspoons of thyme but I don’t think I ought; I think this recipe is unbalanced

Notice that – ‘I’m supposed to but I don’t think I ought’.

What is happening? I suggest it is this: in using supposed to you are invoking a standard or rule, acknowledging it is a standard or rule, identifying the thing to do given it, yet refusing to agree that that standard or rule is correct or appropriate or applicable and so refusing to affirm it; or if correct or authoritative in some sense (the recipe), for other reasons refusing to affirm it and be bound by it, which is to say refusing its claim to require and deserve obedience. In supposed to statements all the parts of the ought statement are there except your, the speaker’s, commitment to the norm. You are refusing to bind yourself, refusing the commitment to the norm that seems to be part of the meaning of ought-assertions. I think that is the key difference between supposed to and ought. And the fact that saying ought and then refusing to affirm it and be bound by it feels paradoxical seems to show that in judging and affirming that ought-p, one is indeed ‘binding the will’ as Kant says about the matter. For can you make the ought-judgement and not go on to form the (prima facie; defeasible) intention and disposition to do the thing? The example sentences indicate that language-use, at least, doesn’t think you should try to and if you do try, you are speaking incorrectly and so the utterance is flawed and does not succeed. Does this mean you can’t really make the ought-judgement? It seems that’s right, that you say the words, you try, but you are failing to meet the requirements for ought so you fail to so assert.

So it seems at least that if you say the word ought but do not affirm the norm, you are using the word incorrectly and should really be saying supposed to. This is a different dimension of the ‘normative judgement internalism’ issue (NJI) – the issue of whether, in judging ought, one binds oneself to the norm invoked. My suggestion locates the (an) NJI in the lexical rule governing the use of ought. This can seem to trivialize the issue, but I think instead clarifies it: you can judge either ought or supposed to, depending on what you believe and whether you mean by so judging to bind yourself to the norm. The comparable contrast for must is more complicated. If you say must (in a deontic) you invoke the NJI and if you want to avoid that, you should rephrase your comment to something like “the rules say it is correct to do X” which leaves you uncommitted as to whether you agree. Consider these sentences, again with # marking the inapt or incorrect expression.

11a) #I ought to but it’s not the right thing to do

 b) I’m supposed to but it’s not the right thing to do

 c) #I ought to but I think I really ought not

 d) I’m supposed to but I think I really ought not

 e) I ought to but I’m just not going to (although I know I should)

 f) I’m supposed to but I’m just not going to (although I know I should)

 g) #I ought to but it just doesn’t matter to me

 h) I’m supposed to but it just doesn’t matter to me

 i) #I ought to but I just don’t feel any pressure to do it

 j) I’m supposed to but I just don’t feel any pressure to do it

But the ought implication of commitment is cancellable, as below, as is the must implication:

 k) I ought to according to my religious upbringing but I’m no longer a believer

 l) I must if I am to be a good Christian (Muslim, Buddhist) but I’m no longer a believer

These all reflect my judgements of apt/inapt, and others may feel differently. What is needed is a much broader survey of usages and examples than I’m prepared to provide here. Nonetheless, I think this is enough data certainly to be suggestive, and since it fits well with other theoretical and linguistic considerations, I will tentatively use it.

But can this be all there is to the long-standing quarrel about normative judgement internalism? No, it isn’t and I think there is much more yet to come. What is it about ought that makes the difference? And how does one “bind one’s will” by so judging? That, after all, is the truly puzzling part. But the first thing we needed was to see how language worked to allow us to signal that we were committing ourselves to the norm, and what the marker of that commitment was; and it is done by judging ought or must. That seems problematic only when you think of it as a question about what ought is doing for us, because what aspect of the meaning of the word could make that commitment for us? No aspect makes the commitment for us, it is just that we do not use the word correctly – and do not really make the ought-judgement, really judge only supposed to – if we use the word but do not also make the commitment.

Supposed to –technical material

What will be the technical definition of supposed to? It will be just like ought except that the speaker’s implication of commitment to the norm will not be there. Is that an element of utterance meaning, either a lexical difference or a difference in what is contributed by context? Or is it a pragmatic difference? The words are different, so it is quite hard not to take it as a difference in lexical meaning. But if it is a difference in the utterance-meaning, do we need a semantic treatment different from Kratzer’s truth conditions for generic necessity? For where will we lodge the difference, if not in the possible worlds truth-conditions?

I suggest that perhaps we can handle the problem by supposing the lexical difference signals a difference in how the g, the norm, is being invoked. Can we say that for ought, the ranking is as the speaker judges best in light of commitment to the norm, and for supposed to the ranking is as the norm ranks with the speaker being agnostic on the matter? Perhaps so. And if we can handle it that way, then supposed to is another variation on generic necessity. I do think the characteristics of supposed to are reasonably clear, however. And notice that this same problem will arise again with all the other deontic modals with their slight variations on the theme of generic deontic necessity. The power of Kratzer’s account of generic deontic necessity is compelling, but it remains something of an open question how the differences among must, ought, supposed to, have to, required to and all the others are to be recognized, while at the same time maintaining a firm hold on the strong underlying samenesses.

**6.0 Problems with the ordering source**

To this point, I have deliberately been glossing certain issues that arise in understanding how the ordering source, the g, is to work. There are other outstanding problems than those involving the g, most especially the “disagreement” problem (see e.g., Silk 2016) but I will not consider those here.

The issues I’m going to consider are the following: (1) the question how to express the rules or norms in the ordering source, the threat of circularity in that expression, and the problem of commensurability since all real-world ought-situations involve multiple norms; and (2) the problem of hyperintensionality.

6.1 How to express the ordering rule

The threat of circularity

If the g is a norm or rule or standard, it would typically be expressed with either an ought- or must-statement. But that appears to be circular. So, first, is it circular? And if it is, then what should go in the ordering source?

The charge of circularity arises if we attempt to use ought-statements in the “g”s of ought-statements to express the norms invoked. The common answer to a charge of circularity in linguistic arguments (i.e., in the science of linguistics) is that we are providing a linguistic account of truth-conditions, we are not providing a philosophical analysis, and therefore circularity does not matter. One can see that idea here, but nevertheless the response does not work.

The truth-conditions of some O-p are being provided, but one of the elements specifying those truth-conditions is some norm or rule, which per hypothesis is specified as O-q. If O-p’s truth-conditions are to be specified completely, we must therefore know the truth-conditions of O-q. But those truth-conditions will depend in turn on some O-r, and that on some O-s and so on infinitely. Thus no truth-conditions are specified and the circularity is vicious.

There is an easy escape from the circularity, and it lies in the readily available alternative way to state the norm or rule. That one ought not commit murder can alternatively be stated as ‘murder is wrong’ and we escape the circularity in that way. Sentences with *good* and *right* cannot replace all uses of *ought* and *must*, but for stating norms or rules they typically can. Thus in effect Kratzer is analyzing must and ought in terms of right and good, analyzing the directive normatives by use of the evaluative normatives.

Attributive (evaluative) vs. predicative

Suppose our g-conditions are that Φ-things are good and Ψ-things are right. Both *good* and *right* take either an attributive use or a predicative use. The predicative use contributes to the semantics by denoting a property; the attributive (evaluative) use performs an evaluation and that is what the g is supposed to do. Therefore, the g-element invokes one or several normative evaluative adjectives.

The semantics of normative evaluative adjectives is now held to be closely related to that of the gradable adjectives; normative evaluative adjectives are in fact a special sort of gradable adjective. (See Cresswell 1976, Kennedy 1999, Rett 2015 and Silk 2017). The elements of the semantics are (1) a measure-function established on a scalable dimension that is the dimension on or against which the evaluation occurs and where the thing being evaluated is given a value or location, and the degree-scale has a “direction” to be established in relation to the “why it matters”, below; (2) a standard is contextually established such that locating the thing being evaluated at or above the degree of the standard means the thing being evaluated is considered “tall” or “good”, etc.; (3) a reference class is provided to interpret the standard, i.e., ‘tall for a 10 year old’; and lastly, (4), a “why it matters” consideration is needed which is typically held to be part of the pragmatics. The “why it matters” condition is fulfilled by the mutual understanding between speaker and hearer that the speaker is using the adjective to convey something that matters to the hearer, the speaker, someone else. E.g., if the thing being talked about is desert and what is said is ‘The chocolate bread pudding here is very good’ the bread pudding is being scaled against a scale of “how tasty”, is said to meet and exceed the relevant standard, and the “why it matters” condition is met because the speaker knows the hearer really likes chocolate bread pudding and the hearer knows the speaker knows, and it is part of the rules of conversation, part of the pragmatics of language-use, that the speaker says relevant and useful things (Grice 1967 and 1989). Thus the interaction between the g which ranks the F-worlds as to tastiness of desert choices, and the ‘good enough’ in the truth-formula, and “the more the better” feature given by both the standard and the “why it matters” define the truth-conditions for the ought-statement ‘You ought to order the chocolate bread pudding’ (because they make a really good one here, and you like chocolate so much).

6.2 How is the ordering accomplished?

The above sketch of the use of evaluative adjectives is the intuitively plausible account, it is current in linguistics, and its use is what we expect to see in the semantics. What Kratzer does is rather different and I think faulty. I approach it in stages.

Kratzer’s A-list

Kratzer uses the set A of instances of compliance with the rule in each of the F-worlds to order those worlds. She “adds them up”, counting each one as equally important with the others. I think that the “set A” approach cannot give orderings that are both unique and that provide adequate semantic differentiation.

Her approach is related to the intuitive notion of “nearness to the ideal” that is used by many to think about possible worlds semantics for deontic logics. But some, e.g. Hanson (2001, 2006) argue that that is a faulty way to think about the matter. “Nearness” is unanalyzed and little more than metaphor, but it suggests, misleadingly, that one can find simple “counters” by means of which to measure the nearness. Hanson thinks we cannot, and need a different approach. But this is background: I will criticize the “set A” approach directly, argue that it is radically inadequate in part because her “simple counters” are much, much too simple; and then go on to sketch an alternative and I think preferable view.

Kratzer handles ordering and introduces the A-list like this. The set of norms that make up the g, the ordering source, are applied to the worlds of the F(w) to generate for each world the set of instances of compliance at that world. For simplicity, consider a case with just a single norm. The A-list is the set of propositions that state the instances of compliance with the norm; there will be none or one or several or many compliance-instances at each of the F-worlds. Kratzer says that the worlds are ranked as better-than based on how many compliance-instances each world has, the more the better. Ties are held to be equal and the tied worlds are ranked the same. Portner (2009, 63-67) has a lengthy and careful explanation.

While this may be neat, it is grossly inadequate as representing how deliberation about the values of alternatives relative to a rule or rules actually works. First, not every compliance-instance under a single rule has the same deontic worth, it depends on other features of the situation; yet on Kratzer’s account we have no means to capture that additional information. Second, and related, once we have the A-set, we no longer know what the rule was that generated the A-list, so we no longer know what kind of ranking we have, i.e., what rule it was based on, so again we have lost information about relative importance. The A-list is (just) a list of facts, of states of affairs; it is the list of the supervenience-facts. The instances do not come tagged as, e.g., “compliance-instance of moral rule R1”, “compliance-instance of religious rule R2”. So the deontic character has been removed and in other ways also too much information has been lost to enable rankings as required for deontic evaluation. Given this loss, we just don’t know enough any longer to be able to use the A-list to conduct moral evaluations – or instrumental or bouletic ones either, any of the kinds.

Multiple norms and commensurability

The multitude of “constraint”- norms that are always part of the g of any reasonably complicated real-world example exacerbates the problem. Even a deliberation about going to the store to buy eggs for breakfast has, as we saw, bouletic, teleological, moral and legal rules related to the likes, goals, laws, and morals embedded in the case. Multiple norms pose explicitly the commensuration problem, the problem of how to weigh one norm against the others in weightings of relative importance; although it was there before in a simpler form in comparing compliance-instances. But if we stick with the A-list we have only one possible solution to the commensurability problem: each compliance-instance counts the same, which is just wrong.

So this appears to mean that complicated comparisons and trade-offs of all the applications of the norms in the g are required to reach conclusions about the correct ordering of the F-worlds; and that appears to mean that we must presume some kind of real comparability among the normative elements of the g; and further, we must somehow be able to express the results of that comparing and combining. This seems to require that the orderings of the F-worlds are to be expressed as based on the degree of combined, realized deontic value (deontic value realized at each world; but see van Fraasen 1972 and 1973.) If we can do this, it allows us to summarize the result of the comparisons in a composite deontic value assignment, and to express that combined result on a fine-enough grained comparison scale.

How to represent deontic value

We know that not all norms are equally important, and we know further that compliance-instances of a single norm will vary in importance depending on the facts of the case at hand. We need a very flexible account of how the ordering source works, with a much richer toolbox of resources to represent the dimensions and results of the comparisons. We want to capture the differing deontic values of different instances of compliance to the rule, and of the values of compliance-instances of different rules. I propose that we formalize that notion of deontic value as the basis in which to express our comparison rankings; van Fraasen 1972 and 1973 suggests this approach. We will be introducing a concept of deontic value which will be the bearer of, and the way to express the relative importances of, the deontic rules and the values of the compliance-instances under the rules. The deontic value of a given compliance-instance will be a product of the rule, possibly affected by the other rules operating in the circumstance, and also a product of the facts of the case. It will summarize all these considerations and report them in some ranking of deontic value.

Does that mean that deontic value is just another name for utility? No, it doesn’t. Deontic value will be a report of the ordering as “more deontically valuable than” and the hypostatized value of some specific case will be a representation of, and be grounded in, the instance’s position in that ordering: the ordering comes first, the attribution of “how valuable” second, via location on the scale. It will be classical utility only if the rules and the setting require a fully metricized, cardinal-scaled single deontic value-dimension. But not all rules and settings lead to that extreme a form of deontic value. The Utilitarianism version of utility is one form the concept of deontic value may take but there are others, e.g., for ordinal orderings, or orderings for sets of different deontic values with less-than-complete commensurability.

Deontic value is the formal concept we need to express the results of commensuration or at least of comparability, of the relative importances of the various deontic rules at work in some situation and of the comparative importances of the resulting compliance-instances. And it is available as a theoretical tool. There is a strong formal parallel between the scaling feature of deontic value and the scaling feature in gradable adjectives: it is now standard in linguistics to do the semantics of gradable adjectives in terms of an invoked measure-function. This involves locating the evaluated thing on a degree-scale established by the measure-function (Cresswell 1976, Kennedy 1999, Rett 2015, Silk 2016 and 2017). ‘X is good’ invokes the relevant measure-function for the way of being good in question, and locates X at some degree-location on that scale. Cresswell observes that this does not mean we have to “reify” degrees of goodness; he points out that the scale can be based on the set of equivalence-classes formed by “as good as”. This assumes comparability but no more. Deontic value is an extension of this method.

6.3 Hyperintensionality

The normative appears to be hyperintensional. This is often denied, at least for ought and must when one asks rhetorically “but how can it be true that O-p but not O-q when p is logically equivalent to q?”

Just to make clear what is going on, we need first to have both objective and subjective senses of ought and must. The two senses differentiate primarily in terms of what facts are assumed to be available, all the facts (objective) or a sub-set and not necessarily true(subjective). But that is not enough and Kratzer’s account fails for the subjective because it cannot represent hyperintensional limitations on the facts and beliefs assumed to be available.

And there is another dimension to the failure. To see that, consider the normative rule ‘we should help the poor’. It could plausibly be either a religious rule or a moral rule. On Kratzer’s account, the list of compliance-instances, the A-list, will be exactly the same in either case, yet the meanings, and the implications for behavior as recorded in the agents’ beliefs and intentions, will be different. A religious rule and a moral rule are different rules, and therefore the “kinds” of ought and must, and of good and right are different, as below:

12a) I oughtreligious to help the poor

 It is goodreligious to help the poor

 b) I oughtmoral to help the poor

 It is goodmoral to help the poor

These sentences clearly differ in meaning; yet if ought is to remain lexically constant in all uses, the difference in meaning must presumably come from what is in the g; and that, presumably will be from the content of the norms invoked, the ‘Φ-things are good’ and the ‘Ψ-things are right’ rules that I argued above should be the content of the g; but they must retain their character, as e.g., religious or moral rules, even though the A-sets of each are intensionally identical.

And finally, simple failures of intensional substitutivity matter. If I believe Φ-things are good, I do not necessarily believe that all the things that are logically equivalent to Φ-things are good. I can believe (as per Quine) that Tully is not Cicero; that Tully is good and that Cicero is bad, or that Hesperus is evil and that Phosphorus is holy.

Failing to address these differences in our theory of the deontic modals is not viable. I think we must wait for a successful treatment of hyperintensionality in order to move to a more satisfactory account of the semantics for the deontic modals. That is, we must acknowledge that the existing technical machinery in the Kratzer proposal is inadequate although useful for the time being. There is already a tremendous literature on this subject, but see Nolan (2014) for a useful introduction to the current discussions of hyperintensionality and Chalmers (2016) for a current view of the issues of the hyperintensionality of the propositional attitudes.

Relative likelihood

And finally, as has been discussed in the literature recently, relative likelihoods of outcomes have to be weighed, so the likelier but prima facie less valuable outcome may yet rank higher in deontic value than the more valuable but less likely outcome. The view now tends to be that expected value principles must be included in the valuation principles invoked by the ordering source. I mention it because it is properly part of understanding how the ordering source works although I have not had anything to say about it here. See, e.g., Cariani (2016), Carr (2014) and Wedgwood (2016) for discussion.

It is worth noting that none of these considerations are new in thinking about practical reason and normativity. That they have resurfaced in the attempt to provide a semantics for *ought* and *must* is also not surprising. However, the literature on *ought* and *must* seems a little too ready to gloss over the problems. And of the group of them, only the expected value problem has so far received much attention.

**7.0 *Good*, *right*, *ought*, *must* and analyticity**

I’ve concluded my critical comments on Kratzer, but I want to end by showing a certain very interesting result from her theory of ought and must.

Consider the following sentence:

13) You must (ought to) do (puruse) the right thing (the good thing)

When you consider it, keep in mind the difference between a referential and an attributive reading of ‘the right thing’ and ‘the good thing’ (Donnellan 1966). (Remember that Donnellan’s use of ‘attributive’ is about referring terms and Thomson’s (2008) is about adjectives; they are different.)

The referential reading of the referring term uses speakers’ intentions to enable ‘the right thing’ to refer to a particular thing the speaker has in mind and is urging you to do. Used attributively, ‘the right thing’ picks out the right thing, whichever it is – you are being urged, regarding the things that you might do, to do the right thing whichever it is.

The ordering source for ought induces a betterness ordering of the worlds in the base relative to the norms in the source, and the ordering source for must induces a right/not-right sorting, in each case with reference to the appropriate underlying evaluative property, hence morally right/better, instrumentally right/better, etc.

But then notice that if ‘Ψ-things are right’ (for must) or ‘Φ-things are good’ (for ought) is the ordering source, and if ‘the right thing’ in the ‘p’ of the ‘M-p’ is being used attributively, then the sentence ‘you must/ought to do the right thing’ when uttered to make an assertion is an analytic truth – its truth is guaranteed by the way the semantic structure of the prejacent proposition and the ordering source relate. The semantic rule is that the ‘p’ in M-p is true iff it is true at all the “Right” worlds (as per my treatment of the truth-conditions for must-statements). But of course it will be when p = ‘you do the right thing’ which, when the referring term is used attributively will mean ‘you do the right thing whichever it is’ and of course in the “Right” worlds that is always what you do. These cases of analytically necessary truth are to be contrasted with cases of simple truth in which one asserts ‘you ought to do the right thing’ but where ‘the right thing’ is being used referentially to refer to a particular action, and so the resulting sentence is contingently true or false because its truth will vary with whether the thing you refer to is in fact the right thing.

This result is guaranteed not by the “meanings of the words”, taking that literally, but by the semantic structure. And this seems right. There is something very interesting going on here, and it is due to the way that right and good are highly general evaluative adjectives. When we put one of them in as the ordering source in an utterance where right or good also appears in the prejacent proposition, it turns the ought- or must-statement thus constructed into an analytic truth. Of course we ought always to do the right thing, the good thing, that is what right and good mean, we think. This seems natural and proper, so it is nice to derive this result, and not just puzzle over how it can arise to confuse us.

**8.0 Concluding comment**

As I said at the outset, there is so much that is compelling about Kratzer’s account of the deontic modals that we are all (almost all) focused on finding how to make her account work better rather than looking for alternative accounts. I believe I have found some solutions, but then have raised additional unanswered questions. We shall have to wait and see.

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NOTES

1. Portner (2009) is an extremely useful survey of the linguistic and philosophical sources and thinking on non-alethic modality. He distributes credit broadly but acknowledges Kratzer as primary. [↑](#endnote-ref-1)
2. In my paper “Is *function* a Deontic Modal Word?” (Beebe 2017) I argue that *function* is a deontic modal word and names a deontic modal phenomenon, although it is and remains an empirical concept and phenomenon. This is so because the formal semantic properties of *good* as an attributive, an evaluational adjective support this sort of formally normative application – as in ‘the heart beats well enough to support life’. It is a gradable adjective that takes an evaluational semantics that is fully empirical and does not invoke any agent or any grand cosmic purpose either. [↑](#endnote-ref-2)
3. Frank Jackson (1985) writes interestingly about the semantics of *ought*. He argues for two main points, (1) that the truth of *ought*-statements is always to be judged relative to a contextually provided set of possible outcomes or things that ought to be the case, and (2) that that set of possible outcomes, or “options” ought always to be or include what will actually be the case if the p of the O-p is or were to be the actual outcome. Kratzer does not address these finer points, but her schema can capture or express them if Jackson turns out to be correct about the matter; that is yet to be determined.

 [↑](#endnote-ref-3)
4. The problem of best vs. good enough seems to have connections with the problem of whether, as some examples suggest, ought-p itself has a more/less character. If so, then the various oughts will be arranged on a scale of more/less importance, and so good enough will be the relevant evaluative dimension in the truth-conditions, and not best. See Portner, Rubinstein (2016) for interesting discussion although they in the end opt for best. [↑](#endnote-ref-4)
5. Notice that I am here *de facto* including some sort of calculation of relative worth based on likelihood of end-realization and on trade-offs among ends. This is in some sense a contested issue, but it is hard to make an example at all realistic without including calculations of relative likelihood affecting calculations of relative worth. Also, and related, I think that it is wrong to attribute goal-direction to an entity that has only one goal and so makes (can make) no trade-offs and hence needs no judgements of likelihood: if there is no cost in some other, foregone, end against which to measure the judgement of likelihood of achievement of the first end, likelihods are irrelevant. But the single goal entity just for that reason is a mechanism, or if an otherwise purposive organism, pathological (Bennett 1976). In fact we do relative likelihood calculations all the time in weighing courses of action. How that should be captured in the semantics is what is at issue. See for instance Wedgwood (2016) for a useful discussion and an entry into the issues. He advocates inclusion into the semantics of expected utility calculations. See also Cariani (2016) and Carr (2014). There’s not much disagreement on the necessity of the inclusion, but quite a lot on how to do it. [↑](#endnote-ref-5)
6. Notice that Kratzer’s formulation leads naturally to expressing the *best*-consideration as ‘best morally’ or ‘best instrumentally’ and etc. This means that if Thomson (2008, pp. 1-19) is correct, and that all uses of *good* (*better*, *best*) are attributive uses and there is no such thing as intrinsic good, that Kratzer’s theory will work; and if there is an intrinsic good, and if all the “ways” of being good are to be explained in terms of it and differentiated in some other way, that Kratzer’s theory also works. It can be agnostic about the issue. [↑](#endnote-ref-6)
7. This method of ordering is inadequate, certainly for the moral, probably for all except basic preference orderings. Some proposition p∈A may be morally or otherwise more important than some q∈A but Kratzer’s theory cannot deal with relative importances, it deals only with numbers of compliance instances and values all compliance-instances equally, which is surely false. I take that up later in my paper. [↑](#endnote-ref-7)
8. [↑](#endnote-ref-8)
9. Bjornsson and Shanklin (2014) argue for the right/wrong, yes/no, binary ordering for *must* vs. the better-than ordering for *ought*. I agree with them and borrow from their approach and attempt to extend it. [↑](#endnote-ref-9)