The Meaning of Imperatives[†]

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Abstract

This article surveys a range of current views on the semantics of imperatives, presenting them as more or less conservative with respect to the Truth-Conditional Paradigm in semantics. It describes and critiques views at either extreme of this spectrum: accounts on which the meaning of an imperative is a modal truth-condition, as well as various accounts that attempt to explain imperative meaning without making use of truth-conditions. It briefly describes and encourages further work on a family of views lying somewhere in the middle. On such views, an imperative will semantically determine, without having as its meaning, a modal truth-condition, which figures centrally in accounting for various aspects of its meaning.

Contents

1 Introduction

Recently, there has been a surge in work on the meaning of imperatives sentences—*Eat your vegetables! Shut the front door!*—among philosophers and semanticists. In general, an imperative is a sentence of the form !p, blending some proposition-expressing sentence p expressing, loosely, an action of the addressee (hereafter called the *prejacent*) with the imperative symbol '!' (hereafter called the *imperatival operator*).[1] Though there is nothing approaching consensus on the proper way to understand imperative meaning, there is general agreement that imperatives represent a

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[1]Of course this is a gross oversimplification of the syntax of imperatives in natural language. While syntactic matters obviously bear on how to understand the meaning of imperatives, most (e.g., *do imperatives have grammatical subjects?*; *do imperatives occur in the third person?*; *do imperatives embed?*) can be ignored without harm in an article like this. Some (e.g., *do imperatives contain necessity modals?*), of course, cannot, but (i) these issues are extremely controversial among linguists, and (ii) it is generally regarded as acceptable to approach them using semantic methods of the sort appealed to here. As for our chosen representations of the imperative—via metalinguistic "abbreviations" of the form IMPERATIVE OPERATOR-PREJACENT—the reader should not interpret this as involving any substantive commitments regarding, e.g., bona fide logical form. The chosen representation (to which I will sometimes loosely refer, when a specific interpretation of that representation is in the background, as an imperative "logical form" or "LF") is a simplifying device, introduced for the same reason as (and involving commitments no stronger than) the

prima facie challenge to "standard practices" in truth-conditional semantics. Imperatives thus appear theoretically interesting in at least two lights. First, understanding their meaning seems likely to require the development of new theoretical tools (even paradigms) for thinking about semantically encoded linguistic meaning. Second, they encourage us to reflect on the extent to which the notion of a *truth-condition* should be the central concept in a theory of semantically encoded meaning for a natural language.

This article surveys a (necessarily incomplete) range of current views on imperative meaning, presenting them as more or less conservative with respect to what I'll call the Truth-Conditional Paradigm (TCP) in semantics. It describes and critiques views at either extreme of this spectrum, and briefly describes and encourages further work on a view somewhere in the middle.

2 Maximal Conservatism

Within the TCP, the fundamental semantic notion is that of a *truth-condition* (and the fundamental semantic relation something like *truth-in-a-model*). The clearest (and maximally conservative) way of extending the TCP to imperatives would be to hold that an imperative has a truth-condition (alternatively, *proposition*) as its meaning.[2] Some readers may be surprised to learn there are many defenders of Maximal Conservatism for imperatives (counting, it would seem, David Lewis amongst their numbers). Isn't it obvious that imperatives are necessarily neither true nor false, hence that there are no conditions under which an imperative is true or false?

Actually, no. Imperatives cannot be *called* 'true' or 'false', but this need not be decisive evidence against maximal conservatism, so long as we distinguish the notion of truth appealed to in the theorist's metalanguage (T-TRUTH) from the notion of truth routinely invoked in ascriptions of truth in natural language (N-TRUTH). Imperatives are manifestly neither N-TRUE nor N-FALSE. (Note: Asterisks standardly indicate ungrammaticality, hashmarks infelicity despite grammaticality.)

(1) *It is true that eat your vegetables

(2) A: Eat your vegetables!
B: #That's false

Whether imperatives might be T-TRUE/FALSE is, at least in principle, another matter. If assigning imperatives propositions as their meanings is of explanatory value (and such explanations are difficult to replicate otherwise), we have some reason to allow a notion of truth—a notion

commonplace logical representation of, e.g., epistemic modalities as sentential operators. This is sloppy, but it is also convenient and evocative, particularly for readers with the indirect method of Montague [1973] bumping around in the back of their minds. (Certainly we need to be watchful about the distortions such conveniences may introduce. I have tried to be attentive to this in what follows.)

[2]Obviously, my understanding of the TCP—like most work nowadays in "truth-conditional semantics"—is biased toward the model-theoretic branch of the tradition associated with Montague, Partee, (David) Lewis, and so forth. That said, I wish to be clear that I do not mean to beg any questions against, e.g., the Davidsonian. I admit I am not entirely sure how to devise a plausible truth-conditional account of imperatives that is consonant with the spirit of the Davidsonian program. However, earlier attempts generally assimilate the treatment of imperatives to one or another of the attempts considered in the main text—which can subsequently be evaluated on *straightforward empirical grounds*. Davidson himself sketches something akin to an Explicit Performative analysis in Davidson [1979], which fails for reasons much like those described in the following section. Lepore and Ludwig [2007, Ch. 12] sketch a neo-Davidsonian view of imperatives on which the job of a semantics of an imperative is allow us to derive its *fulfillment condition*; I briefly argue that such analyses are empirically inadequate below (for a fuller treatment, see Charlow [forthcoming]). (It is interesting that Lepore and Ludwig classify this sort of analysis as truth-conditional—here, we do not—but they have their (broadly programmatic) reasons.) The general point is this: so far as this article is concerned, Davidsonian accounts will stand or fall on the same kind of grounds on which *any account* stands or falls—namely, degree of fit with the explananda.

characterized, in part or in total, by a formal characterization of the relationship between an I and a model-theoretic entity E needed to hold for I to be T-TRUE at E—that can apply or not to imperatives.[3]

Maximally Conservative views differ mainly in *which truth-condition* is claimed to give the imperative's meaning. In this section's remainder I'll critique the major versions of the view, before describing a tentative argument against any form of Maximal Conservatism for imperatives (though I will qualify that argument seriously).

2.1 Explicit Performatives

Lewis [1970, 1979b] rather famously suggested that the logical form of imperative be given by what is commonly termed an *explicit performative* (EP): a description P of the speech act α conventionally performed by a speaker S's utterance of an imperative, such that, in saying P, S would thereby α.[4] For an imperative like *eat your vegetables*, the relevant EP would be something like *I command that you eat your vegetables*. Contra Austin [1975] (but in line with current orthodoxy), Lewis further claimed that EPs had ordinarily propositions as their meanings. Thus the meaning of *eat your vegetables* at a context of utterance c is given by the proposition that c's speaker S commands that c's addressee A eat A's vegetables.

This view seems to explain a core fact about imperative meaning: why, in uttering an imperative, a speaker typically seems thereby to perform the associated command. For a sentence of the form S Φ's that p is typically classified as an EP just if, in uttering the sentence, S *thereby* Φ's that p. This point is often overlooked, but central: a theory of meaning for a sentence should explain what speech act, if any, it *conventionally proffers*.

As Parsons [2012] emphasizes, the EP Analysis also explains the felt validity of certain imperative "inferences" (more neutrally: the naturalness of the apparent inferential move expressed by certain sequences of utterances in which imperatives are *given as reasons* for other imperatives):[5]

(3) General: If the weather is good, attack at dawn!
Meteorologist: The weather will be good.
General: Ah, then attack at dawn!

Conditional imperatives will presumably (given the arguments against wide-scope-ism in §3.1) receive conditionalized EPs (*if p, I command q*) as their LFs. Since conditionalized EPs are just another type of indicative conditional, they will go in for modus ponens.

However, the EP Analysis is very implausible (so, gives no real motivation for thinking imperatives mean propositions). It is well-known that imperatives smoothly express a diverse range

[3] One sees reasoning like this most clearly in Lewis [1970, 1979a]—not altogether surprising, given the source's Quinean leanings. Compare also Jackson and Pettit [1998]: "It might be objected that it is 'crook' English to talk of orders as true or false, but our topic is not what is or is not good English" (249). Ultimately I am skeptical about the ability of these "explanations" to actually explain anything of interest about the meaning of imperatives. I will not recapitulate my reasons here, but see Charlow [forthcoming, §4].

[4] He writes, "I propose that these non-declaratives ought to be treated as paraphrases of the corresponding performatives, having the same base structure, meaning, intension, and truth-value at an index or on an occasion" [Lewis, 1970, 57]. For a recent, if half-hearted, revival of the view, see Parsons [2012], who also cites Jackson and Pettit [1998].

[5] For a defense of the idea that arguments like this should be treated as semantic validities, see Vranas [2010]. The case is not totally compelling, for reasons I cannot discuss here. Nevertheless, I do think that imperatives have a logic in at least the following weak sense: their semantics should guarantee that certain constellations of attitudes constitutively connected to the acceptance of certain imperatives display inferential relations to certain attitudes constitutively connected to the acceptance of certain other imperatives. Another approach on which it makes good sense to say that imperatives have a logic is the 'illocutionary' approach to logic, on which see especially Searle and Vanderveken [1985] and, in a similar vein, Richard [2008] (see also the discussion in Charlow [2011, Ch. 4], where a Montagovian Speech Act-Theoretic semantics is described).

of speech acts beyond commands, hence cannot plausibly be thought to *conventionally* proffer commands [cf. Schwager, 2006, Kaufmann, 2012].

(4) Go ahead, take the day off. (*permission*; Schwager [2005], Portner [forthcoming])

(5) Have a piece of fruit. (*invitation*; Portner [2007]: 355)

(6) Talk to your advisor more often. (*suggestion/advice*; Portner [2007]: 355)

(7) To get to Union Square, take Broadway. (*instruction*; Charlow [2011]: Ch. 3)

(8) Get well soon! (*well-wish*; Wilson and Sperber [1988])

(9) Go on, throw it. Just you dare. (*threat/dare*; Wilson and Sperber [1988])

(10) Go f**k yourself! (*expression of contempt*; Dick Cheney to Sen. Pat Leahy, 2004)

The EP Analysis' apparent strength is actually, then, a weakness. (We will undermine it further in the next section.) Because the range of apparently literal uses for imperatives is so wide, it is doubtful whether any explicitly performative stand-in for the analysis' paradigm EP (a first-personal command sentence) can be cooked up.

From a linguistic standpoint, the EP Analysis is about as well-supported as the notion that the meaning of a declarative p is give by an EP of the form *I assert that* p. (To be clear: both are utterly without support.) The distinction between a sentence's meaning, its use, and a propositional description of that use, is nowadays widely recognized as fundamental (and its blurring nowadays recognized effectively as a category error). The idea that imperatives would cause us to reconsider it is not and should not be taken seriously.

2.2 Modals

The Modal Analysis of imperatives [see Lewis, 1979a, Schwager, 2006, Aloni, 2007, Grosz, 2009, Kaufmann and Schwager, 2011, Kaufmann, 2012], like the EP Analysis, holds that imperatives mean propositions.[6] Unlike the EP Analysis, it holds that their LFs are *given by modal sentences*. Very roughly: *eat your vegetables* and *you must eat your vegetables* have the same meaning.

Less roughly, modal analyses differ along many dimensions. What kind of modal sentence gives the meaning of a token imperative? There are several options: necessity, possibility, or possibly a combination (à la Aloni [2007]).[7] If necessity modal, strong (e.g., *must*) or weak (e.g. *should*)? If strong necessity modal, what "flavor" [Kratzer, 1981]: deontic, bouletic, teleological, or something else? Finally, once a specific modal LF is settled on, what is that LF's proper interpretation? Here most opt for the linguistically standard Kratzer-ian analysis [Kratzer, 1981, 1991a], on which modalities express quantification over domains determined by two conversational backgrounds: the modal base (giving, roughly, a domain of relevant possibilities at a context) and ordering source (giving, roughly, a contextually determined preference ordering over

[6] Han [1999] defends an analysis of what we've called the imperative operator (!) on which it is semantically a modal operator, but *imperative clauses* do not express propositions (since imperative prejacents are not interpreted as supplying the scope argument of the quantifier expressed by the modal operator). This account lacks many of the explanatory attractions of the Modal Analysis described in this section—for example, since there is no modal proposition in play, it is difficult to see how it can access the performative account of the discourse function of a token imperative. (For a more-developed competitor analysis on which (i) imperatives might be said to contain operators that are semantically modal (i.e. quantificational), (ii) imperative prejacents do supply the scope argument of such operators, (iii) imperative clauses nevertheless fail, by default, to express quantificational propositions; (iv) the canonical discourse function of a token imperative is a straightforward consequence of its semantics), see §3.2 and the work referenced there.) Thanks to an anonymous referee for discussion here.

[7] According to Grosz [2009], imperatives with permission interpretations, like (4), express possibility modals, while imperatives with command interpretations express necessity modals. Advocates of the Modal Analysis tend to hold that imperatives, even on permission interpretations, express necessity modals [see e.g. Schwager, 2005].

possibilities compatible with the modal base). But other views are possible.

However fleshed out, the Modal Analysis outperforms the EP Analysis in every way. First, it gives a powerful, and subtle, account of the discourse function (use) of a token imperative.[8] To determine the use of an imperative $!p$ at a context c, first determine the modal proposition, μp, $!p$ expresses at c. The use of the imperative at c is given by a *performative* interpretation of μp. In Lewisian terms, the relevant parameters of the conversational scoreboard—the ones to whose values the interpretation of μp is sensitive—adjust *just so*, so as to make μp true. Thus an imperative's conventional use *consists in making a modal proposition true*.[9] But imperatives do not conventionally express any single speech act. An imperative is used to *command* when the modal proposition made true has, perhaps, a deontic interpretation; to *suggest* when it has a bouletic (necessity-in-view-of-what-the-addressee-wants) interpretation; to *wish well* when it has a necessity-in-view-of-what-the-speaker-has-wished interpretation; etc.

The Modal Analysis builds in a substantive account of what, e.g., a command interpretation of an imperative *consists in*, and *predicts* an imperative will have such an interpretation when it has the appropriate semantic value.[10] Compared to this, the EP Analysis' account of why a command-expressing imperative happens to express a command, not something else, is magical: the EP Analysis works *backward* from a token imperative's use to construct an appropriate LF, without answering the obvious question of how the relevant use is assigned in the absence of a suitable LF. In brief: the Modal Analysis explains, the EP Analysis stipulates.

Like the EP Analysis, the Modal Analysis explains the felt validity of certain imperative "inferences": cases where an imperative seems to "follow" from a set of "premises" are just those cases where the modal proposition expressed by the imperative is an ordinary logical consequence of the propositions expressed by the premises. (To get a feel for how this would work, revisit example (3).) Beyond this, there is strong evidence that whatever logical profile an imperative might have, the logical profile of the corresponding modal proposition will track it quite closely [see e.g. Charlow, forthcoming]. One key data point is the apparently necessary inconsistency of an imperative and contrary permission of respective forms $!p$ and $may(\neg p)$, e.g.

(11) #Shut the door, although you may leave it open

(12) #Take the day off, although of course you may come in [Charlow, 2011]

[8] Strangely, the only author that really emphasizes this is Lewis [1979a]. Portner [2007, 363ff] argues that access to a modal proposition contributes nothing to explaining an imperative's function on an occasion of use. I think this is wrong, for the reasons sketched in this paragraph.

[9] Why does μp have a *necessarily performative* interpretation when expressed by an imperative—why does the fact that it is expressed via an imperative rule out a non-performative (i.e., assertoric) interpretation? This is a question the Modal Analysis encounters that the EP Analysis doesn't (since explicit performatives arguably have performative interpretations simply as a matter of linguistic convention). Kaufmann (née Schwager) suggests this is a matter of imperatives (but not ordinary modals) conventionally presupposing that the speaker is an authority over the relevant parameters of the conversational scoreboard. While the attempt of Schwager [2006] to formalize the content of the presupposition seems undesirable [see Charlow, 2010, 225-6], I wish to emphasize that the proposal's plausibility is not hostage to the availability of any such formalization (although Kaufmann [2012] offers an updated attempt). Imperatives arguably do presuppose that their speakers are authorities: it generally makes sense to challenge an utterance of an imperative (as well as an utterance of a corresponding performative modal) with something like *who are you to say?* It is also plausible, for reasons like those outlined in Lewis [1979a], that this sort of presupposition will yield a performative interpretation of the modal proposition in contexts where it is satisfied.

[10] This is not to say that forms of the Modal Analysis on which imperatives uniformly express necessity propositions must hold that imperatives always receive the performative interpretation determined by the relevant necessity proposition—proposing to make the prejacent required-in-view-of-the-relevant-body-of-preferences. Imperatives can, e.g., receive permission interpretations, understood in the same way as performative utterances of possibility, rather than necessity, modals. Such interpretations will be understood, generally speaking, under the rubric of *indirect speech acts*: a speaker permits *by* expressing a necessity proposition in a particular sort of context [cf. Searle, 1975, Asher and Lascarides, 2001].

I cite (12), in particular, because *take the day off* naturally has a permission interpretation; recall (4). Why, though, does (12) sound so borderline? A certain variety of the Modal Analysis, on which ! expresses a necessity that is (or entails) the dual of *may*, explains this directly: such sequences semantically express *contradictory propositions*—something that remains true when the imperative is *used* to permit, rather than require.[11]

2.3 Worries

Should we think imperatives mean modal propositions (or propositions of any sort)? The first thing to notice is that data of the sort cited above strictly underdetermines this conclusion: a modal proposition might, in various ways, be derivable from or determined by an imperative's conventional meaning (hence "available" to play various theoretical functions), without the imperative *meaning* that proposition. (We will examine views on which this is the case shortly.) While it would be simpler, ceteris paribus, just to say the imperative does mean that proposition, there is reason to think that, for imperatives, cetera are not paria.

First, if the argument of the prior section worked, it would seem to show too much. Consider a parody argument for the Modal Analysis of Interrogatives (MAInt): the view, roughly, that the meaning of *did Bobby eat his vegetables?* is given by the proposition *Bobby might have eaten his vegetables*.[12] First point in favor: it gives a powerful account of the use of a token interrogative. The use of a token interrogative is given by a performative interpretation of the corresponding modal sentence—roughly, to raise for investigation the possibility that Bobby ate his vegetables. Second point: it builds in a substantive account of what an interrogative's ordinary interpretation consists in. Final point: the MAInt explains the evident sensibility of the following "inference".

(13) Soldier: If the weather is good, will we attack at dawn?
Meteorologist: The weather will be good.
Soldier: Ah, so, will we attack at dawn?

It also explains the unacceptability of the following utterances:

(14) #Although Sue must be out of town, is she coming into the office today?

(15) #I know you're able to, but can you pass the salt?

Sequences like (14) and (15) are borderline because they express contradictory propositions—a fact that remains, strikingly, even when the interrogative is not *used* to question, as in (15).

A powerful argument for the MAInt! Yet it is, with good reason, basically semantic orthodoxy that interrogatives have *sets of answers* (typically, partitions of logical space, each cell representing a complete answer to the question) as their meanings, rather than propositions [classic work: Hamblin, 1973, Karttunen, 1977, Groenendijk and Stokhof, 1984]. If we are not inclined to regard the MAInt as a serious challenge to the orthodox analysis of interrogatives (OAInt), we should be suspicious of the manner in which we have argued for it. For it seems very prone to overgenerate.

This puts us in a bit of a pickle. It is fair to say that OAInt should be regarded as providing a theoretical (if not necessarily formal) paradigm for theorizing about the meaning and function of

[11] For an argument that the inconsistency between imperatives and contrary permissions is genuinely semantic in nature, see Charlow [forthcoming].

[12] To be clear, I know of no one who defends this view, and there is no evidence for it. On one view of the meaning of epistemic modals—Yalcin [2011]—the meaning of these sentences is actually fairly close (since, for Yalcin, accepting an epistemic modal *might*(p) requires recognizing ?p as an issue). This view is compatible with everything I say here, since, for Yalcin, epistemic modals are understood partly in terms of questions; epistemically modal propositions are non-fundamental in his account.

non-declaratives, including imperatives.[13] It further seems evident that data points such as those on whose basis we motivated the MAInt are, in fact, weak foundations for theories of this type—namely, theories of meaning for non-declaratives. We thus confront some pressing questions. What reasons can we identify for explaining the effectively universal preference for the OAInt to the MAInt? Is there a broader theoretical moral: are there, perhaps, analogous reasons for preferring some as-yet-undescribed competitor to the Modal Analysis of imperatives (we might as well start calling it MAImp)? Although the answer turns out to be complicated, it is theoretically instructive. More precisely, the answer to the first question here is actually very simple. But its theoretical valence turns out to be mixed.

Let me suggest—not at all originally—that the *crucial* thing that the OAInt has going for it is that it integrates smoothly with independently motivated understandings of interrogatives' *conventional interpretive profile* (CIP)—something encompassing both dynamic (conventional discourse effects, if any) and static (synchronic facts about inferential relationships and assorted "logical" phenomena) dimensions [see esp. Roberts, 1996, Portner, 2004]. For interrogatives, two related classes of dynamic phenomena loom especially large: the change a discourse normally undergoes when it integrates a question (e.g., the fact that rationally participating in such a discourse requires contributing to the pursuit of at least a partial answer to the question), and the fact that an interrogative apparently specifies its canonical replies as a matter of its meaning (e.g., the canonical replies to a polar question are its complete answers, *yes* and *no*). It isn't hard to see why analyses within the paradigm of the OAInt are in an immediate position to give satisfying explanations of such discourse-level phenomena; nor to see why the MAInt, per se, offers *no explanation* whatever of them.

I propose to draw two morals—of different theoretical valences—from this suggestion. **Moral 1**: an account of meaning for a sentence should explain its CIP. Though the MAInt fails here, we've seen no reason for thinking the MAImp does as well; this is an important point of contrast between the views. Regarding the dynamic dimension, it is widely thought (i) the core function of imperatives centrally involves the introduction of some kind of requirement on an addressee, (ii) *requirement* is a basically modal notion [Portner, 2007, Charlow, 2011, forthcoming, Starr, forthcoming]. The MAImp accounts for this directly. Regarding the static dimension, it is natural to think (i) imperatives and certain necessity modals have similar logical and inferential profiles, (ii) this is due to a relationship between their meanings.[14] The MAImp, in making the relationship in question one of *identity* in meaning, accounts for this directly. While the MAInt offers a structurally similar account for superficial similarities between interrogatives and possibility modals, like those witnessed in (13) and (14-15), the theoretical context is different. For it is the OAInt that seems to *uniquely* account for core aspects of the dynamic portion of their CIPs. In this light, the MAInt's ability to account for these similarities is neither here nor there.[15]

Moral 2: if a sentence's CIP seems to differ from the orthodox understanding of the discourse profile for a proposition-expressing sentence—on which such sentences are conventionally linked to *assertions*, and assertions modify the body of mutually presupposed information, or Common Ground, à la Stalnaker [1978]—the sentence does not, in all probability, mean a proposition. Be-

[13] Portner [2004, 2007] seems to have been the first to appreciate this.

[14] We have seen only a sliver of the data for this claim; for more see Charlow [2011, forthcoming]. One very striking phenomenon: paradoxes like the Ross Paradox [Ross, 1941] and the Paradox of Contrary-to-Duty Imperatives [Chisholm, 1963, Åqvist, 1967] arise for imperatives and deontic necessity modals alike [Charlow, forthcoming, §2].

[15] The "inference" in (13) seems to me more plausibly traced to the inference-licensing character of the indicative conditional than to the MAInt; I would ultimately say the same thing about (3). The unacceptability of (14-15) owes to the fact that asking a question $?p$ implicates, probably conventionally, a species of epistemic uncertainty regarding p. Examples (11) and (14-15) seem to me to have different sources; (14-15) are incoherent for non-semantic reasons, while sequences of the form $!p, \mathit{may}(\neg p)$ are genuinely logically inconsistent. In other words, the unacceptability of (11) constrains a semantics for imperatives; not so for (14-15) and interrogatives.

cause of their peculiar role in discourse—in brief, issue-, rather than information-, introducing—it is generally thought that interrogatives cannot mean propositions. Imperatives not only do not express assertions; it is generally thought that they *cannot*.[16] If we take this moral seriously—and, as a matter of sociology, most do—we won't want to think imperatives mean propositions.

For imperatives, *these morals obviously pull in opposite directions*. We want to replicate the advantages of MAImp, without having imperatives mean modal propositions. On reflection, however, it might seem fortunate to find a single kind of meaning that accounts smoothly for both the dynamic and static dimensions of a sentence-type's CIP. And if that meaning violates the second moral? Opponents may stare incredulously, but absent alternatives that smoothly account for imperatives' full CIP, the MAImp may seem entitled to ignore them.

Against this sort of position, Portner [2007] has written:

> A modal which only had a performative use might as well not be called a modal at all. The performative aspect of its meaning...would explain everything that needs to be explained about its meaning. (366)

Things, however, are probably more complicated than this. Suppose a modal proposition accounts for an imperative's full CIP (and there is, moreover, a plausible story for why such a modal proposition should be regarded as an exception to the Stalnakerian proposition-assertion-Common Ground link). Compare this sort of account to an alternative account that explains, e.g., the dynamic dimension of an imperative's CIP, but leaves elements of its static CIP unaccounted for. Suppose all the alternative accounts we consider seem to be like this. There would be strong reason to think the modal proposition is playing an *essential* explanatory role.

3 Alternatives

In this section, I push this line of thinking as far as I can by querying the ability of non-propositional alternatives to handle Moral 1—to explain as much as the MAImp is able to explain about imperatives' CIP. I'll close by sketching an account of imperative meaning that is non-propositional, but has exactly as much explanatory power as the MAImp, and suggesting that future work pursue accounts in this general vein.

3.1 Actions

The default non-propositional semantics for imperatives would seem to be very simple. The surface syntax of an imperative (in English, anyway) is typically that of a simple verb phrase (VP). Take that syntax to give the imperative's LF, and the meaning of the imperative is simply the semantic value of the VP—a property.[17] What kind of property? Ordinarily very specific: ascribable only to an agent, which an addressee is able to either intentionally make true of herself or not. That's to say: an *action*. In a slogan: *imperatives denote actions* [cf. Barker, 2012].

This view is similar to, if linguistically subtler than, a view of imperatives that dominated philosophical discussion in the mid-1900s, R. M. Hare's [Hare, 1949, 1952, 1967].[18] Although obviously anachronistic to speak this way, there is a fairly clear sense in which the compositional

[16] Complicating this picture somewhat: I have argued elsewhere (and will argue later on) that instruction imperatives do involve assertion, but that such interpretations of imperatives are semantically derivable from a core semantics for the imperative that is non-propositional. See §3.2, as well as Charlow [2011, §3.4.5], for discussion.

[17] This is effectively the view of Portner [2007], although he distinguishes between the *compositional semantic value* of the VP and the *meaning of the imperative*. Portner's view of the latter is, in fact, dynamic in nature. (Dynamic views are discussed briefly below.) For criticisms of Portner, see Charlow [forthcoming, §5.6.1]; Starr [forthcoming, §4.1].

[18] See also Jørgensen [1937-8], Geach [1963], Bennett [1970], among many others. An anonymous referee helpfully points out that Montague [1973] endorses this sort of view in a footnote.

semantic value of an imperative sentence, for Hare, was exhausted by its prejacent (which he termed its "phrastic"). For Hare, imperatives differed in meaning from declaratives, not in virtue of semantic value—both had *propositions* as their semantic values—rather in virtue of the clausal manner in which those semantic values were expressed—not put forward as true, rather as to-be-made-true. Put differently, the fundamental semantic relation R between a declarative sentence Δp and a model $\mathcal{M}$, and the fundamental semantic relation R' between an imperative sentence $!p$ and a model $\mathcal{M}$, were extensionally equivalent: $R(\Delta p, \mathcal{M})$ iff $R'(!p, \mathcal{M})$ iff $\mathcal{M} \models p$. But when $\mathcal{M} \models p$, Δp would be said to be *true* in $\mathcal{M}$, while $!p$ would be said to be *complied with* (alternatively: satisfied or fulfilled) in $\mathcal{M}$. Declaratives had propositions as truth-conditions; imperatives as compliance-conditions. (Of course, given a context of utterance, a compliance-condition is trivially derivable from the action a Barker-type view says is the imperative's semantic value: it is the proposition that the addressee performs the relevant action.)

Such views do account for certain aspects of an imperative's CIP. They make available an action (equivalently, the proposition describing the addressee's performance of the action) for both semantic and pragmatic work. The static dimension of an imperative's CIP will presumably supervene on the logical profile of this proposition.[19] The dynamic dimension will be determined by appeal, e.g., to pragmatic principles (defeasibly) linking compositional semantic values of token utterances to certain kinds of operations on discourse. One candidate such principle is that of Portner [2004, 2007], on which a context's acceptance of an action-denoting utterance (equivalently: an utterance putting forward an action-describing-proposition as to-be-made-true) adds that action to a parameter constraining the addressee's plans (the "To-Do List").

Such views, however, leave much unexplained, and make false predictions besides [cf. Charlow, forthcoming, §2]. First, in the static dimension of an imperative's CIP, they are incapable of understanding the inconsistency of an imperative and contrary permission as genuinely semantic. On pain of identifying the meaning of $!p$ and ¡p (≈*you may see to it that* p), it cannot be held that permissions denote actions (or action-describing propositions). The logical relationships between the semantic values of imperatives (actions) and permissions (non-actions) are thus a mystery. Whatever logical relationships do obtain will apparently have to be handled within the pragmatics. That is a cost, if the relationships are, as seems likely, genuinely *logical*.

Second, their understanding of the CIP of conditional imperatives like (16) seems inadequate:

(16) If it rains, shut the window

Conditional imperatives are, after all, *imperative* (conditionals being so-typed according to their matrix clauses; cf. Bhatt and Pancheva [2006]). So they will, on the view in question, denote (conditional) actions (equivalently: action-describing conditionals). Combining this with the account of the dynamic dimension of imperatives' CIP described just above, the effect of uttering a conditional imperative's on a discourse is predicted equivalent to that of uttering an *unconditional* imperative with a conditional prejacent, e.g.

(17) See to it that: if it rains, you shut the window

There are many arguments against this sort of "wide-scope" treatment of conditional imperatives. To take one, inspired by Chisholm [1963], Åqvist [1967], notice that complying with (18) will imply trivially complying with (19): the latter's compliance-condition is, on this view, *weaker* than that of the former.

(18) Don't rob me

[19] For this reason, it would seem Barker [2012] is mistaken to think his account yields progress on the Ross Paradox: it is effectively a notational complication of the view for which the paradox originally arose.

(19) If you rob me, don't hurt me

If an imperative's discourse effect were, as this view has it, *solely* a function of its compliance-condition, (19) should, when preceded by (18), have a redundant effect. Obviously it does not. Since conditional imperatives are a kind of imperative, imperatives do not generally denote actions. Since imperatives, conditional and otherwise, plausibly all have semantic values of the same type, it is unlikely that any imperatives will denote actions.

It is worth briefly emphasizing the MAImp's advantages here. On the MAImp, the LF of a conditional imperative with command interpretation is, let's suppose for concreteness, the same as that of a *deontic conditional*—an indicative conditional with a deontic necessity modal in its consequent; the ordinary discourse effect of such a conditional imperative is determined by a performative interpretation of the corresponding deontic conditional. It is well-known that deontic conditionals should not generally be represented with deontic necessity modals scoping over conditionals, and there are a number of well-understood semantics for deontic conditionals that avoid this [for discussion of this claim, see Kolodny and MacFarlane, 2010, Charlow, 2013b,a]. Any semantics for deontic conditionals that correctly handles Contrary-To-Duty obligations, so that (20) does not entail (21), can avoid the problem sketched here.

(20) You shouldn't rob me

(21) If you rob me, you shouldn't hurt me

It is also worth mentioning a recent elaboration of the Hare-ean view, Peter Vranas' [Vranas, 2008, 2011], which is designed in large part to avoid wide-scope-ism for conditional imperatives.[20] According to Vranas, imperatives denote *prescriptions*. A prescription, for Vranas, is a pair $\langle C, V \rangle$, with C the imperative's compliance-condition, V its violation-condition. For unconditional imperatives, this is just the Hare-ean picture, since a violation-condition is trivially derivable from the compliance-condition: the imperative is complied with iff it is not violated. For conditional imperatives, things are different: *if it rains, shut the window* is obviously violated just if: it rains and you do not shut the window. But the negation of this conjunction does not, says Vranas, imply compliance: from the fact that it does not rain or you shut the window it does not follow that you have complied with the imperative; good weather does not suffice for compliance by someone who mischievously plans to leave the window open during rain. Compliance is a matter of what you do *when it rains*. You comply with *if it rains, shut the window* just if: it rains *and* you do shut the window. This distinguishes Vranas' view from the wide-scope view, since, on the wide-scope view, a conditional imperative is fundamentally *unconditional*: compliance consists in making a conditional action-description true, violation in making it false. Compliance with a conditional imperative, for Vranas, requires more than the truth of a conditional.

The view is problematic, although I can only say why briefly here [cf. Charlow, forthcoming, §2.5.1]. First, it inherits the action view's inability to give a semantic account of the relationship between imperatives and permissions. Permissions cannot denote objects of type $\langle C, V \rangle$ since they lack compliance-conditions.

Second, within this sort of framework, it is natural to think—and Vranas does think (see 2008: 546)—that two imperatives are consistent iff it's possible to not violate both.[21] But, of course, it

[20] Other views in this tradition that I lack space to discuss here, but which seem to me to suffer from problems similar to those afflicting related views: Fox [2012], Parsons [2013].

[21] Vranas [2008, 545] notes he cannot say imperatives are consistent iff joint compliance is possible. Notice:

(22) If Billy loves you, marry him

(23) If Billy doesn't love you, don't marry him

It is not possible to comply with both of these imperatives (in his sense of compliance), since it is not possible that

is possible to not violate the following two imperatives:

(24) If Billy falls in, throw him a life preserver

(25) If Billy falls in, do not throw him a life preserver

One violates neither just if Billy doesn't fall in. Thus, for Vranas, they are consistent (something he acknowledges; see 2008: 547).

These imperatives are, however, plainly inconsistent. The inconsistency of two indicative conditionals with inconsistent consequents is a datum (and one reason philosophers have largely soured on the material conditional analysis of indicative conditionals). It is a datum Vranas' semantics apparently violates. The MAImp, however, can respect it; all that is required is to state an analysis of the following conditionals on which the following are inconsistent.

(26) If Billy falls in, you must throw him a life preserver

(27) If Billy falls in, you mustn't throw him a life preserver

The major truth-conditional accounts of indicative conditionals—e.g. the strict-conditional account [Gillies, 2010], the Variably Strict account [Stalnaker, 1968, Lewis, 1973], and the restrictor account [Kratzer, 1991b]—account for this inconsistency more or less directly.

3.2 Assessment

The cash value of the foregoing is a good case for the MAImp. But do I think we should treat imperatives as meaning modal propositions? Bluntly: no. This, however, is not the venue to mount a full challenge on the MAImp. To close, instead, I want to outline some constraints governing an alternative account (and some choice-points for such accounts) and describe some existing accounts falling within these parameters.[22]

I have cited some reasons for thinking the static dimension of an imperative's CIP closely tracks that of a necessity proposition—that their logical profiles are quite similar. But, as I noted at the beginning of Section 2.3, a modal proposition might be derivable from an imperative's conventional meaning, hence available to explain this similarity, without the imperative meaning that proposition. Derivable how? The mechanism cannot be pragmatic, lest we consign to pragmatic explanation phenomena that, it seems, we have some reason to regard as logical. It should, then, be logical or semantic, in some (admittedly vague) sense.

To give an example of such a mechanism, consider a semantics for imperatives which assigned imperatives, not modal propositions, but *functions from some kind of entity into a modal proposition*, as their semantic values at a context of utterance. A way to make a view like this linguistically respectable would be to argue that imperatives contain variables of the same type as the type of entity they are claimed to map into modal propositions. A suggestive piece of data here is the (near?) equivalence of [cf. Charlow, 2011, §3.4.5]:

(28) To get into Manhattan, you should/must cross the Williamsburg Bridge

(29) To get into Manhattan, cross the Williamsburg Bridge

(29) plausibly conveys, in addition perhaps to something else, a piece of *practical information*. What information? The same information conveyed by (28): supposing your goal is to get into Manhattan, you should/must cross the Williamsburg Bridge. It is natural to take this to suggest that an imperative $!p$ expresses a function $\mathcal{I}$ from a goal or set thereof—better, a *plan* $\mathcal{P}$—into

Billy does and does not love you. Nevertheless they are perfectly consistent.

[22] Interested readers can look to Charlow [2011, forthcoming] for a longer discussion of the themes introduced here.

the proposition that the addressee should/must (in view of $\mathcal{P}$) see to it that p.[23] This plan may be supplied to compositional interpretation as the value of a variable of the right type in the imperative's logical form; when supplied, the imperative expresses the proposition $\mathcal{I}(\mathcal{P})$.[24] The compositional contribution of a plan, when present, could be imagined to be analogous to that of the ordering source in Kratzer [1981]. On this understanding, a plan is a device allowing us to construct a ranking over (an independently supplied body of) relevant possibilities according to desirability (given the content of the plan)—and subsequently to construct a choice function that selects, from a range of relevant possibilities, a sub-range that it would be permissible to actualize. In cases where no plan is supplied, the imperative simply expresses $\mathcal{I}$.

Compare the commonplace view that the intension of an ordinary predicate is a function mapping an individual concept i to the proposition that i's referent has the property expressed by a predicate: the predicate means this function, but is used to express a proposition when a meaning of the right type is supplied [von Fintel and Heim, 2007]. This suggests a handy slogan for the sort of view we are developing. As predicates express properties of objects, *imperatives—conditional imperatives included—express properties of plans*.[25]

The analogy, of course, is imperfect. The thematic structure of a predicate generally requires a subject as an argument, while imperatives evidently do not require plans as arguments. An utterance consisting solely of a predicate (e.g., *bought milk*) is ill-formed unless context makes available an argument (*what did **you** do at the store?*) Not so with imperatives. Information-conveying imperatives are, in fact, a special case; the default use of an imperative is to *set or change someone's plans*, rather than to convey information about the pursuit of a given plan.

This is a difference, but not a significant one. At some level of semantic representation, we may, if we like, represent imperatives as containing argument-places or variables for plans that are optionally "bound," whether by context or goal-expressing subordinate clauses of certain characteristic forms (*to* X, *in order to* X, *if you want to* X, etc.). The semantic relationship between an imperative meaning and a plan is function-argument, even while the *thematic structure* of the imperative does not require the plan as an argument.

What does an account of this nature—call it the Plan Analysis of imperatives (PAImp)—say about an imperative's CIP? It will depend on certain other factors, in particular whether the conventional semantic content of an imperative is exhausted by $\mathcal{I}$. Here I will assume it is and see how far this takes us.

So far as facts about the static dimension of an imperative's CIP go, the PAImp is on equal footing with the MAImp: relative to a single $\mathcal{P}$, the imperative has the same truth-condition as a modal proposition the MAImp assigns as its meaning. We could gloss that truth-condition roughly as follows: given a plan $\mathcal{P}$ (and a domain of relevant possibilities R), $!p$ expresses that, relative to the ordering induced by $\mathcal{P}$, p-possibilities among R are favored to $\neg p$-possibilities among R. (Given natural assumptions, this gloss is provably equivalent to the semantics for prioritizing necessity modals given in Kratzer [1981].)

Less clear, perhaps, is how the PAImp would account for the dynamic dimension of an imperative's CIP. A great deal here will depend on which pragmatic principles we favor for linking

[23] For the standard account of this proposition's truth-conditions, see Kratzer [1981]. For recent discussions of the relationship between salient goals/plans and the truth-conditions of related modal propositions, see von Fintel and Iatridou [2005], Charlow [2013a]. For a compositional implementation, see Charlow [forthcoming, §5.5].

[24] The compositional story here will need to make use of some procedure allowing a piece of syntax normally having a meaning of semantic type τ and containing a variable of semantic type τ' to express a function of type $\langle \tau', \tau \rangle$. Such rules abound in the literature. There is, for instance, the λ-abstraction rule of Heim and Kratzer [1998], as well as the functional composition rule of Jacobson [1999], among many others.

[25] For other views that allow derivation of a property or characteristic of a plan from the semantic value of an imperative in context, see Segerberg [1990], Han [1998], Lascarides and Asher [2004], Portner [2004, 2007], Mastop [2005, 2012], Starr [forthcoming]. For comparative discussion of some of these views, see Charlow [2011, forthcoming].

compositional semantic values of token utterances to certain kinds of discourse-operations. A natural option is the "Constraint" Pragmatics of Swanson [forthcoming], on which sentences articulate constraints on a state of mind (cognitive constraints, for short—which, formally, are nothing more than *properties* of states of mind, but can be understood, perhaps somewhat impressionistically, as pieces of *cognitive advice*), and are interpreted as proposals that their addressees come to satisfy those constraints. An imperative $!p$, on the PAImp, expresses the property a plan $\mathcal{P}$ has just if the addressee should/must (in view of $\mathcal{P}$) see to it that p. Such properties are *interpretable as cognitive constraints*: instructions for how an addressee should update her cognitive state. On this pragmatics, an imperative $!p$ is interpreted as a cognitive instruction: to update (the relevant portion of) one's plans so that, relative to a representation $\mathcal{P}'$ of one's updated plans, the addressee should/must see to it that p. Very roughly, using our above gloss of the imperative's truth-condition, a speaker conventionally uses the imperative $!p$ to propose that a salient plan be modified so that it comes to favor p-possibilities to $\neg p$-possibilities [cf. Starr, forthcoming]. Call this the Plan+Constraint Analysis (PCAImp).

The PCAImp's explanation of the dynamic dimension of an imperative's CIP differs from the MAImp's explanation: the MAImp makes use of a mechanism that yields a performative interpretation of the modal proposition expressed by the imperative, while the PCAImp does not. But the predicted discourse effects are effectively the same: on either view, updating with an imperative yields a plan according to which the imperative's prejacent is required. Because of this, the PCAImp has as much flexibility as the MAImp in accounting for the extremely fine level of grain in the range of uses to which imperatives can be put: (moral, legal, divine) commands update the portion of the addressee's plan concerned with her (moral, legal, divine) obligations; suggestions the portion concerned with the addressee's pursuit of her desires, etc.[26]

Other views within this general framework can be imagined. Mastop [2012], Starr [forthcoming], for example, defend *Dynamic Semantic* elaborations of the PCAImp, on which imperatives variously update plans or preference-states.[27] For both Mastop and Starr—indeed, any form of Dynamic Semantics—update functions are assigned *directly* by the compositional semantics, rather than the semantics together with pragmatic and epistemological "bridge" principles.

While differences between a Dynamic Semantic account and the PCAImp might seem elusive, I would register a cautionary note. Assigning an update *function*—a map from an input state to a *unique* output state—as an imperative's semantic value means writing substantive revisions of plans or preferences into that semantic value [cf. Charlow, forthcoming, §5.6.2]. The PCAImp does not do this: a constraint specifies only a *family* of plans satisfying the property expressed by the imperative, leaving open how to appropriately revise one's plans so that the constraint is satisfied; this "gap" is ultimately filled by pragmatic and epistemological bridge principles. The Dynamic Semantic alternative is something we should view with apprehension. It—apparently wrongly—makes epistemological disagreements about the nature of rational preference-revision into disagreements about the meaning of imperatives. More broadly it blurs theoretical boundaries, between semantics and epistemology, that ought to be sharply distinguished.

[26]Two notes here. First, for basic (non-conditional) imperatives, the predictions generated by this pragmatics turn out to closely resemble—a better word might be "mimic"—those generated by the account given in Portner [2007]. In cases where the predictions of these accounts diverge, however, (e.g., with conditional imperatives), the pragmatics given here outperforms Portner's [in addition to the discussion above, see Charlow, forthcoming, §5.6.1]. Second, an apparatus of Indirect Speech Acts is likely still required to handle a range of examples (e.g., permission imperatives). For a formal development of such an apparatus, see Charlow [2011, Ch. 3].

[27]Starr's view is especially carefully developed. His paper is essential reading for anyone working in the area.

4 Conclusion

Imperatives, we have seen, are a key case for seeing how far the truth-conditional paradigm can be stretched. The analysis (actually, family of analyses) sketched in the previous section strays somewhat farther from the paradigm than the modal analysis—although clearly it is rooted in the methodology and formal apparatus of compositional, model-theoretic semantics. Whether and to what extent such departures can be justified by theoretical and empirical benefits is a question I propose to leave to future work.

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