Mood, Force and Truth

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Abstract

There is a big difference between saying Maya is singing, Is Maya singing? *and* Sing Maya! *This paper examines and criticizes two attempts to rigorously explain this difference: Searle's speech act theory and the truth-conditional reductionism advocated by Davidson and Lewis. On the speech act analysis, each utterance contains a marker which says what kind of speech act the utterance counts as performing. The truth-conditional reductionists try to reanalyze the non-declaratives* (Is Maya singing? *and* Sing Maya!) *as complex declarative forms. The former analysis fails to recognize the indirect relationship between sentence (or clause) type and utterance force. The latter analysis fails to recognize the distinctive and thoroughly compositional contribution that the imperative, interrogative and declarative mood make to sentences containing them.*

1   Introduction

These three *sentences* are clearly different.

(1)   Maya is singing.
(2)   Is Maya singing?
(3)   Maya, sing!

They differ in their respective moods: *declarative*, *interrogative* and *imperative*. Echoing Hare (1970: 7), I wish to insist that "any complete explanation of the meaning of … a sentence must explain the meaning of its mood." Yet I wish to deny that this must be done by "specifying the kind of speech act to which that mood is assigned by the conventions that constitute our language" (Hare 1970: 7) or, as (Searle 1969: 30) puts it: "[by having the mood indicate] what illocutionary act the speaker is performing in the utterance of the sentence." I will therefore be concerned with defending two related theses. First, a sentence's mood contributes to its compositional semantic meaning in the same way that its tense and other constituents do. Second, a sentence's mood does *not* directly encode the kind of speech act that is performed by uttering

that sentence, i.e. its illocutionary force (Austin 1962: 98–100). The point of this second thesis is to rule out meanings for the moods that appeal directly to properties of *speech acts* and instead propose a view where mood and other mediating factors determine illocutionary force. The point of the first thesis is to reject Frege's (1918: 294) distinction between *force* and *sense*: there is only one kind of linguistic meaning and it encompasses both mood and the more traditional phenomena studied in truth-conditional semantics.

Defending these two theses is just the first step (§2.2) in a more elaborate plot. Once they are granted, the existing literature on the semantics of mood provides two main alternatives. The first is truth-conditional reductionism: assimilate the semantics of interrogatives and imperatives to familiar truth-conditional models of declarative meaning, e.g. Lewis (1970: §8) and Davidson (1979). The second alternative is content pluralism: declaratives, interrogatives and imperatives have different kinds of contents, e.g. Hamblin (1958) on interrogatives and Hausser (1980: §4) on imperatives. While the latter are discussed elsewhere (Starr 2012; Murray & Starr 2012), I will focus my critical remarks here on the former (2.3). A semantics for mood that enjoys these two theory's strengths but eliminates their shortcomings is developed elsewhere (Starr 2010; Murray 2010; Starr 2012; Murray & Starr 2012). While I will not be defending this semantics here, the basic idea can be stated succinctly. The meaning of all three moods, and indeed all morphemes, can be conceptualized in the same way: as serving a particular role in changing the mental states of language users. Declaratives add information, interrogatives raise issues and imperatives introduce preferences. Each of these contributions change what the conversationalists are taking for granted for the purposes of their interaction. This approach maintains an insight misarticulated in illocutionary force theories and absent altogether from truth-conditional reductionism and content pluralism: the meaning of moods cannot be specified by specifying a semantic object to which a sentence *refers*.[1] Instead, a sentence's meaning is best understood in terms of its role in our linguistic activities. Yet, this approach is not committed to the idea that a sentence directly encodes the force of any speech act it is used to perform. The force of a speech act is a complex property determined by several factors. It is determined in part by how a particular utterance changes what's being mutually taken for granted and how that relates the agents private attitudes. But it is also determined by other dimensions of the social and physical circumstances in which the utterance takes place.

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1   Sentences have 'semantic values', but the relation sentences bear to semantic values is not akin to the relation a name bears to its referent, much as Dummett (1991: 47–8) contrasts *ingredient sense* and *assertoric content*.

2   The Dilemma

It may be tempting to look at written English and assume that the differences between (1)-(3) are too subtle and covert to have true semantic significance. This tempts the conclusion that they signal purely pragmatic information and therefore lie outside the domain of semantics, e.g. (Dummett 1973: 315–6). But closer inspection reveals the extreme naivety of this impression. First, the differences between (1)-(3) are not so subtle after all. They have glaring differences of word order and inflection, and utterances of them have crucial prosodic differences, all of which are well-known to carry semantic significance. Further, while English uses these means to encode mood, some languages use explicit verbal morphology that mark the mood of every main and subordinate clause.[2] Indeed, current typological work suggests that English is somewhat of an outlier in lacking mandatory explicit mood morphology or intonation, particularly for the interrogative mood (van der Auwera *et al.* 2008c; Dryer 2008). So to affirm that the indicators of mood have no semantics is to affirm that full paradigms of morphology, intonation and syntactic configuration have no semantics. It is hard to see a principled middle-ground between this and denying that natural language has a semantics.

As mentioned above, mood has diverse realizations. Since no realization comes packaged with a label that allies one realization with another, mood cannot be defined in purely formal terms. Instead, it must be conceived of as a particular pairing of form and function wherein there is relative stability of form and function within a language and relative stability in function across languages. This leads to the question that is at the heart of this paper: *in what terms should we characterize the function of mood* ? In reality, this is just to ask how we should specify the meanings of the moods. Ultimately, the moods should not be classified using a pre-theoretic notion of 'function' but rather in terms of a semantics for the various sentence types. Semantic convergence of sentence-types from different languages can then be translated into a mature classification of mood. Yet, one must start somewhere. Linguists seem to have made progress in identifying moods by associating them with kinds of speech acts, e.g. (see also Sadock & Zwicky 1985)

> … [T]here is a form … which, notionally, simply makes an unqualified assertion … This form is identified as the Declarative. (Palmer 1986: 64)

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2   Cheyenne (Murray 2010: §2.3) and Kalaallisut (Bittner 2009: §4) are two particularly well-described cases where explicit verbal morphology is used. For more on the semantics of intonation in English see Bartels (1999), Gunlogson (2003), Steedman (2007) and references therein.

> Imperatives … have to do with the expression of a wish of the speaker about a future state of affairs. (van der Auwera *et al.* 2008a)
> The second general strategy for signaling polar questions involves the use of distinct interrogative verbal morphology. Most commonly, the verbal morphology may involve an affix that specifically signals that the utterance is a question … (Dryer 2008)

There is clearly something to these classifications. After all, they are not arrived at by mere introspection, but rather controlled observations of when it is appropriate to classify certain utterances of certain sentences as assertions, expressions of wish or queries. I therefore propose to take them as my starting point for theorizing about mood and suspect that a mature semantic theory will vindicate them. Indeed, vindicating or contravening these classifications is necessary to answer a pressing foundational question: what is the relationship between a sentence's type and the illocutionary force(s) of its utterances?

A simple answer to this question is that a sentence's mood, and mood alone, determines illocutionary force. This is Searle's (1969) position which is criticized in §2.2. A more nuanced answer is that there is a *characteristic* kind of speech act that can be associated with each mood. But, since a sentence's meaning is only one of the factors at play in speech acts, employing that meaning does not inevitably lead to a particular kind of speech act. Nonetheless a *characteristic* illocutionary force can be associated with each mood. This fact, among others, is also be used in §§2.3 and Starr (2010: §4.2.4) to argue against truth-conditional reductionism and content pluralism. It is shown that they either fall into Searle's untenable position or an equally simple and inadequate one: a sentence's mood in *no way* determines the illocutionary force of its utterances.

2.1 Preliminary Details

Before moving on, I need to comment on two linguistic details. Even though English forgoes explicit morphological mood markers, I am going to assume the syntactic structures contain mood morphemes. As noted above, there are languages that conform to this convenient model. But I will not be able to determine here whether it is appropriate to analyze every English sentence as having a covert mood morpheme or encoding mood in a more multi-modal combination of intonation, inflection and structure. Most authors have taken the former route.[3] While there is strong evidence that the declarative sentence

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3   E.g. Katz & Postal (1964), Rizzi (1997), Cinque (1999) and virtually all of the specific litera-
    ture on the semantics of interrogatives either implicitly (e.g. Hamblin 1973; Karttunen 1977)

form and a particular intonation encode the declarative mood (e.g. Pierrehumbert & Hirschberg 1990: 286; Bartels 1999: Ch.3), the current research on intonation is not conclusive and suggests that it may not be right to think that intonation alone can encode mood (Gunlogson 2003; Hirschberg 2004: §5.4).

Another detail worth commenting on is that the three-way distinction between imperative, interrogative and declarative mood does not cover all of the distinctions that natural languages make. Although that three-way distinction appears to be universal, many languages subdivide the moods into more nuanced flavors, and there are a few outlying constructions like exclamatives that are controversial (cf. Zanuttini & Portner 2003 vs Rett 2008). One example of the former: English imperatives can be carved into four categories that often correspond to four distinct morphemes (van der Auwera *et al.* 2008a; Dobrushina *et al.* 2008; van der Auwera *et al.* 2008b). First, there are optative uses like (4) that concern a desired state of affairs but don't appeal to the addressee to bring it about. Second, there are pure imperative uses like (5) that do involve such an appeal and it is the addressee alone that is appealed to. Third, there are hortative uses like (6) and (7) that also involve an appeal but don't appeal to the addressee(s) alone.

(4)   May he sing!
(5)   Sing!
(6)   Let's sing!
(7)   Let him sing!
(8)   Don't let him sing!

Fourth, there is a prohibitive use in (8). As I will argue, accurately capturing a three-way mood distinction is hard enough for existing accounts. However, the fact that these distinctions are further subdivided and lexicalized in the worlds' languages should further emphasize that mood lies within the domain of linguistic semantics.

or explicitly (e.g. Higginbotham 1993, 1996). Proponents of the 'force-radical' picture have done so as well (e.g. Stenius 1967; Searle 1969; McGinn 1977), as have those that pursued the 'performative reduction' (e.g. Lewis 1970; Cresswell 1973). Han's (2001) recent work on imperatives follows suit.

2.2 Mood as a Force Operator

The first account to be considered was inspired by Frege's (1918: 293–4) distinction between *sense* and *force*. After defining thoughts as senses for which the question of truth can arise, he says:

> One does not want to deny sense to an imperative sentence, but this sense is not such that the question of truth could arise for it. Therefore I shall not call the sense of an imperative sentence a thought … An interrogative sentence and an indicative one contain the same thought; but the indicative contains something else as well, namely, the assertion. The interrogative sentence contains something more too, namely a request. Therefore two things must be distinguished in an indicative sentence: the content, which it has in common with the corresponding sentence-question, and the assertion.

Indeed, Frege went so far as to include notation in his *Begriffsschrift* to codify the distinction: −ϕ to mark a judgeable content, ⊢ ϕ to mark the assertion of that content, and ⊩ ϕ to stipulate the truth of that content for the purposes of definition (Frege 1893: §5, §27). This is just to distinguish between an act of thought and the content of that act. Frege (1923: 2–3) observed that once this distinction is drawn it is incoherent to conjoin both assertions and thoughts. If conjunction is a logical operation and logic concerns thoughts then conjunction must operate on thoughts, not assertions.

While Frege was interested in natural language only as it intersected his project of designing and applying his *Begriffsschrift*, Austin and Searle were concerned with the study of natural language in its own right. In his pioneering study on performatives and speech acts, Austin (1962: 98–109) developed the idea of an illocutionary act, which is not an act *of* saying something, but an act of doing something *by* saying something, i.e. informing, ordering, warning, etc. He factored the identity of these acts into their sense and force, the latter being its function in whatever activity the speech is situated. In systemizing Austin's ideas, Searle (1969: 30) upholds the distinction between the force of "the illocutionary act and the propositional content of the illocutionary act", but boldly links it to the semantics of natural language by distinguishing two

> … elements in the syntactical structure of the sentence, which we might call the propositional indicator and the illocutionary force indicator. The illocutionary force indicator shows how the proposition is to be taken, or to put it another way, what illocutionary force the utterance is to have; that is, what illocutionary act the speaker is performing in the utterance of the sentence. Illocutionary force indicating devices in English include at least: word order,

stress, intonation contour, punctuation, the mood of the verb and the so-called performative verbs.

It is helpful to spell this out as a concrete semantic proposal, which assigns meanings to linguistic units.[4] On this approach, a semantics for natural language consists in pairing each mood marker with an illocutionary force and each mood-free 'radical' with a proposition. Searle (1969: Ch.3) goes on to propose that to have a certain force and propositional content is to have certain *conditions of satisfaction*. But, while a propositional content's conditions of satisfaction are truth-conditions, a force's conditions of satisfaction are of an entirely different kind, call them *force conditions*. Unlike truth-conditions, force-conditions are determined by cultural rules which stipulate what it is to perform a particular kind of act, e.g. a promise. These rules are akin to those that stipulate which happenings constitute a touchdown in football or a move of chess. Thus:

> The fact that in French one can make a promise by saying *Je promets* and in English one can make it by saying *I promise* is a matter of convention. But the fact that an utterance of a promising device (under appropriate conditions) counts as the undertaking of an obligation is a matter of rules and not a matter of the conventions of French or English. (Searle 1969: 40)

This semantic thesis about mood is the genesis of Searle's claim that "speaking a language is engaging in a rule-governed form of behavior," and objecting to the characterizations of linguistic meaning offered by Lewis (1969, 1970), Davidson (1967) and Montague (1970). On Dummett's version of this theory,

> … to grasp what it is for a sentence to carry a particular force is to be master of a practice — of what Wittgenstein called a language-game, which has to be learned and whose existence depends upon a common participation in it by the speakers of the language. (Dummett 1976: 216)

Stenius (1967) develops a similar view wherein each mood's meaning is given by a rule governing a linguistic exchange. For example, the interrogative mood is paired with the following rule:

(9)   Answer the question by 'yes' or 'no', according as its sentence-radical is true or false (Stenius 1967: 273)

Can this view yield a satisfactory analysis of the moods of natural language?

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4   Searle never offered such a proposal, but he was no skeptic of sentence-meaning and freely admitted that it constrained speaker-meaning.

Even without considering the particular analyses of the moods that are on offer, severe difficulties emerge.

Moods can take scope under connectives. But, as Frege observed, connectives cannot simultaneously operate on propositions and illocutionary acts. Pace Dummett (1973: 336), this is evident even with conjunction.

(10)   a. Paint and don't paint a picture!
       b. Paint a picture and don't paint a picture!
(11)   a. Are Frenesi and Zoyd coming?
       b. Is Frenesi coming, and is Zoyd coming?

(10a) might be called an *imperative contradiction*. It issues an impossible command, to which one should reply: *I can't do that!* (10b) deserves the name *imperative dilemma*, since it issues two conflicting commands to which one should reply: *Well which one will it be!?* Similarly, one can conclusively answer (11a) with *No, Zoyd decided to stay home*, while this is at best an incomplete answer to (11b). To make matters worse, different moods can be conjoined.[5]

(12)   You look in the library and I'll look in the lounge
(13)   I'm going home and don't follow me!
(14)   You look in the library or I'll look in the lounge
(15)   Gabe ate, but did Josh eat?
(16)   Karen is in Brooklyn, or is she in Montreal?

Disjunctions also provide conclusive evidence.

(17)   (You are prohibited from doing both of your chores.) So, either don't mow the lawn or don't water the lawn
(18)   Don't mow or water the lawn!
(19)   a. Did you mow or water the lawn?
       (without contrastive focus on *mow* and *water*)[6]
       b. Yes
(20)   a. Did you mow the lawn or did you water the lawn? (without contras-

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5   Note that (12) is not the type of conjunction that favors a conditional reading, e.g. *Eat that frog and you'll be sorry*. These conditional interpretations have received increased attention recently, see Starr (2012) for discussion and extensive references.

6   Intonation is key with disjunctions and interrogatives. Without contrastive focus on *mow* and *water* (19) is synonymous with *Is it the case that you mowed or watered the lawn?* This can be answered with *yes*, whereas that is not a complete answer to (20). The inquisitor would respond *Yes you mowed? Or, yes you watered?*

tive focus on *mow* and *water*)
b. #Yes

Conditional interrogatives and imperatives raise an interesting issue. Dummett (1973: 338–48) labors at length to argue that conditionals like (21) and (22) involve a force operator scoping over a declarative conditional.

(21)   If Zoyd comes, hide your prescription drugs!
(22)   If Zoyd comes, what excuse will each of use to leave early?

This maneuver is implausible, regardless of whether it yields a plausible interpretation. Languages with verbal mood morphemes tag the verb in each main clause with the imperative or interrogative morpheme. Since these morphemes operate on the *verb*, no question of 'two sentential scopes' can arise. They have to be interpreted in the clause where they appear. Further, this maneuver does not yield plausible results. First, note that (22) is not equivalent to *What excuse is such that if Zoyd comes, each of us will use it to leave early*. Second, note that the following is perfectly consistent:

> Don't hide your prescription drugs! After all, you need to be able to find them easily. But, if Zoyd comes over, hide your drugs!

Conditional imperatives can specify secondary duties. But treating the imperative as wide-scope implies that we have !(C →H) and !¬H. It is difficult to block the implausible inference to !¬C without weakening the conditional logic implausibly. [7] Dummett's positive arguments for the wide-scope treatment speak against treating (21) as making a command when the antecedent is true and saying nothing when the antecedent is false. This implausibility should not be avoided by giving the imperative mood wide-scope, but rather by maintaining the imperative mood does not directly encode the force of a command. We need instead an explanation of how the mood in the consequent compositionally interacts with the antecedent to yield a *conditionalized imperative*. This is just what we do in other areas of semantics: any equivalences between disjoined verb or noun phrases and disjoined sentences need to be explained, not stipulated syntactically. One last data point is actually already implicit in (22) helps bring the point home. Karttunen

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7   This parallels issues raised by the Gentle Murder Paradox (Forrester 1984) in deontic logic. I am indebted to Nate Charlow for bringing this parallel, and its relevance to conditional imperatives, to my attention.

(1977: 32) notes that quantifiers often appear to scope over the interrogative operator.

(23) a. What grade does each student deserve?
      b. Abe deserves a D, Betty deserves an A and Carl deserves an A
(24) For each student *x*: what grade does *x* deserve?

Reasoning from questionable generalizations about impoverished data, Dummett (1973: 348) grants that sometimes force-operators appear to take scope under connectives but contends that they are interpreted in an ad hoc way and cannot systematically embed in even larger constructions. What looked ad hoc to Dummett has turned out to be a predictable, compositional pattern which semanticists have proposed multiple explanations for (see again Starr 2012 for discussion). The fact that every combination of mood and connectives does not yield a natural sentence is more plausibly attributed to the fact that the different moods serve different discourse functions. Discourse functions have to cohere (Hobbs 1985; Kehler 2002; Asher & Lascarides 2003). The force-operator approach is in trouble, but there's one last hope.

Surprisingly, Searle (1969: 32–3) fully embraces force-operators occurring under the scope of connectives. In fact, he offers these occurrences as evidence for his doctrine of force-indicators in natural language. How does he circumvent Frege's observation? He analyzes an illocutionary force in terms of a set of conditions of satisfaction, which spell out the necessary and sufficient conditions for having successfully performed a certain kind of speech act. These conditions are specified "as a set of propositions such that the conjunction of the members of the set entails the proposition that the speaker made a successful and non-defective" speech act (Searle 1969: 54). For examples, the act of a speaker *S* asking a hearer *H* the question *Is Paris pretty?* is analyzed in terms of the following conditions of satisfaction:

(25) Questioning (Searle 1969: 66)
      a. S does not know if it is true that Paris is pretty (*preparatory*)
      b. S wants to know this information (*sincerity*)
      c. S's utterance counts as an attempt to elicit this information from *H* (*essential*)

This kind of treatment allows one to extend the truth-conditional analysis of connectives to illocutionary acts. For example, a conjunction of questions will just conjoin the conditions of satisfaction of each question. This certainly

solves the problem, since a sentence containing a force operator F(p) is, in effect, treated as shorthand for the conjunction of its conditions of satisfaction: Prep(p) ∧ Sinc(p) ∧ Ess(p). So the conjunction of two such sentences is unproblematic.[8] But this is a really a form of truth-conditional reductionism. Force turns out to be constructible from propositional contents and in reality all speech acts involve proffering a conjunction of those propositions. This form of reductionism is even less plausible than the versions I will consider later in §2.3. Unlike those accounts, it offers no principled explanation of why non-declaratives are not truth-evaluable.

I have not yet mentioned two of the force-operator approach's most serious failings. One of these failings also concerns embeddings. Mood morphemes embed under attitude verbs and do not indicate the force of a *speech act* in these contexts (Groenendijk & Stockhof 1996).

(26)   Junior wondered *whether* Jonah was home

In uttering (26) I do not ask a question. For those who might deny that *whether* is an interrogative mood marker, it is relevant to note that English once used *whether* also as the marker of unembedded interrogatives (Allen 1980). This is not a historic or rare pattern. The polar interrogative morpheme *li* in Bulgarian (Rudin *et al.* 1999: 543, 580) is one among many other examples.

Though it has traditionally been claimed that imperatives do not embed (e.g. Sadock & Zwicky 1985), this is far from clear. Pak *et al.* (2004) discuss constructions in Korean which, though differing morphologically from root imperatives, seem to qualify as embedded imperatives. Rus (2005) demonstrates conclusively that Slovenian embeds imperatives. As Rivero (1994) notes, the Spanish infinitival *A correr!* (*lit. To run!*) is often the preferred command issuing root clause and can embed under numerous verbs with the marker of indirect discourse *que*. Though dated, English permits the use of *To run!* as a root clause, but it has an optative meaning, i.e. it expresses the speaker's wish to run. When this clause is embedded it seems capable of either an imperative or an optative meaning: *John was ordered to run* vs *John wanted to run*. It might even be plausible to think of English infinitives like (27) and (28) as embedded imperatives.

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8   The fact that this is the format of Searle's analysis becomes even more evident when he attempts to formalize it (Searle & Vanderveken 1985). This work, titled, *The Foundations of Illocutionary Logic*, would be more aptly titled *The Foundations of Some Abbreviations within Classical Logic.*

(27)   John ordered that you go
(28)   a. John ordered you to go
        b. John wants you to go

So although root and putative embedded imperatives often differ in form, it is undeniable that at least a semantic analog of embedded imperatives exist in natural language. To claim that subordinate clauses cannot contain mood morphemes is simply to hide one's head in the sand.

The force-operator approach says that mood indicates force. Yet, mood alone does not seem to determine force, at least if *force* is meant to classify a speech act. After all, classifying speech acts involves appealing to the intentional, social and physical context of an utterance. The literature has offered many cases aimed at illustrating this, and Davidson (1979: 110) mentions the most common ones. He says that someone can ask a question by uttering *I'd like to know your telephone number* or *Tell me who won the race,* or issue a command with *In this house we remove our shoes before entering*. Similarly, he suggests that one can make an assertion by uttering *Did you notice that Joan is wearing her purple hat again?* or *Notice that Joan is wearing her purple hat again.* He also contends that declaratives issued in pretense, fiction, humor or sarcasm do not constitute assertions. Now, at the time Davidson was writing Searle had already offered analyses of these cases, so it is a bit puzzling that Davidson did not discuss Searle's analyses.[9] But I shall not discuss these analyses either because I do not think the data they cover are essential to showing that Searle's thesis about the connection between mood and force is wrong. Consider instead that a friend may offer advice by saying *Do 12 hours of community service per month* while a judge could use the same sentence to issue a command. Similarly, a declarative like *This is John Searle* can be used as a true assertion to identify Searle but also performatively to baptize Searle with his name. The interrogative sentence *Where is Tunisia?* can be used to ask a more informed party for the correct answer, or to identify a topic of mutual ignorance among the conversationalists or to test the hearer's geographical knowledge. How can Searle account for this illocutionary diversity?

Searle frequently says that mood indicates force (Searle 1969: 30), but occasionally he says that mood together with context determine force (Searle & Vanderveken 1985: 2–3). So perhaps the mapping from mood to force can be made context-sensitive on analogy with Kaplan's (1978) semantics for indexicals. First, I will catalogue the variability and then consider accommodating it

9   Davidson (1979) was written in 1976, while indirect speech acts and fictional discourse are the topics of Searle (1975a,b).

as a species of context-sensitivity. Consider the Tunisia example. Searle (1975a: 13) treats interrogatives as a kind of *directive*, since their utterance is said to count as an attempt to get the hearer to answer the question (this is their *essential condition* or *illocutionary point*).[10] But even this is subject to counterexample. As I mentioned above, interrogatives can be used purely to identify a topic of mutual ignorance. Suppose we are the hotshots of the geography class and commune after class to compare exam grades. We all got 99% because we did not know where Tunisia was. Later in the evening, under the bliss of drink I proclaim that we know everything about geography. Your utterance of *Really, where is Tunisia?* would not be an attempt to get me to tell you where Tunisia is, but rather to identify the fact that there's something we don't know about geography. The preparatory condition of an interrogative is said to be that the speaker does not know the answer (Searle 1969: 66). The use of interrogatives in exam settings is a counterexample to this and the sincerity condition, which is that the speaker wants to know the answer (Searle 1969: 66). In the exam case, the preparatory condition seems to be that I know the answer and the sincerity condition seems to be that I want to know whether you know the answer.

So, all three of the main conditions of satisfaction can vary. Now consider which features of context they vary with. In the geography hotshots case, the actual illocutionary point was that we don't know the answer. What feature of the context made this point effective? Well, the fact that none of us knew the answer. Now, what is it that is distinctive about exam contexts that could be responsible for the shift in preparatory conditions? Well, the fact that in exam situations the examiner knows the answer. What about the sincerity conditions? It is the fact that the examiner wants to know whether the examinees know the answer. I hope the problem is now evident. Searle's various *conditions of satisfaction* just are relevant components of the context, so there is no way to write down any synoptic mapping from contexts to them. All one can come up with is a list of different forces. Further, each major component of each force on that list can vary and the only common theme to the variation in our example was that answers were involved. So it seems that it wasn't really the separation of forces into various conditions of satisfaction that tracked what was distinctive about interrogative meaning at all. This demonstrates a fundamental difficulty for specifying the meaning of moods in terms of force. Force varies with con-

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10   Scholars of Searle's opus will note that illocutionary forces are actually made up of seven components: (1) *illocutionary point*, (2) *degree of strength of illocutionary point*, (4) *propositional content conditions*, (5) *preparatory conditions*, (6) *sincerity conditions* and (7) degree of strength of sincerity conditions (Searle & Vanderveken 1985: Ch.1, §3). Interrogatives are only constrained by (1), (5) and (6) so I will ignore the rest in my discussion above.

text but in a large part, force *is* context so there will be no regularities in that variation that can be captured by writing down a function from contexts to forces. Since the meanings of mood are what's responsible for the regularities in the mood-force mapping, they aren't forces and they certainly are functions from contexts to forces.

Let me summarize. Even putting aside fictional discourse, metaphor and indirect speech acts, there is not a direct mapping from mood to force. Indeed, each of the three main components of force can vary. Since the force of a speech act is largely *constituted* by the context it occurs in, there will be no regularities that can be captured in a mapping from contexts to forces. The goal of a semantics of mood is to capture the regularities in the mood-force mapping, so that semantics must not be a mapping from contexts to forces. This problem, together with the two embedding problems, show that the force-operator approach is mistaken. With these failures in mind, I will move on to consider the existing alternatives.

2.3 Truth-Conditional Reductionism

2.3.1 The Performative Analysis

The first version of truth-conditional reductionism that I will consider is called the performative analysis and is defended by Ross (1970), Lewis (1970: §8) and Cresswell (1973: Ch.14). Any theory which attempts to reduce every sentence to a declarative must explain why non-declaratives are not capable of truth or falsehood. The performative analysis takes a creative angle on this issue. It begins by pointing out that performatives like (29) are grammatically declarative yet resistant to evaluation for truth.

(4)   a. I do take this woman to be my lawful wedded wife
      b. I name this ship the Queen Elizabeth
      c. I give and bequeath my watch to my brother

Indeed, Austin (1962: 5–6) says that "[n]one of the utterances cited is either true or false: I assert this as obvious and do not argue for it." As Lewis (1970: §8) notes, preventing the assignment of propositions to declarative sentences like (29) would be a serious obstacle for a compositional semantics of English. Lewis (1970: 59) contends that performatives do have truth-values but these are easily ignored "because it is hard for a performative to be anything but true."

And, since the point of the utterance is not that it is true but that the speaker is making it true, it is no surprise that this trivial truth-value is eclipsed altogether. As Lewis (1970: 59) puts it "To utter *I am speaking* is to speak, but it is also to speak the truth." With this view of performatives in hand the basic performative analysis can be stated simply. Each non-declarative below is transformed into the b-relative below it before it is interpreted by the semantic rules.

(30)   a. Dance, Maya!
       b. I command Maya to dance
(31)   a. Is Maya dancing?
       b. I ask whether Maya is dancing

Thus non-declaratives are genuinely treated as abbreviations for declaratives. Yet, since the declaratives they abbreviate are performatives, they resist being evaluated for truth.

One difficulty for this approach is that the framework and assumptions of transformational grammar it depends on have long been discredited, since they were ultimately seen to yield grammars of unlimited generative capacity. There are also some clear worries about claiming that (30a) and (30b) are synonymous. I can issue (30b) to my henchman for relay to Maya, but (30a) has no such use. Further, imperatives have a wide range of uses which will be obscured by the transformation. The offer *Have a banana!* will come out as *I command you to have a banana*. The optative *Rain!* will come out as *I command you to rain* and the hortative *Let's dance* as *I command you to let's dance*. Finally, the prohibitive *Don't let Maya dance* comes out as *I command you to don't let Maya dance*. Yet, the major difficulties are still to come!

Recall from §2.2 that *whether* in Old English and *li* in Bulgarian instantiate a common pattern of using the same marker in embedded and root interrogatives. Consider how the analysis in (31) would apply to Old English. A root *whether* interrogative would be turned into an embedded *whether* interrogative. It is clear why this fails as a semantic analysis of the interrogative *whether*-morpheme, and in reality modern English is no different. By paraphrasing a root interrogative in terms of an embedded interrogative the performative 'analysis' just pushes the problem back. We now need an analysis of the embedded occurrence that doesn't treat it as a performative since that would lead to an infinite regress. So the performative analysis has no analysis of interrogative morphemes after all. The same will be true for its attempt to analyze the imperative mood.

Consider further the status of declarative mood markers in the performative

analysis. If dec(*S*) is analyzed in the same way it will come out as something like *I assert that S*. But this is doubly problematic since it gets the truth-conditions of dec(*S*) wrong and itself will contain an additional declarative morpheme that will set off an infinite regress. So the performative analysis must refuse to assign meanings to the world's declarative mood morphemes. That property alone discredits the theory, but taken together with the other problems recounted above there is sufficient reason to declare the performative analysis a failure.

2.3.2 The Paratactic Account

Davidson (1979) does not present a full-fledged semantics for mood but gestures at an impression of one. Summarizing the view would require filling it out, so I will simply quote the key passages.

> We may think of non-[declarative] sentences … as [declarative] sentences plus an expression that syntactically represents the appropriate transformation; call this expression the *mood-setter*. And just as a non-[declarative] sentence may be decomposed into [a declarative] sentence and a mood-setter, so an utterance of a of a non-[declarative] sentence may be decomposed into two distinct speech acts, one the utterance of [a declarative] sentence and the other the utterance of a mood-setter. (Davidson 1979: 119)
>
> If we were to represent in linear form the utterance of, say, the imperative sentence *Put on your hat*, it would come out as the utterance of a sentence like *My next utterance is imperatival in force*, followed by an utterance of *You will put on your hat*. This suggests the semantic situation, but syntax makes it wrong. The mood-setter cannot be any actual sentence of English, since it represents a certain transformation. I do not want to claim that imperative sentences are two indicative sentences. Rather, we can give the semantics of the utterance of an imperative sentence by considering two specifications of truth conditions, the truth conditions of the utterance of an indicative sentence got by transforming the original imperative, and the truth conditions of the mood-setter. The mood-setter of an utterance of *Put on your hat* is true if and only if the utterance of the indicative core is imperative in force. (Davidson 1979: 120)
>
> … If I am right, the utterance of a non-[declarative] sentence cannot be said to have a truth value. For each utterance of a non-[declarative] has its mood-setter, and so must be viewed semantically as consisting in two utterances. Each of the utterances has a truth-value, but the combined utterance is not the utterance of a conjunction, and so does not have a truth value. (Davidson 1979: 121)

Insofar as the contours of this impression are intelligible, they are wrong. Davidson says that we *can* give the semantics of an imperative by *considering* the

truth-conditions of two utterances. But how exactly? What operation does 'considering' amount to? It can't be a truth-conditional operation, because it cannot output a truth-value. So whatever 'considering' involves it will be a different kind of interpretive process than applying a truth predicate. So, unlike the performative analysis, the meaning of a non-declarative cannot be explicitly stated in a truth-theory.[11] This is not a reduction of non-declarative meaning, it's a denial! Further, stating non-declarative meanings implicitly in this manner requires the quizzical dictum that an imperative utterance is actually composed of one declarative utterance and one utterance of an unspecified (unspecifiable?) sentence type. Neither component contains the utterance of a non-declarative morpheme, so the *existence of such utterances* is ultimately also denied.

Declarative morphemes pose another problem. At the outset, Davidson (1979: 119) assumes that there are no declarative mood morphemes. If there were, he'd be committed to the ridiculous claim that an imperative consists of an imperative morpheme and a declarative one, since non-declaratives are composed of a mood-setter and a declarative. Also, since one of the sentences by which we understand a sentence with mood is a declarative, the same regress that plagued the performative analysis will result. There are declarative morphemes, so Davidson's theory must be altered.

One idea is to make both the mood-setter and the transformed core moodless. But this actually makes matters worse. First, Davidson's truth-theory needs to apply to utterances of the mood-setter and the core. Since these are moodless, that means that the truth-theory can apply to ungrammatical utterances. So each of our apparently singular grammatical utterances turns out turns out to be two ungrammatical utterances! Second, if the mood-setter and core are moodless then the force of their utterance is unconstrained, so it should be possible for an utterance of *Go home* to have a force that corresponds to *Is my next utterance imperatival in force? You will go home?*, whatever that may be. Third, and most decisively, this alteration would require Davidson to accept that declaratives don't have truth-values. Recall, he says that non-declaratives don't have truth-values because their utterances involve two utterances.

These difficulties in formulating Davidson's proposal stem from its most

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11   Lepore & Ludwig (2007: 270–1) suggest that maybe there can be some kind of syntactic transformation rule that maps non-declaratives to its mood-setter and core before the truth-theory is applied. But if the theory itself is going to explicitly interpret the non-declarative, it will have to somehow synthesize and record the evaluation of these two truth-conditional components. Since this synthesis can't generate a truth-value, the theory must involve some kind of interpretation that is not truth-conditional.

basic features so its prospects for improvement are discouraging. But even if they could be overcome, Davidson's theory would not be worth applying to natural language. His method of treating non-declaratives as an anomalous combination of two expressions prevents it from applying to the mood morphemes that occur in the scope of connectives, attitude verbs and subordinate clauses more generally (cf. §2.2). Further, the theory leaves force and mood entirely unanalyzed and thereby accomplishes nothing in explaining how mood constrains force. Davidson thought this was a great virtue since he held that virtually any speech act could be performed with a given sentence type. But more careful consideration of so-called indirect speech acts makes clear that not just any sentence is available for indirect uses and there are complicated layers of intonation and pragmatic reasoning involved.

3   Conclusion

I have argued against two prominent approaches to the semantics of mood: force-based approaches and truth-conditional reductionism. A third option is what might be called *content pluralism*: each mood has a characteristic kind of content associated with it. While I think this is true, it too faces difficulties. However, these difficulties and the development of an adequate semantics is taken up elsewhere (Murray & Starr 2012; Starr 2012).

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