

# Imposing Preferences on Discourse: Imperatives and Other Commands

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## 1 Introduction

In English, commands can be issued either with imperatives or with so-called performative declarative modals. Although both constructions can be used to achieve essentially the same effect, they do not behave the same within a discourse. In particular, they diverge with respect to the felicity of certain followup utterances. Imperatives never permit direct challenges of truth or falsity (1), whereas declarative modals do (2), in at least some contexts.

- (1) A: Take out the trash!  
B: #That's true! / #That's false! (after Iatridou 2008: ex. 43–44)
- (2) A: You must take out the trash!  
B: ✓That's true! / ✓That's false!

Several previous accounts of imperative semantics have failed to adequately explain this contrast. In §2, I briefly address these previous attempts and argue that only an approach that defines imperatives as imposing preferences can elegantly explain the distinction. I also introduce the concept that such preferences are encoded in imperatives as the *illocutionary relation* of the clause: a function that takes as its arguments the current discourse context and a proposition, and returns an updated, structured context (following Murray 2010).

In §3, I introduce challenge tests (based on Beaver et al. 2009; Roberts et al. 2009) that go beyond the simple responses given in (1) and (2). These tests are also indicative of *at-issue status*, a characteristic of a proposition in a given discourse context. §4 applies direct challenges to both imperatives and performative declarative modals, and §5 applies indirect challenges. The results of these tests show that the at-issue content of the two constructions is not equivalent, explaining their different discourse properties. Finally, in §6, I extend the concept of discourse relevance (Simons et al. 2011) to cover imperatives. Creating a unified definition of relevance has implications for further work on at-issue status and the behavior of clauses in discourse.

## 2 Imperatives as Preferences

There have been three major previous approaches to imperative semantics. Each has a different perspective on the relationship between imperatives and declara-

tives. Looking solely at the juxtaposition of (1) and (2), it is apparent that the two clause types have commonalities (they can both issue a command) yet also differ (they are not interchangeable within a discourse). Thus, a theory of imperative semantics that neither equates nor completely dissociates imperatives and declaratives should yield the best result.

One view of imperatives assimilates them to declaratives. For example, Schwager (2006) gives an account of imperative semantics which is fundamentally a modal declarative semantics, albeit with some additional stipulations. This approach overlooks certain basic characteristics of imperatives, such as the fact that they are never evaluable in terms of truth or falsity. Imperatives are not claims about the way the world is or will be; commands can be disobeyed.

(3) Jump up and down!  $\not\equiv$  *the addressee jumps up and down*

On the other end of the spectrum, an analysis of imperatives as properties completely dissociates them from declaratives, both semantically and pragmatically (Pak et al. 2006; Portner 2005; 2007; Zanuttini 2008). Under this view, declaratives contribute to the Common Ground, whereas imperatives only contribute to the To-Do Lists of individual interlocutors. In such a system, there would have to be a way to issue a command in each of two isolated pragmatic subsystems.

A third approach treats imperatives as preferences (e.g. Starr 2010). A semantic preference ranks propositions or sets of worlds. Representing imperatives with this type of semantic object predicts their similarities and differences with declaratives. Imperatives differ from declaratives because they are not themselves propositions, but they are still relatable to declaratives since their semantic type is composed out of propositions.

Implementing imperatives as preferences under a Common Ground (or Context Set) model of discourse (Stalnaker 1979) means that imperatives do not eliminate possible worlds. Nevertheless, imperatives do contribute information to the discourse; the context has new structure imposed upon it, even if overall it contains the same possible worlds. The structure imposed by the imperative is a preference: worlds that satisfy the content of the command are “better”.

Unlike in previous preference models, I argue that the imposition of a preference is performed by the illocutionary relation in imperatives. Establishing a preference is one possible reflex of the overall purpose of illocutionary relations: to impose structure on a context, given a proposition. Throughout the paper, I will refer to commanded actions as the (propositional) content of the imperative, denoted  $p$ . The imperative illocutionary relation applied to  $p$  will be denoted  $\text{Pref}(p)$ , and is indicative of the overall meaning of an imperative clause, without reference to the discourse context. As applied to the imperative in (3), this notation corresponds to the following:

- (4) Jump up and down!  
*p* = the addressee jumps up and down  
 Pref(*p*) = the preference that the addressee jumps up and down  
 $C_1 = \text{Pref}_{C_0}(p)$  = the discourse context, structured such that worlds in which the addressee jumps up and down are preferred

### 3 Introduction to Challenge Tests

Having established that there is a propositional component to imperatives, we can now turn to tests that diagnose characteristics of propositions. In particular, I will focus on two types of tests, *direct* and *indirect challenges* (Roberts et al. 2009; Beaver et al. 2009), which each target a different class of propositional content. I argue that all overtly expressed propositions can be classified as either *at-issue* or *not-at-issue*. At-issue content is the main point of an utterance, and furthers resolution of the discourse topic. Direct challengeability is a positive indicator of at-issueness. Not-at-issue content is additional content within an utterance, including but not limited to presuppositions, evidentials, and implicatures. Indirect challengeability is a hallmark of not-at-issue content. As we will see, not all content is challengeable; non-propositional content (such as illocutionary relations) resists challenges of either type.

#### 3.1 Direct challenges

Direct challenges are typically anaphoric to the previous utterance, and affirm or deny truth or falsity. Some of the simplest direct challenges are “yes”, “no”, “that’s true”, and “that’s false”. They can be continued by a repetition of affirmed content or an explanation for rejecting content.

- (5) A: John took out the trash.  
 B1: Yes. He did take out the trash.  
 B2: That’s false. He only took out the recycling.

Whatever content is anaphorically targeted by a direct challenge is “susceptible of direct affirmation or denial,” and therefore is at-issue (Beaver et al. 2009). In (5), we can conclude that the proposition *John took out the trash*, as asserted in the initial utterance, is at-issue. This is expected, since the utterance is monoclausal and only encodes a single proposition. In more complex constructions, the test distinguishes the at-issue proposition(s) from other content.

- (6) A: Jill, who lost something on the flight, likes to travel by train.  
*p* = Jill likes to travel by train, *q* = Jill lost something on the flight  
 (after Roberts et al. 2009: ex. 3)

B1: No, that's false. Jill hates traveling by train.  
*effect: p is rejected, q is accepted*

B2: No, that's false. #Jill didn't lose anything on the flight.  
*effect: q cannot be directly rejected*

*conclusion: p is an at-issue proposition in A, q is not*

The application of direct challenge tests to (6) shows that the proposition regarding Jill's travel preferences is at-issue, while the non-restrictive relative clause about the object she lost is not. If the proposition expressed by the relative clause is not true, the interlocutor is not without recourse, but must use a different strategy in order to issue a successful challenge.

### 3.2 Indirect challenges

Indirect challenges may be used on content that direct challenges fail to target, such as the relative clause in (6) above. If the indirect challenge succeeds, it indicates that the targeted proposition is not-at-issue. One of the best-known indirect challenges is the "Hey, wait a minute!" test, first proposed in Shanon (1976).

(7) A: Jill, who lost something on the flight, likes to travel by train.  
*p = Jill likes to travel by train, q = Jill lost something on the flight*

B1: Hey, wait a minute, Jill didn't lose anything on the flight.  
*effect: p is suspended, q is rejected*

B2: #Hey, wait a minute, Jill doesn't like to travel by train.  
*effect: p and q are neither accepted nor rejected*

The response B1 in (7) has the intended effect of rejecting the content of the relative clause, the proposition *q*. However, it makes no claim about the truth or falsity of *p*, the at-issue proposition in the A utterance. Evaluation of *p* becomes suspended, and must be taken up later in the discourse. This effect of suspension is what the phrase "Hey, wait a minute" achieves. Note also that trying to apply an indirect challenge to an at-issue proposition is infelicitous. The reason for this is that the suspension maneuver is superfluous, or is attempting to suspend discussion of a non-existent topic. Removing the phrase "Hey, wait a minute" from B2 leaves a direct challenge to *p*, which we saw was felicitous in (6).

## 4 Applying Direct Challenge Tests

Recall that imperatives cannot be directly challenged in terms of truth or falsity. The unsuccessful challenges given in (1) contain propositional anaphora, which contributes to their failure for one of two reasons: either there is no suitable antecedent for the propositional anaphor *that*, or there is an antecedent, but its truth or falsity cannot be determined on the basis of the prior discourse. Since imperatives encode preferences, which are composed out of propositions, there is propositional content within imperatives, and thus a potential antecedent. Enriching the challenges by spelling out this proposition does not improve them in any way;  $p$  cannot be said to be true or false immediately following an imperative.

- (8) A: Take out the trash!  
 $p = \text{the addressee takes out the trash}$

B1: #That's true! I (will) take out the trash.  
B2: #That's false! I won't / don't take out the trash.

There are also felicitous, yet seemingly direct, responses to imperatives. Such statements of compliance or refusal to carry out an imperative command can also be diagnosed by providing further followup.

- (9) B3: OK, I will (take out the trash)!  
B4: No, I won't (take out the trash)!

B3–B4 are felicitous because they avoid claiming whether  $p$  is true or false within the current context. The followups in (8) show that doing so is not possible, which is a sign that there are both  $p$ - and  $\neg p$ -worlds in the Context Set. The followups in (9) allow for this possibility, and only claim whether speaker B plans to make  $p$  true or false in a future context. These plain statements of compliance or refusal are just some of the simplest cases of a broader class of felicitous, qualitative comments about the proposition  $p$  (10).

- (10) B5: No, that's not what I'm going to do.  
B6: No, that's a bad idea.

Note that the claims regarding  $p$  in (9), not just their means of introduction, make these followups felicitous. Appending *OK* or *no* to anaphoric challenges does not improve them.

- (11) B7: #OK, that's true. / #OK, that's right.  
B8: #No, that's false. / #No, that's wrong.<sup>1</sup>

The effectiveness of these various direct challenge strategies leads to the following conclusions. Propositional anaphors in direct challenges cannot target  $\text{Pref}(p)$ ,

because it is not propositional; they must target  $p$ . However, it is indeterminate whether  $p$  is true or false. Thus the only statements that can be made about  $p$  are qualitative ones, or predictions about its truth or falsity in a future context.<sup>2</sup>

Now let us consider the felicitous direct challenges to performative declarative modal commands. What is the target of such challenges when they are successful? The A utterance in (12) appears to only encode a single proposition: *it is necessary that the addressee takes out the trash*. The more basic proposition, *the addressee takes out the trash*, cannot be targeted even if we make the unlikely assumption that the modal indicates logical necessity, rather than epistemic or deontic necessity. As with the imperatives above, we can confirm this by enriching the B responses with additional followup material.

- (12) A: You must take out the trash!  
 $p =$  *it is necessary that the addressee takes out the trash*  
 $q =$  *the addressee takes out the trash*

B1: That's true. I saw it on the chore chart.<sup>3</sup>

B2: That's false. I don't have to until next week.

B3: That's true. #I (will) take out the trash.

B4: That's false. #I won't / don't take out the trash.

The followups in B3–4 demonstrate that the challenge is unsuccessful if it attempts to target the non-modal proposition  $q$ . Also, note that the followup in B2 is felicitous because it remains modally subordinated to the A utterance. Rephrasing it as “I won't until next week” makes the response just as infelicitous as B4. These results converge upon the fact that direct challenges to performative declarative modals exclusively target a modal proposition.

All of the data above, in light of the fact that direct challengeability indicates at-issueness, give a solid picture of what propositions are at-issue in both imperatives and performative declarative modals. The infelicity of the direct challenges to imperatives in (8) demonstrates that it is impossible to challenge the overall contribution of the imperative,  $\text{Pref}(p)$ . The felicity of followups that target the proposition  $p$  is dependent upon whether they attempt to evaluate the truth or falsity of  $p$  based on the prior discourse; followups which do succeed indicate that  $p$  itself is at-issue in imperatives. Additionally, the modal proposition encoded in performative declarative modals is the only at-issue proposition in the clause, as it alone can be targeted by anaphoric direct challenges. §5 will examine whether indirect challenges yield converse results, and whether they can target  $\text{Pref}(p)$ .

## 5 Applying Indirect Challenge Tests

Recall from §3.2 that the success of an indirect challenge indicates that its target is not-at-issue. Applying the “Hey, wait a minute” indirect challenge test to an imperative appears to yield the exact opposite results as direct challenge tests.

(13) A: Take out the trash!  
 $p = \textit{the addressee takes out the trash}$

B1: #Hey, wait a minute, I won't take out the trash.  
B2: Hey, wait a minute, I don't have to take out the trash.  
B3: Hey, wait a minute, you don't want me to take out the trash.

However, on closer examination, B2–3 of (13) target neither  $p$  nor  $\text{Pref}(p)$ , but novel propositions related to  $p$ . The result of B1 in (13) is not spurious, but is as expected; an indirect challenge of  $p$  itself fails because  $p$  is an at-issue proposition.

Constructing indirect challenges to target  $\text{Pref}(p)$  is somewhat more difficult. The resulting followups are considerably more awkward, if not downright infelicitous. As indirect challenges, like direct challenges, are supposed to be diagnostic of a subclass of propositions, this result is unsurprising.

(14) Take out the trash!  
 $\text{Pref}(p) = \textit{the preference that the addressee takes out the trash}$

B1: #Hey, wait a minute, it is not preferred that I take out the trash.  
B2: #Hey, wait a minute, it's not best for me to take out the trash.  
B3: #Hey, wait a minute, you didn't impose a preference for me to take out the trash.

When applied to performative declarative modal commands, indirect challenges yield no new insights.

(15) A: You must take out the trash!  
 $p = \textit{it is necessary that the addressee takes out the trash}$

B1: #Hey, wait a minute, I won't take out the trash.  
B2: #Hey, wait a minute, it's not best for me to take out the trash.

Nevertheless, they do confirm the conclusion drawn from the direct challenge data, namely that there is a single, at-issue proposition encoded in the clause. With no not-at-issue content in the clause, indirect challenges uniformly fail against performative declarative modals.

Thus the primary difference between performative declarative modals and imperatives is that the modal proposition cannot be decomposed, at least from the

perspective of challenge tests. Although the overall contribution of an imperative is non-propositional, it has a propositional subcomponent that is at-issue, and can therefore be targeted by direct challenges. The preference expressed by an imperative is reliant on its illocutionary relation. In the following section, I will examine how the preferential illocutionary relation of imperatives is parallel to that of other clause types.

## 6 Illocutionary Relations and Relevance

Recall that illocutionary relations are two-place functions that take as their arguments the current discourse context and a proposition, and return an updated, structured context (Murray 2010). I have argued that the preference relation found in imperatives is a function of this type. As such, it is possible to compare it with the illocutionary relations of other clause types, and I will show that they form a natural class.

The role of an illocutionary relation is to relate propositional material to the context, and to enrich the context with further structure. The type of structure imposed can vary, and is related to clause type. Declaratives canonically make assertions by imposing an intersection relation. Following the utterance of an assertion, the new context is the intersection of the old context with the set of all  $p$ -worlds. Interrogatives canonically ask questions, which are represented semantically as a set of answers, or a set of sets of worlds. The partitioning of the context into two or more answers is the additional structure provided by the interrogative illocutionary relation. Imperatives canonically issue commands, which as we have already seen are represented by the preference relation. The structure imposed by a preference can be viewed as lying somewhere between that of a question and an assertion. It partitions the common ground into two sets and ranks one set above the other without eliminating any elements of the old context.

These properties of clauses play a significant role in the definition of *discourse relevance* given in Simons et al. (2011), even though their account makes no direct appeal to the concept of illocutionary relation. An utterance is considered to be relevant if it makes a fruitful contribution towards the current discourse topic. Simons et al. (2011) defines the discourse topic formally as the Question Under Discussion, and defines relevance with respect to it.

- (16) A clause or utterance is said to be relevant if it furthers the resolution of the Question Under Discussion (QUD), “a semantic question (i.e. a set of alternative propositions) which corresponds to the current discourse topic.” (Simons et al. 2011:7).

They continue by unpacking and formalizing what counts as furthering the resolution of the QUD for assertions and questions. In both cases, what must be evaluated



against the QUD to determine relevance is a potential answer, i.e. a proposition.

- (17) *Relevance for assertions and questions* (after Simons et al. 2011: ex. 13)
- a. An assertion is relevant to a QUD iff it contextually entails a partial or complete answer to the QUD.
  - b. A question is relevant to a QUD iff it has an answer which contextually entails a partial or complete answer to the QUD.

They do not provide a definition of relevance for commands. Earlier work by Roberts (2004) gives a preliminary definition of imperative relevance, but its formulation is much less robust than those in (17), and is not suited to performing a semantic computation of relevance.

- (18) *Preliminary definition of imperative relevance* (Roberts 2004)  
“A move *m* is Relevant...if *m* is...an imperative whose realization would plausibly help to answer *q*.”

A stronger definition is desirable, and possible given what the challenge test results have revealed about the nature of Pref() in imperatives. I have formulated a definition of imperative relevance (19) that incorporates the concept of preference and is parallel in form to the definitions for other clause types given in (17).

- (19) *Extension to commands*  
A command is relevant to a QUD iff it prefers an outcome which contextually entails a partial or complete answer to the QUD.

This extension places imperatives within a unified paradigm of tests for relevance. In fact, we now have three definitions of relevance that in some way appeal to the illocutionary relation of the clause type that canonically performs that discourse function. Since illocutionary relations are all of the same semantic type, it is possible to formulate a new, general definition of relevance for all clause types.

- (20) *Generalized definition of relevance*  
An utterance is relevant to a QUD if the propositional argument of its illocutionary relation (contextually) entails a partial or complete answer to the QUD.

In addition to providing clause-specific definitions for relevance, Simons et al. (2011) also defines at-issueness in terms of relevance (21).

- (21) *Definition of at-issueness in terms of relevance*  
A proposition *p* is at-issue relative to a question Q iff ?*p* is relevant to Q.

However, the form of this definition makes use of only one of the three sub-cases of the paradigm of relevance tests, namely that of questions (and actually only that

of yes/no questions). This extra step moves the test for at-issueness further away from the actual utterances that comprise the discourse, since in the majority of cases, the yes/no question  $?p$  is not an utterance under consideration.

However, by exploiting the generalized definition of relevance, it is possible to recast the definition of at-issueness in a way that directly tests material from the discourse. I propose the following definition to do just that:

(22) *Generalized definition of at-issueness*

A proposition  $p$  is at-issue if it is the propositional argument of the illocutionary relation of a relevant utterance.

In more informal terms, a proposition is at-issue if it makes an utterance relevant.

The generalized definition of at-issueness matches the results of the challenge diagnostics for at-issue status. For imperatives, their propositional content is always an at-issue proposition. The overall contribution of the imperative,  $\text{Pref}(p)$ , is non-propositional and has no at-issue status. For performative declarative modals, they assert a modal proposition. Since that proposition, and that proposition alone, is the argument of the illocutionary relation of assertion, it is the only at-issue content in the declarative modal. As in imperatives, it is impossible to challenge the illocutionary relation in declaratives because it is of the wrong semantic type. Only propositional content which contributes to the discourse via an illocutionary relation is at-issue, and only at-issue content is directly challengeable.

## 7 Conclusions

I have examined the properties of two types of commands in English: imperatives and performative declarative modals. Their different behaviors within discourse initially posed a puzzle, as they seem to achieve roughly the same effect. However, by subjecting them to a series of challenge tests, I have shown that they have systematic semantic differences that predict their divergent behavior.

First, I explained why imperatives are not truth-evaluable. They do not structure the context in a way such that only  $p$  or  $\neg p$ -worlds remain. Their overall contribution is non-propositional, and they make no claim regarding the truth or falsity of  $p$ . This distribution of meaning in imperatives is the reason why direct challenges against imperatives fail.

I also applied indirect challenge tests to imperatives. Although they appeared to give the converse results to direct challenges, they were not actually targeting the same material. When these challenges were reformulated to target either the propositional or preferential content of imperatives, they failed. Since an imperative preference cannot be challenged in any way, it is neither at-issue nor not-at-issue. This is to be expected, since it is an illocutionary relation, which is non-propositional, and at-issue status is a characteristic of propositions.

In general, the challenge tests presented above have divided content into three classes: that which is directly challengeable, that which is indirectly challengeable, and that which cannot be challenged. As summarized in the table in (23), directly challengeable content is at-issue, indirectly challengeable content is not-at-issue, and unchallengeable content is neither.

(23)

	at-issue	not-at-issue	no at-issue status
direct challenge	✓	✗	✗
indirect challenge	✗	✓	✗

Finally, I compared imperatives to other clause types in terms of their illocutionary relations. By identifying Pref() as the illocutionary relation of imperatives, it was possible to align imperatives with declaratives and interrogatives in a paradigm of discourse relevance. Furthermore, this made it possible to generalize across illocutionary relations and create new, unified definitions of both relevance and at-issueness. The new definition of at-issueness matches exactly with the empirical data from the challenge tests presented.

Thus, by decomposing the content of imperatives, it is possible to see how they are similar to performative declarative modal commands, yet crucially different. The apparent puzzle of imperatives in discourse is not paradoxical. It is simply due to the fact that imperatives divide their semantic contribution between illocutionary and propositional content. The fact that illocutionary relations of all clause types are unchallengeable allows us to see that imperatives are not anomalous when compared to declaratives and interrogatives, but merely another member of a natural class.

## Notes

<sup>1</sup>The second challenge in B8 is lexically ambiguous, and could be interpreted as being a felicitous comment about *p* if *wrong* is taken to mean ‘morally wrong’ rather than ‘false’. Also note that the inclusion of *true* or *false* in these examples enforces a propositional anaphora reading. VP anaphora is possible, and indeed felicitous:

- (i) B1': OK, I will do that!  
B2': No, I won't do that!

<sup>2</sup>There is no general prohibition about asserting *p* or  $\neg p$  immediately after an imperative (or at any stage of a discourse), but the inclusion of *yes*, *OK*, or *no* has an anaphoric effect similar to *that*, and thereby presupposes a prior assertion of *p*. This subtle difference in phrasing has quite robust effects on felicity.

- (ii) A: Do your homework!  
B1: ✓I am doing my homework.  
B2: #Yes, I am doing my homework.

<sup>3</sup>It should be noted that Schwager (2006) contends that the challenges in (12) are not felicitous if

the modal sentence is being used performatively, i.e. as a command rather than assertion of existing obligation. There is no question that, “Stating a norm is not the same as creating a norm,” (Platzack 2007), but it also seems clear that performative declarative modals can do either, while imperatives can only do the latter. Resolving this ambiguity in performative declarative modals is an extremely subtle judgment; it is not apparent that the two uses can be differentiated by prosody, and Schwager provides no other tests for performativity.

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