Imperative Responses to Questions Under Discussion

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1 Introduction

Imperative constructions are the canonical means for expressing commands throughout natural language (Portner 2004a). In this work, I propose a new definition of when commands are relevant in discourse, and explore how imperative expressions of commands behave as responses to Questions Under Discussion (QUDs). Compared to assertions and questions, commands are restricted with respect to when they can provide an answer to a QUD and thus be relevant. Several of these restrictions will follow directly from the definition of relevance to be proposed, some will fall to independent factors, and others still will require further investigation.

Much recent work on the semantics of imperatives (e.g. Portner 2004a; 2007; Kaufmann 2011) seeks an explanation of when imperatives can be felicitously uttered. The sorts of restrictions that have been proposed include restrictions on the addressee (Portner 2004a), restrictions imposed by the speaker's knowledge (Portner 2007:364), and a variety of "presuppositional" constraints including the timeframe of the commanded action and the speaker's authority (Kaufmann 2011).

On the other hand, work on the structure and mechanisms of discourse (e.g. Roberts 2004; Roberts et al. 2009; Simons et al. 2011) has formalized relevance—a key criterion for felicity—in terms of an utterance's relationship to the current Question Under Discussion. Simons et al. (2011) defines relevance for assertions and questions in terms of complete or partial answers to the QUD (1). A complete answer eliminates all but one alternative; a partial answer eliminates at least one alternative (2011:7).

(1)   *Relevance for assertions and questions*

   a.   An assertion is relevant if it contextually entails a partial or complete answer to the QUD.

   b.   A question is relevant if it has an answer which contextually entails a partial or complete answer to the QUD.

   (after Simons et al. 2011: ex. 13)

However, Simons et al. (2011) does not address the issue of what makes a command relevant. Roberts (2004) does provide a preliminary definition of imperative relevance, but it is not as precise as those in (1).

(2)   *Preliminary definition of imperative relevance*

A move m is Relevant … if m is … an imperative whose realization would plausibly help to answer [the QUD].   (Roberts 2004:216)

The issue this paper addresses is what form a more robust definition of imperative relevance must take and what benefits it provides to the overall theory of relevance. The basis for this exploration is the concept that the conventional contribution of an imperative is to impose a preference (e.g., Condoravdi and Lauer to appear; Starr 2010). In Cormany (to appear), I extended Simons et al.'s (2011) paradigm of relevance (1) with a corresponding definition for commands (3).

(3)   A command is relevant if what it prefers contextually entails a partial or complete answer to the QUD.

Formulating the definition in this way does have several advantages. It allows for the relevance of commands to be determined directly and in the same manner as other utterance types—by comparing a component of the utterance to the potential answers of the QUD. One implication of the three definitions of relevance in (1) and (3), taken as a paradigm, is that all utterance types have a propositional component, which serves as the partial or complete answer to the QUD. Following precedent from the literature on speech acts (e.g., Searle 1969; 1975; Searle and Vanderveken 1985), I maintain that any utterance can be broken into illocutionary and propositional components. I formalize the *illocutionary relation* of a clause similarly to Murray (2010), defining it as a function that takes the discourse context and a proposition, and returns an updated, structured context. The illocutionary relation of declaratives performs set intersection (assertion); that of interrogatives imposes a partition or cover on the context (question). I propose that the illocutionary relation of imperatives imposes a preference (command).

The remainder of this paper examines the predictions made by the definition of imperative relevance in terms of preference and the QUD (3). In §2, I provide some scenarios in which imperatives are natural responses to QUDs, and discuss how their propositional contents match the criteria for relevance. In §3 I break QUDs into several subclasses and apply generalized relevance as a diagnostic tool for felicity of responses. Several types of question/response pairs require additional conditions for felicity, but relevance

applies uniformly. Finally, in §4 I examine the complex interactions between imperatives and modal QUDs, leaving many aspects of this relationship open to future work.

2 Responding to and with imperatives

2.1 Illocutionary and propositional components of imperatives

It has long been observed that certain utterances are infelicitous when immediately following an imperative (Iatridou 2008). For one, they are not truth-evaluable, and resist direct challenges in terms of truth or falsity (Cormany to appear).

(4)   A: Take 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.

The failure of propositional anaphora in these cases has led some to argue that imperatives are non-propositional. Cormany (to appear) argues that all clause types do in fact have a propositional component. Furthermore, all clauses must have an illocutionary component to be well-formed. This follows from the general claim in speech act theory, "Propositional acts cannot occur alone; that is, one cannot just refer and predicate without making an assertion or asking a question or performing some other illocutionary act." (Searle 1969:25).

Illocutionary relations lie at the syntax/semantics interface, and are necessary for a clause to be complete both in form and meaning. Any approach which seeks to explain imperatives (or any other clause type) by paraphrasing them in terms of another clause type, adds or substitutes an illocutionary component when one is already present. The *You will*, *You should*, and *I order you to* reductions discussed in Hamblin (1987), and their formal equivalent in Kaufmann (2011) are transformations of this type. Furthermore, in the process of paraphrasing, they modify the propositional content of the sentence, so the paraphrases will not be suitable stand-ins when assessing relevance.

It is not enough to simply segregate the meaning of an imperative utterance into two categories labeled "propositional" and "illocutionary"; when combined the two must have the effect of an imperative, which is canonically a command. However, as Kaufmann (2011) and many others have pointed out, not all imperatives issue commands. It is for this reason that I represent the illocutionary relation of imperatives as establishing a preference. Imposing a preference relation has the effect of taking the common ground of the current discourse and ranking some of its worlds higher than others without eliminating any. For example, the imperative *Take out the trash!* ranks all world in which its addressee takes out the trash above those where he does not, but in no way precludes the possibility that he does not. The preferential illocutionary relation serves as a function that connects the propositional semantics and the formal semantics of discourse. This connecting behavior is a consequence the types of arguments taken by illocutionary relations; they are used in a context and scope over a propositional constituent.

2.2   Examples of imperative responses

Imperatives are natural responses to certain questions. When diagnosing relevance, it is important to bear in mind that imperatives have a significantly different relationship with the surrounding discourse material than declaratives do. Adopting the preferential approach for imperative relevance allows for a straightforward explanation of these cases.

Although QUDs may be introduced in a variety of ways, I will focus on cases where they are directly introduced by the utterance of an interrogative clause. Even when limited in these cases, there is a wide variety of QUDs that can be introduced, and many of them have felicitous imperative responses that are accounted for by relevance. Take, for example, the following dialogue:

(5)   A: Are you going out for lunch today?

         B: Yes, but I don't know where to go.

         A: Go to the taco place! They have a special today.

In this brief exchange, two QUDs are raised, and both are answered—one with a declarative and one with an imperative. The first QUD is a polar question and has the answers {*A is going out for lunch today, A is not going out for lunch today*}. B then answers this question in the affirmative with the elliptical response "Yes."

The remainder of B's utterance introduces a Wh-question as the new QUD, which has several answers of the sort {*B goes to the cafeteria for lunch, B goes to the hot dog stand for lunch, B goes to the taco place for lunch, …*}. This question is answered by A's imperative, which prefers the answer *B goes to the taco place (for lunch)*. A also explains his reasoning for introducing this new preference.

However, there are many questions that imperatives cannot directly respond to. By their very nature, imperatives prefer propositions that the addressee can make true. A question about a third party only has answers pertaining to that third party, and thus an imperative response is ruled out.

(6)   A: Where's Bob? I need to talk to him about our project.

The answers to this question are of the form {*Bob is at his desk, Bob is in the lounge, Bob is at the coffee shop,* …}. No imperative can prefer any of these options.[1] However, either a question or an assertion can make a relevant contribution. For example, the question *Is he at his desk?* has the answers {*Bob is at his desk, Bob is not at his desk*}. The former is a complete answer to the QUD, while the latter is a partial answer to the QUD. Having a single answer that is also an answer to the QUD suffices to make the question is relevant; it is a felicitous response. Likewise, asserting either of those propositions outright is also a relevant contribution.[2]

A fruitful strategy for responding to the QUD in (6) with a modal declarative. The type of modality expressed by such a response can even vary, and can be clarified with additional explanation.

(7)   A: Where's Bob? I need to talk to him about our project.

        B1: He should be at his desk. The boss says he has to be there from 9 to 5.

        B2: He should be at his desk. He sets his own schedule, but I know he's almost always there at this

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[1] This is certainly the case if Bob is not a participant in the discourse; imperatives are always addressee-directed. Additionally, given the nature of this QUD, if Bob were present, the QUD itself would be a very odd thing to ask. Even if A asked his question out of an extreme lack of perception—Bob is right there in front of him!—an imperative of the sort *Bob, be right here!* would also be infelicitous because it commands something that is already true in the current context.

[2] An alternative way to respond to this question with an imperative is to not provide an answer, but to suggest an alternate strategy for finding the answer. For example, B could respond *Ask Mary!* The implication of this response is that Mary knows where Bob is. (A declarative utterance, such as *I don't know, but Mary does,* can have the same effect.) This sort of response involves manipulation of the QUD stack that falls outside the purview of relevance, so I will not address it further here.

time of day.

The connections between imperatives and declarative modals have not gone unnoticed in the literature. Portner (to appear) claims that the norms introduced by imperatives can later be used by modals as (a portion of) their ordering source, while Kaufmann (2011) goes as far as equating imperatives and modals entirely. I do not draw such a strong tie between imperatives and modals since, as I show in the next section, treating imperatives as preferences is crucial to a definition of relevance that applies equally to all clause types. As I examine various types of QUDs in §3, I will be primarily concerned with the relevance or irrelevance of imperatives; §4 will return to the relationship between imperatives and modality, and the variable behavior of imperative responses to modal questions.

3   Answering different types of QUDs

The definition of relevance covers cases when imperatives are relevant. However, there are many cases in which an imperative cannot provide a relevant response to a QUD, beyond the non-addressee-oriented questions discussed in §2.2. The propositional content of a given QUD, as well as other factors including information structural requirements, affects whether an imperative can felicitously respond to it. In this section, I break questions into syntactic classes to examine how the QUDs that they introduce interact with imperative responses.

3.1   Polar questions

The simplest QUD is a polar question. Since polar questions only have two potential answers, a relevant response can only give a complete answer to the question, never a partial one.[3] In the appropriate context,

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[3]I am abstracting away from responses that indicate the possibility or likelihood of a potential answer to the QUD. These do not constitute partial answers, since a partial answer must eliminate one or more potential answers. Simons et al. (2011) acknowledges that this is an outstanding issue for the current theory of relevance, which "is overly restrictive and should be weakened at least to allow for discourse moves which merely raise or lower the probability of some answer to the QUD being correct" (2011:8, fn. 3). Presumably whatever the necessary modifications to the theory of relevance are, they apply equally to imperatives.

an imperative can felicitously respond to a polar question, in either the affirmative or negative.

(8)   *Context: A is planning her activities for the day.*

    A: Am I going to the store?

    B1: Go to the store! We're out of eggs.

    B2: Don't go to the store! We have everything we need.

The QUD in (8) has the potential answers {*A goes to the store, A does not go to the store*}. Response B1 prefers the former proposition, and response B2 prefers the latter. Both prefer complete answers to the QUD, and both are relevant.

However, many polar questions have no felicitous imperative responses, even if their potential answers are addressee-oriented and non-past.

(9)   A: Will I win the race?

    B1: You'll win the race. (Everyone else is slower than you.)

    B2: #Win the race! (Everyone else is slower than you.)

The QUD in (8) has the potential answers {*A will win the race, A will not win the race*}. The imperative response in B2 prefers the proposition *A wins the race,* which is not among the potential answers. It is not possible to construct an imperative that prefers either potential answer due to the fact that future tense is marked with a modal construction in English, and imperativizing a modal verb is not possible; **Will win the race!* is ungrammatical. However, other modals such as *should* and *must* can be used in questions that have imperative responses; I address these cases separately in §4.

3.2   Object Wh-questions

Wh-questions are more open-ended than polar questions, and may have an unbounded number of potential answers. This allows imperatives to supply either a complete or partial answer to a question. As shown in §2.2, imperatives can straightforwardly answer object Wh-questions. The example given in (5), repeated in (10) below, provides a complete answer to the QUD.

(10) A: I don't know where to go for lunch.

B: Go to the taco place! They have a special today.

In (10), the QUD is introduced by the subordinate clause "where to go for lunch," and has the potential answers {*A goes to the cafeteria for lunch, A goes to the hot dog stand for lunch, a goes to the taco place for lunch,* …}. B's response "Go to the taco place!" prefers *A goes to the taco place for lunch*. Since it prefers one and only one of the potential answers, it is a complete answer to the QUD, and is therefore relevant. It is also possible to have a relevant imperative response that provides a partial answer. The simplest way to do so is with a disjunctive command.

(11) A: I don't know where to go for lunch.

B: Go to the taco place or the hot dog stand! They're both close and cheap.

The response in (11) directly prefers two potential answers over the others, and does not establish any further preference among these two options.[4]

A less direct method of providing a partial answer is with a negative imperative.

(12) A: I don't know where to go for lunch.

B: Don't go to the taco place! I got food poisoning last time I ate there.

B's response in (11) prefers *A does not go to the taco place for lunch*, and has the effect of removing the proposition *A goes to the taco place for lunch* from the pool of potential answers while leaving all other options; hence it provides a partial answer.[5]

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[4]The disjunctive proposition *A goes to the taco place or A goes to the hot dog stand* could be a potential answer to the QUD, although it was deliberately not listed in the representation above, which only included atomic propositional answers. If disjunctive potential answers were included in the QUD, partial answers of the sort given in (11) would be reduced to complete answers. Since it does not affect the determination of relevance (which only requires either a partial or complete answer) and makes a list-based representation of QUDs simpler, I will continue to omit disjunctive answers.

[5]Note that in the denotation of the QUD given above, *A does not go to the taco place for lunch* is not among the listed potential answers. This is desirable, since if it were, then B's prohibition in (11) would prefer a complete answer, even though the issue raised by A is not fully resolved.

3.3 Subject Wh-questions

The examples in the previous subsection showed that imperatives can easily provide several types of answers, both complete and partial, to object Wh-question QUDs. However, subject Wh-questions resist imperative responses.

(13)   *Context: Several housemates have met to discuss chores. B is in charge of assigning responsibilities.*

A: Who takes out the trash (this week)?

B: #Take out the trash!

The QUD introduced by "Who takes out the trash?" has the potential answers {*A takes out the trash, B takes out the trash, C takes out the trash, …*}. B's response, addressing A, prefers *A takes out the trash*, which is one of the potential answers to the QUD. Thus B's imperative utterance in (13) is relevant, but is still infelicitous. I argue that this is not due to a shortcoming in the definition of relevance, but can be attributed to the fact that imperatives can (and frequently do) have null subjects, and the attendant information structural consequences.

Information structure plays an important role in determining the potential answers of a given question. Marking a certain constituent in a question with prosodic focus indicates that it is what varies among the potential answers.

(14)   Who did Mary see?

(As opposed to who she didn't see.)

(15)   Who did Mary SEE?

(As opposed to who she emailed, talked to on the phone, etc.)

(16)   Who did MARY see?

(As opposed to who John saw, who Bill saw, etc.)

Any response must foreground the same element as the question it seeks to address. For example, "MARY saw Bill" is an acceptable response to (16), but not (14) or (15), at least in most contexts.[6] This type of focal compatibility is known as *congruence to the QUD* (Roberts 1996), and can be formalized as follows.

(17)   Move β is congruent to a question ?α iff its focal alternatives $||\beta||$ are the Q- alternatives determined by ?α, i.e. iff $||\beta|| = Q\text{-alt}(\alpha)$.   (Roberts 1996:24, ex. 25)

In what sense, then, was the imperative response in (13) incongruent to the QUD? The QUD is a subject Wh-question, and bears no additional focus, so the focal alternatives of the question center around the subject nominal. However, the imperative response had a null subject. As discussed heavily in the literature on *pro*-drop [CITE?], null elements represent backgrounded information. Since the subject is backgrounded in this manner, there is a focal clash with the QUD, causing infelicity.

There is a strategy available for foregrounding imperative subjects: the inclusion of a vocative. Portner (2004b) likens the information structural status of vocatives to sentence topics, which are a type of foregrounded information. However, adding a vocative to the response in (13) does not make it fully felicitous.[7]

(18)   A: Who takes out the trash (this week)?

        B1: #?You, take out the trash!

        B2: ?John, take out the trash!   (John ≠ the addressee)

This is not a shortcoming of congruence to the QUD. In the next subsection, which deals with imperative responses to multiple Wh-questions, I will show that a vocative's failure to "rescue" an imperative response

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[6]Shifting focus within a response can be a deliberate conversational maneuver, e.g. to introduce a conversational implicature. Since I am largely concerned with relevance, which depends on contextual entailment, I will not address issues of implicature further.

[7]The judgments expressed in (18) are intended to represent the acceptability of the imperatives when they are used to establish a new norm. If the matter of who has the duty to take out the trash had been decided prior to A's question, neither imperative response would be felicitous. This is due to the general restriction that imperatives cannot be used to describe previously established norms; see Cormany (to appear) for further discussion.

to a subject Wh-question is in fact a desirable and direct consequence of congruence.

3.4 Multiple Wh-questions

Multiple Wh-questions resist bare imperative responses in a manner similar to subject Wh-questions.

(19)   John: So, Bob, you're in charge. Who has what job?

       Bob (to John): #?Take out the trash![8]

In English, multiple Wh-questions require pair-list answers, so the potential responses to the QUD in (19) are of the form {*John takes out the trash, John does the dishes, Bob takes out the trash, Bob does the dishes, …*}. Bob's response prefers one of these propositions, *John takes out the trash*, yet remains infelicitous. However, unlike in the subject Wh-question case in (13) and (18), adding a vocative significantly improves responses to multiple Wh-questions, even when only providing a partial answer.

(20)   John: So, Bob, you're in charge. Who has what job?

       Bob: John, take out the trash! Mary, sweep the floor! I'll do the dishes.

(21)   John: So, Bob, you're in charge. Who has what job?

       Bob: John, take out the trash! I haven't decided what the rest of us should do.

This is due to the fact that multiple Wh-questions not only require a different type of response in terms of content, but also in terms of information structure. In a pair-list answer, both elements of the pair must be foregrounded. The imperative responses with vocatives successfully foreground both elements (subject and VP), and are both relevant and felicitous. The fact that such responses foreground two elements also accounts for why they are not suited to addressing subject Wh-questions, which seek responses with only a single focus.

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[8]Thanks to an anonymous TLS 13 abstract reviewer for raising this issue and providing a similar example.

3.5 Adjunct Wh-questions

The final class of QUDs to be examined is adjunct Wh-questions. Although adjunct Wh-questions may have many syntactic differences when compared to argument Wh-questions in a given language, they introduce similar sets of potential answers and have similar congruence conditions. However, some adjunct Wh-questions appear to accept declarative responses asserting a propositional answer, but disallow imperative responses preferring the same answer.

(22)   A: Why does everyone assume that I smell bad?

      B1: (It's because) you take out the trash.

      B2: #Take out the trash![9]

Adjunct Wh-questions formed with *why* in English are deceptive in this regard. Since *why* takes the place of a clausal adjunct, it is tempting to say that the answers to the questions in (22) are of the form {*A takes out the trash, someone started a rumor that A smells bad, …*}. However, this is not the case, as questions with non-clausal adjuncts show. The potential answers to the question *When did Bob eat dinner?* are not {*6:00, 7:00, as soon as he got home, …*}—clearly not, since these are not propositions. Rather, they are of the form {*Bob ate dinner at 6:00, Bob ate dinner at 7:00, Bob ate dinner as soon as he got home, …*}.

By the same token, the answers to the QUD introduced in (22) are properly represented as {*everyone assumes A smells bad because A takes out the trash, everyone assumes A smells bad because someone started a rumor that A smells bad, …*}. Despite the potential for ellipsis indicated in B1, a relevant response must contain propositional content that is a full answer to the QUD, at least underlyingly. The supporting material necessary to meet this requirement cannot be overtly represented in an imperative response, as shown by the ungrammaticality of **It's because take out the trash!*.[10]

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[9]Thanks to an anonymous TLS 13 abstract reviewer for providing this example.

[10]Trying to move the imperative marking to the matrix clause of the expanded response has an equally nonsensical result: **Be because you take out the trash!* This imperative sentence is ungrammatical because it is not addressee-oriented.

4 Open issue: Modal QUDs

The previous section discussed the ability of imperatives to provide felicitous and relevant responses to certain syntactic classes of questions. Now I turn to a major semantic area not discussed in detail above, which cuts across the various syntactic classes: modal questions. The type of modality expressed in a question also has profound effects on the felicity of imperative responses. In general, imperatives are most compatible with bouletic modals (those which pertain to wishes or desires). Certain modals in English, including *should* and *must*, are ambiguous between multiple types of modality, including bouletic and teleological (pertaining to goals and the steps taken to achieve them).[11] These semantic distinctions may be linked to relevance via contextual entailment. I will point out one way in which this could be accomplished, but will leave to future work the development of the modal logic that would formally connect the two.

First, it should be established that the acceptability of imperative responses to modal questions can diverge from that of responses to non-modal questions. In (23), imperative responses to a modal polar question are infelicitous or marginal at best, in contrast to felicitous responses to a non-modal question (see (8) above). The imperative responses in (23) also fare far worse than declarative responses.

(23)   A: Do I have to take out the trash?

        B1: You do (have to take out the trash).

        B2: #?Take out the trash! / #?Do it![12]

        B3: You don't (have to take out the trash).

        B4: #Don't take out the trash! / #Don't do it!

One possible analysis of the infelicitous B2 and B4 responses in (23) is that they do not prefer potential answers to the QUD. The QUD introduced by "Do I have to take out the trash?" has the potential answers {*A has to take out the trash, A does not have to take out the trash*}. B2 prefers *A takes out the trash*, which is

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[11]For further introduction to these and other types of modality, with examples, see chapter 2 of Portner (2009) and von Fintel and Gillies (2007).

[12]B2 is significantly improved when prefixed by *yes*. This is due to the fact that *yes* is elliptical and stands in for a declarative response. Being a complete answer, it discharges the QUD. The imperative utterance then becomes supplemental information, which does not have a direct relationship to the QUD and is therefore not ruled out on grounds of relevance.

not among the potential answers, nor is it incompatible with either answer. Recall that it is syntactically impossible to construct an imperative that prefers a modal proposition (see §3.1).

However, there are many cases in which imperatives can be felicitous responses to modal questions, such as the modal Wh-question in (24) below.

(24)   A: Who should I see at the conference?

      B1: See Mary! She always gives fantastic talks.

      B2: Don't see Mike! He does good research, but he mumbles.

If the logic used to rule out the imperative responses in (23) were applied to these cases, it would falsely predict that the responses should be infelicitous. The imperative in B1 prefers a non-modal proposition, *A sees Mary at the conference*, but it is felicitous, despite the fact that the QUD has no non-modal potential answers.

It is at this point that an appeal must be made to different types of modality. The responses in (24) are compatible with a bouletic interpretation of *should* in A's question. The responses pertain to B's wishes, desires, or opinions as to what course of action A should take. It is difficult to interpret *should* as expressing a different type of modality in this circumstance.

On the other hand, if A asks a similar question using *must*, multiple interpretations are available.

(25)   A: Who must I see at the conference?

      Interpretation: Following your wishes/desires/opinions, who will I necessarily see?

      B1: You must see Mary. She always gives fantastic talks.

      B2: See Mary! She always gives fantastic talks.

(26)   A: Who must I see at the conference?

      Interpretation: By virtue of my presence at the conference, who will I necessarily see?

      B3: You must see Jane. I know you don't like her, but she's running the registration desk.

      B4: #See Jane! I know you don't like her, but she's running the registration desk.

Must is ambiguous between bouletic and teleological interpretations. The acceptability of the imperative

response depends upon which interpretation is chosen. The followup material in B's responses represent propositions in the ordering source of the modal, and are indicative of the type of modality expressed. Similarly, in the appropriate context, *should* can also have a teleological interpretation. Imperative responses to teleological *should* are just as bad as those to teleological *must*.

(27)   *Context: Mary is sick and consulting a doctor, who has just prescribed some medicine for her.*

Mary: So I have to take these pills for two weeks, right?

Doctor: Yes, that's right.

Mary: Should I start feeling better before the two weeks are up?

Doctor: Yes, you should start feeling better in about three days.

(28)   Mary: Should I start feeling better before the two weeks are up?

Doctor: #Yes, start feeling better in about three days!

The definition of relevance makes no reference to modality, let alone different types of modality, so how can it be used to explain these differences? One solution would be to employ the concept of contextual entailment already present in the definition of command relevance.

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

= (3), emphasis added

The felicity of imperative responses to bouletic modal questions would then depend on a contextual entailment link between the preferred, non-modal preposition and a modal potential answer to the QUD. For example, the imperative *See Mary!* only prefers the proposition *[the addressee] sees Mary*, but may contextually introduce other propositions, such as *[the speaker] wants [the addressee] to see Mary*. The propositional expression of this desire can then entail the bouletic modal proposition *[the addressee] should see Mary, according to [the speaker's] wishes*.

Collectively, the data presented in this section indicates a link between the type of modality represented in a QUD and the relevance of imperative responses. The open question is how to establish an

entailment relationship between non-modal propositions preferred by the imperative and modal potential answers. Doing so would allow for the definition of relevance for commands to go unchanged. I hope that cross-linguistic data will shed additional light on this question. For instance, a language with modals that unambiguously indicate a single type of modality could provide even clearer evidence that bouletic and teleological modals behave differently with respect to imperatives.

5   Conclusion

Imperatives, like all clauses, have an illocutionary and a propositional component. This division allows them to have direct relationships with Questions Under Discussion. The propositional component determines their relevance to a given QUD; specifically, the imperative must prefer a partial or complete answer to the QUD. The illocutionary component restricts what propositions can be preferred, limiting them to addressee-oriented and irrealis propositions.

The structure of the QUD is equally important in determining relevance. Information structure plays a major role, determining the criteria for congruence: all and only the constituents targeted by the QUD must be foregrounded. In imperatives, the commanded action is always foregrounded, and vocatives can be used to foreground imperative subjects.

Finally, modal questions affect the relevance of commands. Imperatives are generally only compatible with bouletic modals. I leave to future work the exact link between the non-modal propositions preferred by imperatives and modal potential answers. Fortunately, the framework of generalized relevance applies to all clauses while still allowing room for these and other refinements to the interactions between QUDs and their responses.

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