

Impotent Speech Acts & Awareness

Phil Crone

Stanford University

Department of Linguistics

pcrone@stanford.edu

Abstract

Different types speech acts are associated with different types of effects on the discourse, e.g. assertions are associated with the addition of information to the common ground. I show that across three main clause types – declaratives, interrogatives, and imperatives – we find speech acts that do not have the expected effects on the discourse. At first glance, these speech acts appear to serve no conversational purpose at all. I argue that these “impotent” speech acts can be understood in terms of their ability to raise awareness or draw attention to issues. Although the ability to raise awareness is not a property unique to impotent speech acts, I argue that these speech acts are particularly well-suited for this purpose due to addressees’ pragmatic reasoning regarding the speaker’s beliefs about the addressee.

1 Introduction

Natural language clause types are typically associated with particular speech acts, which are, in turn, associated with particular effects upon the discourse context. To illustrate, consider (1).

- (1) Trump is the Republican nominee.

The sentence in (1) is a declarative clause, and a speaker who utters (1) with falling intonation performs the speech act of an assertion. If (1) is asserted in a particular discourse and is not challenged by any discourse participants, its effect is that of adding the proposition that Trump is the Republican nominee to the common ground.

Although particular clause types are typically associated with particular speech acts, there is no one-to-one mapping between the two. This is perhaps most obvious in the case of imperative

clauses, which can be used to perform commands, warnings, requests, well-wishes, invitations, etc. (Kaufmann, 2012). Despite the failure of clause types to associate with unique speech acts, I focus here on the more pedestrian cases in which clauses are used to perform the traditional speech acts associated with them. That is, I focus on declarative clauses that are used to assert, interrogative clauses that are used to ask questions, and imperatives that are used directive. I show that in each case, we find uses that are “impotent” in the sense that the expected effect of the speech act on the context must already be entailed by the context for the speech act to be felicitous. Note that although there is no one-to-one mapping between clause types and speech act types, I do assume that each type of speech act has a unique effect on the discourse.

The question arises why any speaker would ever use an impotent speech act. I argue that the utility of such expressions derives from their ability to draw attention to or raise awareness of particular facts about the context that interlocutors may be ignoring. In turn, these awareness-related effects may play a role in structuring the discourse or in guiding agents’ resolution to decision problems. Although “potent” speech acts may also play the role of raising awareness, impotent speech acts are particularly well-suited for this function due to pragmatic reasoning on the part of the addressee(s) about the speaker’s beliefs about the addressee(s) and the speaker’s intentions.

2 Impotent Speech Acts across Clause Types

2.1 Declaratives

Declarative clauses are traditionally taken to be used to assert. Following Stalnaker (1978), the essential effect of assertions on the discourse can be seen as informing. Informativity is formalized

in terms of the *common ground* (*CG*), the set of propositions that are commonly believed by all discourse participants or that all discourse participants act as if they commonly believe. A proposition p is a common belief iff each participant believes p , and each participant believes that every other participant believes p , etc. This contrasts with the weaker notion of mutual belief: p is mutually believed by a set of discourse participants iff each discourse participant believes p . The set of worlds consistent with the *CG* (i.e. $\cap CG$) is known as the *context set* C (Stalnaker, 1978; Gullon, 2001; Stalnaker, 2002). If an assertion with content p is accepted in a discourse, p enters the *CG*. Let C_1 and C_2 denote the context set before and after, respectively, an assertion a with content p . Then, a is informative iff $C_2 \subset C_1$.

If we view the essential function of assertion as informing, then an impotent assertion is one that is uninformative. In English, uninformative assertions include those of the form *As you already know, p* or *Needless to say, p*:

- (2) As you already know/Needless to say, Trump terrifies me.

Example (2) entails that the addressee already knows that Trump terrifies the speaker. Of course, this is consistent with the speaker's attitude towards Trump being a mutual belief, but not a common belief. If this is the case, an assertion of (2) would add new information to the *CG* and would therefore be informative.

Yet it is possible to assert *As you already know/Needless to say, p* when p is already in the *CG*. For example, suppose the speaker of (2) had informed the addressee about their feelings towards Trump in a previous conversation. It would still be felicitous for the speaker to utter (2) at the start of a new discourse, perhaps one in which the speaker intends to elaborate on these feelings. Importantly, at the start of this discourse, that Trump terrifies the speaker would already be in the *CG*.

Barker and Taranto (2003) and Barker (2009) provide another example of necessarily uninformative assertions. First, Barker and Taranto observe that in a context in which all discourse participants have access to evidence supporting p , it is felicitous to assert that p is clear. For example, if we see a photograph of a woman dressed as a doctor, (3) may be felicitously asserted.

- (3) It is clear that she is a doctor.

But if the photograph truly makes it clear that the woman is a doctor, then all discourse participants should be able to conclude that she is a doctor. Moreover, all discourse participants can conclude that the other discourse participants have concluded that she is a doctor, etc. Thus, in such contexts in which the evidence supporting a clarity assertion is part of the *CG*, the clarity assertion itself is necessarily uninformative.

Assertions containing the unfocused variants of the German discourse particles *ja* and *doch* provide another potential case of uninformative assertions. A full discussion of these data goes well beyond the scope of this paper. However, the conventional wisdom on these particles as summarized by Kaufmann and Kaufmann (2012) suggests that they behave similarly to the phenomena discussed above: "It is widely agreed that both *ja(p)* and *doch(p)* commit the speaker to the belief that p is in some sense given, obvious, or uncontroversial" (210). The English expressions *after all* and *of course* may function similarly:

- (4) Trump probably can't win in November. After all, many Republicans don't even like him.

According to my judgments, an assertion of (4) is only felicitous if all discourse participants already believe that most Republicans don't like Trump.¹

Before moving on, I address a potential objection to the claims that the assertions discussed above are truly impotent. Speakers often assert *As you already know, p*, *Needless to say, p*, etc. when, in fact, the addressee does not already know p . In such cases, these assertions may be genuinely informative. These uses seem to be grounded in a desire to treat the addressee as more knowledgeable than they actually are for politeness reasons, an idea that is explored in §4 below. I maintain that when speakers use these expressions in this way, they assert something that is false. My focus is on truthful and uninformative uses of these expressions, notwithstanding other potential uses they may have.

¹There is another use of *after all* that expresses an outcome contrary to expectations:

- (1) Trump won the general election after all.

Interestingly, whereas the use of *after all* in (4) seems corresponds to German unfocused *doch*, the use in (1) seems to correspond to the focused variant of *doch* (Rojas-Esponda, 2015).

2.2 Interrogatives

Interrogative clauses are typically used to obtain information from the addressee or other discourse participants, although (5) shows that interrogatives can be used to achieve other purposes.

- (5) a. What are we having for dinner?
b. Can you pass the salt?

Only (5a) would typically be used to elicit information from the addressee; (5b) is best understood as a request for the addressee to perform a non-linguistic action. I focus on the former type of speech act, which I refer to simply as a “question.”

In order to understand the contextual effect of questions in discourse, I draw on ideas from Question Under Discussion (QUD) frameworks. In particular, I have in mind the approach of Roberts (2012), although I do not present the full formalism here. We begin with the idea that the goal of the conversation is to add information to the *CG*. Added to this is the notion that the discourse is structured around questions and answers. The denotation of an interrogative clause is a set of propositions or a partition of logical space, with each proposition or cell in the partition corresponding to a possible answer to the question (Hamblin, 1958; Groenendijk and Stokhof, 1984). If a question is uttered and accepted in the discourse, its denotation added to the QUD stack. Assertions play their standard role of adding information to the *CG*, but are only relevant if they answer a question on the QUD stack (i.e. their content corresponds to a cell or union of cells in the denotation of some question on the QUD stack).

On this view, questions play the role of directing what types of information will be added to the *CG* as the discourse proceeds. An impotent question is therefore one that does not change the accumulation of information in the *CG*. According to recent work, rhetorical questions (RQs) fit this description because they are questions whose answers are already part of the *CG*. In particular, Rohde (2006) and Caponigro and Sprouse (2007) have argued that rhetorical questions are only felicitous in contexts in which all discourse participants already know the answer to the question. This approach is not the only existing analysis of RQs², but it has greater empirical coverage than other analyses in that it accounts for the fact that

²See Sadock (1971), Ladusaw (1979), Han (2002), and van Rooy (2003) for alternative analyses of RQs.

RQs allow for answers, but do not require them, and allow for more than just negative answers.

RQs include questions that contain a strong NPI, are followed by *yet*, or are preceded by *after all*³ (Caponigro and Sprouse, 2007):

- (6) a. Who gave a damn when Paolo was in trouble?
b. Who helped Luca when he was in trouble? Yet he managed to become what he is now.
c. After all, who helped Luca when he was in trouble?

However, none of these features are necessary for a question to be an RQ. Rohde (2006) provides many examples of naturally occurring RQs that lack these features, including (7):

- (7) Who would steal a newspaper?

Despite any explicit marking, examples like (7) can be identified as RQs because of the obviousness of their answers to all discourse participants.

A potential objection to treating RQs as impotent speech acts is that even if the answer to an RQ is known to all discourse participants, this does not guarantee that the answer is in the *CG*. Perhaps the answer to an RQ is a mutual belief, but not part of the *CG*, and the RQ plays the role of converting this mutual belief to common belief. This resembles a similar point raised about uninformative assertions in the previous section. There, I noted that uninformative assertions can be used even when their content was previously established as part of the *CG*, and it is possible to make a similar observation in the case of RQs.

But there is another reason to doubt that RQs always play the role of converting mutual belief to common belief. RQs are not assertions, at least according to most analyses, so they cannot directly add anything to the *CG*. Therefore, they cannot, in themselves, convert mutual belief to common belief. One could respond that RQs do not directly add propositions to the *CG*, but that they indirectly achieve this once their answers are asserted and enter the *CG*. But this fails to account for the fact that although RQs may be answered, they typically go unanswered. If an RQ goes unanswered,

³As we saw above, *after all* may also mark uninformative assertions. In light of this, the marking of RQs with *after all* may be seen as additional evidence that the analysis of RQs as questions whose answers are already in the *CG* is correct.

we have no account of how its answer could enter the *CG* without already being in the *CG*.

Once again, if we think of the contribution of questions to discourse in terms of a QUD stack, questions direct the evolution of the information in the *CG*. But this view fails to account for the role of RQs, since their answers must already be part of the *CG* in order for them to be used felicitously.

2.3 Imperatives

As noted in the introduction, imperatives are associated with a wide range of speech acts. However, many of the canonical speech acts associated with imperatives are directive. That is, these speech acts have the aim of getting the addressee to perform some (usually non-linguistic) action. Directive uses of imperatives encompass many different speech acts (commands, requests, etc.), but differ from non-directive uses of imperatives such as well-wishes and curses (Condoravdi and Lauer, 2012). Most theories of imperative meaning offer similar accounts for different types of directive imperatives, but may offer a different analysis for imperatives used non-directively. For the sake of concreteness, I adopt an account of the effects of directive imperatives on discourse based on Portner’s (2007), but the arguments put forth below can be reformulated using other theories of imperative meaning (Condoravdi and Lauer, 2012; Kaufmann, 2012).

I assume that the successful use of an imperative $p!$ has two effects: (i) $Must(p)$, which is interpreted in a standard Kratzerian manner (Kratzer, 1981; Kratzer, 1991), enters the *CG*; (ii) p is added to the addressee’s To-Do List (TDL), a set of propositions detailing the addressee’s commitments such that if p is on the addressee’s TDL, the addressee is committed to acting in order to bring about p .⁴

Adopting this view, an impotent use of the imperative $p!$ would involve a situation in which

⁴I depart from Portner’s original proposal in two ways. First, Portner does not have $p!$ add $Must(p)$ to the *CG* directly. Rather, $p!$ adds p to some modal ordering source g with respect to which $Must(p)$ is interpreted. Portner intends this to have the effect of making $Must(p)$ true after $p!$ is uttered, but Condoravdi and Lauer (2012) point out that adding p to a relevant ordering source is not sufficient to achieve this effect. Instead, $Must(p)$ must be added to the *CG* directly. Second, on Portner’s original proposal, a property related to p , rather than p itself, is added to the addressee’s TDL. These changes from Portner’s original proposal allow for a simplification of my argument, but the argument is not dependent on them.

$Must(p)$ is already in the *CG* and the addressee is already committed to p . Imperatives involving the verbs *remember* and *forget* (“mnemonic verbs”) meet these conditions. These verbs are traditionally classified as two-way implicatives (Karttunen, 1971). This classification has the consequence that, where defined, X *didn’t remember/forgot* to Y generally implies that X did not Y . Thus, *remembering/not forgetting* to Y is a necessary condition for doing Y in most normal circumstances.

Now consider the following scenario. Barbara and Richard are colleagues in a linguistics department. Barbara utters (8a) to Richard on Monday, and utters (8b) to Richard on Wednesday.

- (8) a. Send me a draft of your new paper once it’s ready.
b. Remember to send me a draft of your new paper once it’s ready.

Let p and q be the propositions that Richard sends Barbara a draft and that Richard remembers to send Barbara a draft, respectively.

As a result of (8a), $Must(p)$ is added to the *CG* and p is added to Richard’s TDL. Recall that in normal circumstances, remembering to perform an action is a necessary condition for performing that action, so we have $p \Rightarrow q$. Since we’re assuming a standard Kratzerian account of modality, we also have $Must(p) \Rightarrow Must(q)$. Thus, the *CG* entails $Must(q)$ as a result of (8a). TDLs themselves are not closed under entailment, so p ’s presence on Richard’s TDL does not entail that q is on Richard’s TDL. But recall that TDLs are a way to formalize an agent’s commitments. In virtue of (8a), Richard is committing to acting in such a way to bring about p . But since $p \Rightarrow q$, so long as Richard successfully acts in accordance with his commitment to bring about p , he will also bring about q . Although q is not on Richard’s TDL as a result of (8a), it is hard to see how adding it to his TDL would have any effect on his behavior.

We’ve seen that (8a) causes $Must(q)$ to be entailed by the *CG* and commits Richard to acting in such a way that he will bring about q . But these are exactly the effects that (8b) is supposed to have on the context, meaning that (8b) is impotent.

One may object that although in normal circumstances, remembering to perform an action is a necessary condition for performing that action, this is not always the case. For example, Richard might forget that Barbara would like to see a draft

of his paper, but still send her a draft by accidentally CCing her on an email that has the draft attached. Thus, the entailment relation $p \Rightarrow q$ may not hold, dissolving the arguments put forth above. Or alternatively, we could maintain that $p \Rightarrow q$ but have a view of modality or agents' commitments that prevents $p \Rightarrow q$ from making (8b) impotent.

Yet on this view, standard approaches to directive imperatives predict (8b)'s function to be that of specifying that Richard should remember to send Barbara a draft in addition to sending her a draft. This mischaracterizes the role of (8b), which is, intuitively, to remind Richard of his pre-existing commitment to send Barbara a draft. Moreover, if (8b) gave Richard a new commitment not already entailed by (8a), Barbara should be able to felicitously utter both (8a) and (8b) in succession on Monday:

- (9) # Send me a draft of your new paper once it's ready and remember to send me a draft of your new paper once it's ready.

The redundancy of (9) shows that the mnemonic imperative in (8b) does not communicate anything that was not already communicated by (8a).

To recap, we've seen that imperatives involving mnemonic verbs do not function like normal directive imperatives. They do not add information to the *CG* or commit the addressee to an action they were not already committed to.

3 Awareness

We have seen that speech acts associated with different clause types may fail to have the effects normally associated with these speech acts. What, then, is the point of these impotent speech acts?

I propose that the utility of impotent speech acts lies in their ability to raise awareness or draw attention to issues that are already settled by the discourse (e.g. are already entailed by the *CG*, are already commitments of a discourse participant, etc.), but that discourse participants may be ignoring. Often, linguistic agents are idealized as being logically omniscient and perfectly rational, but such an idealization is not psychologically realistic. Real-world agents face cognitive limitations, including but not limited to, constraints on attention and awareness. In light of this reality, it would be unsurprising to find that speakers design have as one of their goals the manipulation of other agents' states of awareness.

Mnemonic imperatives provide a clear case of impotent speech acts whose purpose is to raise awareness. As noted above, the goal of these utterances is to remind the addressee of some pre-existing commitment, rather than to form some new commitment. Impotent assertions and questions can also be understood from this perspective. Following Barker and Taranto's observation that assertions of clarity are often uninformative, Bronnikov (2008) and Crone (2016) have analyzed clarity assertions as playing the role of drawing attention to inferences that can be made on the basis of information in the *CG* or raising awareness of propositions already entailed by the *CG*. Caponigro and Sprouse (2007) come to a similar conclusion regarding RQs, claiming that they "highlight" a proposition within the *CG* for reasons related to the structure of the discourse.

3.1 Awareness & Discourse Structure

Even if we take impotent speech acts to play the role of manipulating discourse participants' awareness states, we may still wonder why manipulating awareness would matter. Caponigro and Sprouse's claim about rhetorical questions serving purposes related to discourse structure provides one answer. By drawing attention to some issue that is already in the *CG*, impotent speech acts may establish this issue as a discourse topic worthy of further elaboration (Asher, 2004).

Drawing attention to an issue may also prove useful if a speaker leverages discourse coherence relations that listeners often infer. Kehler (2005) provides a comprehensive overview of such relations. To give just one example, listeners often infer from the successive assertion of S_1 and S_2 that S_1 causes S_2 .

- (10) As you already know, Trump terrifies me.
I'm thinking of moving to Canada.

In (10), we easily infer that the speaker is thinking of moving to Canada *because* Trump terrifies the speaker, even though this is never explicitly asserted. The speaker achieves this effect by uttering an impotent speech act, which raises awareness of the common knowledge that Trump terrifies the speaker. The speaker then relies the listener's ability to infer the correct discourse relation to understand the full intended meaning of (10).

3.2 Awareness & Decision Making

Unawareness is also known to play a significant role in reasoning and decision making. Much work within economics and computer science, particularly following Fagin and Halpern (1987), has addressed the issue of decision making under unawareness. Unawareness has received less attention in linguistics, although Franke and de Jager (2011) provide a formal model for understanding the role of awareness in discourse.

A key feature of Franke and de Jager’s approach is the recognition that unawareness may take one of two forms, with the difference having to do with the presence or absence of what Franke and de Jager call “implicit assumptions.” To illustrate the notion of an implicit assumption, they use the example of Little Bo Peep searching for her keys throughout her apartment. Bo turns up empty-handed everywhere she looks, when her friend Little Jack Horner utters the following:

- (11) Did you leave them in the car when you came in last night?

Bo slaps her forehead and immediately runs out to search for the keys in her car.

In this situation, Bo is initially unaware of the possibility that her keys are in the car, and her unawareness causes her to behave as if she knows that they keys are not in the car. After all, if she thought there was a slight chance that keys were in the car, she would have looked there after her other searches proved futile. Franke and de Jager say that an agent in such a state makes an implicit assumption; in this case, Bo implicitly assumes that her keys are not in the car.

An agent may be unaware of an issue without making an implicit assumption. To use an example from Yalcin (2011), an agent may not be considering whether it is currently raining in Topeka, Kansas. Such an agent is unaware of issue of whether it is raining in Topeka and cannot distinguish between possible worlds in which it is raining Topeka and those in which it is not. But this agent’s behavior does not reflect an assumption that it is or is not raining in Topeka. Rather, the agent is unaware of an issue without making an implicit assumption.

As shown by the car keys example, implicit assumptions have an effect on agents’ behavior. This provides yet another reason why it might be worth raising awareness of an issue. If an agent is mak-

ing an implicit assumption about an issue, raising awareness of that issue may positively affect the agent’s resolution of decision problems.

We can formalize this using the following model based on Franke and de Jager’s.⁵ Let \mathcal{W} be a set of worlds, let $\mathcal{P} = \wp(\mathcal{W})$ be a set of propositions, and let \mathcal{A} be a set of actions. We define for each agent α a background probability distribution over propositions $P_\alpha : \mathcal{P} \rightarrow [0, 1]$ and a utility function $U_\alpha : \mathcal{W} \times \mathcal{A} \rightarrow \mathbb{R}$. Awareness is modeled via an awareness state $\langle \mathcal{U}_\alpha, \mathbf{v}_\alpha \rangle$, where:

- $\mathcal{U}_\alpha \subseteq \mathcal{P}$ is the set propositions of which α is unaware; \mathcal{U}_α is closed under complement.
- $\mathbf{v}_\alpha : \mathcal{U}_\alpha \rightarrow \{\text{T}, \text{F}\}$ is a partial valuation function from unmentionable propositions to truth-values. This function encapsulates α ’s implicit assumptions. We require that if $\mathbf{v}_\alpha(p)$ is defined, $\mathbf{v}_\alpha(p) = \neg \mathbf{v}_\alpha(\mathcal{W} \setminus p)$.

We next use the agent α ’s background probability distribution and awareness state to model α ’s probability distribution under unawareness P'_α :

$$P'_\alpha = P_\alpha(\cdot \mid \{w \in \mathcal{W} \mid \forall p \in \mathcal{P} (\mathbf{v}_\alpha(p) = \text{T} \rightarrow w \in p)\})$$

That is, an agent’s probability distribution under unawareness is simply their background distribution conditioned on their implicit assumptions. An agent α acts by choosing the action with the highest expected utility given P'_α :

$$EU_\alpha(a) = \sum_{w \in \mathcal{W}} U_\alpha(w, a) \times P'_\alpha(\{w\})$$

An agent’s awareness state can be modified by both linguistic events, such as Jack’s utterance in (11), and non-linguistic events. Here, I focus only on how agents’ awareness states are affected by other agents’ utterances. In principle, it would be desirable to give necessary and sufficient conditions for a particular utterance u to make an agent aware of a proposition p . Formalizations of “attentive content” within the framework of Inquisitive Semantics (Ciardelli et al., 2011; Roelofsen, 2013) seem to have this goal in mind. Unfortunately, it is unlikely that such necessary and sufficient conditions can be given. To illustrate the

⁵Dekel et al. (1998) purport to show that standard possible worlds models, such as that proposed by Franke and de Jager, preclude non-trivial unawareness. However, Fritz and Lederman (2015) have shown that Dekel et al.’s result relies on several strong, psychologically implausible assumptions. Fritz and Lederman propose their own model of unawareness based on partitions of the set of all possible worlds, which is not dissimilar from Franke and de Jager’s proposal.

difficulty, note that Jack could draw Bo’s attention to the possibility of her keys being in her car by uttering the following:

(12) Sometimes I leave my keys in the car.

The literal content (12) is about *Jack’s* keys and *his* car. It says nothing directly about Bo’s keys or her car. Of course, we can understand the relevance of Jack’s utterance in (12) to Bo’s search given our knowledge of its context of utterance, but it is hard to see how we could derive its potential effect on Bo’s awareness state from its literal meaning alone. Examples like (12) show that an utterance’s ability to raise awareness of issues is highly context dependent. Because of this, when modeling scenarios involving changes to awareness states, we simply must stipulate the effects that particular utterances have on these states.

Let’s consider how Franke and de Jager’s model applies to impotent speech acts, focusing on the example using imperatives discussed above. Recall that on Monday Barbara requests that Richard send her a draft of his new paper (8a), and that on Wednesday she reminds him of this request (8b).

For the sake of simplicity, I abstract away from details regarding Richard’s TDL, although in principle we could extend the notion of unawareness to TDLs or other formal devices used to model discourse contexts. So, the only effect of (8a) modeled here is the addition of *Richard must send Barbara a draft of his paper (given Barbara’s wishes)* to the *CG*. We’ll refer to this proposition as $Must(p)$. We only have two worlds in \mathcal{W} , w_1 and w_2 , that differ only with respect to the truth-value of $Must(p)$: $Must(p) = \{w_1\}$ and $\neg Must(p) = \{w_2\}$. The set of possible actions that Richard consists in sending Barbara a draft or doing nothing: $\mathcal{A} = \{\text{send-draft}, \text{do-nothing}\}$.

On Wednesday, Richard’s background model assigns a high, but non-maximal, probability to $Must(p)$. Even though Barbara’s utterance in (8a) ensures that $Must(p)$ enters the *CG* on Monday, there is a small possibility that things could have changed by Wednesday. Perhaps Barbara has decided that Richard is a hack, and no longer wants to read any of his work. We’ll assume that $P_{\mathbf{R}}(Must(p)) = 0.95$.⁶

We’ll also assume that Richard is generally accommodating to Barbara’s wishes, so that if she

⁶There is also a technical reason for taking $P_{\mathbf{R}}(Must(p))$ to be non-maximal. Eventually, we condition on $Must(p)$ being false, which is problematic if $P_{\mathbf{R}}(Must(p)) = 1$.

would like him to send a draft, sending the draft has a high utility. On the other hand, it is socially costly for Richard to not send a draft if Barbara would like him to. If she does not want to see the draft, sending it will incur a small cost, whereas doing nothing will be neutral.

$$U_{\mathbf{R}}(w, a) = \begin{cases} 1 & \text{if } (w,a)=(w_1,\text{send-draft}) \\ -1 & \text{if } (w,a)=(w_1,\text{do-nothing}) \\ -0.25 & \text{if } (w,a)=(w_2,\text{send-draft}) \\ 0 & \text{if } (w,a)=(w_2,\text{do-nothing}) \end{cases}$$

Under full awareness, $EU_{\mathbf{R}}(\text{send-draft}) = 0.9375$ and $EU_{\mathbf{R}}(\text{do-nothing}) = -0.95$. Clearly, sending the draft is the right call. But there is a chance that Richard will forget about $Must(p)$, and if he does, he may behave as if Barbara had no desire to see his draft. In other words, he may operate with an implicit assumption that $Must(p)$ is false. This is a plausible assumption for him to make, since his default belief had (8a) never been uttered would likely have been that he had no commitment to send Barbara a draft.

To model this situation, we have $\mathcal{U}_{\mathbf{R}} = \{Must(p), \neg Must(p)\}$ and $\mathbf{v}_{\mathbf{R}}(Must(p)) = F$. Now, when we look at Richard’s probability distribution under unawareness, we have $P'_{\mathbf{R}}(Must(p)) = 0$. As a consequence, the expected utilities of each action change to the following: $EU_{\mathbf{R}}(\text{send-draft}) = -0.25$, $EU_{\mathbf{R}}(\text{do-nothing}) = 0$. Doing nothing is now the action with the greatest expected utility.

We are now in a position to explain Barbara’s utterance in (8b). If she believes that Richard is making an implicit assumption that $Must(p)$ is false, making him aware of $Must(p)$ by uttering (8b) will change his behavior in such a way that it is more likely that he will send her a draft of his paper. For space reasons, I do not illustrate how impotent assertions and questions would be explained in this decision theoretic approach, but the basic idea is the same. If an agent makes an implicit assumption about some previously settled issue, overturning that assumption via an impotent speech act can have important consequences for the agent’s behavior.

4 Why Impotent Speech Acts?

As we saw in the previous section, impotent speech acts are not the only speech acts that raise awareness. Rather, any utterance has the potential to raise awareness of its content or of related

propositions. This raises the question of why a speaker would use an impotent speech act to raise awareness, rather than some other speech act. For example, suppose I am about to move to Canada and that this is known to my addressee. I would now like to invite my addressee to my big going-away party, and I begin the discourse by drawing attention to my upcoming move. Given the model presented in the previous section, either (13a) or (13b) would achieve the intended effect.

- (13) a. As you know, I'm moving to Canada.
 b. ? I'm moving to Canada.

Moreover, (13b) is a simpler expression, so we might expect it to be the preferred method of raising awareness of my plans for manner-related considerations. But this is not what we find; (13b) is marked if it is already established that my addressee knows about my move.

We can explain the preference for (13a) as follows. If we consider only the literal content of (13a) and (13b), both are uninformative in the context described. But in another sense, (13a) is *more* informative than (13b). This informativity derives from the general norm of language use that a speaker asserting *p* believes *p*. By this principle, a speaker who asserts (13a) communicates that the speaker takes the addressee to be knowledgeable about the speaker's plans to move to Canada. In contrast, (13b) does not communicate this. Thus, (13a) may be preferred for straightforward informativity-related reasons.

This reasoning can be taken one step further to consider the implicatures that would be generated by the assertion of (13b). If (13b) is in pragmatic competition with (13a) or some similar impotent assertion, then use of the less informative (13b) may generate the implicature that the speaker was not in a position to assert (13a). This would occur if the speaker did not take the addressee to be knowledgeable about the speaker's plans to move. Thus, use of (13b) may generate the undesirable implicature that the speaker takes the addressee to be unknowledgeable about the relevant information and that the speaker's intention was to inform the addressee, not simply to raise awareness of a piece of common knowledge.

At this point, one might object that before uttering (13b), the speaker must have already communicated their plans to the addressee. Therefore, the addressee should already know that the speaker knows that the addressee knows about the plans

to move to Canada, and this knowledge is incompatible with the implicature that I say (13b) generates. The problem with this objection is that it relies on the assumption that linguistic agents are perfectly rational and are not affected by lapses in memory or attention. In the real world, a speaker may have forgotten that they previously told their addressee about their plans. In this case, a speaker would be predicted to use (13b), since (13a) would be false. Or perhaps the speaker remembers having tried to tell their addressee about the plans on a previous occasion, but thinks the addressee did not hear them or cannot retrieve the memory about these plans. In such contexts, a speaker would opt for (13b). But if the speaker does not think these conditions obtain, they would wish to avoid generating the implicature that they do.

As noted in §2.1, speakers may use expressions such as *As you know*, *p* non-literally for politeness reasons. Such uses relate to the pragmatic reasoning discussed here. As was just discussed, an outright assertion of *p* may implicate that the addressee is not knowledgeable about *p*. Such an implication may be highly face-threatening towards the addressee, and therefore impolite (Brown and Levinson, 1987). Thus, even when an addressee does not already know of the speaker's plans to move to Canada, a speaker may falsely utter (13a) if politeness considerations overrode concerns about truthfulness.

The reasoning employed to motivate the use of (13a) over (13b) can also explain the use of imperatives in the context involving Barbara and Richard. When Barbara wants to remind Richard to send her a draft on Wednesday, it is much more felicitous for her to use (14a), rather than (14b).

- (14) a. Remember to send me a draft of your paper once it's ready.
 b. ? Send me a draft of your paper once it's ready.

Again, both (14a) and (14b) would raise awareness of Barbara's desire to see Richard's draft, and (14b) is a simpler expression. But if Barbara has already uttered (8a) on a previous occasion, (14a) is much more natural than (14b).

We can explain the preference for (14a) by first noting that mnemonic verbs have a presuppositional component to their meaning (Karttunen, 1971; White, 2014). In the case of (14a), this presupposition is (roughly) that Richard is committed to sending Barbara a draft of his paper. In uttering

(14a), Barbara communicates that she believes this commitment can be presupposed. No such thing is communicated by (14b), which may generate the implicature that Barbara does not believe that Richard believes he has any such commitment.

I have sketched this reasoning at a high level without committing to any particular pragmatic theory. But the basic ideas are general enough that the basic reasoning should be easily implemented in any desired approach to pragmatics, e.g. classical Griceanism (Grice, 1975), a Neo-Gricean system (Levinson, 2000; Horn, 2004), or game-theoretic or Bayesian models of pragmatics (Franke, 2009; Frank and Goodman, 2012; Jäger, 2012). Across these approaches, what remains constant is the idea that impotent speech acts are informative about the speaker’s beliefs about the addressee in a way that other speech acts are not.

5 Related Work & Conclusion

Across different clause types, we find speech acts that do not have the expected effects on the discourse. These impotent speech acts are nonetheless useful because of their ability to raise awareness of issues that discourse participants may be ignoring. At the same time, impotent speech acts communicate information about the speaker’s beliefs about other discourse participants that are not communicated by alternative expressions.

The claim that impotent speech acts should be understood in terms of their awareness-raising potential joins a larger body of recent work focusing on discourse phenomena that are best understood in terms of their effects on the awareness states of interlocutors. This work includes Franke and de Jager’s (2011) discussion of the effects of uninformative questions on agents’ behavior, Rawlins’s (2010) work on “conversational backoff,” and Ciardelli et al.’s (2011) and Roelofsen’s (2013) attention-based analyses of *might*.

Earlier work by Walker (1993) aligns even more closely to the phenomena discussed here.⁷ Walker discusses “informationally redundant utterances” (IRUs), utterances whose informational content is completely hearer old. While IRUs may seem equivalent to impotent speech acts, there are an important distinctions between the two notions. First, in some cases it may be misleading to characterize impotent speech acts as having any infor-

⁷My thanks to an anonymous reviewer for pointing out this connection.

mational content *per se* (e.g. RQs, mnemonic imperatives). Second, the redundancy of IRUs often follows from the fact that they are repetitions of information established earlier in a particular context. In contrast, impotent speech acts are often impotent across *all* contexts. For example, an assertion of *As you know, p* should always be uninformative whenever it is true.

Despite these differences, Walker’s work on IRUs points to additional uses that impotent speech acts may have. Walker provides computational results that show the utility of raising awareness of old information with IRUs for resource-bounded agents. In addition, Walker notes that IRUs can help resolve uncertainty about old information and aid agents in drawing inferences. I leave for future work investigations of how impotent speech acts may have similar effects.

To close, I highlight two additional future directions for research on these topics. First, there is a great deal of work to be done to find out how different languages mark impotent speech acts. I have focused almost entirely on English data, the one exception being a note about German discourse particles. Undoubtedly, more cross-linguistic data will help further refine our understanding of impotent speech acts and their role in discourse. The German example may prove instructive in that we may find examples of discourse particles in other languages that similarly mark redundant information.

Second, raising awareness of issues is important both for the structure of discourse, as well as for decision making. Yet the formal model of awareness in discourse adapted from Franke and de Jager (2011) is only well-suited to capture the decision theoretic implications of raising awareness. Ultimately, it would be desirable to have a unified model of awareness as it relates to discourse structure as well as decision making.

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