A Unified Account of Semantic and Pragmatic Infelicity

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Abstract

This paper argues for a unified account of semantic and pragmatic infelicity. It is argued that an utterance is infelicitous when it communicates an inconsistent set of propositions, given the context. In cases of semantic infelicity the relevant utterance expresses a set of inconsistent propositions, whereas pragmatic infelicity is a matter of the utterance conflicting with contextual expectations or assumptions. We spell out this view within the standard framework according to which a central aim of communication is to update a body of information shared among the participants. We show that this account explains different kinds of infelicity for both declarative and non-declarative utterances. Further, the account is seen to make correct predictions for a range of cases involving irony, joking, and related non-assertoric utterances.

1 Introduction

The observation that most utterances can be felicitous or infelicitous plays a central role in theorizing about a wide range of phenomena within philosophy and linguistics. Some examples of infelicity that have, in different ways, been seen as significant are given in (1)-(4).

Presuppositions
(1) #The King of France is wise. (Strawson, 1950)

Predicates of personal taste
(2) It's such a wonderful novel; insightful and moving, with the most beautiful and bewitching language. #It's such a shame I've never read it. (Robson, 2012, Ninan, 2014)

Knowledge ascriptions

(3) #I know I have hands, but I don't know I'm not a handless brain in a vat. (DeRose, 1995, Stanley, 2005)

Pronouns and Demonstratives
(4) *Out of the blue:* #He's a piece of work. (King, 2017)

Despite the prevalent practice of citing the infelicity of particular utterances as at least parts of arguments in philosophy and linguistics, few attempts have been made to say something general about the notion. Moreover, skepticism has been voiced regarding whether something general could even be said. Bach and Harnish, for instance, write that there are no compelling reasons to believe that a general theory of felicity conditions for speech acts can be given (Bach and Harnish, 1979, 56-57).

The ambition of this paper is to partially counter this skepticism. Contrary to critics like Bach and Harnish, we argue that an interesting category of infelicity, covering a wide range of the cases cited in the philosophical and linguistic literature, can be carved out. Contrary to initial appearances, there is a unified structure underlying many instances of infelicity.

We offer a unified account of what we will call *semantic* and *pragmatic* infelicity. As we will see, while they may not exhaust the complete spectrum of how an utterance or speech act can be infelicitous, most of the phenomena that are typically pointed to can be captured by the account we propose.

According to this account, an utterance is infelicitous when it communicates an inconsistent set of propositions, given the context. In cases of semantic infelicity the relevant utterance expresses a set of inconsistent propositions, whereas pragmatic infelicity is a matter of the utterance conflicting with contextual expectations or assumptions, even if what is expressed is not inconsistent.

We spell out this view within the standard framework, stemming from the work of Stalnaker (1999 [1970]), (1999 [1978]), (1999 [1998]), (2002), Karttunen (1974), and others, according to which a central aim of communication is to update a body of information shared among the participants. We will see that this account is able to explain different kinds of infelicity for both declarative and non-declarative utterances. Further, our view makes correct predictions for a range of cases involving irony, joking, and related non-assertoric utterances.

Section 2 distinguishes between semantic and pragmatic infelicity, and further distinguishes infelicity of the kind we are interested in from ungrammaticality. In Section 3 we lay out our unified account of semantic and pragmatic infelicity. Section 4 discusses some problem cases and potential limits of our theory.

2 Infelicity

2.1 Infelicity and Ungrammaticality

The domain of study for this paper are utterances that are typically marked with "#" in the literature.[1] This means that we exclude ungrammatical sentences, typically marked with "*," such as (5a-b).

> (5) a. *John am going to the movies.
>   b. *Big I am a baking cake chocolate.

However, we should acknowledge that there are sentences that are standardly agreed not to be ungrammatical, in the sense of being syntactically ill-formed, and yet they are seen to exhibit a form of infelicity that is stronger than cases like those in (1)-(4) above.

   For instance, it has been noted that unlicensed uses of negative polarity items, as in (6), are typically associated with a kind of infelicity that, even though not strictly speaking an instance of syntactic ill-formedness, "empirically feels more like ungrammaticality than semantic oddness." (Abrusán, 2019, 330)

> (6) *Anyone stole John's sandwich yesterday. (Abrusán, 2019)

We follow Abrusán (2019) and others in marking (6) with an asterisk (*) to indicate that this type of example may need a different explanation than the one we propose for cases typically marked with a pound (#), as seen in examples (1)-(4).[2]

   Once we look beyond sheer ungrammaticality - construed broadly, to include cases like (6) - there is a wide landscape of linguistic anomaly to consider. How should one delineate the category of infelicity that we are interested in within this range? We propose to proceed as follows. Rather than trying to present a characterization of what infelicity is, prior to theorizing, we will point out a number of cases that are standardly taken to be examples of infelicity. We suggest that they can be broadly divided into two categories: semantic and pragmatic infelicity. Our aim in subsequent sections will then be to show how these cases can all be understood in a unified way. We return the issue of the scope of our theory in 4.4.

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[1] This convention is not universal. E.g. King (2017) uses "*" to mark the kind of infelicity we are discussing in this paper.

[2] By contrast, von Fintel (1993) proposed that some cases of this kind are infelicitous by being inconsistent. We have no stake in this debate. We take it that, if this turns out to be the right approach, it is congenial to our proposal in this paper for semantically infelicitous utterances. On the other hand, if cases like (6) are to be explained differently, we are content with accepting a broad category of starred cases, the unacceptability of which goes beyond mere syntactic ill-formedness.

2.2 Semantic Infelicity

Theorists sometimes use terms like "semantic infelicity" or something similar to refer to the broad category of unacceptable utterances that are not syntactically ill-formed. The case of (7) is routinely held up as an example of semantic anomaly, as opposed to ungrammaticality.

(7) #Colorless green ideas sleep furiously. (Chomsky, 2015 [1957])

We propose to distinguish more finely within the broad category of grammatical but anomalous utterances.

Our hypothesis is that a semantically infelicitous utterance expresses an inconsistent set of propositions. Here are two examples:[3]

(8) It was John who ate the cake. #But no one ate the cake.

(9) Ames was, as the press reported, a successful spy. #But the press never reported on Ames.

The first conjunct of (8) presupposes that someone ate the cake and asserts that John ate the cake. Many will think that both of these propositions are semantically expressed by the first clause of (8), even though they are not both at-issue, to use the influential terminology of Potts (2005). Given this, (8) as a whole expresses a set of propositions that cannot all be true. Yet a different view would have it that (8) is a case of pragmatic presupposition, meaning that the reason the information that someone ate the cake is attached to the information that it was John who ate the cake has to do with the situations in which the latter is naturally asserted. If so, then this is a case of what we call "robust" pragmatic infelicity, as described below. As we go on to show in the next section our account handles such cases, too.

Similarly, we take it to be uncontroversial that the first conjunct of (9) expresses the at-issue content that Ames was a successful spy, while conventionally implicating that the press reported that Ames was a successful spy. Both of these propositions are semantically expressed. As such, (9) as a whole expresses an inconsistent set of propositions.

As a special case, some utterances express a single, inconsistent proposition, as in (10).

(10)   a. #There's a notebook in my empty bag.
          b. #John has a colorless red car.

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[3] (9) is adapted from Potts (2005).

We take it to be clear that (10a-b) express inconsistent propositions.[4] This also applies to (7), given that nothing can be both colorless and green.

To be sure, there are other examples in the vicinity that are also infelicitous, such as a version of (7) without "colorless," and which should accordingly be explained differently. In particular, our theory will explain such a case by the observation that it is typically common ground that ideas do not sleep, or that nothing can literally sleep furiously.

2.3 Two Kinds of Pragmatic Infelicity

Utterances that are infelicitous by expressing an inconsistent (perhaps singleton) set of propositions contrast with what we call "pragmatically" infelicitous utterances. By this we mean utterances that express consistent sets of propositions, but which are anomalous for other reasons.[5] In turn, there are cases of this kind that are infelicitous in all (or most) contexts, and there are cases that are infelicitous only in some specific contexts. For ease of reference, call the first of these *robust* pragmatic infelicities and the second *variable* pragmatic infelicities.

As an instance of robust pragmatic infelicity, consider the notorious case of Moore sentences, as in (11).

(11)   a. #It's raining, but I don't believe it's raining.
         b. #It's not raining, but I believe it is. (Moore, 1942)

A central data point about Moore sentences is that they are not inconsistent. Each of (11a) and (11b) expresses two propositions that can both be true together. In other words, the source of the infelicity of Moore sentences at least *prima facie* appears to be different from the cases of semantic infelicity noted above.

Yet, even though Moore sentences are consistent, their infelicity is a robust phenomenon. In particular, the infelicity of Moore sentences persists across contexts. Although perhaps not impossible, it is hard to imagine a context in which, for example, an utterance of (11a) or (11b) would not trigger a sense of anomaly or puzzlement. So, the cases we label as "robust pragmatic infelicities" are cases that are not semantically inconsistent, but which nevertheless result in infelicity in most (perhaps all) contexts.

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[4] For the purpose of this paper, we take inconsistency to be a property of sets of propositions, such that a set of propositions {p1…pn} is inconsistent if p1…pn cannot all be true together. Calling a particular proposition p inconsistent in this sense is to say that {p} is inconsistent meaning that p cannot be true. As this suggests, given the way we use these terms here, in the special case of a singleton set of propositions, inconsistency coincides with necessary falsehood. But see 3.3 below for some discussion.

[5] As before, this excludes ungrammaticality, since ungrammatical sentences do not express propositions.

In other cases pragmatic infelicity is more directly dependent on contextual features. Consider, for instance, the case of retracting (particularized) conversational implicatures, as in (12).[6]

(12)   A. What do you think of Martin's latest novel?
            B. It puts me to sleep.
            A. Oh, so you don't like it?
            B. #Yes, I love it.

While B's utterance of "Yes, I love it," is clearly infelicitous in many contexts, there are arguably contexts in which it would not be. Suppose, for example, that the conversation takes place at a book club meeting. A is aware that some people in the book club use novels to fall asleep, but she isn't sure whether B is among these insomniac readers. In such a case B's reply would not be anomalous.

As foreshadowed, we do not want to rule out that there may be other ways in which an utterance can be infelicitous, yet we think that the two broad categories we have delineated above cover at least a very wide range of cases of the kind that have been discussed. In the next section we go on to show how all of these cases can be understood in a uniform way.

3 A Unified Account

3.1 Communicative Inconsistency

Given the rudimentary taxonomy outlined above, one might conclude that infelicity of the kind we are interested in has two main sources. Namely, some utterances are infelicitous because they express, or convey, an inconsistent set of propositions. In other cases, infelicity is instead due to a conflict with contextual expectations, or assumptions.

This contrast is most pronounced when comparing semantic infelicities, such as (8), (9), or (10a-b) to variable pragmatic infelicities such as (12). As we said, the former cases all express sets of propositions that cannot all be true together. By contrast, the infelicity of (12) is due instead to some expectation of Gricean cooperation, or compliance with maxims.

By contrast, we want to suggest a unified way of looking at all of these examples. The central thought behind this suggestion is that all cases of infelicity *communicate* inconsistent sets or propositions. Hence, a generic way of stating our proposal is as follows:

Infelicity as Communicative Inconsistency (ICI)

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[6] Adapted from Wilson and Sperber (2006, 619).

An utterance *u* is infelicitous in a context *c* if and only if *u* communicates in *c* a set of inconsistent propositions.

In accordance with the *proviso* mentioned earlier, we are not ruling out that there may be other types of infelicity, yet we allow ourselves to use "infelicity" here, and below, as a cover-term for the broad range of utterances we have described above.

ICI is compatible with different ways of understanding what a context is, and what it means for an utterance to communicate something in a context. Yet, even at this general level, ICI is meant to capture the suggestion that infelicity is a property of utterances, not of sentences or propositions. While there is clearly a sense in which an inconsistent proposition, or set of propositions, is faulty or defective, infelicity is a conversational phenomenon. Infelicity, in this sense, is an attribute of a certain class of actions, namely linguistic utterances.

In what follows we will spell out a version of ICI that relies on the familiar picture according to which utterances aim at updating contextual background information.

3.2 Discordant Updates

In the tradition stemming from the work of Stalnaker (1999 [1970]), (1999 [1978]), (1999 [1998]), (2002), communication is taken to rely on a body of shared information, called the *common ground*. The common ground is the collection of information that is taken for granted for the purpose of the conversational exchange. More particularly, the common ground consists of information that is both accepted and commonly believed to be accepted:

Common Ground
A proposition *p* is common ground in a group if and only if everyone in the group accepts that *p*, and everyone believes that everyone accepts that *p*, and everyone believes that everyone believes that everyone accepts that *p*, etc. (Stalnaker, 2002, 716)

This framework is a way of making precise the general picture, advocated by Grice (1989) and others, according to which paradigmatic discourse is a rational, cooperative endeavor aimed at sharing information.[7] On this picture, a central goal of utterances is to update common ground information. This can be the result of assertion, implicature, presupposition accommodation, but can also occur in other ways. A contribution to the discourse, in this sense, is a contribution to the communal project of inquiry, that is, the ongoing project of accumulating information. At the same time, we can recognize that speakers sometimes make utterances that are not aimed at updating common ground information. Examples include joking, play-acting, irony, and various kinds of unofficial conversation, such as pub-talk and the like.

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[7] See, in particular, Stalnaker (1999 [1978]).

Formally, taking propositions to be sets of worlds in the standard way, we represent the common ground G of a discourse as a set of worlds C_G, called the *context set*, defined as in (13).

(13) $C_G =_{def} \{w: \forall p \in G, w \in p\}$

C_G is the set of worlds compatible with the information in G: the set of worlds not ruled out by what is common ground. Updating is understood as intersection. For example, to assert (14) is to propose that it become common ground that the largest organisms on Earth are fungi.

(14) The largest organisms on Earth are fungi.

If successful, this information is added to G, in turn narrowing the context set, resulting in a new context set from which possibilities in which the assertion is false have been discarded, as in (15).

(15) $C_G \cap [\![(14)]\!]^c = \{w \in C_G: w \in [\![(14)]\!]^c\}$

$[\![(14)]\!]^c$ is the proposition denoted by (14) relative to the context c.[8]

Given this, we can spell out a version of ICI as follows:

Infelicity as Discordant Update (IDU)
An utterance u is infelicitous in a context c if and only if u involves a proposal to add to the common ground G of c a set of propositions $\{p_1, ..., p_n\}$ such that $\{p_1, ..., p_n\} \cap C_G = \emptyset$.

This is in line with the general thought underlying this view of information exchange according to which, as Roberts (2004, 199) formulates it, "The aptness of an utterance depends on its expressing a proposition that one could take to be reasonable and relevant given the context."

At the same time, one might think that IDU is trivial, or obviously true, and that it is therefore hard to see how it could do any explanatory work. To some extent, we agree with the claim that IDU is partially unsurprising. Namely, we take the right-to-left direction of IDU to be uncontroversial. Yet our aim here will be to show that a wide range of cases satisfy the left-to-right direction of IDU, in particular, both cases of semantic and pragmatic infelicity, and as we will argue in later sections, both cases involving declarative and non-declarative utterances. Indeed, as we will suggest in 4.2, non-declaratives like interrogatives and imperatives interact with common ground information in ways that make them amenable to IDU. As we will suggest in Section 4, there are potential limits to this theory of infelicity. Yet we think that what we shall

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[8] We remain neutral on whether c is the common ground or some other notion of context. For some relevant discussion, see Huvenes and Stokke (2016).

have to say is sufficient to demonstrate an underlying structure to a range of cases that *prima facie* appear disunified.

We want to address a potential worry about this project up front.[9] IDU characterizes infelicity in terms of how utterances update common ground information. Yet one might suggest that considerations concerning infelicity already play a role in determining which update to associate with a given utterance. In general, it is hard to deny that audiences confronted with a given utterance will select how to update the common ground at least in part based on what would be felicitous and what would be infelicitous, or in general in the most infelicity-minimizing way available.

Does this render the idea behind IDU circular or unexplanatory? We do not think so. It is in line with this idea that when an audience is confronted with a given utterance *u*, they are often aware of different updates that could be associated with *u*. Further, they can often anticipate how such different updates would affect the context, and seeing that one or more of them would be discordant - i.e. be infelicitous according to IDU - they may disfavor such a potential update procedure. Yet sometimes there is no felicitous, or concordant, update available, leaving only a discordant possibility for influencing the common ground. In such cases, according to IDU, an utterance is infelicitous.

In the rest of this section we illustrate how this proposal applies to some core cases of semantic and pragmatic infelicity. In Section 4 we discuss some problems and comment on a number of other examples.

3.3 Sematic Infelicity as Discordant Updates

Consider first (8).

(8) [a] It was John who ate the cake. [b] #But no one ate the cake.

According to IDU, (8) is infelicitous because making (8a) common ground requires that the presupposed information that someone ate the cake is either already common ground or is accommodated. Hence, if the common ground is updated with (8a), all worlds in the context set are worlds in which someone (namely, John) ate the cake. So, intersecting this set of worlds with the set of worlds in which no one ate the cake, as *per* (8b), results in an empty context set. The same applies, *mutatis mutandis*, to other cases of presuppositions, such as (1) above.

At the same time, note that if one utters (8b) as a joke or ironically, one is not proposing to update the common ground with (8b). Hence, IDU predicts that, in that case, (8b) is not infelicitous. This we take to be the right result. As this brings out, it is important that IDU characterizes infelicity in terms of *proposals* to update the common ground, rather than in terms of successful updates. That is, IDU implies that an utterance that involves an update proposal which would result in an empty context set is infelicitous even if unsuccessful.

This way of explaining the infelicity of (8) is far from new, and we take it to be uncontroversial. Given the standard view, first proposed by Karttunen (1974), that presuppositional utterances like (8a) impose admittance conditions on contexts, it is straightforward to explain the infelicity of (8b) as the effect of (8b) constituting a proposal to add to the common ground a piece of information – that no one ate the cake – which is inconsistent with the information that is already common ground, assuming that (8a) successfully updated the initial background information. Given (13), a common ground that includes inconsistent propositions is represented as the empty set of worlds, reflecting the intuitive idea that no worlds are compatible with an inconsistent information state.

It should be clear that this will apply to all cases of semantic infelicity, that is, cases in which an utterance expresses an inconsistent set of propositions. For example, if not ironic, joking, or the like, an utterance of (9) constitutes a proposal to make common ground both that the press reported that Ames was a successful spy and that the press never reported on Ames.

(9) Ames was, as the press reported, a successful spy. #But the press never reported on Ames.

Since there are no worlds where both these things are true, updating with (9) results in an inconsistent common ground, an empty context set. Likewise, consider the special case of utterances expressing a single inconsistent proposition, such as (10a).

(10)   a. #There's a notebook in my empty bag.

There are no worlds in which there is a notebook in the speaker's empty bag. So, updating with (10a) is to intersect the context set with the empty set, again reflecting the intuitive idea that to add (10a) to the stock of information that is taken for granted is to reduce this stock of information to absurdity. It is safe to assume that, similarly, there are no worlds in which ideas, or anything else, are both colorless and green, let alone worlds in which ideas sleep furiously.

Similarly, consider the familiar "abominable conjunction" in (3).

(3) #I know I have hands, but I don't know I'm not a handless brain in a vat.

The first conjunct of (3) is a proposal to make it common ground that the speaker knows that she has hands. If successful, all worlds in the context will be worlds at which the speaker knows she has hands. In turn, the second conjunct is a proposal to make it common ground that the speaker does not know that she is not a handless brain in a vat, that is, the speaker does not know that she has hands.[10] But there are no worlds in

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[10] This assumes that "*a* does not know that she is not a handless brain in a vat" entails "*a* does not know that she has hands." In turn, therefore, it assumes that "*a* knows she has hands" entails "*a* knows she is not a handless brain in a vat." If one thinks this relies on closure in that

which the speaker both knows that she has hands and does not know that she has hands. Hence, a successful assertion of (3) will produce an empty context set.

We should note here a potential problem for our proposal. In particular, given the way we have spelled out IDU, updating the context set with any necessarily false proposition will be characterized as infelicitous. Yet this is arguably too strong a result. Imagine that, in the days before it was known that water is H_2O, a scientist announces the result of her recent research, stating that

(16) Water is NaCl.

Uncontroversially, (16) is necessarily false. Yet this utterance is not infelicitous in the sense under discussion here. Nevertheless, given that propositions are represented as sets of worlds, updating with (16) is to intersect the context with the empty set, and so, according to IDU, (16) should be infelicitous.

This is an instance of a broader problem concerning modeling propositions in terms of possible worlds. In particular, the problem arises from construing the kind of inconsistency that, according to our account, is involved in communicative infelicity in terms of metaphysical impossibility, in the sense that a set of propositions is inconsistent if there is no metaphysically possible world in which they are all true. This is an artifact of the standard assumption that possible worlds approaches to various phenomena by default invoke metaphysical possibilities. As such, one option is to think of the relevant sets of worlds as epistemic possibilities which may include worlds that are metaphysically impossible. (16) does not invariably produce an inconsistent set of epistemically possible worlds, while, for instance, (4), (9), and (10) do.

3.4 Robust Pragmatic Infelicity as Discordant Updates

Updating the common ground with a set of propositions that cannot all be true is not the only way of producing an inconsistent common ground and hence an empty context set. This can be illustrated by considering the case of Moore sentences, such as the classic case of (11a).

(11) a. #It's raining, but I don't believe it's raining.

It is a standard observation that saying that p typically communicates that one believes that p. That is, conveying that one believes that p is usually an effect of asserting that p. There are different ways of understanding this observation. One approach is to try to derive it from independently plausible principles, such as the Gricean First Maxim of Quality.[11]

it holds only if a knows that if she has hands, she is not a handless brain in a vat, one can object to our suggestion if one finds such instances of closure problematic.

[11] See e.g. Levinson (1983, 105) who also suggests an account of Moore sentences parallel to the one we mention here.

First Maxim of Quality
Do not say what you believe to be false. (Grice, 1989, 27)

Given the First Maxim of Quality, the presumption that speakers comply with principles governing conversational cooperation implies that if S asserts that *p*, S believes that *p*. Alternatively, there are other routes to explaining why an assertion usually has the effect of communicating that one believes what is asserted.[12]

Whatever the explanation turns out to be, in the present framework, the observation that to assert that *p* typically communicates that the speaker believes that *p*, is the observation that asserting that *p* typically makes it common ground that one believes that *p*. We do not have to take a stand on whether this fact about conversation is to be explained by deriving it from cooperative principles, or in some other way.

Acknowledging this observation about the effect of assertions, it is straightforward to explain the infelicity of (11a) in terms of IDU. According to IDU, (11a) is infelicitous because asserting the first conjunct involves proposing to make it common ground that the speaker believes it is raining. So, if successful, all the worlds in the context set will be worlds in which the speaker believes it is raining. Hence, to assert the second conjunct is to propose to make common ground information that would render the common ground inconsistent.[13]

This is a way of capturing the thought that (11a) communicates an inconsistent set of propositions. That is, even though (11a) is semantically consistent, in that both conjuncts can be true together, uttering (11a) has the effect of producing an inconsistent common ground. As before, note that if you utter the second conjunct of (11a) as a joke or ironically, you are not proposing to add to the common ground that you do not believe it is raining. Hence, IDU predicts that, in that case, (11a) is not infelicitous. This we take to be the right result.

We can also note that, as this shows, and as captured by IDU, the problem with infelicitous utterances is not that audiences cannot determine how to update the common ground based on what is said. It is quite clear that (11a) is a proposal to update with the content that it is raining and the content that the speaker does not believe so, which in and of itself is unproblematic.

Now consider the sentence in (11b), another example of a Moore sentence.

(11) b. #It's not raining, but I believe it is.

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[12] See e.g. Unger (1975), Williamson (2000) for views on which asserting that *p* involves representing oneself as knowing that *p*, and hence one cannot also represent oneself as not believing that *p*. See also Ninan's (2014) explanation of the acquaintance inference, discussed in the text.

[13] This way of explaining the infelicity of Moore sentences is closely related to the influential proposal by Gillies (2001), according to which (11a) is inconsistent because the second conjunct entails that it might not be raining. In particular, Gillies shows that in a dynamic framework for understanding epistemic modals, the conjunction *p and it might be that not-p* is inconsistent. As demonstrated by Yalcin (2007), assimilating the Moorean infelicity to the infelicity of *p and it might be that not-p* is problematic in that Moore sentences exhibit different embedding behavior than conjunctions of that form. The analogous observation applies to Moore sentences like (11b). The approach we take relies only on the standard observation that asserting that *p* usually makes it common ground that the speaker believes that *p*.

Given what we argued above, uttering the first conjunct of (11b) involves a proposal to make it common ground that the speaker believes that it is not raining. Hence, if successful, all worlds in the context set will be worlds in which the speaker believes it is not raining. But moreover, if it is common ground that the speaker believes it is not raining, it is arguably also common ground that the speaker does not believe that it is raining. In other words, there are no worlds in the context set in which the speaker believes it is raining. So the effect of asserting the second conjunct of (11b), subsequent to asserting the first conjunct, would be an empty context set.

It might be objected here that this proposal relies on assumptions that do not always hold. We said that if it is common ground that the speaker believes it is not raining, it is common ground that she does not believe it is. Yet one might think that, surely, there can be contexts in which this does not hold. We agree. As we said earlier, we should not rule out outlandish contexts in which Moore sentences are not infelicitous. For instance, the participants might know (or at least presuppose) that the speaker is irrational in the relevant way. In such a case, even if the participants take for granted that the speaker believes it is not raining, they might not take for granted that she does not believe that it is. In other words, our account predicts that some cases may be felicitous in such outlier contexts.

A similar approach can arguably account for the case of (2), mentioned in the introduction.

> (2) It's such a wonderful novel; insightful and moving, with the most beautiful and bewitching language. #It's such a shame I've never read it. (Robson, 2012, Ninan, 2014)

The observation is that asserting that an object instantiates an aesthetic or taste predicate while denying that you stand in the requisite acquaintance relation to the object is infelicitous. Hence, a natural approach to (2) is to suppose that the first clause of (2) has the effect of making it common ground that the speaker has read the novel, and therefore the second conjunct results in an inconsistent common ground.

This diagnosis is consistent with the most promising explanations of the phenomenon in the literature. For instance, Ninan (2014) explains the infelicity of (2) in terms of the familiar knowledge norm of assertion according to which assertion requires knowledge of what is asserted. Accordingly, one might think that the knowledge norm of assertion implies that, by the successful assertion that p, one makes it common ground that one knows that p. Moreover, it is arguably not possible to know that something is wonderful, insightful, moving, or beautiful without standing in the proper acquaintance relationship to the object. Hence, (2) would be infelicitous because in asserting p, one attempts to update the common ground with the proposition that one knows that p, while in the same breath making it clear that one cannot know it. Alternatively, Franzén (2018) argues that aesthetic discourse expresses that the speaker is in a non-cognitive state, like appreciating the taste of something, which in turn requires first-hand experience. Insofar as expressing a mental state constitutes an

attempt to make it common ground that one is in that mental state, Franzén's explanation of the infelicity of (2) is congenial to our theory of infelicity.[14]

3.5 Variable Pragmatic Infelicity as Discordant Updates

It is straightforward to apply IDU to variable pragmatic infelicity. Conversational implicatures aim at incrementing common ground information. Take (17).

>   (17)   A. Are you going to the party tonight?
>   B. I have to work.

B's reply conversationally implicates that B is not going to the party. By doing so, B is proposing to make this information common ground. In other words, in an ordinary conversational setting, B's reply in (17) has the effect of making it common ground that B is not going to the party (as well as that B has to work).

>   Given this, we can account for the infelicity of (12), repeated below:

>   (12)   A. What do you think of Martin's latest novel?
>   B. It puts me to sleep.
>   A. Oh, so you don't like it?
>   B. #Yes, I love it.

B's utterance of "It puts me to sleep" conversationally implicates that B does not like Martin's novel. Hence, B's subsequent utterance of "Yes, I love it" is a proposal to include in the common ground information that would render the common ground absurd, correspondingly leading to an empty context set.

There are two main points to clarify regarding this suggestion concerning variable pragmatic infelicity. The first concerns the fact that conversational implicatures of the kind just illustrated arise due to *floutings* of conversational principles like the Gricean maxims. The second concerns the fact that conversational implicatures are *cancelable*. We comment on each in turn below.

First, note that even though conversational implicatures are triggered by utterances that manifestly violate conversational principles, IDU does not predict that utterances that trigger conversational implicatures are infelicitous. This is the right result. For example, even though B's reply in (17) involves flouting the Gricean maxim of Relation, "Be Relevant!" (Grice, 1989, 27), the reply is not infelicitous in the sense of the word we are interested in here. There is no sense in which B's reply in (17) is anomalous or unacceptable in a way parallel to the examples we have marked with "#," at least in the context in question. The reply will not prompt puzzlement on A's part. Rather, the effect of B's utterance is just that A will take it that B is not going to the party. Correspondingly, updating the common ground with the information that B is not going to the party does not result in an inconsistent information state.

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[14] See Pérez Carballo and Santorio (2016) for relevant discussion.

Conversational implicature is a way of communicating effectively by exploiting the general presumption that participants are cooperative and comply with rational principles like the maxims.[15] The same applies to (12).

Second, conversational implicature is a highly malleable process in that speakers usually have a significant degree of control over what their utterances implicate. Cancelability is the hallmark of this malleability, as in (18).

(18)   A. Are you going to the party tonight?
         B. I have to work, but I'll come later.

B's utterance in (18) is not infelicitous. Yet one might think that IDU incorrectly predicts that cancelations of this kind result in infelicity. This is not the case. The reason is that B's utterance does not make it common ground that B is not coming to the party. Rather, cancelation is a way of indicating that one is not proposing to communicate something that would otherwise typically be inferred from one's utterance.

This situation contrasts with (12). In particular, since the first reply in (12) does implicate that B did not like the novel, it is common ground that B did not like the novel when the second reply is made. In other words, since the implicature that B did not like the novel has not been prevented from being communicated, the subsequent assertion of information that is inconsistent with what was previously conversationally implicated is correctly seen as infelicitous given IDU. By contrast, consider a variant on (12) involving cancelation:

(19)   A. What do you think of Martin's latest novel?
         B. It puts me to sleep, but I really liked it.

As in (18) the cancelation in (19) is a way of indicating that B is not intending to communicate that she did not like the novel. So, since this information accordingly does not become common ground as a result of the utterance, there is nothing inconsistent in the follow up.

Finally, we want to comment briefly on the case of what Dinges (2015) and others have called *substitutional* implicatures: cases where the speaker only intends to convey the implicated meaning. Grice (1989, 34-35) treated a number of phenomena including irony and metaphor in this way, specifically as violations of the First Maxim of Quality. Take the stock example of "Juliet is the sun." There is no sense in which the speaker proposes to make it common ground that Juliet literally is identical to the star at the center of our solar system. What is proposed for the common ground is only the metaphorical meaning, however one wants to gloss it. By contrast, for cases of *additive* implicatures like (18) and (19), both what is (literally) said and the implicating meaning

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[15] An anonymous reviewer points out that if e.g. the presumption that speakers are obeying Quality maxims may not be in play in certain contexts, there should be contexts in which Moorean sentences are not infelicitous, on our view. This we think is correct. For instance, one might say in an ironica tone of voice, or imitating the tone of the sound of the PA system, "The train is coming at 1 pm," and follow up with "But I don't think so."

are proposed for the common ground. Yet the metaphorical meaning of "Juliet is the sun" is presumably not inconsistent with common ground information. So, if one adopts the Gricean approach, IDU does not make metaphorical or ironic utterances infelicitous *by default*, while they may be so if what is proposed for the common ground does clash with presupposed information. Alternatively, if one thinks that the metaphorical meaning is semantically expressed by "Juliet is the sun", such cases are not infelicitous according to IDU, since there is no proposal to update with an inconsistent content.

3.6 Prior Context, Local Context, and Accommodation

Some infelicitous utterances appear at first sight not to communicate inconsistent sets of propositions. Such cases are *prima facie* evidence that discordant update is not necessary for infelicity. A striking example are cases in which participants are unable to identify a referent for a pronoun, as in (4), repeated here as (20).

> (20) *Out of the blue:* #He's a piece of work. (King, 2017)

While (20) looks like a paradigmatic case of infelicity, it may not look like (20) involves a proposal to update the common ground in a way that would result in an inconsistent information state. However, as we argue below, the infelicity of (20) can be accounted for in terms of communicative inconsistency.

King (2017), building on Tonhauser et al. (2013), suggests that infelicities such as (20) can be explained in terms of a "reference implication" requiring the context to entail that the demonstrative or pronoun refers to some particular entity. Similarly, Roberts (2002), (2004), and others, argue that uses of demonstratives presuppose the availability of a salient referent. For our purposes, what is important is that all such proposals explain infelicities such as (20) in terms of a requirement that it be common ground that the pronoun has a referent - or more particularly, that for some entity x it is common ground that x is the referent. Here we will follow Roberts in speaking of this requirement as a presupposition.

We can distinguish two situations. First, we can imagine cases in which it is common ground in the context of utterance for (20) that there is no salient referent for the pronoun. Second, we can imagine cases where there is a discrepancy between the speaker and the audience in this regard in that the speaker thinks a particular referent is salient enough, yet the audience cannot identify it, and hence it is not common ground that there is a salient referent, but nor is it common ground that there is not.

Consider the first kind of situation. This is arguably the kind of context that King himself had in mind, where "No male is salient or was previously discussed." (2017, 4) So it is natural to think that everyone in the situation accepts that there is no salient referent (and that everyone believes that everyone believes that, etc.). In order to see how our view accounts for the infelicity of (20) given this, we need to comment briefly on presupposition accommodation more generally.

Take (21).

(21) Sue stopped smoking.

Uncontroversially, (21) requires that it be common ground that Sue used to smoke, or that this be accommodated. But moreover, as stressed by Stalnaker (1999 [1998]), (2002), von Fintel (2008), and others, it is crucial to recognize that presupposition accommodation is a process that takes place *before* updating with assertoric content. In other words, if it is not common ground that Sue used to smoke when (21) is uttered, typically it will first be accommodated that she did, and then the resulting common ground will be updated with (21). Following usual terminology, we call the context that assertion operates on the *local* context for (21). We call the context in which accommodation takes place the *prior* context, and finally, we call the context that results from updating the local context with assertoric content the *output* context. In other words, presupposition accommodation and subsequent assertion can be thought of schematically as follows:

prior context + accommodation => local context
local context + assertion => output context

Correspondingly, cases in which accommodation is not needed are cases in which prior context = local context.

We claim that the infelicity of (20) stems from the fact that accommodation is ruled out in this case. That is, since the prior context is one in which it is common ground that there is no salient referent, accommodating the presupposition that there is a salient referent would produce an inconsistent information state.[16] One can think of (20) as involving a proposal to add information to the common ground that would result in an empty local context. The fact that it is obvious to everyone (and that it is obvious to everyone that it is obvious to everyone, etc.) that there is no way of identifying a suitable referent produces a prior context in which it is common ground that there is no salient referent. In other words, it produces an information state that presupposes the negation of what is presupposed by (20) and, moreover, rules out accommodation. To be sure, there can be cases in which accommodating a suitable referent is not ruled out, and as our view predicts, these are cases in which there is no infelicity attached to the utterance (at least in this respect).

Now consider the other kind of context for (20) mentioned above, that is, where the speaker thinks that some male person is salient enough to be identified by the audience, and yet this belief is mistaken, and the audience is unable to find a suitable referent. In this case, it is not common ground that there is a salient referent, because the audience does not think so. But nor is it common ground that there is no salient referent, because the speaker thinks there is. Indeed, this is a case of what Stalnaker

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[16] If one prefers to think, along the lines of Tonhauser et al. (2013) and King (2017), of the requirement of a salient referent as a projective content more generally, the same still applies in that the relevant information would need to be accommodated in a case like this.

(e.g. 2002, 717) calls a *defective* context, i.e. where the speaker's beliefs about what is common ground does not match the audience's.

Once one distinguishes between how the common ground is perceived by the speaker and the audience, one can equally distinguish between what is felicitous or infelicitous to a speaker and an audience, respectively. If one looks at what is common ground *among the audience* in the case in question, (20) is clearly predicted to be infelicitous, for the same reasons as those rehearsed above. Yet we think it is a strength of our account that it is able to explain why the utterance may not look infelicitous from the point of view of the speaker, namely because she does not think it is common ground that there is no salient referent.

It is useful to compare this situation to similar cases involving iterative adverbs, like *too*. Kripke (2009), and others, have noted that these trigger highly context sensitive presuppositions, as illustrated by (22).

(22) Sam is having dinner in New York, too.

On the standard view, (22) asserts that Sam is having dinner in New York while presupposing that some salient individual distinct from Sam is having dinner in New York. In a case parallel to that of (20) above, there may not be enough clues or information to go on as to who the speaker has in mind, and the speaker might be fully aware of this. Hence, along the lines of what we suggested above, the prior context will be one in which it is common ground that there is no relevant salient individual. In turn, therefore, accommodation will be inconsistent and the utterance infelicitous. On the other hand, one can imagine cases in which the speaker falsely believes that the audience will be able to figure out what she has in mind. Here the options for a theory like ours parallel those we discussed earlier.

Finally, we should mention that this account of the infelicity of utterances like (20) is neutral on the question of what, if anything, the pronoun in (20) does refer to. If one accepts a strong form of the view that the speaker's intentions determine the referent of demonstratives, one might insist that the demonstrative refers to whoever the speaker was intending to refer to, if any.[17] If so, one might think that (20) is true or false depending on whether or not that person is a piece of work. Alternatively, one can have other views on which the pronoun does not refer. Indeed, if one thinks that the pronoun has no referent, it is natural to think that (20) does not express a proposition at all. However, such views can still accept the general thought behind theories of the kind described above on which uttering (20) presupposes that there is a salient reference in a context where it is common ground that there is not.

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[17] For different versions of this kind of view, see e.g. Kaplan (1989), Åkerman (2009), Stokke (2010), King (2014), Viebahn (2020). For opposing views, see Glanzberg (2007), Bach (2007). Many intentionalist views of demonstratives accept some form of uptake constraint, so that, roughly, an occurrence of a demonstrative refers to what the speaker intended only if the audience is able to see what the speaker intended to refer to.

4 Scope and Limits

We have seen that our account of infelicity in terms of discordant updates, as a way of representing communicative inconsistency, explains a wide range of cases, including those mentioned in the introduction. In this section we consider some potential problem cases involving infelicity that *prima facie* is not due to discordant updates.

4.1 The Elephant in the Room

We begin by briefly commenting on cases in which someone asserts information that directly contradicts what is taken for granted prior to the utterance. Suppose, for example, that someone asserts (23) in a context where it is plain to everyone that there is no elephant in the room.

>   (23) There's an elephant in the room!

As for the case of (20), it is natural to think that, in this case, it is common ground that there is no elephant in the room, simply because everyone can see that everyone can see, etc., that there is not. If so, the local context for (23) includes the negation of (23), and in this kind of situation, asserting (23) is clearly infelicitous, as predicted by IDU. (As earlier, the utterance may be a joke and hence not a proposal for updating the common ground at all.)

Yet, to be sure, the situation may be different. For instance, imagine that, even though it was common ground that there was no elephant in the room, the speaker has noticed that an elephant has sneaked in without anyone else seeing this happen. In that case, the utterance of (23) may alert the audience to this fact, too. In such a case, the local context will be revised to no longer include the presupposition that there is no elephant, and hence the assertion of (23) is not infelicitous, but rather makes the presence of the elephant common ground.

4.2 Non-Declarative Infelicity

Another group of cases not covered by our discussion so far are non-declarative utterances. One might think that a theory like ours, which diagnoses infelicity in terms of paradigmatic interactions with context centered around assertion, is ill-equipped to account for non-declarative infelicity.

There are three non-declarative sentence types in English:

>   (24)   a. *Interrogative*: Is he quiet?
>   b. *Imperative*: Be quiet!
>   c. *Exclamative*: How quiet he is!

Here we will confine ourselves to interrogatives and imperatives. One immediate source of infelicity for such utterances stems from the fact that both interrogatives and

imperatives often trigger presuppositions. This means that interrogatives and imperatives interact with common ground information at least with respect to the requirements imposed by presuppositions. Correspondingly, we should not be surprised that infelicity can arise as in (25).

(25) a. #No one ate the cake, but why did John eat it?
      b. #There's no beer in the fridge, but get me a beer from the fridge.

We take it to be clear enough how our account applies to such cases of infelicitous presuppositions associated with non-declaratives.

It has been noted that interrogatives and imperatives also interact with common ground information in other ways. Stokke (2014) observes that uttering an interrogative or an imperative typically makes it common ground that one wants to know the corresponding answer or that one wants the relevant action to be carried out.[18] Accordingly, denying that one does is typically infelicitous, as in (26).

(26) a. #I don't want to know whether you went to Sam's talk, but did you go to Sam's talk?
      b. #I don't want you to go to Sam's talk, but go to Sam's talk!

This phenomenon is likewise readily explained by our account here. The first conjunct of (26a) makes it common ground that the speaker does not want to know whether the addressee went to Sam's talk. Hence, the following interrogative involves a proposal to update the common ground in a way that would result in an empty context set. And similarly, for (26b).

Another group of cases are the "practical Moore sentences" observed by Mandelkern (2019), sampled below:

(27) a. #You might not turn in your final paper by the end of the exam period, but turn in your final paper by then.
      b. #I order you to turn in your final paper by the end of the exam period, but you might not turn it in by then.
      c. #You must turn in your final paper by the end of the exam period, but you might not turn your paper in by then.
      (Mandelkern, 2019)

Given what we have been arguing in this paper, (27a) is evidence that uttering an imperative of the form *p!* typically makes it common ground, roughly, that the speaker

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[18] This suggestion is compatible with views, like those of Ninan (2005) and Portner (2007), on which imperatives interact with another discourse component than the common ground, the "to-do list," that stores information about tasks assigned to different participants. As data like (26b) suggests, imperatives also change the information state of the conversation in the sense of updating the common ground. Yet there is no reason to think that they may not also interact with other features of contexts, such as to-do lists.

thinks, *will p*. Needless to say, one would like to have an explanation of why this should be so. But note that, in order to account for the infelicity of (27a) in terms of our proposal in this paper, all that is needed is the observation that imperatives have this effect on common ground information. We take it that, if this is right, it should apply, *mutatis mutandis*, to (27b-c), too. It is reasonable to think that, given the context, the latter two have the effect of issuing an order or request in the same way as the imperative. Indeed, their infelicity strongly suggests that they bring about a change in the common ground of the same kind.

4.3 Potential Limits of the Theory

We have seen that our account of infelicity has the potential to handle some additional phenomena, including non-declarative infelicity. Still, we want to acknowledge that there are challenges to the full generality of our theory.

First, relating to the previous discussion, Mandelkern points out a further feature of cases involving imperatives:

> an order can be felicitous even when it is mutually known that the addressee might disobey. Even in such situations, however, the conjunction of the order with the claim that the addressee might disobey yields striking infelicity […]. (Mandelkern, 2019, 9)

He gives the example of (28).

(28) Let me go!

The observation is that, even if it is common knowledge among the participants that the addressee will not let the speaker go, (28) is not an infelicitous utterance. Suppose, for example, that you are imprisoned by a stern and impervious guard. Both you and the guard know that there is no way she will let you go, and moreover you are both aware that you both know that, and so on. Even so, you might still say (28), without any attendant infelicity. And yet, even in this context, (29) is infelicitous.

(29) #You won't let me go, but let me go!

Yet this raises the question, how can we explain the infelicity of (28) if it proposes to add to the common ground something that is commonly known to be false?

IDU predicts that (28) is infelicitous if and only if, first, it is common ground that the guard will not let the prisoner go, and secondly, the prisoner proposes to make it common ground that she will by uttering (28). As such, it is important to examine each of these points in relation to (28).

With respect to the first, one point to emphasize is the distinction between common knowledge and common ground. As Stalnaker has repeatedly emphasized

> Successful communication is compatible with presuppositions that are recognized to be false, but the information that they are being presupposed must be actually available, and not just assumed or pretended to be available. (2002, 716)

Correspondingly, it has been argued that speakers can sometimes assert that *p* even though it is common knowledge that *not-p*. Most cases of this kind are instances of what is often called "bald-faced lies," that is, lies that are told despite everyone involved knowing that what is said is false. Indeed, Stokke (2013), (2018) has argued that, in these cases, the liar proposes to make what she says common ground, even though its negation is common knowledge. Relatedly, there is room for examining an approach to (28) on which it is not common ground that the guard will not let the speaker go, even if it is common knowledge. If so, (28) will not be seen as infelicitous by IDU.

If one is not convinced that this distinction is relevant to the case of (28), one might examine further whether the prisoner can be said to propose to add to the common ground the information that would normally be conveyed by an utterance of (28). In particular, one might see the prisoner's utterance as falling short of a serious utterance, and rather as analogous to cases where one mouths an expected response, or engages in a kind of pretense. For example, if a bully forces you to say, "I love our nation's leader," your utterance may not involve a proposal to add to the common ground that you love your nation's leader, and it may be common ground that you do not. On this diagnosis, even if it is common ground that the guard will not let the speaker go, uttering (28) in the relevant context is tantamount to a mere verbal performance, without any intent to update the common ground. Again, if so, (28) is not infelicitous by the lights of IDU.

4.4 Anomaly beyond Infelicity?

Having said this, we want to acknowledge that there might be cases of linguistic anomaly, potentially including the case involving imperatives discussed above, which are not covered by the analysis of infelicity we have offered. In particular, there are instances of grammatical but anomalous utterances for which the term "infelicity" is sometimes used but which nevertheless seem recalcitrant to our theory, for instance, impolite speech, hate and/or slurring speech.

For instance, addressing the dean with "dude" or making the claim that the department needs more "broads" to cover a diversity requirement are clearly instances of objectionable speech. It is an open question whether they also involve discordant updates - that is, whether such utterances can be seen as proposing information for the common ground that is inconsistent with what is otherwise taken for granted. If they turn out not to, they are counterexamples to our view to the extent that they are infelicitous in the relevant sense. We are inclined to think that these are different phenomena from the one we have discussed. In particular, they appear to us to be examples of failures of morality or etiquette, rather than communicative failures.

More broadly, Austin (1962) described several ways in which speech acts can be unsuccessful or defective - in his original terminology, infelicitous. For instance, to take an example discussed by Sadock (2004, 56-57), if "a passing inebriate picks up a bottle, smashes it on the prow of a nearby ship, and says, "I christen this ship the Joseph Stalin,"" their speech act is arguably defective in that does not succeed in christening the ship. Specifically, this is a case of what Austin (1962, 14-15) called *misinvocation*.

As before, it is at least not ruled out that this kind of unsuccessful speech act can be accounted for within our framework. One might think that saying, "I christen this ship the Joseph Stalin" involves, among other things, proposing to make common ground information that, in this scenario, is in conflict with presuppositions, for instance, concerning what is required for successfully bestowing a name on a ship. On the other hand, we take it that there are reasons to think that this kind of defectiveness is relevantly different from the phenomena we have focused on in this paper.

This way of addressing the issue invites the question, of course, whether there is an independent way of delineating infelicity, in the relevant sense. In other words, one might worry that we have not given an independent way of characterizing the object of inquiry for our account. We agree. Rather, our methodology has been ostensive, pointing out a number of phenomena that are standardly taken to be instances of infelicity and showing how they can be subsumed under a unified account. The success of this approach has to be judged on the basis of the generality it achieves.

Moreover, as mentioned in the introduction, skepticism has been voiced whether there is anything general to be said about the concept of linguistic infelicity. We think that the considerations that we have offered here go some way towards rebutting this skepticism. Contrary to appearance, there is a unified structure to a wide variety of examples of infelicity in the literature, both semantic and pragmatic, and both declarative and non-declarative. While we acknowledge that there are other phenomena in the vicinity, as we have said, we recommend thinking of infelicity in particular as the kind of communicative inconsistency that we have identified.

References

Abrusán, M. (2019). Semantic anomaly, pragmatic infelicity, and ungrammaticality, *Annual Review of Linguistics* 5, 329–351.

Austin, J. L. (1962). *How to Do Things with Words*. Oxford: Oxford University Press.

Bach, K. and Harnish, R.M. (1979). *Linguistic Communication and Speech Acts*. Cambridge, MA: MIT Press.

Bach, K. (2007). Minimal Semantics. *Philosophical Review*, *116*(2), 303–306.

Chomsky, N. (2015 [1957]). *Syntactic Structures*.
DeRose, K. (1995). Solving the Skeptical Puzzle. *Philosophical Review,* 104: 1-52.

Dinges, A. (2015). Innocent Implicatures. *Journal of Pragmatics* 87: 54-63.

von Fintel, K. (1993). Exceptive constructions, *Natural Language Semantics* 1(2), 123–148.

von Fintel, K. (2008). What is Presupposition Accommodation, Again? *Philosophical Perspectives*, 22(1), 137–170.

Franzén, N. (2018). Aesthetic Evaluation and First-hand Experience. *Australasian Journal of Philosophy* 96(4).

Gillies, A.S. (2001). A New Solution to Moore's Paradox. *Philosophical Studies* 105, 237-250.

Glanzberg, M. (2007). Context, Content, and Relativism. *Philosophical Studies*, *136*(1), 1–29.

Grice, H.P. (1989). *Studies in the Way of Words*. Cambridge, MA: Harvard University Press.

Huvenes, T. and Stokke, A. (2016) "Information Centrism and the Nature of Contexts" (with Torfinn Huvenes), *Australasian Journal of Philosophy*, 94(2), 301–314

Kaplan, D. (1989). Demonstratives: An Essay on the Semantics, Logic, Metaphysics and Epistemology of Demonstratives and Other Indexicals. In J. Almog, J. Perry, & H. Wettstein (Eds.), *Themes From Kaplan* (pp. 481–563). Oxford University Press.

Karttunen, L. (1974). Presupposition and linguistic context. *Theoretical Linguistics*, 1, 181–194

King, J. C. (2014). The Metasemantics of Contextual Sensitivity. In B. Sherman & A. Burgess (Eds.), *Metasemantics: New Essays on the Foundations of Meaning* (pp. 97–118). Oxford University Press.

King, Jeffrey C. (2017). Strong Contextual Felicity and Felicitous Underspecification. *Philosophy and Phenomenological Research 97* (3):631-657.

Kripke, Saul A. (2009). Presupposition and Anaphora: Remarks on the Formulation of the Projection Problem. *Linguistic Inquiry* 40 (3):367-386.

Levinson, S. (1983). *Pragmatics*. Cambridge and New York: Cambridge University Press.

Mandelkern, M. (2019). Practical Moore Sentences. *Noûs* 55(1): 39-61

Moore, G. E. (1942). Reply to my critics. In P. A. Schilpp (Ed.), *The Philosophy of G. E. Moore* (Vol. 2). Open court.

Ninan, D. (2005). *Two puzzles about deontic necessity.* In J. Gajewski, V. Hacquard, B. Nickel, & S. Yalcin (Eds.), *New work on modality*, Vol. 51 of *MIT Working Papers in Linguistics* (pp. 149–178). Cambridge, MA: MITWP.

Ninan, D. (2014). Taste Predicates and the Acquaintance Inference. *Semantics and Linguistic Theory* 24: 290–309.

Pérez Carballo, Alejandro & Santorio, Paolo (2016). Communication for Expressivists. *Ethics* 126 (3):607-635.

Roberts, C. (2002). Demonstratives as Definites. In K. van Deemter & R. Kibble (Eds.), *Information Sharing: Reference and Presupposition in Language Generation and Interpretation* (pp. 89–196). CSLI Press.

Roberts, C. (2004). Context in Dynamic Interpretation. In L. Horn & G. Ward (Eds.), *The Handbook of Pragmatics*, Oxford: Blackwell, 197-220.

Robson, J. (2012). Aesthetic Testimony. *Philosophy Compass* 7/1: 1–10.

Portner, P. (2007). Imperatives and modals. *Natural Language Semantics*, *15*, 351–383.

Potts, C. (2005). *The logic of conventional implicatures*. Oxford and New York: Oxford University Press.

Sadock, J. (2004). Speech Acts. In L. Horn & G. Ward (Eds.), *The Handbook of Pragmatics*, Oxford: Blackwell, 53-73.

Stalnaker, R. (1999 [1970]). Pragmatics. In *Context and content* (pp. 31–46). Oxford and New York: Oxford University Press.

Stalnaker, R. (1999 [1978]). Assertion. In *Context and content* (pp. 78–95). Oxford and New York: Oxford University Press.

Stalnaker, R. (1999 [1998]). On the representation of context. In *Context and content* (pp. 96–114). Oxford and New York: Oxford University Press.

Stalnaker, R. C. (2002). Common Ground. *Linguistics and Philosophy, 25*(5–6), 701–721.

Stanley, J. (2005). *Knowledge and Practical Interests.* Oxford and New York: Oxford University Press.

Stokke, A. (2010). Intention-sensitive semantics. *Synthese, 175*, 383–404.

Stokke, A. (2013). Lying and asserting. *Journal of Philosophy, CX*(1), 33–60.

Stokke, A. (2014). Insincerity. *Noûs, 48*(3), 496–520.

Stokke, A. (2018). *Lying and Insincerity*. Oxford and New York: Oxford University Press.

Strawson, P. F. (1950). On referring. *Mind* 59(235). 320–344.

Tonhauser, Judith, David Beaver, Craige Roberts and Mandy Simons, 2013, 'Towards a taxonomy of projected content', *Language* 89.1, 66–109.

Unger, P. (1975). *Ignorance: a Case for Scepticism*. Oxford: Oxford University Press.

Viebahn, E. (2020). Lying with Presuppositions. *Noûs, 54*(3), 731–751.

Williamson, T. (2000). *Knowledge and its Limits*. Oxford: Oxford University Press.
Yalcin, S. (2007). Epistemic modals. *Mind* 116(464), 983–1026.

Åkerman, J. (2009). A Plea for Pragmatics. *Synthese, 170*(1), 155–167.