

Conventional Implicature, Presupposition, and Lying

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Responding to parts of Sorensen (2017), it is argued that the connectives *therefore* and *but* do not contribute conventional implicatures but are rather to be treated as presupposition triggers. Their special contributions are therefore not asserted, but presupposed. Hence, given the generic assumption that one lies only if one makes an assertion, one cannot lie with arguments in the way Sorensen proposes. Yet, since conventional implicatures are asserted, one can lie with conventional implicatures. Moreover, since conventional implicatures may be asserted by non-declarative utterances, one can lie by uttering non-declaratives carrying conventional implicatures.

I

Introduction. Most philosophers agree that lies are assertions.¹ In particular, most agree that you lie only if you assert something you believe to be false.² You can avoid lying if you can avoid asserting disbelieved information. A well-known strategy of cunning disingenuousness is to mislead by asserting something one believes to be true and thereby convey something one believes to be false.

¹ See, e.g., Chisholm and Feehan (1977), Bok (1978), Williams (2002), Carson (2006, 2010), Sorensen (2007), Fallis (2009), Saul (2012), Stokke (2013, 2016).

² An alternative view is that you lie only if you assert something you do not believe. Sorensen's remarks suggest that he assumes this weaker view (see, e.g., Sorensen, 2017, p. 105). Yet since the stronger view is more common, I will assume the stronger view here. Everything I will have to say applies to the weaker view, as well.

Thinking about the nature of lying, and in particular, the important relation between lying and other ways of deceiving with language, therefore involves thinking about what can be asserted by particular utterances.³ In “Lucifer’s Logic Lesson: How to Lie with Arguments” Roy Sorensen tries to expand the canvass by drawing attention to a species of information that is conveyed by a variety of utterances, but which has received relatively little attention in philosophy of language. This is the category of conventional implicature. Sorensen notes that conventional implicatures are typically thought to be assertions, as opposed to conversational implicatures, one of the chief characteristics of which is that they are not asserted. While conversational implicatures provide the default strategy for misleading while avoiding lying, Sorensen suggests that conventional implicatures will be lies in the right circumstances.

Sorensen is interested in a particular type of construction, namely the construction *P therefore Q*. He argues that *therefore* contributes a conventional implicature to such utterances, and that if what is conventionally implicated is believed to be false by the speaker, she is lying.

Five interrelated claims can be distilled from Sorensen’s discussion:

S1 You lie only if you make an assertion. (p. 106)

S2 Conventional implicatures are assertions. (p. 110)

S3 You can lie with conventional implicatures. (p. 107)

S4 *P therefore Q* conventionally implicates that *P* implies *Q*.⁴ (p. 106)

S5 You can lie with *P therefore Q* (even if you believe *P* and believe *Q*). (p. 105)

My plan is as follow. In Section II I will comment on S1 and S2. Sections III-V will be concerned with S4 and S5. Finally, Section VI will turn to S3. We will see that there is reason to agree with S1-3 while disagreeing with S4-5. In other words there is reason to agree that conventional implicatures are asserted, and therefore you can lie with conventional implicatures. But I think the case Sorensen focuses on, that of *therefore*, is ill-chosen. We will see that the evidence suggests that *therefore* is a presupposition trigger, rather than a conventional implicature trigger. This means that the implication relation conveyed by *P therefore Q* is presupposed, and not asserted, by utterances of such

³ Throughout, I am going to be sloppy about distinguishing between sentences and utterances. I will talk about truth-values, assertions, lies, and other features associated with either without taking care to differentiate.

⁴ Sorensen repeatedly glosses the conventional implicature as “*P* supports *Q*.” I use “*P* implies *Q*” since I think it is more intuitive and appropriately general.

constructions. Hence, since I agree with S1, I will reject S5. I think the relevant examples are not outright lies, although they may be misleading.

II

Assertion and Conventional Implicature. As mentioned above, S1 represents a widespread view. The thought that you lie only if you assert something you believe to be false is motivated by the observation that there is a difference between outright lying and misleading while not lying. Standard examples involve asserting disbelieved information vs. conversationally implicating disbelieved information by asserting something believed to be true. Here is one:⁵

- (1) **Sue.** Are you going to Paul's party?
Jim. No, I'm not going to Paul's party.
Context: Jim is planning to go the party.
- (2) **Sue.** Are you going to Paul's party?
Jim. I have to work.
Context: Jim has to work but is planning to go the party afterwards.

While Jim's reply in (1) is a lie, his reply in (2) is not a lie, although it is clearly misleading. The commonly accepted reason is that Jim's reply in (1) asserts something he believes to be false, while his reply in (2) conversationally implicates something he believes to be false by asserting something he believes to be true.

Given this, S1 can be seen to be a useful and well tried assumption. Correspondingly, it will not be challenged here. But if lying requires assertion, we are invited to examine in what circumstances particular utterances count as making assertions. According to S2, conventional implicatures constitute a category of information conveyed by utterances, over and above their more prominent import, which nevertheless count as assertions.

Of course, the notion of conventional implicature is not uncontroversial. Different theories have taken different views on what marks it off from other species of information conveyed by utterances, or indeed on whether it is a non-empty category at all. By "conventional implicature" I will here mean what

⁵ From Stokke (2016).

Christopher Potts (2005) means by it. I will focus on a subset of the triggers Potts identifies, namely those he calls *supplements*.⁶

Potts is a strong proponent of S2, the idea that conventional implicatures are asserted by utterances. Yet it is crucial to note that Potts holds, as does most non-denying theorists of conventional implicature, that assertions contributed as conventional implicatures are not on a par with what is more standardly asserted by the relevant utterances. One of Potts's main examples of conventional implicature triggers are supplemental relatives, as in (3).

- (3) I spent part of every summer until I was ten with my grandmother, who lived in a working-class suburb of Boston. (Potts 2005, p. 24)

Potts writes,

few would deny that, in [(3)], the first sentence of a published book review, the writer intends to assert that her grandmother lived in a working-class suburb of Boston. But it is wrong to treat this on par with the proposition that she spent part of every summer until she was ten with her grandmother. (ib.)

Accordingly, Potts distinguishes between *primary* and *secondary* assertions by utterances conveying conventional implicatures. The former, which he also calls *at-issue* content, is the main point of the utterance, while conventional implicatures are contributed as secondary assertions. In particular, for Potts, conventional implicatures are secondary assertions that typically function to comment on the primary assertion, or provide "some important (nonlogical) consequences of" (ib.) the primary assertion. Hence, in the case of (3), presumably the relative clause contributes that, as a consequence of spending her summers with her grandmother, the writer spent her summers in a Boston working-class suburb.

Sorensen agrees that "one sentence can express multiple propositions, one in expository service to the other." (2017, p. 106) As he says,

Normally, there is an entourage of adjunct assertions that attend the primary assertions and the argument as whole. In the terminology of H. P. Grice, these are conventional implicatures. (2017, p. 106)

⁶ This leaves out supplemental adverbs like *amazingly* and a range of expressive expressions and constructions including expressive adjectives like *lovely*. See Potts (2005, sec. 2.3) for an overview.

Consequently, S1 and S2 must be understood as applying to both primary and secondary assertions. Indeed, Sorensen thinks that “Any assertion, of whatever order, can be a lie.” (2017, p. 107) In other words, for Sorensen, both primary assertions and the secondary assertions conveyed by conventional implicatures can be vehicles of lying, as opposed to merely misleading.

In section VI I will agree with the claim that you can lie with conventional implicatures. Yet we will see that because conventional implicatures can be conveyed by non-declarative sentences, this view needs to be spelled out in a particular way. Next, I turn to the specific type of construction Sorensen focuses on.

III

Can You Lie with Arguments? Sorensen’s main aim is to advance the idea that, as he puts it, you can lie with arguments. By this he means chiefly that utterances of the form *P therefore Q* may be lies, even when the speaker believes *P* and believes *Q*. As he says, “you can lie with ‘*P therefore Q*’ without *P* or *Q* being lies. For you can lie by virtue of not believing that *P* supports *Q*.” (Sorensen, 2017, p. 105) Since he assumes that lies are assertions, Sorensen accordingly endorses the view that *P therefore Q* conventionally implicates, and hence asserts, that *P* implies *Q*. So, according to this proposal, even if you believe both *P* and *Q*, you are lying if you utter *P therefore Q*, while believing that *P* does not imply *Q*.

Here is an example Sorensen gives:

You can lie with an argument without any of your premises being a lie. You can lie with an argument without your conclusion being a lie. Therefore, you can lie with an argument without any of your premises or your conclusion being a lie. Confession: Although I believe the premises and the conclusion, I do not believe that the premises entail the conclusion. I lied. (Sorensen, 2017, p. 105)

The conclusion does not follow because it is consistent with the premises that if you lie with an argument without the premises being a lie, the conclusion is a lie; and conversely, that if you lie with an argument without the conclusion being a lie, some (or all) of the premises are lies. Consider an analogy:

- (4) a. I can eat breakfast without eating cheese.
b. I can eat breakfast without eating porridge.
c. Therefore, I can eat breakfast without eating either cheese or porridge.

The conclusion in (4c) does not follow, since it is consistent with the premises that if I do not eat cheese for breakfast, I eat porridge. In other words, it is consistent with (4a) and (4b) that I cannot eat breakfast without eating either cheese or porridge.

According to Sorensen's view, (4c) in the argument above will be classified as a lie if I believe that the conclusion does not follow from the premises. Indeed, it will be classified as a lie even though I believe (4a) and (4b), and moreover believe the main point of (4c), namely that I can eat breakfast without eating either cheese or porridge. For Sorensen, (4c) is a lie as long as I believe that (4c) does not follow from (4a) and (4b). The lie, on this view, is the suggestion conveyed by (4c) that (4a) and (4b) imply – in this case logically entail – that I can eat breakfast without eating either cheese or porridge.

One problem with this suggestion is that the verdict that (4c) is a lie is not obviously evinced by judgments on the case. It is safe to say that (4c) is at least not clearly a lie, in the way that, for example, the response in (1) is. Or, to take another example, compare (4c) to the response in (5).

(5) **Sue.** Where were you last night?

Jim. I went out for drinks with the guys from work.

Context: Jim spent the evening with his mistress.

The reply in (5) is an unmistakable lie, and will be judged as a lie by any competent judge. Whatever its status, (4c) is not a clear case of this kind.

As another example, consider the three sentences in (6), discussed by Huddleston and Pullum (2002).

(6) a. His son had been charged with importing illegal drugs, and for this reason Ed had decided to resign from the School Board.

b. His son had been charged with importing illegal drugs, and Ed had decided to resign from the School Board.

c. His son had been charged with importing illegal drugs; Ed had therefore decided to resign from the School Board.

(Huddleston and Pullum 2002, p. 777)

Huddleston and Pullum imagine a case in which the son was charged with importing illegal drugs and Ed decided to resign not because of the charge against his son, but because of a policy disagreement. This scenario is an instance of the kind Sorensen focuses on. Correspondingly, according to Sorensen, (6c) is a lie in this case. By contrast, Huddleston and Pullum comment that, in this situation,

[(6a)] will certainly be judged false, and [(6b)] true but misleading, while the status of [(6c)] is less clear, but seems to lie somewhere between the two. (Huddleston and Pullum 2002, p. 778)

It is not difficult to reinforce this sense of unclarity. Take (7).

- (7) The switch in the hall is on, and therefore, the lights in the office are on.

Suppose you know that the switch is on and that the lights in the office are on, but you also know that the switch in the hall is not the switch for the lights in the office. If you utter (7) in this situation, are you lying, or are you being merely misleading? Again, it seems to be safe to say that, at least, you are not clearly lying.

Here is a final example. Suppose you know that the supply of oil increased last year, and you also know that, nevertheless, prices also increased, because of market factors that are hard to understand for non-experts. In the hope of making me, an economics ignoramus, blunder in an upcoming meeting, you contrive to mislead me into thinking that the rise in prices was a result of the increase in supply. So you tell me,

- (8) Last year, the supply of oil increased, and therefore, the price of oil increased.

As before, it is natural to think that (8) is at least not clearly a lie. Indeed, many will most likely think that, even though your utterance is clearly misleading, it is not a lie. A lie is a case, like the replies in (1) and (5), in which the speaker plainly asserts something she believes to be false. But in cases like the ones above, while the speaker is obviously conveying disbelieved information, she is not manifestly doing so by outright asserting it.

If cases like these are lies, S4 is one way of explaining why (given S1 and S2). If *P therefore Q* asserts that *P* implies *Q* as a conventional implicature, then these examples count as examples of asserting disbelieved information. Conversely, if they are not clearly lies, it would be uncomfortable if our best linguistic theory classified them as cases of asserting disbelieved information.

However, as we will see next, there is evidence against S4, the claim that *P therefore Q* carries a conventional implicature. More specifically, there is evidence to suggest that *P therefore Q* is a presupposition trigger, and hence that the implication relation is presupposed rather than asserted as a conventional implicature. If this is right, the examples above will be classified as not lies, albeit they are clearly misleading. Given the sense of unclarity we have just described, this is at least an acceptable outcome.

IV

Conventional Implicatures vs. Presuppositions. Although Grice (1989, pp. 25-26) famously held that *therefore* contributes a conventional implicature, more recent work on conventional implicature provides reasons to deny this proposal. It is useful to begin by considering the fate of another of Grice's well-known candidate conventional implicature triggers, namely the contrastive conjunction *but*. Grice held that *A but B* says the same as *A and B* while conventionally implicating a contrast between *A* and *B*. Against the Gricean view, Chierchia and McConnell-Ginet (1990), Bach (1999), Potts (2005), and others, cite evidence suggesting that *but* does not carry a conventional implicature. In particular, as Chierchia and McConnell-Ginet point out, the behavior of *but* patterns with presupposition triggers in important respects, rather than with conventional implicatures.

Both conventional implicatures and presuppositions are types of information conveyed by utterances over and above standard assertive content. Call such information *implications*, for want of a better term. The most widely accepted method of classifying different types of implications is by examining projection behavior. That is, roughly, the way in which implications of compound sentences are determined by those of their ingredient simple sentences.⁷ Considering the projection behavior of the contrastive relation conveyed by *but*, a familiar pattern emerges. In fact, *but* exhibits the projection behavior of standard presuppositions.⁸ We will see that *therefore* shares this projection behavior, and moreover, that both diverge significantly from the projection behavior of the conventional implicatures discussed by Potts.

First, note that all the sentences in (9) imply that there is a contrast between going to the store and buying nothing.

- (9) a. Jim went to the store but bought nothing. (Chierchia and McConnell-Ginet 1990, p. 283)
b. It's not the case that Jim went to the store but bought nothing.
c. If Jim went to the store but bought nothing, we'll have to send Joe shopping.

⁷ Projection behavior was traditionally used chiefly to test for presuppositionality. But more recently, it has become increasingly recognized that projection is to be found for more types of implications. See Simons, Tonhauser, Beaver, and Roberts (2010) for discussion.

⁸ See Chierchia and McConnell-Ginet's (1990, pp. 282-283) discussion of the projection behavior of *but*. Chierchia and McConnell-Ginet uses "backgrounding" to describe this projection behavior. By contrast, this term and "anti-backgrounding" is used by Potts (2005) and Bach (1999) to describe imposition of common ground requirements. I use it in the latter way here, too.

d. Did Jim go to the store but buy nothing?

As is common, we describe the phenomenon illustrated by (9b-d) by saying that the contrastive implication of *but* projects out of a range of entailment canceling environments. That is, the implication does not survive when the trigger is under the syntactic scope of such operators.⁹ By contrast, (9b-d) do not imply that Jim went to the store, nor that he did not buy anything. This, of course, is a major reason to think that the latter information is asserted by (9a).¹⁰

On the other hand, when embedded in other environments, the contrastive implication of *but* often does not survive. The sentences in (10) do not imply that (the speaker believes that) there is a contrast between being poor and being honest.¹¹

- (10) a. Sue believes that Jim is poor but honest.
b. Sue said that Jim is poor but honest.

(10a) merely implies that Sue believes that there is a contrast between poverty and honesty, and (10b) that she said that, or at least that her utterance conveyed that there is. To bring this out, compare (10'a-b) and (10'c-d).

- (10') a. Sue thinks that poor people are usually honest. #She believes that Jim is poor but honest.
b. Sue thinks that poor people are usually honest. #She said that Jim is poor but honest.
c. Sue is under the misconception that poor people are usually dishonest. She believes that Jim is poor but honest.
d. Sue is under the misconception that poor people are usually dishonest. She said that Jim is poor but honest.

In other words, the contrastive implication of *but* does not – or at least does not usually – project out of attitude reports and indirect discourse.

This projection pattern matches the one characteristic of standard presupposition triggers. For example, (11a) implies that Jim has not been taking yoga classes before, while (11b) merely implies that Sue thinks so.

- (11) a. Has Jim started taking yoga classes?
b. Sue thinks Jim has started taking yoga classes.

To illustrate, note the inconsistencies in (11').

⁹ Cf. the definition of projection in Simons et al. (2010, p. 309).

¹⁰ Cf. Simons et al. (2010) who argue that an implication is "at-issue" if and only if it does not project out of entailment canceling operators.

¹¹ See Bach (1999, p. 348). Example adapted from Grice (1989, p. 88).

- (11') a. Jim has always been taking yoga classes. #Has he started taking yoga classes?
 b. Sue is convinced that Jim has always been taking yoga classes. #She thinks Jim has started taking yoga classes.

Moreover, the contrastive implication of *but* patterns with presuppositions in its discourse effect as regards the requirements it places on common ground information. In particular, *A but B* is typically infelicitous in a context where the relevant contrast between *A* and *B* is not common ground, and is hard to accommodate.¹² As Chierchia and McConnell-Ginet (1990, p. 284) remark, “if Jim has a compulsion to go to the store without ever buying anything (he prides himself on not buying anything) we might have contexts in which uttering [(9a)] is infelicitous [...]” To make this explicit, we can consider discourse fragments, like those in (12), where the contrast is forced to be not common ground and hard to accommodate.

- (12) a. Every day Jim goes to the store without buying anything.
 #Yesterday, he went to the store but bought nothing.
 b. Most poor people are honest. #Jim is poor but honest.

This behavior contrasts with that of the conventional implicature triggers identified by Potts (2005). Take another of Potts’s examples of supplements that trigger conventional implicatures, *as*-parentheticals.¹³ All the sentences in (13) imply that the press reported that Ames was a successful spy.

- (13) a. Ames was, as the press reported, a successful spy. (Potts 2005, p. 13)
 b. It’s not the case that Ames was, as the press reported, a successful spy.
 c. If Ames was, as the press reported, a successful spy, he must have been very clever.
 d. Was Ames, as the press reported, a successful spy?

As this shows, with respect to entailment canceling environments of this kind, the parenthetical projects out in the same way as standard presuppositions and the contrastive implication of *but*. However, the parenthetical implication also survives embedding in attitudes ascriptions and indirect discourse, as seen from (14).

¹² Bach (1999, p. 344) makes a similar observation, but draws a different conclusion from it.

¹³ Potts (2005, p. 89) uses “supplemental relatives” as a blanket term for nonrestrictive relative clauses and *as*-parentheticals, as do Amaral et al. (2007).

- (14) a. Sue believes that Ames was, as the press reported, a successful spy.
 b. Sue said that Ames was, as the press reported, a successful spy.

Both these sentences imply that the press reported that Ames was a successful spy, rather than merely implying that Sue believes or said so. To make this vivid, note that the sentences in (14') are not inconsistent.

- (14') a. Sue is under the misconception that the press said nothing about Ames. She believes that Ames was, as the press reported, a successful spy.
 b. Sue is under the misconception that the press said nothing about Ames. She said that Ames was, as the press reported, a successful spy.

This is a point of difference between conventional implicatures and presuppositions. Another is that, whereas presuppositions are infelicitous unless they are established as common ground or can easily be accommodated, conventional implicatures are not backgrounded in this sense, as can be seen from examples like (15).

- (15) The press reported that Ames was a successful spy. #Ames was, as the press reported, a successful spy.

The important thing to note for our purposes is that *therefore* patterns with *but* and not with conventional implicatures in these respects. All the sentences in (16) have readings on which they imply that a decrease in the supply of oil implies an increase in prices.

- (16) a. The supply of oil will decrease, and therefore, prices will increase.
 b. It's not the case that the supply of oil will decrease, and therefore, prices will increase.
 c. If the supply of oil decreases, and therefore, prices increase, we'll see more investments in solar power.
 d. Will the supply of oil decrease, and therefore, prices increase?

On the other hand the implication conveyed by *therefore* does not always project out of attitude reports and indirect discourse. Neither sentence in (17) carries the unexpected implication that (the speaker believes that) an increase in supply implies an increase in prices of oil.

- (17) a. Sue believes that the supply of oil will increase, and therefore, prices will increase.
 b. Sue said that the supply of oil will increase, and therefore, prices will increase.

Rather, as illustrated by (17'), (17a-b) merely imply that Sue believed or said that there was such an implication.

- (17') a. Sue thinks that decreased supply of oil means increased prices of oil. #Sue believes the supply of oil will increase, and therefore, prices will increase.
 b. Sue thinks that decreased supply of oil means increased prices of oil. #Sue said that the supply of oil will increase, and therefore, prices will increase.
 c. Sue thinks that decreased supply of oil means increased prices of oil. Sue believes that the supply of oil will decrease, and therefore, prices will increase.
 d. Sue thinks that decreased supply of oil means increased prices of oil. Sue said that the supply of oil will decrease, and therefore, prices will increase.

Finally, analogously to presupposition triggers, *therefore* is usually infelicitous if the implication it contributes is not common ground or easy to accommodate, as seen from (18).

- (18) a. A decrease in oil supply does not generally mean an increase in prices. #The supply of oil will decrease, and therefore, prices will increase.
 b. The switch in the hall is not the one for the lights in the office. #The switch in the hall is on, and therefore, the lights in the office are on.

Both *but* and *therefore* pattern with presupposition triggers in projecting out of standard entailment canceling environments such as negation, antecedents of conditionals and questions. Moreover, both items pattern with presupposition triggers in not projecting out of attitude reports and indirect discourse. And finally, both pattern with presupposition triggers in requiring that what they imply be either antecedently established as common ground or be easy to

accommodate. In the last two respects, *but* and *therefore* diverge from the conventional implicature triggers discussed by Potts.¹⁴

V

Assertions and Misleading Presuppositions. It is worth briefly considering an alternative to the conclusion concerning *but* and *therefore* we have been sketching. Bach (1999) uses data such as that in (10b) to argue that the contrastive implication of *but* is contributed as a primary assertion, or what Potts calls at-issue content, on a par with the asserted conjunction, rather than as a secondary assertion, or conventional implicature. In other words, on Bach's view, *A but B* contributes two primary assertions, namely *A and B* and that there is a contrast between *A* and *B*. For Bach, the fact that, as we have put it, the contrastive implication of *but* does not project out of indirect discourse is evidence that this implication is part of what is said, in the sense of truth-conditional, semantic content.¹⁵ Hence, Bach disagrees both with the conventional implicature view and the presupposition view of *but*. Similarly, as opposed to the presuppositional view, it might be proposed that *therefore* contributes two primary assertions. In particular, *P therefore Q* might be taken to primarily assert *P and Q* and that *P* implies *Q*.

The problem with this proposal is the other linguistic evidence we have surveyed above. In particular, if the contrastive implication is a primary assertion of *A but B*, it should not project out of entailment canceling environments, as it is shown to do by cases like (9b-d), and likewise for *therefore*. For example, as we noted the conjunction does not project out of (9d), whereas the contrastive implication does.

- (9) d. Did Jim go to the store but bought nothing?

Yet if the contrastive implication were a primary assertion of "Jim went to the store but bought nothing," the two should behave the same way.

Against this, it might be pointed out that conventional implicatures are taken to be assertions by Potts, and yet they also project out of entailment canceling environments, as we have seen from (13b-d). However, for Potts, conventional implicatures are secondary assertions, and hence not to be considered on a par with the at-issue, primary assertions of utterances. Hence, on Potts's view, while secondary assertions may project out, primary assertions

¹⁴ There is much more to be said about the difference between conventional implicature content and at-issue content with respect to projection and discourse behavior. The facts reviewed here, however, are sufficient to make the point I am interested in. For more discussion, see Amaral et al. (2007, sec. 3.2).

¹⁵ For critical discussion of this kind of argument, see Cappelen and Lepore (1997).

do not. This is clear from (13d), which conveys that the press reported that Ames was a successful spy but does not commit the speaker to the proposition that Ames was a successful spy.

- (13) d. Was Ames, as the press reported, a successful spy?

Furthermore, we have seen that *but* and *therefore* do not pattern with secondary assertions, that is, conventional implicatures, in the way they project under attitudes and indirect discourse, and do not pattern with primary assertions in the way they place requirements on the common ground.

So we have good reasons to maintain that the special contributions of *but* and *therefore* are neither secondary nor primary assertions. And in particular, given their projection behavior, we have reason to classify these implications as presuppositions. If this is right, then according to the generic view that lies are assertions, these special implications of *but* and *therefore* cannot be the vehicles of lying.

Consider again our examples of putative Sorensenian lies in (4c), (6c) and (7) (assuming the same contexts as before).

- (4) a. I can eat breakfast without eating cheese.
b. I can eat breakfast without eating porridge.
c. Therefore, I can eat breakfast without eating either cheese or porridge.
- (6) c. His son had been charged with importing illegal drugs; Ed had therefore decided to resign from the School Board.
- (7) The switch in the hall is on, and therefore, the lights in the office are on.

We noted that these cases are not clearly lies, as opposed to unequivocal lies, such as our examples in (1) and (5). The conclusion that *therefore* is a presupposition trigger, and hence that the implication relation is not asserted by *therefore*, means that we will classify these cases as not lies, albeit they are clearly misleading.

The same will apply to other cases of misleading presuppositions. For example, the utterances in (19) are clearly misleading, but they are not lies, according to the view we are outlining.¹⁶

- (19) a. **Sue.** Jim has stopped drinking.
Context: Sue knows that Jim has never been drinking.

¹⁶ See also Stokke (2016, pp. 115-119).

- b. **Sue.** Jim regrets voting for Trump.
Context: Sue knows that Jim did not vote for Trump.
- c. **Sue.** Jim passed the test, too.
Context: Sue knows that no one other than Jim passed the test.
- d. **Sue.** Even Jim passed the test.
Context: Sue knows that Jim passed the test and that it was not unexpected that he did.
- e. **Sue.** The painting in Jim's office is worth millions.
Context: Sue knows that there is no painting in Jim's office.

This result is consistent with the plausible thought that even though utterances such as these may be highly misleading, and may perhaps even be morally on a par with outright lies, they are nevertheless different from cases, like (1) and (5), where something the speaker believes to be false is explicitly asserted by her utterance.

VI

Lying with Conventional Implicatures. If we return to Sorensen's five claims

- S1 You lie only if you make an assertion.
- S2 Conventional implicatures are assertions.
- S3 You can lie with conventional implicatures.
- S4 P therefore Q conventionally implicates that P implies Q .
- S5 You can lie with P therefore Q (even if you believe P and believe Q).

we are now in a position to agree with S1, while rejecting S4 and S5. But what about S2 and S3, the central idea that the secondary assertions contributed by conventional implicatures can be vehicles of lying? Even if S4 and S5 are false, there is still an interesting question about S2 and S3.

In fact, I think there is reason to agree with S3. You can lie with conventional implicatures. Consider the examples in (20).

- (20) a. **Sue.** Lance Armstrong, an Arkansan, won the 2003 Tour de France.
Context: Sue knows that Armstrong won the 2003 tour but that he is a Texan.
- b. **Sue.** Ames was, as the press reported, a successful spy.
Context: Sue knows that Ames was a successful spy but that the press didn't report that.

c. **Sue.** I spent part of every summer until I was ten with my grandmother, who lived in an affluent neighborhood in New York.

Context: Sue did spend part of her summers until she was ten with her grandmother, but she remembers very well that her grandmother lived in a working-class suburb of Boston.

I take (20a-c) to be cases of lying. To be sure, in each case, the speaker is both lying and asserting something she knows to be true. Accordingly, reactions might be influenced. Yet the speaker is making two assertions, in each case, one of which is a lie. Moreover, the sense that the speaker is lying in these cases can be reinforced by considering question-answer pairs. For example, the utterances are even more clearly instances of lying when embedding in the following dialogues (the contexts are assumed to be the same as before).

- (20') a. **Jim.** Have any Arkansans ever achieved anything?
Sue. Lance Armstrong, an Arkansan, won the 2003 Tour de France.
- b. **Jim.** I heard the press reported on some spies and tried to tell who were successful and who weren't. Who were they right about?
Sue. Ames was, as the press reported, a successful spy.
- c. **Jim.** Where did you spend your summers as a child?
Sue. I spent part of every summer until I was ten with my grandmother, who lived in an affluent neighborhood in New York.

In (20') the responses are clearly cases of asserting disbelieved information. This differs importantly from cases like (2), where the speaker is clearly not lying, albeit she is being misleading.

- (2) **Sue.** Are you going to Paul's party?
Jim. I have to work.
Context: Jim has to work but is planning to go the party afterwards.

We should accept, therefore, that both primary and secondary assertions can be lies. In other words, we can retain the original assumption that you lie only if you make an assertion, as long as we understand assertion to include both primary and secondary content.

A potential problem with accepting that secondary assertions can be the vehicles of lying is that it amounts to accepting that content that projects out of

entailment canceling environments can be the lies. This includes non-declarative sentences, and hence potentially implies that one can lie by uttering a non-declarative sentence.

For instance, we have seen that conventional implicatures project out of questions and antecedents of conditionals. Both (13c-d) conventionally imply that the press reported that Ames was a successful spy.

- (13) c. If Ames was, as the press reported, a successful spy, he must have been very clever.
d. Was Ames, as the press reported, a successful spy?

There are broadly two theoretical options at this point. First, it might be argued that conventional implicatures are assertions only when generated by declarative sentences, or alternatively, only when they are accompanying primary assertions. If so, non-declaratives that convey disbelieved conventional implicatures are not lies, albeit they may be misleading. Second, one can accept that conventional implicatures are assertions independently of whether they are generated by declaratives or non-declaratives. If so, one can lie by uttering an interrogative like (13c) or a conditional like (13d).

I think the second of these options is the more attractive. In semantic treatments of conventional implicatures, like Potts's (2005), at-issue content and secondary, conventional implicature content are generated by different parts of the grammar resulting in an interpretation that is an ordered pair of at-issue meaning and conventional implicature meaning.¹⁷ For example, the denotation of (20a) in our world is an ordered pair of True and False: $\langle 1, 0 \rangle$.¹⁸

- (20) a. Lance Armstrong, an Arkansan, won the 2003 Tour de France.

That is, while the at-issue assertion that Armstrong won the 2003 tour is true, the conventional implicature that he is an Arkansan is false.

Even though Potts (2005) does not discuss this, it is plausible to think that the treatment of non-declaratives carrying conventional implicatures should be analogous. That is, such sentences should be interpreted as ordered pairs consisting of the relevant non-declarative meaning type and the conventional implicature content.¹⁹ For example, (13d) might be treated as denoting a pair of an interrogative meaning type, such as a set of propositions

¹⁷ A similar treatment had previously been proposed by Karttunen and Peters (1979).

¹⁸ See Potts (2005, p. 33).

¹⁹ The two-dimensional meanings in Potts's system are compositionally determined by syntactic structures that are divided into an upper and a lower layer by a special marker, represented as "•." see Potts (2005, pp. 62-65). It is an open question whether the syntax of conventional implicature carrying non-declaratives can be treated similarly.

as in the classic account in Hamblin (1973), and a truth-value. For simplicity, let “?successful-spy(ames)” stand for the interrogative meaning of *Was Ames a successful spy?* and let “reported-on(press)(ames)” stand for the proposition that the press reported on Ames. Then, we might represent the two-dimensional denotation of (13d) as in (21).

(21) <?successful-spy(ames), reported-on(press)(ames)>

Even though this is a mere mock up of the way one might theorize about cases like (13d), it suffices to illustrate the central idea that when uttering such sentences, the speaker is performing two speech acts, namely the act of asking whether Ames was a successful spy and the act of asserting that the press reported that he was. Given this understanding of such utterances, we should accept that the speaker is lying if she utters (13d) while believing that the press did not report on Ames.

VII

Conclusion. Lies are assertions of disbelieved information, as opposed to misleading utterances that are not lies, in which the speaker asserts something she believes to be true, while at the same time conveying or implicating something she believes to be false. Conventional implicatures are secondary assertions, and hence one can lie by conventionally implicating something one believes to be false. Such secondary assertions are made even when triggered by a non-declarative sentence, such as when a conventional implicature is conveyed by an interrogative or conditional sentence.

Sorensen’s claim that one can lie with arguments is not supported by judgments, nor by linguistic evidence. the most compelling linguistic analysis of *therefore* is one that treats it on a par with *but*, as a presupposition trigger, rather than as contributing a conventional implicature. Hence, the information that *P* implies *Q* is not asserted by *P therefore Q*, and one is not lying in the Sorensenian examples. Rather, uttering *P therefore Q* in a situation where one believes *P* and believes *Q*, but one does not believe that *P* implies *Q*, is not to lie but merely to mislead.²⁰

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²⁰ Thanks to Anders Schoubye, Jessica Pepp, and Torfinn Huvenes for useful discussion.

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