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Hob, Nob, and Mythical Witches

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0. Introduction

Peter Geach (1967, 1972) says that there is a reading of sentence (G) that can be true in a world without witches, and yet is true only if Hob and Nob are, in some sense, thinking of the same witch.

(G) Hob thinks that a witch has blighted Bob's mare, and Nob wonders whether she (the same witch) killed Cob's sow.

Nathan Salmon (1998, 2002) agrees with Geach, more or less. Salmon thinks that there are no witches, but he does think that there are *mythical* witches. Salmon claims that (G) has a reading on which it attributes thoughts about a mythical witch to Hob and Nob. On this reading, (G) can be true at a witch-less world in which Hob and Nob are thinking about the same mythical witch.

I agree with Salmon about the existence of mythical witches. But I disagree with him about the semantics of (G). I think there is no reading of (G) that attributes thoughts about mythical witches to Hob and Nob. Moreover, I strongly suspect that there is no reading of (G) of the sort that Geach claims. I explain why in this paper. I also sketch an alternative explanation of common intuitions about (G).

1. The Metaphysics of Mythical Witches

According to Salmon, mythical witches are similar in important respects to fictional characters. Peter Van Inwagen (1977), Saul Kripke (unpublished), Salmon (1998, 2002), and Amie Thomasson (1999) have argued for the existence of fictional characters, in part by pointing to sentences similar to (1) and (2).

(1) There are several fictional characters that appear in more than one of Arthur Conan Doyle's stories.

(2) Some fictional characters have been discussed by more than a dozen students of English literature.

Both (1) and (2) seem to be true, both entail that there are fictional characters, and both are very difficult to paraphrase away. Thus we have good reason to think that fictional characters exist. Kripke, Thomasson, and Salmon hold that fictional characters are *abstract artifacts*. They are artifacts because they are created by authors. They are abstract because they have no spatial location.¹ In these respects, and others, fictional characters resemble insurance policies, academic degrees, checking accounts, and other humdrum objects whose existence most people take for granted. Fictional characters are no more ontologically mysterious or objectionable than checking accounts and insurance policies.

Kripke and Salmon say that people who formulate false theories sometimes unintentionally create abstract artifacts that resemble fictional characters. U.J.J. Le Verrier, for instance, thought there was a planet orbiting between Mercury and the Sun that was perturbing Mercury's orbit. He wished to name the planet between Mercury and the Sun 'Vulcan'. But

¹ But see Goodman (2003) for a plausible argument that abstract artifacts are located roughly where the people who sustain their existence are located.

there was no such planet. Kripke and Salmon say that Le Verrier unintentionally created an abstract artifact when he theorized about the existence of such a planet and introduced the name. Salmon calls this abstract artifact a ‘mythical object’, for he uses the term ‘myth’ for false theories. Salmon says that this particular mythical object is a mythical *planet*. Mythical planets, like fictional planets, are not planets, but abstract artifacts.²

There have been many mistaken theorists in history. Some of them lived in 17th-century New England and thought that there were supernaturally powerful women who could cause humans and animals to sicken and die merely by pronouncing a few words. These theorists used the term ‘witch’ for such alleged people. Such theorists sometimes created mythical witches when they theorized.³ The mythical witches they created were not witches, just as mythical planets are not planets. Rather, these mythical witches were abstract artifacts.

² Salmon seemingly thinks that a mythical planet is a mythical object to which some myth attributes the property of being a planet. I think that matters are a bit more complicated, but I will not go into this further here.

³ Sometimes there were real people whom these theorists thought were witches. These theorists (probably) did not create mythical witches when they had these thoughts. But they did create mythical witches when they (a) hypothesized that some witch (or other) was responsible for such-and-such event and (b) they did not have a particular real person in mind.

I will spend no more time defending the claim that mythical witches exist.⁴ I will instead focus on the issue of how mythical witches figure in the semantics of Geach's sentence (and in the beliefs of those who consider Geach's sentence). Readers who are unconvinced of the existence of mythical witches can take this paper to be discussing the following question: if there were mythical witches, would they help with the semantic analysis of Geach's sentence?

Some readers might think it strange to agree with Salmon on the metaphysics of mythical witches, and yet dispute his use of them in semantics. But this sort of pattern of agreement and disagreement is perfectly coherent and familiar. For instance, Bertrand Russell and David Kaplan agree on the existence of singular propositions, but disagree about whether sentences containing ordinary proper names express them. For another example that is more directly relevant to this paper, consider Kripke (unpublished) and Salmon (1998, 2002). They agree that there are mythical planets, and that Le Verrier created one. But Salmon thinks that Le Verrier referred to the mythical object that he created when he uttered 'Vulcan'. Kripke disagrees. (Kripke thinks that subsequent, better-informed observers may decide to use 'Vulcan' to refer to the mythical object that Le Verrier created, but Le Verrier himself did not.) On Salmon's view, 'Vulcan exists' expressed a true proposition in Le Verrier's idiolect. On Kripke's view, it did not. I take Kripke's side on this issue (see Braun, 2005). Later in this paper, we will see that a parallel issue arises in certain cases involving mythical witches.

⁴ Everett (2005) and Brock (2010) raise metaphysical objections to fictional characters. Similar objections could be raised against mythical objects. I will not attempt to reply to such objections here.

2. Ambiguities and Geach's Sentence

I can best introduce the semantic issues raised by Geach's sentence (G) by first considering simpler examples, such as the sentences in (3).

- (3) a. Helen thinks that a young boy broke Betty's living room window.
- b. There is a young boy such that Helen thinks that: he broke Betty's living room window.
- c. Helen thinks that: some young boy (or other) broke Betty's living room window.

(3a) is ambiguous. On one reading, namely the *de re* or relational reading, 'a young boy' takes wide scope with respect to 'thinks'; this reading is conveyed by (3b).⁵ On another reading, the *de dicto* or notional reading, 'a young boy' takes narrow scope; this reading is conveyed by (3c).⁶ These readings differ in their truth-conditions and logical consequences. (3b) is true at a world only if Helen believes, *of* some young boy (Billy, for instance), that he broke Betty's window. It cannot be true in a world in which there are no young boys, for it logically entails that there is a young boy. But (3b) can be true in a world in which Helen fails to believe, *of* that boy, that he is a young boy: for instance, Helen may think that Billy broke Betty's living room

⁵ A few words about terminology: I assume that an ambiguous sentence semantically expresses a unique proposition relative to a reading or disambiguation. I say that a sentence *S'* conveys or provides a reading for another sentence *S* only if *S'* semantically expresses the same (or nearly the same) proposition that *S* does, under some reading of *S*. Notice that this is only a necessary condition.

⁶ I am assuming here that the *de re* (relational) and *de dicto* (notional) readings of (3a) can be captured by distinctions in scope of the quantifier phrases. Not all theorists would agree.

window, and think that Billy is a young girl, when in fact Billy is a young boy. (3c), by contrast, attributes to Helen a general, existential thought that does not concern any particular boy. It requires that Helen have a (so to speak) young-boy-thought, but it can be true in a world in which there are no young boys.

(4a) below consists of (3a) conjoined with a sentence containing an occurrence of the pronoun 'he'. (4a) is also ambiguous. On most theories of quantification and pronouns, (4a) has two readings that are conveyed by (4b) and (4c), respectively.⁷

⁷ More cautiously: most theories agree that there is a reading of (4a) that is at least logically equivalent to (4b). But some theories deny that (4b) itself provides a reading of (4a) (see Evans, 1977 and Neale, 1990, pp. 170-171). The reasons to deny this are a bit complex. (4b) can be obtained from (4a) by moving the quantifier phrase 'a young boy' out front, and thus allowing it to take scope over both conjuncts and bind two occurrences of 'he', one of which is in the same position that the quantifier phrase occupies in (4a). (In some syntactic frameworks, such as that of May [1985], this type of transformation is called 'quantifier raising'.) But other sentences that have the same form as (4a), but which contain different quantifier phrases in the first conjunct, fail to have readings that can be captured in this way. Consider sentence (i).

- (i) Helen thinks that *exactly one* boy broke her window, and Nancy wonders whether he trampled Carol's garden.

One might suspect that a *de re* or relational reading of (i) is captured by (ii).

- (ii) Exactly one young boy is such that: Helen thinks that he broke her window and Nancy wonders whether he trampled Carol's garden.

But *de re* readings of (i) seemingly entail that there is exactly one boy such that Helen thinks that he broke her window. (ii), however, does not entail this: it could be true in a world in which

- (4) a. Helen thinks that a young boy broke Betty's window, and Nancy wonders whether he trampled through Carol's garden.
- b. There is a young boy such that (i) Helen thinks that: he broke Betty's window and (ii) Nancy wonders whether: he trampled through Carol's garden.
- c. Helen thinks that: some young boy or other broke Betty's window, and Nancy wonders whether: *he* [demonstration] trampled though Carol's garden.

(4b) entails that there is a young boy, and furthermore entails that both Helen and Nancy think about him. But (4b) does not entail that the young boy that they think about is thought by them to be a young boy: (4b) can be true if, for instance, they think that Billy is a young girl who they suspect of the foul deeds. Further, (4b) does not entail that Nancy is aware of Helen and Betty; it could be true at a world in which Nancy is completely ignorant of them. By contrast, (4c) does not entail that there is a young boy, and it does not entail that there is someone about whom Helen is thinking, for the first conjunct of (4c) could be true at a world though Helen has a merely general existential belief. Moreover, the occurrence of 'he' in the second conjunct is neither bound by, nor anaphoric on, the occurrence of 'a young boy' in the first conjunct (and so

there are exactly *two* young boys such that Helen thinks they broke her window, as long as exactly one of those is such that Nancy wonders whether he trampled Carol's garden. It is doubtful whether (ii) provides any genuine reading of (i). One might therefore doubt that (4b) provides a genuine reading of (4a). However, it does seem likely that there is a reading of (4a) that is logically equivalent to (4b). (The preceding argument modifies an argument from Evans [1997], but Evans's examples do not contain attitude verbs.)

the occurrence of ‘he’ may be used demonstratively).⁸ Therefore, (4c) does not entail that there is someone about whom both Helen and Nancy are thinking.

Some theories of quantification and pronouns say that one or more of (4d)-(4e) provide further, or alternative, readings of (4a).⁹

- (4) d. Helen thinks that: some young boy broke Betty’s window, and the young boy who (Helen thinks) broke Betty’s window is such that Nancy wonders whether: he trampled through Carol’s garden.
- e. Helen thinks that: some young boy broke Betty’s window, and Nancy wonders whether: the young boy who (Helen thinks) broke Betty’s window trampled through Carol’s garden.

Other theories deny the existence of such readings, but endorse other readings. For instance, on some theories, substituting ‘the young boy or boys’, or some sort of numberless description, for ‘the young boy’ in one or more of (4d)-(4e) yields one or more genuine readings of (4a).¹⁰ On

⁸ The second conjunct of (4c) is context-sensitive. It can be true in contexts in which Nancy is wondering, about some male person, whether he trampled through Carol’s garden, but this male person need not be a young boy.

⁹ I use each of (4d) and (4e) to abbreviate two different putative readings, one of which contains the second (parenthetical) occurrence of ‘Helen believes’ and the other of which does not.

¹⁰ See Neale 1990, especially chapter 6, for a theory of quantification and pronouns that uses numberless descriptions.

other theories, substituting ‘some young boy’ for ‘the young boy’ in one or more of (4d)-(4e) gives one or more genuine readings of (4a).¹¹

The following variant of Peter Geach’s famous Hob-Nob sentence (Geach 1967, 1972) is similar to (4a) above, but raises some thorny issues that (4a) does not.

¹¹ See King (1993). It is doubtful that that (4d) gives a reading of (4a). (4d) is true only if there is exactly one young boy that (Helen thinks) broke Betty’s window, whereas (4a) seems, on every reading, compatible with there being more than one young boy that (Helen thinks) broke Betty’s window. One might try to avoid this problem by replacing ‘the young boy’ in (4d) with ‘the young boy or boys’, or a numberless definite description, to obtain something like ‘Helen thinks that some young boy or boys broke Betty’s window, and the young boy or boys that (Helen thinks) broke Betty’s window are such that Nancy wonders whether they trampled Carol’s garden’. But this sentence entails that Nancy wonders, of *every* young boy that (Helen thinks) broke Betty’s window, whether he trampled Carol’s garden, whereas (4a) does not seem to require this, on any reading. There does seem to be a reading of (4a) that requires only that Nancy wonder, of *some* young boy that (Helen thinks) broke Betty’s window, whether he trampled Carol’s garden. Perhaps the following sentence captures this reading: ‘Helen thinks that: a young boy broke Betty’s window, and a young boy that (Helen thinks) broke Betty’s window is such that Nancy wonders whether he trampled Carol’s garden’. Another possibility is: ‘A young boy is such that Helen thinks that he broke Betty’s window, and a young boy that Helen thinks broke Betty’s window is such that Nancy believes that he trampled Carol’s garden’. This last reading is equivalent to that given by (4b). But whether either of these provides a genuine reading of (4a) is, of course, controversial.

(G−) Hob thinks that a witch has blighted Bob’s mare, and Nob wonders whether she killed Cob’s sow.

Many have the intuition that, on one way of understanding (G−), it could be true even if there are no witches and Nob is unaware of Hob and Bob. Imagine, for instance, that Hob and Nob independently read a newspaper containing (untrue) sentences such as ‘Meg is a witch who is wreaking havoc on local farms’. Hob sincerely says ‘Meg is a witch and she blighted Bob’s mare’ and Nob, who is unaware of Hob and Bob, sincerely utters ‘Did Meg kill Cob’s sow?’. Moreover, many think that (G−), on this understanding of it, could be true if the name ‘Meg’ fails to refer, and there is no one whom the newspaper reporters, or Hob, or Nob, have in mind as a suspect. Nevertheless, they think that (G−) requires that Hob and Nob, in some sense, “think about the same thing”. On this alleged reading, (G−) would not be true in a world in which Hob’s and Nob’s witch-y thoughts have entirely independent sources (for instance, causally unconnected newspaper reports in different cities). Let us call the previous judgments *Geachian intuitions* about (G−), and a reading that satisfies them a *Geachian reading* of (G−).

(G−), which I repeat as (5a) below, has various readings, or putative readings, that resemble those given for (4a) above. These are given in (5b)-(5e).

- (5)
- a. Hob thinks that a witch has blighted Bob’s mare and Nob wonders whether she killed Cob’s sow.
 - b. There is a witch such that (i) Hob thinks that: she has blighted Bob’s mare and (ii) Nob wonders whether: she killed Cob’s sow.
 - c. Hob thinks that: some witch (or other) has blighted Bob’s mare, and Nob wonders whether: *she* [demonstration] killed Cob’s sow.

- d. Hob thinks that: some witch (or other) has blighted Bob's mare, and the witch that (Hob thinks) has blighted Bob's mare is such that Nob wonders whether: she killed Cob's sow.
- e. Hob thinks that: some witch (or other) has blighted Bob's mare, and Nob wonders whether: the witch who (Hob thinks) has blighted Bob's mare killed Cob's sow.

But none of these putative readings fully captures the Geachian intuitions about (G-). (5c) is inadequate for capturing the alleged Geachian reading that is true only if Hob and Nob are thinking about the same thing, for the first conjunct of (5c) can be true in a world in which Hob has a merely general, purely existential belief. (5b) and (5d) are true only if Hob and Nob are thinking of the same thing, but they are not true in witch-less worlds.¹² (5e) is false in worlds in which Nob is unaware of Hob and Bob. The putative readings that substitute a disjunction of definite descriptions, or a numberless description, or 'some witch', for the occurrences of 'the witch' in (5d)-(5e), fail for parallel reasons.

Finally, let us turn to Geach's original sentence (G).

¹² (5d) has another problem as a reading of (G-), which is similar to the problems with the supposition that (4d) provides a reading of (4a): (5d) is true only if Hob thinks that exactly one witch blighted Bob's mare, whereas (G-) seems to have no reading with this uniqueness implication. This is some reason to think that (5d) is not a genuine reading of (G-). Perhaps a sentence that replaces 'the witch' in (5d) with 'some witch' does give a genuine reading of (G-). There may also be readings analogous to that of (4a) given in note 11 above. However, Geach's original sentence (G) may, in fact, possess uniqueness implications. See below.

(G) Hob thinks that a witch has blighted Bob's mare, and Nob wonders whether she
(the same witch) killed Cob's sow.

Geach's (G) is just like (G-), except that (G) includes the parenthetical phrase 'the same witch'. But (G) raises the same semantic issues that (G-) does (and more besides). In particular, many speakers have the same Geachian intuitions about (G) that they have about (G-), namely that there is a reading of it that can be true in a witchless world where Nob is unaware of Hob and Bob, and yet which requires that Hob and Nob "think of the same thing," in some sense. If anything, the Geachian intuitions concerning (G) are stronger than those for (G-). (5b)-(5e) and their variants provide the most obvious putative readings of (G), yet none of them satisfy the Geachian intuitions. So now we have a problem with (G): many have the previous intuitions about it, yet none of its obvious readings satisfy these intuitions. As before, let us call a reading of (G) that satisfies the Geachian intuitions a *Geachian reading* of (G). More precisely, let us say that there is a *Geachian reading of* (G) iff: there is a semantic reading (a semantic disambiguation) of (G) such that (i) (G), on this reading, is true in some possible worlds in which there are no witches and Nob is unaware of Hob and Bob, and (ii) (G), on this reading, is true in a world only if Hob and Nob are "thinking of the same thing," in some robust sense. (The relevant sense of "thinking of the same thing" needs clarification, for some who have these intuitions also apparently think that (G) can be true even if there is no particular person or thing about which Hob and Nob are both thinking. I will say more about this later.) Let us say that those who think that (G) has a Geachian reading are *Geachians*, and let us say that they have *Geachian intuitions* about (G).

Many philosophers, including Salmon, have argued for semantic theories on which (G) has a Geachian reading.¹³ I think that (G) has no Geachian reading.¹⁴ In my opinion, the Geachian intuitions are mistaken. After criticizing Salmon's theory and variants of it, I provide an alternative explanation of the Geachian intuitions.

Before proceeding to Salmon's theory, there are a few more details about (G) and (G-) that are worth mentioning. I said that (G-) raises some thorny issues that (4a) does not. That is true, but misleading. It is possible to provoke Geach-like intuitions about any sentence that is structurally similar to (G) or (G-), such as (4a). Consider a world in which there are no young boys, but in which Helen and Nancy think that there are.¹⁵ A newspaper contains the false sentence 'Billy is a young boy who is wreaking havoc on the homes of local residents'. Helen reads the newspaper and sincerely says 'Billy broke Betty's window'. Nancy, who is ignorant of Helen and Betty, reads the newspaper and says 'Did Billy trample through Carol's garden?'. Some speakers may have the intuition that there is a reading of (4a) that is true at this world, and would not be true at a similar world in which Helen's and Nancy's thoughts about young boys

¹³ See Geach (1967, 1972), Dennett (1968), Saarinen (1978), Burge (1983), and Edelberg (1986, 1992), Neale (1990: 221). I cannot take space to consider their views here. Burge and Salmon criticize many of their predecessors.

¹⁴ McKinsey (1986) and King (1993) also deny that (G) has a Geachian reading (but they do not use my terminology).

¹⁵ Suppose also that the expressions 'young' and 'boy' came to mean *young* and *boy*, in this world, just as they do in the language of English speakers in the actual world.

have entirely independent sources. Some speakers would have similar intuitions about (4a+), which includes the same sort of parenthetical remark as Geach's (G).

(4a+) Helen thinks that a young boy broke Betty's window, and Nancy wonders whether he (the same young boy) trampled Carol's garden.

We can provoke similar intuitions about sentence (6).

(6) Higgins thinks that a stapler is sitting on Baker's desk, and Newberry wonders whether it (the same stapler) is lying on Collins's chair.

Just imagine a world in which there have never been any staplers, but Higgins and Newberry have heard the same rumor regarding the existence of one. We could reasonably call these alleged readings of (4a), (4a+), and (6) "Geachian readings". So these sentences raise semantic issues that entirely parallel some of the issues raised by (G) and (G-).¹⁶

Yet (G) and (G-) also raise thorny semantic issues that (4a), (4a+), and (6) do not, because (G) and (G-) contain the simple empty general term 'witch'. Kripke (1980, unpublished) argues that if there are no unicorns, then it is impossible for there to be unicorns. There are rather plausible parallel arguments for the conclusion if there are no witches, then 'witch' has no semantic content whatsoever. This raises serious questions about the semantic contents of sentences containing 'witch', such as (G) and (G-). But there are no parallel issues about 'young boy' and 'stapler'. So (G) and (G-) raise semantic issues that (4a) and (6) do not. In this paper, however, I concentrate on the semantic issues that (4a), (6), (G), and (G-) have in common. I use (G) to discuss these issues because Geach, Salmon, and others have done so.

¹⁶ Edelberg (1986) and McKinsey (1986) present sentences that are formally similar to Geach's (G), and which provoke similar "Geachian intuitions" arise. (Thanks to Russell Wahl for discussion.)

Finally, as I pointed out above, (G) contains the parenthetical phrase ‘the same witch’ whereas (G–) does not. One seeming effect of the parenthetical remark in (G) is to make more prominent, or even mandatory, readings of (G) that require that Hob and Nob “think of the same thing.” Thus the parenthetical remark in (G) makes the alleged Geachian reading, or a reading like that given by (5b) or (5d) or one of their variants, either mandatory or very strongly preferred. This may be why Geach included the parenthetical remark. There may be further effects of the parenthetical phrase.¹⁷ But from here on I will pay little attention to the differences between (G) and (G–).

¹⁷ (G) may have a reading that entails that there is *exactly one* witch such that Hob thinks she blighted Bob’s mare and Nob wonders whether she killed Cob’s sow. (G–), by contrast, seems not to have a reading of this sort. So, the parenthetical phrase in (G) may introduce *uniqueness entailments* that (G–) does not have. (Thanks to Salmon for discussion. McKinsey [1986] thinks that the occurrence of ‘a witch’ in the first conjunct has an *exactly one witch* reading. I am inclined to disagree.) The occurrence of ‘the same witch’ in (G) looks like an appositive phrase. There is little consensus in semantic theory about how to deal with such phrases. Perhaps none of (4b)-(4d) provide genuine readings of (G), simply because they fail to give a correct semantic account of the appositive phrase. Since (G–) is simpler, it would be methodologically wiser to deal with (G–) before (G). But for better or worse, Geach used (G) rather than (G–), and many semantic theorists who have responded to Geach, including Salmon, have dealt with (G) rather than (G–). Dennett (1967), Burge (1983), and McKinsey (1986) discuss (G). Saarinen (1978) discusses a variant that includes the parenthetical phrase but changes ‘Nob wonders whether’ to ‘Nob believes that’. Edelberg (1986) and King (1993)

3. Salmon's Analysis of Geach's Sentence

Salmon (2002) claims that in many of the situations that the Geachians describe, Hob, or Nob, or one of their predecessors (such as a newspaper reporter), creates a mythical witch. As a result, Salmon thinks that, in typical Geachian scenarios, Hob and Nob refer to, or at least think about, a mythical witch. He therefore hypothesizes that quantification over mythical witches can be used to formulate a Geachian reading of (G). Salmon (2002, 116) says that (S) provides such a reading of (G).

(S) There is a mythical witch such that (i) Hob thinks: she has blighted Bob's mare; and (ii) Nob wonders whether: she killed Cob's sow.

(S) is true only if Hob and Nob think about the same thing, which Salmon believes is required by the preferred reading of (G). But on Salmon's analysis, the thing about which Hob and Nob are thinking is a mythical witch, rather than a witch. (S) satisfies the other requirements for a Geachian reading: It can be true though there are no witches, and it can be true though Nob is unaware of Hob and Bob. Salmon says that (S), or some variant, "spells out in more precise language what [(G)] literally says to begin with."¹⁸ Thus Salmon thinks quantification over mythical objects allows there to be a Geachian reading of (G).

discuss variants on (G) that omit the parenthetical phrase. King changes 'thinks that' and 'wonders whether' to 'believes that'. Edelberg changes 'wonders whether' to 'thinks that'.

¹⁸ Salmon 2002, p. 117, and 2005, p. 107; I have substituted my indexing of sentences for his. Salmon (2002, p. 116; 2005, pp. 105-6) also says that the principal reading of Geach's sentence is a "fully relational" reading. Salmon (2002, 2005) presents two variants of (S) that he claims

4. The Content Objection to Salmon's Theory

My main objection to Salmon's theory is simple, but powerful (in my opinion). Salmon's (S) mentions mythical witches. Geach's (G) does not. Therefore, (S) does not provide a reading of (G).

Here is a slower, more explicit version of the objection. Salmon's sentence (S) provides a genuine reading (a semantic disambiguation) of Geach's sentence (G) only if (S) has the same semantic content as (G), under some disambiguation of (G). But (S) contains an occurrence of the term 'mythical witch' whereas (G) does not. If 'witch' differs in semantic content from

are also candidates for being synonymous with (G), under its preferred reading, namely (S*) and (S**).

(S*) (i) Hob thinks: some witch or other has blighted Bob's mare; and (ii) the (same) mythical witch that Hob thinks has blighted Bob's mare is such that Nob wonders whether: she killed Cob's sow.

(S**) Hob thinks that some witch has blighted Bob's mare and Nob wonders whether dthat [the mythical witch that Hob thinks has blighted Bob's mare] killed Cob's sow.

However, Salmon pointed out to me in a conversation that (S*) and (S**) do not provide genuine readings of (G-), because (S*) and (S**) are true only if Hob believes of exactly one mythical witch that she blighted Bob's mare, whereas (G-), on all readings, is consistent with Hob's believing that more than one witch blighted Bob's mare. Thus (S*) and (S**) have uniqueness implications that (G-) does not. But as I pointed out in note 17 above, (G), on one of its reading, may have the same sort of uniqueness implications that (S*) and (S**) do.

‘mythical witch’, then there is no expression in (G) that has the same semantic content as ‘mythical witch’. But these terms do differ in semantic content. So there is no expression in (G) that has the same semantic content as ‘mythical witch’. If there is no expression in (G) that has the same semantic content as ‘mythical witch’, then (S) does not have the same semantic content as (G) under any disambiguation of (G). Therefore, Salmon’s sentence (S) does not provide a genuine reading of (G). Call this the *Content Objection* to Salmon’s theory.^{19 20}

¹⁹ A variant of the Content Objection is equally effective against the first of Salmon’s proposed alternative readings of (G), namely (S*) below.

(S*) (i) Hob thinks: some witch or other has blighted Bob’s mare; and (ii) the (same) mythical witch that Hob thinks has blighted Bob’s mare is such that Nob wonders whether: she killed Cob’s sow.

However, no variant of the Content Objection is effective against Salmon’s other proposed variant reading of (G), namely (S**).

(S**) Hob thinks that some witch has blighted Bob’s mare and Nob wonders whether dthat [the mythical witch that Hob thinks has blighted Bob’s mare] killed Cob’s sow.

The Content Objection is not effective against (S**) because ‘mythical witch’ occurs inside a content-obliterating dthat-term in (S**). However, there are two problems with the claim that (S**) provides a Geachian reading of (G). First, since ‘witch’ and ‘mythical witch’ differ in semantic content, they differ in Kaplanian character. So (S**) contains an expression, ‘mythical witch’, with a character that no expression in (G) has. Therefore, (S**) and (G) differ in *structured character*, under all readings of (G). But, plausibly, (S**) provides a genuine semantic reading of (G) only if (S**) has the same structured character as (G) under some

reading of (G). (See Braun [1994] for more on structured character.) Second, even if (S**) provides a reading of (G), it fails to provide a *Geachian* reading of (G), for it can be true with respect to a world (and context) in which Hob and Nob fail to think of the same thing. Consider a context *C* within a world *W* such that, in *W*, Hob has a purely existential, non-relational, non-*de-re* belief that some witch blighted Bob's mare. So the first conjunct of (S**) is true with respect to *C* and *W*. Suppose also that there are no mythical witches in *W*. Then the *dthat*-term in the second conjunct of (b) has no content, with respect to *C* and *W*, and the *whether*-clause refers, in *C* and *W*, to the gappy proposition <__, killed Cob's sow>. (For more on gappy propositions, see Braun, 2005.) Finally, suppose that 'Santa Claus' fails to refer in Nob's language in *W*, and suppose Nob sincerely utters 'Did Santa Claus kill Cob's sow?' in *W*. Then Nob stands in the wondering relation to the gappy proposition <__, killed Cob's sow>. Therefore, the second conjunct of (S**) is true in *C* and *W*. Therefore, (S**) is true in *C* and *W*. Therefore, (S**) is true in a world (and context) in which Hob and Nob fail to think about the same thing, and so (S**) does not provide a *Geachian* reading of (G). This example is also sufficient to show that (S**) differs in character from (S) and is not logically equivalent to (S), for (S) is false with respect to the previous context and world, while (S**) is true. Salmon claims that (S) and (S**) are equivalent (Salmon 2002, p. 122, note 27), but it is unclear whether he means logical or necessary equivalence.

²⁰ My argument assumes that (G) and (S) are not context-sensitive (ignoring matters of tense). However, some theories of so-called quantifier domain restriction say that quantificational determiners are context-sensitive: In some contexts, the semantic content of 'something' is *something that is F*, for instance, *something that is green* or *something that is a mythical object*. Other theories of quantifier-domain restriction (most famously, Stanley and Szabó 2000) hold

A comparison with a parallel case might make the Content Objection clearer and more vivid. Consider sentence (C).

(C) There is a checking account such that: (i) Hob thinks: it has blighted Bob's mare; and (ii) Nob wonders whether: it killed Cob's sow.

Imagine a theorist who claims that (C) provides a reading of Geach's sentence (G). One obvious objection to this proposal is that (C) mentions checking accounts whereas (G) does not. A bit more precisely: (C) provides a reading for Geach's (G) only if (C) has the same semantic content as (G) under some semantic disambiguation of (G). But (C) cannot have the same semantic content as (G) under a reading of (G), because there is no expression in (G) that has the same semantic content as the expression 'checking account'. The Content Objection is a parallel argument against Salmon's use of (S) to provide a reading of Geach's (G).

The premises of the Content Objection say that if (G) contains no expression with the same content as 'mythical witch', then (S) does not have the same semantic content as (G) under any disambiguation of (G). This claim is independently plausible, but it also follows from

that all common nouns are context-sensitive; in some contexts, the semantic content of 'witch' is *green witch* or *mythical witch* or *witch who lives in Cleveland*. As far as I can tell, Salmon himself does not endorse either sort of theory. But a Salmon-style theory that includes one of these claims would say that there is a (Geachian) reading of (G) such that: in every context *C*, the semantic content of (G) in *C*, under that reading, is the same as the semantic content of (S) in *C*. A Content Objection to this sort of Salmonian theory would go as follows (in compressed form): the semantic content of 'witch' and 'mythical witch' are distinct in all contexts. Therefore, there is no reading of (G) on which it has the same semantic content as (S) in all contexts. For further discussion of Salmonian theories and quantifier domain restriction, see note 32 below.

semantic theories that say that the semantic content of a complex expression *E* is a structured entity whose ultimate constituents are the semantic contents of the words in *E*. On such theories, the semantic content of Salmon's (S) has the semantic content of 'mythical witch' as a constituent. Thus (S) has the same semantic content as (G), under some disambiguation, only if (G) contains some expression with the same semantic content as the phrase 'mythical witch'. So if semantic contents are structured in the preceding way, then (S) does not have the same semantic content as (G) under any reading. There are, of course, independent reasons to think that semantic contents are structured in roughly the previous way.²¹

An advocate of Salmon's theory could reply by claiming that 'witch' and 'mythical witch' have the same semantic content. But there is a persuasive argument against this claim.

²¹ I have suppressed some complications. On some theories of fine-grained, structured semantic content, such as those given by Mark Crimmins (1992), Mark Richard (1993), and Jeffrey King (2007), the semantic content of (S) does have the semantic content of 'mythical witch' as a constituent. More generally, every expression in a sentence contributes an identifiable constituent to the semantic content of the sentence (unless it occurs inside a complex demonstrative or 'dthat'-term). But on other views of structured semantic content, such as Salmon's (1986), this is not the case: Some complex phrases containing 'mythical witch' contribute a propositional function to the semantic content of the sentence, and this propositional function does not have the semantic content of 'mythical witch' as a constituent. But even on views like the latter, if one sentence contains a term with a certain semantic content, and another sentence does not contain an expression with that same semantic content, then those sentences differ in semantic content: They differ, for instance, in the propositional functions they have as constituents.

The sentence ‘There are mythical witches’ is true, whereas ‘There are witches’ is not. Therefore, the sentences have different semantic contents, and so (by compositionality) the terms ‘witch’ and ‘mythical witch’ differ in semantic content.²² I think this argument is sound.²³ Salmon does

²² On a very fine-grained theory of semantic content of the sort that Salmon and I accept, ‘witch’ and ‘mythical witch’ differ in semantic content simply because the former is a syntactically simple noun whereas the latter is a syntactically complex noun phrase. (Salmon places a hyphen between ‘mythical’ and ‘witch’ in footnote 27 of his 2002. Perhaps he does so because he thinks that ‘witch’ cannot be synonymous with a syntactically complex expression such as ‘mythical witch’.) However, I do not wish to rely on this rather technical point to argue that the terms differ in semantic content, for it would be of no help in criticizing a slightly modified Salmonian theory. On this modified Salmonian theory, we introduce the simple term ‘mitch’ to refer directly to the kind *Mythical Witch*, or to express the (semantically unstructured) property of being a mythical witch. We then substitute ‘mitch’ for ‘mythical witch’ in Salmon’s (S) and claim that the resulting sentence expresses the same proposition as some reading of Geach’s sentence. In response to this modified version of Salmon’s theory, I say: ‘There are mitches’ is true whereas ‘There are witches’ is not, so the terms differ in semantic content, and so no reading of Geach’s sentence is given by the sentence obtained from (S) by substituting ‘mitch’ for ‘mythical witch’.

²³ Of course, some might deny the truth of ‘There are mythical witches’. If need be, I could make do with the premise that there are possible worlds in which ‘There are mythical witches’ is true and ‘There are witches’ is not. An alternative argument for the same conclusion says that in some possible world (namely, the actual world) ‘Someone believes that there are mythical witches’ is true while ‘Someone believes that there are witches’ is false.

not explicitly discuss the semantic contents of ‘witch’ and ‘mythical witch’, but he does seem committed to the premises of my argument, and so he seems committed to holding that the terms differ in semantic content.²⁴

Though Salmon himself seems to be committed to holding that ‘witch’ and ‘mythical witch’ differ in semantic content, a theorist who thinks that Salmon’s (S) captures a Geachian reading of (G) might claim that the terms do not differ in semantic content. I can imagine four views of their semantic contents that such a theorist could propose. Roughly speaking, they are: (i) Both ‘witch’ and ‘mythical witch’ mean *mythical witch*. (ii) Both ‘witch’ and ‘mythical witch’ mean *witch*. (iii) Both ‘witch’ and ‘mythical witch’ have no semantic content. (iv) ‘Witch’ is lexically ambiguous between *witch* and *mythical witch*. I will argue that each of these views is implausible, and that the first three are unacceptable to those who think that (G) has a Geachian reading.

²⁴ Salmon (2002, note 13) says “Witches do not exist.” Salmon never explicitly asserts that mythical witches do exist, though he clearly thinks that there are other mythical objects, such as Vulcan. Salmon (2002; 2005, p. 106) also says that his (S) “substitutes ontological commitment to mythical witches for the ontological commitment to real witches intrinsic to the straightforward relational reading of [Geach’s sentence] (obtained from [(S)] by substituting ‘witch’ for ‘mythical witch’).” If the terms had the same semantic content, then there would be no difference in ontological commitment. In note 26 of his 2002, Salmon considers replacing ‘*x* is a mythical-witch’ in his analysis with the disjunction ‘*x* is a witch \vee *x* is a mythical-witch’. This would have little point if he thought that ‘witch’ and mythical-witch’ had the same semantic content.

On the first alternative semantic theory, ‘witch’ and ‘mythical witch’ both mean (roughly speaking) *mythical witch*. More precisely, the semantic content of both expressions is a genuine property that abstract artifacts, and only abstract artifacts, can instantiate. This is the property that we tried to express above with ‘mythical witch’.²⁵ Hence the terms do not differ in semantic content, and the Content Objection fails. A strike against this hypothesis is that it (implausibly) entails that the sentence ‘There are witches’ is true if there are any mythical witches (which are, recall, abstract artifacts of a certain sort). More importantly, the view also entails that if Salmon’s (S) is true in a world, then so is the sentence ‘There are witches’. But Geachians want a reading of Geach’s sentence that does not entail that there are witches. So no Geachian who thinks that (S) provides a reading of (G) can endorse the view that both terms mean *mythical witch*.²⁶

²⁵ Alternatively, an advocate of this sort of view could say that both terms designate the kind *Mythical Witch* (a kind of which mythical witches are members) and have that kind as their semantic content. (The kind *Mythical Witch* is a genuine kind. Salmon 1998, note 50, proposes that both ‘dragon’ and ‘witch’ designate *mythical* kinds. But mythical kinds are not kinds, and nothing can be a member of a mythical kind, not even a mythical witch.) From here on, I ignore the differences between (a) views that take the semantic contents of simple general terms to be properties and (b) views that take their semantic contents to be kinds. I shall also ignore from here on the fact that ‘mythical witch’ is syntactically complex, whereas ‘witch’ is syntactically simple.

²⁶ In response to these problems, our theorist might say that, contrary to popular (and philosophical) opinion, witches do exist, but they are mere abstract artifacts that never cast

The second view above says that, roughly speaking, ‘witch’ and ‘mythical witch’ both mean *witch*. More specifically, the semantic content of both terms is a “witchy” property with no actual instances, for instance a property that is instantiated by a thing iff (roughly) that thing is a supernaturally powerful woman. Therefore, the terms ‘witch’ and ‘mythical witch’ do not differ in semantic content, and the Content Objection fails. A desirable consequence of this view is that the sentence ‘There are witches’ is false. A less desirable consequence of this view is that Salmon’s (S) is true at a world only if Hob and Nob are focused on the same supernaturally powerful woman. That consequence is contrary to the spirit of Salmon’s theory. Even worse, this view (like the last one) entails that if Salmon’s (S) is true at a world, then ‘There are witches’ is also true at that world. But if this is so, then (S) fails to give a Geachian reading that can be true at witch-less worlds. Furthermore, on this view, ‘There are mythical witches’ is true at some worlds in which there are no mythical objects (namely, worlds in which there are supernaturally powerful women but no one has false theories). This is implausible and also contrary to the spirit of Salmon’s theory.²⁷ Finally, this view raises issues about the semantic content of ‘witch’. (I said earlier I would mostly ignore these issues, but the present semantic theory virtually forces us to consider them briefly.) The above view can be filled out in various ways, but on the most obvious way of doing so, the semantic content of ‘witch’ is identical with

spells. This response is implausible. It is also un-Geachian, for according to it, Salmon’s (S) entails ‘There are witches’, and so fails to give a Geachian reading.

²⁷ A follower of Salmon might consider taking the content of both ‘witch’ and ‘mythical witch’ to be a property that *necessarily* has no instances. But this would be unacceptable to Geachians attracted to Salmon’s view, for on it, (S) is false at all possible worlds.

the semantic content of a descriptive common noun phrase such as ‘supernaturally powerful woman’. But such a descriptivist theory of ‘witch’ is vulnerable to Kripkean and Putnamian objections.

On the third alternative, both ‘witch’ and ‘mythical witch’ have no semantic content. Hence they do not differ in semantic content.²⁸ So, the Content Objection fails. A welcome consequence of this view is that ‘There are witches’ is either false or truth-value-less. A less welcome consequence of this view is that ‘There are mythical witches’ is also either false or truth-value-less; in fact, it is false or truth-value-less at all possible worlds. Furthermore, Salmon’s (S) is also either false or truth-value-less at all possible worlds. But one who thinks that (G) has a Geachian reading thinks that (G) is possibly true on this reading.

Finally, a theorist who thinks that Salmon’s (S) provides a genuine reading of (G) might want to claim that ‘witch’ is lexically ambiguous. On one lexical disambiguation, the term expresses a property that correctly applies to certain abstract artifacts. This same property is expressed unambiguously by Salmon’s term ‘mythical witch’. On another lexical disambiguation, ‘witch’ either (a) expresses an uninstantiated property (perhaps a *necessarily* uninstantiated property) or (b) has no semantic content at all. Therefore on one lexical disambiguation of ‘witch’, it has the same semantic content as ‘mythical witch’, and the Content Objection fails.

There are several problems with the lexical ambiguity view. One apparent problem is that, on this view, the sentence ‘There are witches’ is true on one of its lexical disambiguations,

²⁸ On the “no semantic content” view, the terms ‘witch’ and ‘mythical witch’ not only do not differ in semantic content, but also do not have the same semantic content, since neither has any semantic content at all.

if there are mythical witches. Moreover, the view entails that ‘Every witch is a witch’ is four-ways ambiguous. But all (or nearly all) well-informed semantic theorists (including Salmon) take ‘There are witches’ to be unambiguous and false (or untrue), and none (that I know of) takes ‘Every witch is a witch’ to be truth-conditionally ambiguous. Further, the lexical ambiguity of ‘witch’ should have been obvious to semantic theorists, for the difference between witches and mythical witches is stark. Yet few, if any, semantic theorists have noticed it.

The lexical ambiguity proposal also fails to generalize well to other similar cases. I pointed out earlier that any sentence that is structurally similar to (G), such as (6), can provoke Geachian intuitions.

- (6) Higgins thinks that a stapler is sitting on Baker’s desk, and Newberry wonders whether it (the same stapler) is lying on Collins’s chair.

Presumably, a Salmonian who thinks that (S) provides a genuine reading of (G) would want to extend that view to (6), and so hold that (6S) provides a reading of (6).

- (6S) There is a mythical stapler such that: (i) Higgins thinks that a it is sitting on Baker’s desk, and (ii) Newberry wonders whether it is lying on Collins’s chair.

(6S) faces its own version of the Content Objection: (6S) provides a genuine reading of (6) only if ‘stapler’ has the same semantic content as ‘mythical stapler’. But it doesn’t. A Salmonian might reply that ‘stapler’ is lexically ambiguous between *stapler* and *mythical stapler*. Further parallel cases would force the Salmonian to say that all simple common nouns are lexically ambiguous between a “straight” meaning and a “mythical” meaning. But lexical meaning is established by use. Perhaps some speakers have used ‘witch’ to mean *mythical witch*, and perhaps enough have done this so that ‘witch’ is lexically ambiguous. But no speaker has used ‘stapler’ to mean *mythical stapler*, or ‘lamp’ to mean *mythical lamp*, and so on. Furthermore, on

this view the sentence ‘Every stapler is a stapler’ is four-ways ambiguous, and has at least one reading on which it is untrue (and exactly two untrue readings, if there are mythical staplers).

But surely this is not so.

Another problem with the lexical ambiguity reply is that it does not generalize well to cases that involve common noun *phrases*, as in sentence (4a+).

(4a+) Helen thinks that a young boy broke Betty’s window, and Nancy wonders whether he (the same young boy) trampled Carol’s garden.

Consider a Salmonian reading of this sentence, (4aS).

(4aS) There is a mythical young boy such that (i) Helen thinks: he broke Betty’s window; and (ii) Nancy wonders whether: he trampled Carol’s garden.

(4aS) faces its own version of the Content Objection, and presumably a Salmonian who likes lexical ambiguity would want to reply that ‘young boy’ is ambiguous between *young boy* and *mythical young boy*. But this alleged ambiguity cannot be reduced to a lexical ambiguity in ‘boy’. A mere lexical ambiguity in ‘boy’ would yield two readings for ‘young boy’, namely *young boy* and *young mythical boy*. But the meaning of ‘mythical young boy’ needed for (4aS) is not *young mythical boy*, but rather *mythical young boy*, for a mythical young boy need not be a young mythical boy. Parallel points hold for versions of (4a+) that contain yet more complex noun phrases, such as ‘young blond boy’, ‘young blond boy with short legs and tall parents’, and so on; the Salmonian analyses would need readings of these common noun phrases that cannot be produced by a mere lexical ambiguity in ‘boy’. Therefore, a Salmonian semantic theory would need to say that all common noun *phrases* are ambiguous between a “straight” and a “mythical” meaning. This alleged ambiguity is not an ordinary lexical ambiguity. (I do not deny that speakers can *use* a simple noun *N* or common noun phrase *NP* to mean *mythical N* or

mythical NP. But this seems to be a matter of speaker-meaning and pragmatics, rather than lexical semantics and semantic ambiguity.²⁹ I discuss such pragmatic matters in the next section.)

I conclude that none of the above attempts to escape the Content Objection is plausible. Therefore, I shall from here on assume that the Content Objection shows that Salmon's semantic theory of (G) is incorrect.

A theorist who finds Salmon's analysis attractive might give up the claim that (S) has the same semantic content as (G), under one of (G)'s readings, and instead make the more modest claim that (S) merely provides a *philosophical analysis* of one reading of (G). That is, (S) is (merely) *necessarily and a priori equivalent* to one reading of (G).³⁰ (On some coarse-grained theories of content, this is sufficient for (S) to have the same semantic content as the relevant reading of (G). But as I mentioned earlier, we have good reason to reject such coarse-grained theories of semantic content.) However, this more modest view has a problem much like Salmon's original semantic view. The proposition expressed by (S) is true at a world only if there are mythical witches in that world. So if there is a reading of (G) under which it has the

²⁹ One might hold that it is a phenomenon much like quantifier-domain restriction, and claim that this is a semantic phenomenon. See the next section and note 32 for discussion.

³⁰ Philosophers who think that knowledge is justified true belief should hold a parallel view about sentences of the form "A knows that *S*" and sentences that give philosophical analyses of them, such as sentences of the form "A has a justified true belief that *S*". Such pairs of sentences do not have the same semantic content. Rather, they are merely necessarily and a priori equivalent.

same content as (S), then that reading necessitates the existence of mythical witches. Moreover, this reading of (G) can do no more than resolve lexical ambiguities and ambiguities due to pronouns and quantifiers. But the terms ‘witch’ and ‘mythical witch’ differ in semantic content. Moreover, witches and mythical witches are entirely different sorts of things: mythical witches are abstract artifacts, whereas witches, if it is even possible for them to exist, would not be abstract artifacts. So it is difficult to see how a disambiguation of (G) could necessitate the existence of mythical witches, and also difficult to see how the existence of witches could necessitate the existence of mythical witches.

5. A Salmonian Pragmatics

A theorist who finds Salmon’s analysis attractive might retreat to pragmatics. She might admit that Salmon’s (S) does not give a genuine semantic reading of Geach’s sentence. (She might even say that there is *no* semantic reading of (G) that satisfies the Geachian intuitions.) Yet she could still hold that when Geach wrote (G), he entertained, and asserted or otherwise pragmatically conveyed, the proposition that (S) semantically expresses.³¹ When other speakers read (G) and consider typical Geachian scenarios, they entertain the proposition expressed by (S) and correctly take (S) to be true in these scenarios. That is why they think that there is a reading of (G) that is true in such scenarios. None of these speakers assert or convey the semantic content of (G), under any of its readings. Instead, they assert or convey the content of (S). Let us call this theory the *Salmonian pragmatic theory*.

An advocate of the Salmonian pragmatic theory might want to compare her theory with certain pragmatic theories of so-called quantifier-domain restriction. Consider the following

³¹ Thanks to Mike McGlone for this suggestion.

examples. *The Seminar*: A philosophy professor is sitting in a seminar room, notices a student walk in, and then utters ‘Everyone is here. Let’s begin.’ The first sentence she utters semantically expresses a proposition that is necessarily equivalent to the proposition that everyone in the universe is there (in the seminar room). But she does not assert that proposition, and does not believe it, and probably never entertains it. She instead entertains, believes, and asserts one or more propositions that quantify over fewer people, such as the proposition that everyone enrolled in her seminar is there, or the proposition that everyone who regularly attends her seminar is there. The propositions that she asserts and conveys are “enrichments” of the proposition that the sentence semantically expresses. *The Bathtub*: a father observes his child’s toys in a bathtub and says ‘Every duck with yellow wings has a red beak’. The sentence is scope-ambiguous and every proposition that it semantically expresses, under one of its readings, concerns real ducks and real beaks. The father does not believe or assert these propositions; he probably does not entertain them. He rather entertains, believes, and asserts one or more propositions about toy ducks and toy beaks, such as the proposition that every toy duck with yellow wings that is in the bathtub in front of him has a toy red beak (under the reading in which the universal quantifier phrase takes wide-scope). The propositions he asserts and conveys are enrichments of the proposition semantically expressed by the sentence he utters.

An advocate of the Salmonian pragmatic theory might similarly say that someone who hears a Geachian story and reads (G) does not believe, or even entertain, the proposition semantically expressed by (G), under any of its readings; nor does she assert any of those propositions when she assents to (G). Rather, she asserts, or otherwise conveys, the proposition

expressed by (S). This proposition is an enrichment of the proposition expressed by the (putative) (5b) reading of (G).³²

³² Two points about this view: (a) In *The Seminar*, the enriched proposition can be obtained by “adding a conjunct” to the semantically expressed proposition. This is not so for *The Bathtub* or the Geachian cases, for a toy duck is not a thing that is a toy and a duck, and a mythical witch is not a thing that is mythical and a witch. In these cases, the added content must be allowed to modify the content of the appropriate noun phrase. (b) I assumed in the main text that (so-called) quantifier-domain restriction is a pragmatic phenomenon. (I think this assumption is correct. See Bach [2000] and Soames [2009] for more on such views.) But on some semantic views of quantifier-domain restriction, the sentences uttered in *The Seminar* and *The Bathtub* are context-sensitive and semantically express the more restricted propositions in the contexts described in those examples. Salmonians who accept such semantic views could say that (G), under one of its readings, semantically expresses, in the contexts in which Geachians consider it, the proposition that (S) semantically expresses in a “no restrictions context”. (Of course on this view, there are contexts in which (G) expresses other propositions, such as the proposition that *a beautiful green witch wearing a polka-dot dress* is such that Hob thinks that she etc.’.) *The Bathtub* shows that such a theorist would find it difficult to attribute the context-sensitivity entirely to the quantificational determiners ‘every’ and ‘a’. Restricting ‘every’ to quantifying over toys would result in the proposition expressed by ‘Every toy that is a duck with yellow wings has a toy that is a red beak’. But no toy is a duck with yellow wings. Restricting ‘every’ to quantifying over toy ducks would result in a similar problem, for [toy ducks] with yellow wings are not toy [ducks with yellow wings]. Restricting quantification to toy [ducks with yellow wings] would give the right truth-conditions, but would make the entire noun phrase redundant. In short, a semantic

It is surely true that a speaker could use (G) to assert (or otherwise pragmatically convey) the proposition expressed by (S), and that such a speaker may be unaware at that time that there is no reading of (G) under which (G)'s semantic content is the same as the proposition she asserts. The only question is whether the above pragmatic theory correctly explains the intuitions of all Geachians. I think there are reasons to be skeptical.

First, consider again *The Seminar*. The professor entertains and believes many propositions, and probably asserts, or at least conveys, many distinct propositions. It would be difficult to justify a claim that one of these proposition is the sole one that she asserts, or that her belief in just one of these propositions plays a particularly crucial role in causing her to utter 'Everyone is here'. Yet the above Salmonian pragmatic theory says that there is a single proposition, namely the one expressed by (S), that is somehow particularly crucial to explaining Geachian intuitions.

Second, there is reason to think that most Geachians do not entertain the proposition expressed by (S). Suppose that a Geachian has been told a typical Geachian story, and judged theory of quantifier-domain restriction should allow the meaning of 'toy' to modify the meanings of 'duck with yellow wings' and 'red beak' before quantification applies. Stanley and Szabó's (2000) theory attributes quantifier-domain restriction entirely to the context-sensitivity of simple nouns. It may handle *The Seminar* and *The Bathtub*, but would have problems with (4aS) and other examples. (See Breheny 2003 and Williamson 2003 for criticisms that use similar examples to criticize Stanley and Szabó's theory.) These examples show that the relevant (alleged) context-relative restriction must be allowed to apply to entire noun phrases (perhaps in addition to simple nouns). Stanley (2007, Postscript, p. 249) concedes this point and proposes a revision in his theory, but does not present its details.

that (G), on one way of understanding it, is true in a world in which the story is true. Now imagine that the Geachian is then given the following description of another possible world. In this world, there are no witches, but there are mythical witches, and Hob and Nob are aware of both of these facts. There is a particular mythical witch that both Hob and Nob think about, and to which they both refer with the name 'Peg'. However, Hob and Nob think that abstract artifacts, such as mythical witches, can blight mares and kill sows.³³ Hob sincerely says 'There are no witches, and Peg is no witch, but Peg is a mythical witch, and an abstract artifact, and Peg blighted Bob's mare'. Nob sincerely says 'There are no witches, and Peg is no witch, but Peg is a mythical witch, and an abstract artifact, and I wonder whether Peg killed Cob's sow'.³⁴ There is no one else, and nothing else, that they suspect of harming the mare and the sow. Call such worlds *Peg-worlds*. I suspect that our hypothetical Geachian would judge that the (alleged) reading they have in mind is false in *Peg-worlds*. But Salmon's (S) is true in *Peg-worlds*. That

³³ In fact, it is not so strange to think that abstract artifacts can causally affect physical things. Fictional characters may cause readers to smile and cry. Checking accounts can cause their owners to frown when their balances are low.

³⁴ This example shows that one of Salmon's remarks about (S) is incorrect. He says (2002; 2005, p. 106) "[S] does require . . . that there be something that Hob and Nob believe to be a witch" In fact, Salmon's (S) is true in the world described by the preceding example, though there is nothing that Hob and Nob believe to be a witch.

is some reason to think that the Geachian was not contemplating the content of (S) when he earlier claimed claim that (G) is true in worlds of the more typically Geachian sort.³⁵

A Salmonian pragmatist might deny that Geachians would have the intuitions I predict. But more likely, a Salmonian pragmatist would point out that the description of the Peg-worlds explicitly mentions mythical witches, and she could argue that this would make it obvious to Geachians that (G) does not mean what (S) means, and so they would not take the truth of (S) in Peg-worlds to be sufficient for the truth of (G) in Peg-worlds. By contrast, the Salmonian might say, typical Geachian scenarios do not explicitly mention mythical witches. That is why typical Geachians take the truth of (S), in such stories, to be sufficient for the truth of (G), under some reading, in Geachian stories, though do not do so when they hear descriptions of Peg-worlds.

We could try to test the Salmonian pragmatist's reply by having the Geachians first consider whether (G) is true in typical Geachian worlds, then consider whether (G) is true in Peg-worlds, and then immediately have them reconsider whether (G) is true in Geachian worlds. If (as the Salmonian says) the Geachians become aware that (S) does not mean the same as (G) when they consider Peg-worlds, then they should continue to be aware of this as they return to reconsider Geachian worlds, and so they should, on reconsideration, judge that (G) is not true (under any reading) in Geachian worlds. It seems to me that they would continue to think that (G) is true in Geachian worlds. But the Salmonian could deny this, or say that when the Geachians return to considering Geachian worlds, they slip back into thinking that the truth of

³⁵ Peg-worlds can be used to criticize the Salmonian *semantic* theory that we considered earlier. (S) is true in Peg-worlds. If (S) provided a semantic reading of (G), and (S) is true in Peg-worlds, then typical Geachians would think that (G), under the reading they have in mind, is true in such worlds. But they do not.

(S) in Geachian worlds is sufficient for the truth of (G) in such worlds. So this attempt to test the Salmonian reply may not help us much in evaluating it.

But there is an independent (final) reason to doubt the Salmonian pragmatic theory. The theory attributes thoughts concerning the semantic content of ‘mythical witch’ to speakers who consider (G) and typical Geachian stories. But recall that Salmon uses ‘mythical witch’ in a technical way. A sophisticated follower of Salmon, who consciously believes that there are mythical objects, in Salmon’s technical sense, might contemplate Salmon’s proposition when he considers (G). But do others? Geach had Geachian intuitions about (G), but he never considered Salmon’s theory of mythical objects, and he probably never consciously considered whether mistaken theorists create abstract artifacts. There are others with Geachian intuitions who are ignorant of Salmon’s theory and probably do not think (consciously) about the creation of abstract artifacts, and may resist the claim that such things exist. It would be rather implausible to maintain that these speakers think about Salmonian mythicity when they consider (G).³⁶

6. A Modified Salmonian Pragmatic Theory

In response to the last worry, I think a Salmonian should propose a modification to the above pragmatic theory. She should admit that ordinary speakers (often) do not grasp the content of ‘mythical witch’ and so do not contemplate the semantic content of (S) as they read (G) and Geachian stories. She should instead claim that those with Geachian intuitions

³⁶ I am grateful to a member of an audience at the Barcelona Workshop in Reference in 2009 (where I presented an ancestor of this paper) for sketching a version of this objection to the Salmonian pragmatic theory.

sometimes contemplate, not the proposition expressed by (S), but some other related propositions, which I describe below.

According to Salmon, a mythical witch is a mythical object that someone thinks is a witch. Salmon thinks that Hob, or Nob, or one of their predecessors, created a mythical witch that Hob and Nob take to be a witch. Therefore, a Salmonian pragmatist might propose replacing sentence (S) with sentence (S').

(S) There is a mythical witch such that (i) Hob thinks: she has blighted Bob's mare; and (ii) Nob wonders whether: she killed Cob's sow.

(S') There is a thing that someone thinks is a witch such that (i) Hob thinks: it has blighted Bob's mare; and (ii) Nob wonders whether: it killed Cob's sow.

Semantic theorists and ordinary speakers surely can think about the property of being a thing that someone thinks is a witch without being acquainted with Salmon's theory of mythical objects. So those unacquainted with Salmon's theory could entertain the semantic content of (S'). (S') does not explicitly mention mythical witches, but it can be true in a world in which the thing that Hob and Nob suspect of the foul deeds is a *mythical* witch, as long as someone thinks that this mythical witch is a witch. Next, consider the proposition expressed by (S'').

(S'') Something is such that (i) Hob thinks: it is a witch and it has blighted Bob's mare; and (ii) Nob wonders whether: it killed Cob's sow.

(S'') is like (S), except that (S'') places 'witch' within the scope of 'thinks', and so requires that there be something that Hob thinks is a witch. Someone who is unacquainted with Salmon's theory could also entertain the semantic content of (S'') as she assertively utters (G). (S'') does not explicitly mention mythical witches, but it can be true in a world in which both Hob and Nob suspect a certain mythical witch of animal abuse, as long as Hob thinks that it is a witch.

The *modified Salmonian pragmatic theory* claims that when typical Geachians consider typical Geachian stories, they correctly judge that there is some sort of entity that Hob and Nob are thinking about. That entity is, in fact, a mythical witch, though the Geachians may fail to think that it is. The Geachians entertain the content of (S), or the content of (S'), or the content of (S''), or the contents of some combination, as they consider (G) and the Geachian scenarios. The Geachians correctly judge that (S) is true, or that (S') is true, or that (S'') is true, in the Geachian scenario. They (mistakenly) take that to be sufficient for (G) to be true in the story, under some disambiguation of (G). When they utter (G) or assent to it, they assert or otherwise convey one or more of the (S)-propositions.^{37 38}

This new pragmatic theory does *not* claim that (S') and (S'') provide *semantic* readings of (G). (S') is implausible as a semantic reading because it contains the phrase 'thing that someone thinks is a witch' whereas (G) does not contain any expression with the same complex, partly quantificational semantic content. (This is a version of the earlier Content Objection, applied now to (S') rather than (S).) I argue that (S'') fails to provide a semantic reading of (G) in the appendix to this paper.

³⁷ Unlike (S) and (S'), the proposition expressed by (S'') cannot be the result of some sort of process of (pragmatic or semantic) quantifier-domain restriction on (5b).

³⁸ I am grateful to two members of the audience at the 2009 Barcelona Workshop on Reference who suggested that I consider the above modified Salmonian pragmatic theory. One of them suggested that (S'') is a *semantic* reading of (G), if 'something' is taken to lack existential import. In the appendix, I argue that (S'') fails to provide a semantic reading of (G), when 'something' is taken with (standard) existential import.

The modified Salmonian pragmatic theory considerably reduces the role of mythical witches in explaining the intuitions of Geachians. Notice that it is possible for (S') to be true though there are no mythical witches, provided that there is a real person, or other object that is not a mythical witch, whom someone thinks is a witch, and Hob and Nob suspect her (or it) of performing the foul deeds. Similarly, (S'') can be true in a world in which there are no mythical witches, if there is a real person, or object that is not a mythical witch, whom Hob thinks is a witch, and both he and Nob suspect her (or it) of performing certain acts of animal abuse.³⁹ Nevertheless, in the typical Geachian scenarios, there is no person who is suspected of being a witch, and the only thing (if any) that is thought to be a witch is a mythical witch.

How plausible is the new theory? Once again, it cannot be denied that a speaker could utter (G) and thereby assert, or otherwise pragmatically convey, the propositions expressed by (S') or (S''). But do the Geachians? And do they take the contents of (S') and (S'') to be true in typical Geachian scenarios? And do they take the truth of these to be sufficient for the truth of some reading of (G)?

Geach (1967) explicitly considers whether (7) provides a reading of (G).

(7) As regards somebody, Hob thinks she is a witch and has blighted Bob's mare, and Nob wonders whether she killed Cob's sow.

(S'') is like (7), insofar as both have a quantifier phrase outside the scope of 'thinks', and both leave 'witch' within the scope of 'thinks'. But (7) is unlike (S'') in one crucial respect: (7) uses the quantifier 'somebody', which quantifies over persons, whereas (S'') use the "bare quantifier" 'something', which quantifies over persons and other things as well. So there are worlds in

³⁹ If (S'') is true at a world, then so is (S'), for if there is something that Hob thinks is a witch, then that thing is thought by someone to be a witch.

which (S'') is true and (7) is false, such as worlds in which there is a statue or mythical witch, but no person, that Hob thinks blighted Bob's mare. (Recall that mythical witches are abstract artifacts, and so not persons.) Geach rejects (7) as a reading of (G) because (7) implies that Hob and Nob have some person in mind who they think is a witch, whereas Geach thinks that (G), under the reading he has in mind, does not imply this. Would Geach have accepted (S'') as a reading of (G)? Would the preceding difference between (S'') and (7) have led Geach to accept (S'') as a reading of (G), even though he rejected (7)? We will never know for sure, but I suspect not. When I read Geach, I get the strong impression that he is not particularly concerned with the fact that (7) requires Hob and Nob to think about a real *person*. Rather, he is worried that (7) requires them to think about some real *thing*.

Esa Saarinen (1978) has Geachian intuitions, and thinks that there is a reading of (G) that satisfies his intuitions. He considers a sentence in a formal symbolic language that is very much like (S''), and asks whether it captures the relevant reading of (G). He says that it does not, because it relates Hob and Nob to a particular *individual*, by which he means a thing over which the unrestricted existential quantifier of his formal language ranges. (This quantifier ranges over all things, both persons and non-persons.) Tyler Burge (1983, p. 95) also has Geachian intuitions. He says that (7) does not capture the relevant reading of (G) because it "implies that Hob and Nob have some particular (actual) person *or object* whom they believe to be a witch" (my italics).⁴⁰

⁴⁰ Salmon (2002) considers a sentence much like (7) as a proposed semantic reading of (G), and rejects it on the grounds that it implies that there is a *person* (rather than an object) that Hob and Nob suspect. (Recall that mythical witches are not persons.)

Saarinen and Burge (and maybe Geach) think that (S'') (or a similar sentence) is untrue in typical Geachian scenarios. So the intuitions of these Geachians seemingly cannot be explained by hypothesizing that they consider (S'') as they consider Geachian scenarios, and take (S'') to be true in the scenario, and take its truth to be sufficient for the truth of a certain reading of (G) in the scenario. Might these Geachians be contemplating the content of (S') instead of the content of (S'')? (S') entails that there is something (an object) that both Hob and Nob are thinking about. Saarinen, Burge, and perhaps Geach think that the reading that they have in mind does not entail that there is some object that both Hob and Nob think about. So it is unlikely that these Geachians take the content of (S') to be true in the Geachian scenarios (unless, of course, they fail to recognize the simple entailments of the propositions they consider). I conclude that the modified Salmonian pragmatics fails to explain some typical Geachian intuitions.

The Geachian intuitions are, at the very least, frustrating. Saarinen, Burge, and Geach say that there is some sense in which Hob and Nob are thinking of the same thing. And yet they (or at least Saarinen and Burge) deny that there is an object (thing or person) about which both Hob and Nob are thinking. How strange! And confusing! Should we continue to take for granted that all of their intuitions are correct about some proposition that they are considering (even if this is not the semantic content of (G))? I think not. That is, I think we should not assume that there is a proposition that (a) the Geachians contemplate when they consider Geachian stories, and (b) correctly take to be true in these stories, and (c) (incorrectly) take to be sufficient for (G), on some reading, to be true in the story. I will suggest an alternative sort of account later.

7. Do Hob and Nob Think about Some Entity?

Some Geachians (including Saarinen and Burge) think, at least in some moods, that there is no object about which Hob and Nob are both thinking, in typical Geachian scenarios. Salmon thinks that there *is* something about which Hob and Nob are thinking in these scenarios, namely a mythical witch. If our concern is simply to explain the Geachians' intuitions, whether they are correct or incorrect, then we should not be too concerned about whether Salmon is right or the Geachians are right. Nevertheless, we might be curious to know. I think the Geachians are correct when they claim that there is no object about which Hob and Nob are thinking (in typical Geachian scenarios). I try to justify this claim below.

Consider the following sort of Geachian scenario (set of worlds). In this scenario, there are no witches, but Hob, Nob, and Rob nonetheless think that there are. Rob observes Bob's ill mare, whose illness is due to natural causes. He hypothesizes that exactly one witch blighted it. There is no one whom Rob suspects of being a witch; he just thinks that the horse's illness looks like the handiwork of a single evil witch. Rob introduces the name 'Meg' into his own language by sincerely uttering the following: 'I hereby stipulate that the name 'Meg' shall refer, in my language, to the witch who blighted Bob's mare, if there is exactly one such witch; otherwise, the name shall refer to nothing at all'. Rob later says to Hob, 'Meg is a witch and Meg blighted Bob's mare'. Hob sincerely says 'From here on the name 'Meg' shall refer, in my language, to the witch that the name refers to in Rob's language, if there is exactly one such witch, and to nothing otherwise. Meg is a witch and Meg blighted Bob's mare'. Rob then leaves Hob, and later says to Nob, 'Meg is a witch and Meg hates all pigs'. Nob sincerely says 'From here on, the name 'Meg' shall refer, in my language, to the witch that the name refers to in Rob's language, if there is exactly one, and to nothing otherwise. Meg is a witch, but did Meg kill

Cob's sow?'. Nob remains ignorant of Hob and Bob. Hob and Nob do not suspect anyone else, or *anything* else, of the foul deeds.

Here are some plausible judgments about this example. First, the sentence 'Meg exists', in the languages of Rob, Hob, and Nob, is false (or at least untrue) in the above worlds, and the sentence 'It is not the case that Meg exists' is true in their languages in this world. Second, there is no person or object to which Hob and Nob are referring when they utter 'Meg'. Third, there is no person or object that Hob and Nob suspect of performing the foul deeds. Fourth, sentences (S), (S'), and (S'') are false at worlds of this sort, because all of them imply that there is something such that Hob thinks it blighted Bob's mare and Nob wonders whether it killed Cob's sow.⁴¹

A Salmonian theorist would almost certainly disagree, and claim that, in the above scenario, Rob, Hob, and Nob unintentionally create a mythical witch. Such a Salmonian theorist might claim that, in this scenario, the name 'Meg' refers, in their languages, to a mythical witch. She would almost certainly claim that Rob, Hob, and Nob at least *speaker-refer* to a mythical witch, and also think about it, when they use the name 'Meg'. Moreover, such a theorist might claim that all of them think, of this mythical witch, that it is a witch. Therefore, (S), (S'), and (S'') are all true in this scenario.

I agree that Rob, Hob, and Nob unintentionally create a mythical witch. (That is, the existence of a mythical witch supervenes on their activities.) But whether they name, refer to, or think about, the mythical witch that they create is another matter. I think that they do not. Their intentions when they introduce the name do not allow the name to refer to that mythical witch, in

⁴¹ This example could also serve as a counterexample to the semantic version of Salmon's theory.

their languages. (Notice that Rob stipulates that the name shall fail to refer, if there is no witch that blighted Bob's mare.) Moreover, the causal relations they bear to the mythical witch they create are not the sort that would allow them to name, refer to, or think about that object. Finally, they do not know any descriptions that pick out that mythical witch uniquely, so they cannot use descriptive knowledge to single it out so as to think about it, refer to it, or name it.⁴²

Recall Salmon's and Kripke's dispute about Le Verrier. They agree that Le Verrier created a mythical object, but disagree about whether Le Verrier named, referred to, or thought about, that object. A parallel disagreement has now arisen about Rob, Hob, and Nob.

The above scenario is a Geachian scenario. In my opinion, Geachians who judge that there is no object about which Hob and Nob are thinking in the above scenario make a reasonable judgment. I think that Geachians who consider other similar scenarios, of the sort they have usually have in mind as they consider (G), are nearly always reasonable when they judge that there is no object about which Hob and Nob are thinking.

But as I mentioned above, our main goal is to explain the Geachians' intuitions, whether they are right or wrong about such matters. And many of their intuitions are confusing, for many Geachians are inclined to think (in some moods?) that there is no object about which Hob and Nob are thinking, in typical Geachian scenarios, like the one above, and yet many of these same

⁴² See Braun 2005, especially note 40, for more on stipulations and reference-failure. We could make the failure of semantic reference even more obvious by changing the example a bit: suppose that Rob, Hob, and Nob make the same stipulations they do in the original example, but also stipulate that the name shall not refer to a mythical witch. This should be enough to assure that the name does not semantically refer in their languages to a mythical witch. I think that Geachians would continue to hold that there is a reading of (G) that is true in such worlds.

Geachians think that there is some sense in which Hob and Nob are thinking of the same thing, in typical Geachian scenarios.

Let's review. I have argued that Salmon's (S) does not provide a genuine *semantic* reading of Geach's (G), and so the semantic version of Salmon's theory is false. A Salmonian might retreat to pragmatics (and psychology), and claim that Geachians contemplate the propositions expressed by one or more of the S-sentences, when they consider Geachian scenarios. But I have argued that typical Geachian typical intuitions either indicate that they do not consider the propositions expressed by the S-sentences, or indicate that the Geachians are confused in ways not described by the Salmonian theory.

8. An Alternative Explanation of Geachian Intuitions

This ends my critique of Salmon's semantic theory, and its pragmatic variants. I will now present an alternative explanation of Geachian intuitions.

I believe that the correct semantic view of (G), whatever it is, entails that (G) has no Geachian reading. That is, there is no semantic disambiguation of (G) that is (a) true at some worlds in which there are no witches and Nob is unaware of Hob and Bob, and yet (b) is true at a world only if Hob and Nob are (in some robust sense) focused on the same thing. So Geach's sentence has no reading that satisfies the Geachian intuitions. The only genuine readings of Geach's sentence are non-Geachian readings, given by (5b) and (5c) (or sentences logically equivalent to them) and perhaps also, or instead, by (5d) and (5e), or some of the other variants that I mentioned. The seemingly preferred wide-scope reading, given by (5b) (or something logically equivalent), is untrue in witch-less worlds. All of the genuine semantic disambiguations of (G) are either (a) untrue in witch-less worlds in which Nob is ignorant of Hob

or (b) true in worlds in which Hob and Nob fail to think about the same thing. If this is so, then the Geachian intuitions are mistaken.

I have not, of course, *shown* that there is no Geachian reading of (G). I have argued that Salmon's (S) does not provide one, but I have not even considered other theories of Geach's sentence (however, see notes 13-14 and 16-17). Nevertheless, I shall assume below that there is no such reading, and then try to provide an explanation of Geachian intuitions that is consistent with this assumption. Insofar as my explanation is plausible, we will have some reason to think that there is no Geachian reading of (G).

I suspect that the correct explanation of Geachian intuitions varies from one Geachian to another. But I also suspect that the two most important factors in explaining Geachian intuitions are the following. First, Geach's sentence (G) has a reading that is at least equivalent to (5b), repeated below.

(5b) There is a witch such that (i) Hob thinks: that she blighted Bob's mare and (ii) Nob wonders whether: she killed Cob's sow.

On this reading, (G) attributes to Hob and Nob genuine *de re* thoughts about a witch. Second, in the Geachian stories, Hob and Nob strongly *resemble* people who have genuinely *de re* thoughts about witches, or at least genuinely *de re* thoughts about supernaturally powerful women.⁴³ Hob and Nob are *internally* (in their bodies, and in their souls, if they have any) just like people who have genuine *de re* thoughts about a supernaturally powerful woman. (Imagine a Twin Earth,

⁴³ I suspect (for Kripkean reasons) that if there are no witches, then it is metaphysically impossible for there to be any, and so it is impossible for there to be a witch about whom someone has a *de re* thought. Hence I concentrate below on the ways in which Hob and Nob resemble people who have *de re* thoughts about supernaturally powerful women.

with a Twin Hob and a Twin Nob having genuine *de re* thoughts about a supernaturally powerful woman.) Moreover, Hob's and Nob's surroundings are much like those of people who have genuine *de re* thoughts about a supernaturally powerful woman. For instance, Hob and Nob are surrounded by chains of communication, attempts at name introductions, and conversational anaphora of just the sort that would normally allow them and their community members to make *de re* assertions, ask *de re* questions, and have *de re* beliefs, about a supernaturally powerful woman. But something goes wrong, and as a result Hob and Nob do not make such *de re* assertions, or ask such *de re* questions, or have such *de re* beliefs. Thus Hob, Nob, and their community are very much *as if* there were a supernaturally powerful woman about whom they speak and think, despite the fact that there is no such woman. The strong resemblance tempts speakers to use (G) to describe such scenarios, even though there is no reading of (G) that is true in such worlds.

In many Geachian scenarios, Hob and Nob also have similar *de dicto* "witchy thoughts". For instance, both think that there is a witch who is harming livestock in their area, and both think that others in their community are speaking about a witch, and so on. Often, this sort of similarity between two agents' *de dicto* beliefs is due to their thinking *de re* about the same object. So Hob's and Nob's similarity in *de dicto* "witchy thoughts" might also contribute to some Geachians' intuitions that Hob and Nob are thinking of the same thing.⁴⁴

⁴⁴ Geach (1967), Dennett (1967), Edelberg (1986), and King (1993) discuss how similarity in Hob's and Nob's *de dicto* thoughts can lead to the intuition that they are thinking of the same thing (hence the term "intentional identity"). They differ about whether this is relevant to the truth of (G).

However, asking Geachians “Is there someone, or something, about whom Hob and Nob are both thinking?” may force them to think about the *differences* between Hob and Nob, on the one hand, and people who are genuinely thinking about some (real) supernaturally powerful woman, on the other. When focusing on these differences, they may conclude that there is nothing about which both Hob and Nob are thinking. So they are inclined to reply ‘No’ to the question. Hence, they are tempted to use (G) to describe Hob and Nob in the Geachian scenarios, because Hob and Nob strongly resemble people who are thinking about the same supernaturally powerful woman; but they hesitate to say that there is something or someone about whom Hob and Nob are thinking, because Hob and Nob differ in important ways from those with genuine *de re* thoughts about a supernaturally powerful woman.

The semantic complexity of (G) may contribute to speakers’ mistakenly thinking that (G) has a reading that is true in Geachian stories. (G) is ambiguous, but it is exceedingly difficult to grasp and state its disambiguations clearly. So it would be unsurprising if speakers who consider (G) for the first time fail to distinguish clearly among its readings. Some speakers may first focus blurrily on a (5b)-like reading, and judge that (G) is true because Hob and Nob resemble people who think about a supernaturally powerful woman. But after prompting, they may judge that there is no witch about whom Hob and Nob are thinking; they may then unconsciously shift their blurry focus to a (5e)-like reading, and so judge that (G) is still true in the scenario. If these speakers then notice that Nob is unaware of Hob and Bob (which is incompatible with the truth of a (5e)-like reading), they may unconsciously shift their blurry focus again to a (5b)-like reading, and again conclude that (G) is true in the scenario. Other speakers may never distinguish among the readings clearly enough to maintain even a blurry focus on one rather than another.

But what about the sophisticated semanticists who, after long reflection, continue to think that there is a Geachian reading of (G)? Are they making the above mistakes? I suspect that they did make these mistakes when they first thought about (G). (So did nearly everyone else.) These Geachian theorists subsequently realized that it was not obvious how their naïve judgments could be correct. However, they assumed that those initial intuitions were correct about something, and so they sought a semantic reading of (G), or a proposition conveyed by (G), that validated those intuitions. Theorists who think that (G) has a Geachian reading continue to place a lot of trust in their initial, ordinary intuitions—too much trust, in my opinion.⁴⁵

⁴⁵ I presented versions of this paper at the Sixth Barcelona Workshop on Issues in the Theory of Reference in June 2009, and at the Inland Northwest Philosophy Conference 13 in April 2010. Thanks to Genovea Marti, Josep Macia, and Oscar Cabaco for organizing the Barcelona workshop; thanks to Michael O'Rourke for inviting me to speak at the INPC. Russell Wahl was my commentator at the INPC; many thanks to him for his comments. Thanks to Kent Bach, Mark Balaguer, Chris Barker, Alexis Burgess, Tim Button, Stacie Friend, Larry Horn, Benj Hellie, Jeffrey King, Genoveva Marti, Seyed Mousavian, Graham Priest, Ori Simchen, Robert Stalnaker, Zoltan Szabó, and Kenneth Taylor for comments and discussion. Thanks to Michael McGlone for helpful comments on an ancestor of this paper. Thanks especially to Nathan Salmon for extended discussion and comments.

Appendix

In this appendix, I argue that (S'') does not provide a reading (a semantic disambiguation) of (G).

(G) Hob thinks that a witch has blighted Bob's mare, and Nob wonders whether she (the same witch) killed Cob's sow.

(S'') Something is such that (i) Hob thinks: she is a witch and she blighted Bob's mare; and (ii) Nob wonders whether: she killed Cob's sow.

Presumably, if (S'') provides a genuine semantic disambiguation of (G), then (8b) also provides a genuine semantic disambiguation of (8a).

- (8) a. John believes that some dog in Mary's house is brown.
b. Something is such that: John believes that it is a dog in Mary's house and is brown.

Let us call (10b) the alleged "bare quantifier reading" of (10a). None of the more popular theories of scope ambiguity (such as those of May [1985] and Montague [1973]) entail that there is a reading of (10a) that is equivalent to (10b). But those who think that (10b) does provide a reading of (10a) could argue that those standard theories should be revised.⁴⁶

Presumably, a semantic theory that allows (8b) to provide a reading of (8a) will also allow (9b) to provide a reading of (9a).

⁴⁶ I take the phrase "bare quantifier" from Szabó (forthcoming, unpublished). He argues that some sentences containing occurrences of numerical quantifiers have "bare quantifier" readings. For instance, he claims that one reading of 'Ralph believes that three terrorists live across the street' is 'Three things are such that Ralph believes that they are terrorists who live across the street'. (I am skeptical.) But Szabó denies that such readings are available for quantifier phrases of the form "Some *N*", as in (G).

- (9) a. John believes that every dog in Mary's house is brown.
 b. Everything is such that: John believes that if it is a dog in Mary's house, then it is brown.

But there are two reasons to reject the claim that (9b) provides a reading of (9a). The first, weaker reason is that the complement clause of (9b) contains a conditional, and (presumably) the proposition that the clause denotes under the (9b) reading contains a corresponding propositional connective as a constituent. But nothing like this is present in (9a), or in the proposition denoted by its complement clause. The second, stronger reason to doubt that (9b) provides a reading of (9a) is that the truth-conditions of (9b) are bizarre. (9b) is true only if, for each thing in the universe, John has a genuine *de re* belief about it (namely that if it is a dog in Mary's house then it is brown). This alleged reading of (9a) is obviously false, if John is a normal human being. In fact, the bare-quantifier hypothesis entails that all ascriptions of the form $\lceil N \text{ believes that every } F \text{ is } G \rceil$, in which N is a name for an ordinary human being, have false bare-quantifier readings. That is extremely counterintuitive.

The bare-quantifier hypothesis also fails to generalize to other quantifiers. It is well-known that the truth-conditions of sentences of the form "Most F are G " cannot be captured by a sentence of the form of (10), in which 'M' is an unrestricted quantifier meaning (roughly) *most things* and '#' is a truth-functional connective (Barwise and Cooper, 1981).

- (10) $Mx (Fx \# Gx)$

This creates a difficulty with extending the bare-quantifier proposal to belief ascriptions containing 'most' quantifier phrases.

- (11) a. John believes that most dogs in Mary's house are brown.

- b. Most things are such that: John believes that they are dogs in Mary's house # they are brown.

There is no connective one can substitute for '#' that would allow (11b) to have the appropriate truth-conditions. More importantly, there is no appropriate propositional element that can appear in the proposition denoted by the complement clause of (11b). Furthermore, even if there were an appropriate connective, (11b) entails that, for most things (in the universe), John has a *de re* belief about each of those things. But surely no reading of (11a) requires that John have such beliefs.

Summarizing: any theory that allows (S'') to provide a reading of (G) would presumably entail that (10b) provides a reading of (10a), and that (9b) provides a reading of (9a), and that there is a parallel bare-quantifier reading of (11a). These consequences are implausible.

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