

Appeared in *Noûs* 39 (2005), pp. 596-631.

Empty Names, Fictional Names, Mythical Names

David Braun

University of Rochester

John Stuart Mill (1843) thought that proper names denote individuals and do not connote attributes. Contemporary Millians agree, in spirit. We hold that the *semantic content* of a proper name is simply its referent. We also think that the semantic content of a declarative sentence is a Russellian structured proposition whose constituents are the semantic contents of the sentence's constituents.¹ This proposition is what the sentence *semantically expresses*. Therefore, we think that sentences containing proper names semantically express *singular propositions*, which are propositions having individuals as constituents. For instance, the sentence 'George W. Bush is human' semantically expresses a proposition that has Bush himself as a constituent. Call this theory *Millianism*.²

Many philosophers initially find Millianism quite appealing, but find it much less so after considering its many apparent problems. Among these problems are those raised by *non-referring names*, which are sometimes (tendentiously) called *empty names*.³ Plausible examples of empty names include certain names from fiction, such as 'Sherlock Holmes', which I shall call *fictional names*, and certain names from myth and false scientific theory, such as 'Pegasus' and 'Vulcan', which I shall call *mythical names*.⁴

I have defended Millianism from objections concerning empty names in previous work (Braun 1993). In this paper, I shall re-present those objections, along with some new ones. I

shall then describe my previous Millian theory of empty names, and my previous replies to the objections, and consider whether the theory or replies need revision. I shall next consider whether fictional and mythical names are really empty. I shall argue that at least some utterances of mythical names are.

1. The Problems

Let's assume, *for the moment*, that the proper names 'Vulcan' and 'Sherlock Holmes' fail to refer. Ordinary speakers judge these names to be meaningful, unlike the nonsensical string of phonemes 'thoodrupqua'. But (one might plausibly claim) if ordinary speakers judge that 'Vulcan' and 'Sherlock Holmes' are meaningful, then they have semantic contents. Yet Millianism entails that they do not have semantic contents. Thus, one might conclude, Millianism is false. Call this objection *The Problem of Meaningfulness for Names*.⁵

The next objection is *The Problem of Meaningfulness for Sentences*. If Millianism is true, then the names 'Vulcan' and 'Sherlock Holmes' have no semantic content. If a name lacks semantic content, then sentences in which the name appears also lack semantic content. Therefore, if Millianism is true, then sentences containing 'Vulcan' or 'Sherlock Holmes' have no semantic content. If a sentence has no semantic content, then ordinary speakers will judge that it is not meaningful. But ordinary speakers think that many sentences containing these names are meaningful, for instance, the sentences 'Vulcan does not exist' and 'Sherlock Holmes is a detective'. So it seems, once again, that Millianism is incorrect.

Consider next *The Problem of Truth Value*. The previous argument says that if Millianism is true, then sentences containing 'Vulcan' or 'Sherlock Holmes' have no semantic

content. But Millianism says that a sentence has the same truth value as its semantic content. So, if Millianism is true, then sentences containing the names 'Vulcan' or 'Sherlock Holmes' have no truth value. But some sentences containing 'Vulcan' or 'Sherlock Holmes' do have truth values. For instance, the sentences 'Vulcan exists' and 'Sherlock Holmes is a grapefruit' are false, and the sentences 'Vulcan does not exist' and 'According to certain stories by Conan Doyle, Holmes is a detective' are true.

A special case of the Problem of Truth Value is *The Problem of Attitude Ascriptions*. Suppose that Urbain Le Verrier sincerely utters 'Vulcan is a planet' (in French) and that Stephen Hawking utters 'Vulcan does not exist'. Then the attitude ascriptions 'Le Verrier believes that Vulcan is a planet' and 'Hawking says that Vulcan does not exist' are true. But according to Millianism, 'Vulcan is a planet' and 'Vulcan does not exist' have no semantic content and the 'that'-clauses that appear in these attitude ascriptions fail to refer. But then those attitude ascriptions are not true, if Millianism is correct.

The final objection is *The Problem of Belief and Sincere Assertive Utterance*. Generally, a person sincerely and assertively utters a sentence only if she believes its semantic content. (For instance, a person sincerely and assertively utters 'George W. Bush is a Republican' only if she believes the proposition that George W. Bush is a Republican.) But according to one of our earlier arguments, if Millianism is true, then the sentence 'Vulcan does not exist' has no semantic content. Therefore, if Millianism is true, then it is not the case that anyone believes the (nonexistent) semantic content of 'Vulcan does not exist'. Thus, if Millianism is true, then no one ever sincerely and assertively utters 'Vulcan does not exist'. But clearly some people do. Therefore, Millianism is incorrect.

2. The Gappy Proposition Theory

As I said, I replied to objections similar to most of those above in previous work (Braun 1993). I shall re-present those replies and then discuss their adequacy.

Millianism says that sentence (1) semantically expresses a proposition whose constituents are Bush and the property of being a planet. We can, *by convention, represent* this proposition with the ordered pair (1pPair).

1. Bush is a planet.

1pPair. <Bush, being-a-planet>

Under an alternative convention, we can represent this same proposition with (1pPairSets).

1pPairSets. <{Bush},{being-a-planet}>

Under yet another convention (one that emphasizes the constituent structures of propositions), this same proposition is represented with a tree, as in (1pTree).

1pTree.

$$\begin{array}{c} \text{Proposition} \\ \wedge \\ / \quad \backslash \\ \text{Argument} \quad \text{1-Place Property} \\ | \quad | \\ \text{Bush} \quad \text{being-a-planet} \end{array}$$

A Millian who accepts the existence of structured propositions (such as the one variously represented above) can and should admit that there are propositional structures with unfilled positions. Such a propositional structure can be represented by (2pTree) or (2pPairSets).

2pTree.

$$\begin{array}{c} \text{Proposition} \\ \wedge \\ / \quad \backslash \\ \text{Argument} \quad \text{1-place Property} \\ | \quad | \\ \quad \text{being-a-planet} \end{array}$$

2pPairSets. <{}, {being-a-planet}>

An alternative notation for referring to this same propositional structure, which I shall adopt from here on, is given by (2pBlank).⁶

2pBlank. < __, being-a-planet>

The propositional structure represented above lacks an occupant in a position that is normally occupied by the semantic content of a name, and possesses an occupant in a position that is normally occupied by the semantic content of a predicate. So it is a plausible Millian candidate for the semantic content of certain sentences that contain non-referring names. Thus, I proposed (following a suggestion by David Kaplan 1989) that the semantic content of sentence (3) is a propositional structure that contains an unfilled position (a “gap”), as represented by (3p).

3. Vulcan is a planet.

3p. < __, being-a-planet>

I furthermore proposed that unfilled propositional structures can be asserted and believed. When Le Verrier assertively utters sentence (3), he asserts the gappy propositional structure (3p). If he utters the sentence sincerely, then he believes (3p). But if such objects can be asserted and believed, then they are strong candidates for being propositions. Thus, I claimed that they are. I called them “unfilled propositions”, though I now prefer Kaplan’s more euphonious term *gappy proposition*.

I also claimed that gappy propositions have another feature characteristic of genuine propositions, namely that of bearing truth values. Atomic gappy propositions, such as that represented above, are false. Sentence (4) expresses a false gappy proposition that we can represent with (4p).

4. Vulcan exists.

4p. <__, existing>

The negation of sentence (4), namely (4Neg), expresses proposition (4pNeg), which is true.

4Neg. Vulcan does not exist.

4pNeg. <<__, existing>, NEG>

Thus sentence (4Neg) is true. I will say more about these claims below.

This theory provides replies to the earlier objections against Millianism. Consider first the Problem of Meaningfulness for Sentences. One of its premises says that if a name lacks a semantic content, then sentences in which it appears also lack semantic content. This premise is false, on the above view. The name ‘Vulcan’ lacks semantic content, but the sentence ‘Vulcan exists’ does have a gappy propositional content. There are also immediate replies to the Problem of Truth Values and the Problem of Belief and Sincere, Assertive Utterance. Gappy propositions bear truth values, so sentences that semantically express them do also. In fact, sentences that express gappy propositions usually have the truth values that we pre-theoretically judge them to have. The sentences ‘Vulcan exists’ and ‘Sherlock Holmes is a grapefruit’ are false, because the atomic gappy propositions that they express are false. The sentence ‘Vulcan does not exist’ is true. And a reasonable theory of truth in fiction would imply that the sentence ‘According to certain stories by Conan Doyle, Sherlock Holmes is a detective’ is true, for the sentence ‘Sherlock Holmes is a detective’ expresses a gappy proposition that is explicitly expressed by one of the sentences in Conan Doyle’s stories, or is implied (in some suitable sense) by the propositions expressed by sentences in the stories.⁷ Furthermore, there is no problem about belief and sincere assertive utterance. A person who sincerely and assertively utters ‘Vulcan

does not exist' really does believe the semantic content of the sentence, namely a gappy proposition. In addition, attitude ascriptions that contain empty names in 'that'-clauses can be true on the Gappy Proposition Theory. The 'that'-clauses 'that Vulcan is a planet' and 'that Vulcan does not exist' refer to gappy propositions. If Le Verrier sincerely utters 'Vulcan is a planet' (in French) and Hawking utters 'Vulcan does not exist', then the attitude ascriptions 'Le Verrier believes that Vulcan is a planet' and 'Hawking says that Vulcan does not exist' are true.

Replying to the Problem of Meaningfulness for *Names* takes a bit more work. This objection claims that if ordinary speakers judge that a name is meaningful, then it has a semantic content. This premise is incorrect: ordinary speakers judge that the names 'Vulcan' and 'Sherlock Holmes' are meaningful, even though they have no semantic content. Ordinary speakers so judge because they bear cognitive relations to these names that are importantly similar to the cognitive relations they bear to referring names. If an utterance of 'George W. Bush is in Prague' comes from a source that I take to be reliable, it will cause me to believe that George W. Bush is in Prague. My so believing may cause me to utter that same sentence. Utterances of sentences containing standard *non*-referring names have similar sorts of causal connections with belief. An utterance of 'Vulcan does not exist' from a source that I take to be reliable will cause me to believe the gappy proposition that Vulcan does not exist, and my believing this proposition may cause me to utter that sentence. Strings of sounds that we ordinarily call 'meaningless' do not have these characteristic causal relations with belief. An utterance of a (quasi) sentence that contains the sound 'thoodrupqua' will not cause me to believe a gappy proposition and I (currently) have no beliefs that cause me to utter (quasi) sentences containing that sound.⁸

3. Three Objections and Replies

I shall soon re-examine the claim that atomic gappy propositions are false. But before doing so, I want to consider three objections to the Gappy Proposition Theory.

The first objection claims that no reasonable person could believe an atomic gappy proposition, such as the proposition that Vulcan exists. A proponent of this objection might follow Bertrand Russell (1910-11) in holding that the propositions that an agent thinks, entertains, and believes are (in some sense) “transparent” to that agent. Such a philosopher might say that anyone who entertained an atomic gappy proposition would recognize its gappiness, and recognize that it cannot be true, and so refrain from believing it, contrary to the Gappy Proposition Theory.

This objection concerns belief, and replying to it requires a bit of a metaphysics of belief. On the metaphysics I favor, standing in the belief relation to a proposition requires that one be in a certain type of intrinsic mental state. These mental states are *intrinsic* in the following sense: you and your Twin Earth doppelgänger have the same types of mental states of this sort, even though you believe different propositions. For instance, there is a type of intrinsic mental state that you share with your Twin Earth doppelgänger which underlies your believing that Aristotle was a philosopher, but which underlies your doppelgänger’s believing that Twin Aristotle was a philosopher. You and Twin You differ in what you believe, despite the intrinsic similarity in your mental states, because your mental states stand in different causal relations to Aristotle and Twin Aristotle. These causal relations involve utterances of proper names such as ‘Aristotle’: Your utterances of the name ‘Aristotle’ refer to Aristotle, whereas your Twin’s utterances refer to Twin Aristotle.

Suppose now that Twin You's utterances of 'Napoleon' fail to refer. (The causal chain that carries the name 'Napoleon' to Twin You contains a "block", to use a term from Keith Donnellan 1974.) Twin You is in an intrinsic mental state of the same type as the one that underlies Your believing that Napoleon is a general. But Twin You ends up believing a gappy proposition, which we can represent with (5p).

5p. <__, being-a-general>.

Of course, Twin You is entirely rational, just like You. Twin You cannot tell by introspection that he or she believes a gappy proposition, any more than You can. No *a priori* reasoning would reveal to Twin You that he or she believes a gappy proposition, any more than such reasoning by You would. Thus, Twin You does not think that he or she believes a gappy proposition, any more than You do. So Twin You thinks that he or she believes something that is very likely to be true. Thus, contrary to the skeptic I mentioned above, a rational person can entertain an atomic gappy proposition without believing that it is gappy, and without believing that it is incapable of being true, and so can reasonably come to believe that gappy proposition.

Here is the second objection to the Gappy Proposition Theory. A rational person could understand sentences (6) and (7), and believe that (6) is true and (7) is false.

6. Vulcan is a planet.

7. Sherlock Holmes is a planet.

Such a person would believe the proposition semantically expressed by (6) and believe the negation of the proposition expressed by (7). But on the Gappy Proposition Theory, (6) and (7) semantically express the same gappy proposition, namely proposition (6/7p).

6/7p. <__, being-a-planet>

Therefore, such a person would believe a proposition and its negation. But surely no rational person could do that. So, one might conclude, the Gappy Proposition Theory is incorrect.

To reply to this objection, let's return to You and Twin You. You believe that David Hume was *not* a general. (At least you do now that I have mentioned it.) You believe this partly in virtue of being in a certain intrinsic mental state. Twin You is in this same type of intrinsic state. But (let's suppose) Twin You's uses of the name 'David Hume' fail to refer. So, this type of intrinsic mental state underlies Twin You's belief in a gappy proposition, which we can represent with (8p).

8p. <<__, being-a-general>, NEG>

Now recall that Twin You believes the gappy proposition (5p) above, which he or she would express by saying 'Napoleon was a general'. But (8p) is just the negation of (5p). So, Twin You believes a gappy proposition *and* its negation. But the intrinsic mental states that underlie Twin You's believing these propositions are as different as the intrinsic mental states that underlie Your believing that Napoleon was a general and Your believing that David Hume was not a general. Twin You believes the atomic gappy proposition (5p) in a "Napoleon-ic" way, but believes the negative gappy proposition (8p) in a "David Hume-ish" way. These ways of believing are different enough to allow Twin You to be just as rational as You.

Similarly, a rational Earthling could believe proposition (6/7p) in a "Vulcan-ish" way, and believe the negation of that same proposition in a "Sherlock Holmes-ish" way. The ways in which such a person believes these propositions are as different as the ways in which You believe that Napoleon was a general and that David Hume was not. Such a person would rationally think that sentence (6) is true and sentence (7) is false.

The preceding objection is a variant on a standard objection to Millianism about *referring* names. On the Millian theory, sentences (9) and (10) semantically express the same singular proposition.

9. Twain wrote *Huckleberry Finn*.

10. Clemens wrote *Huckleberry Finn*.

Yet a rational person could think that one is true and the other is false. The correct reply for the Millian (in my opinion) is to say that such a person believes a proposition and its negation, but in distinct ways that allow him to preserve his rationality. See Salmon 1986 and Braun 2002.

Here is the third objection.⁹ The Gappy Proposition Theory entails that sentences (11) and (12) express the same proposition.

11. Le Verrier believes that Vulcan is a planet.

12. Le Verrier believes that Holmes is a planet.

But (11) and (12) differ in truth value. Thus, the Gappy Proposition Theory is incorrect. A variant on this objection asks us to consider sentences (13) and (14).

13. According to *The Hound of the Baskervilles*, Holmes is a detective.

14. According to *The Hound of the Baskervilles*, Vulcan is a detective.

Let's assume that the sentence modifier 'according to *The Hound of the Baskervilles*' attributes a property to the proposition expressed by the sentence it modifies. Then on the Gappy Proposition Theory, (13) and (14) express the same proposition. Yet (13) is true and (14) is false. Therefore, the Gappy Proposition Theory is mistaken.

This objection is a variation on a standard objection to Millianism concerning *referring* names and attitude ascriptions. According to Millianism, (15) and (16) express the same

proposition.

15. John believes that Twain wrote *Huckleberry Finn*.

16. John believes that Clemens wrote *Huckleberry Finn*.

Similarly for (17) and (18), given the above assumptions about the semantics of ‘according to’.

17. According to John, Twain wrote *Huckleberry Finn*.

18. According to John, Clemens wrote *Huckleberry Finn*.

But, the objection claims, (15) and (16) can differ in truth value, as can (17) and (18). So, Millianism is false. I have replied at length to this objection to Millianism in other work (Braun 2002). My response to the analogous objection to the Gappy Proposition theory is entirely parallel, but I can give only a brief version here. (For details, see Braun 1998 and 2002.)

Sentences (6) and (7) express the same gappy proposition, according to the Gappy Proposition Theory. But as we saw, a rational agent can believe that proposition in a “Vulcan-ish” way, and believe its negation in a “Holmes-ish” way. Such a person would think that (6) is true and (7) is false. (11) and (12) contain ‘that’-clauses whose contents are the gappy proposition expressed by (6) and (7). Therefore, if the proposition expressed by (6) and (7) can be believed in different ways, then so can the gappy proposition expressed by both (11) and (12). Thus, it’s quite plausible to think that a rational agent could believe the gappy proposition expressed by (11) in a “Vulcan-ish” way, and yet fail to believe it in a “Holmes-ish” way. In fact, such an agent could believe the *negation* of that gappy proposition in a “Holmes-ish” way. Thus, a rational agent could think that (11) is true and (12) is false, even though they express the same gappy proposition. Therefore, a rational speaker could think that (11) and (12) do, or could, differ in truth value. Similarly for (13) and (14).

4. Gappy Propositions and Truth Values

The Gappy Proposition Theory says that atomic gappy propositions are false. But Fred Adams and Robert Stecker (1994), Nathan Salmon (1998), Kenneth Taylor (2000), and Marga Reimer (2001a, 2001b) have claimed that they are neither true nor false.¹⁰ In this section, I consider arguments for and against their being false.¹¹ I believe that the arguments against their falsehood are unconvincing, and that the arguments in favor of their falsehood, though not demonstrative, are fairly persuasive. In the next section, however, I consider the consequences for the Gappy Proposition Theory of simply *granting* that atomic gappy propositions have no truth value.

4.1. Arguments Against the Falsity of Atomic Gappy Propositions

The first argument against the falsity of atomic gappy propositions comes from Salmon (1998, p. 381, note 54). He says, “Even Russell, who loved truth value . . . would probably have withheld falsity as well as truth from [atomic gappy propositions–DB]—unless he was prepared to label such things as Piccadilly Circus and his own singleton false.” Salmon seems to assume that atomic gappy propositions are false only if all untrue things are false. But if all untrue things are false, then Piccadilly Circus and Russell’s singleton set are false. The latter are not false, so atomic gappy propositions are not false. The weak link in this argument is the premise that atomic gappy propositions are false only if all untrue things are false. On the Gappy Proposition Theory, atomic gappy propositions are distinctive because they are objects of belief and assertion, and so are *propositions*. Only propositions, or items that express propositions, can bear truth values. Piccadilly Circus and Russell’s singleton set are not propositions, and do not

express propositions. So atomic gappy propositions are false, though Piccadilly Circus and Russell's singleton are not.

Here is the second argument. (It is inspired by Adams and Stecker [1994], though they do not formulate it.) The open formula 'x is a planet' has no truth value. If it has no truth value, then its semantic content has no truth value. But the semantic content of 'x is a planet' is the atomic gappy proposition $\langle _ , \text{being-a-planet} \rangle$. Therefore, the atomic gappy proposition $\langle _ , \text{being-a-planet} \rangle$ has no truth value. Therefore, no atomic gappy proposition has a truth value. This argument makes questionable assumptions about the semantics of variables and open formulas. The semantic properties of variables differ from those of names, including empty names. Variables can be bound, whereas names cannot. The open formula 'x is a planet' varies in semantic content and truth value with respect to different assignments of values to variables, whereas the sentence 'Vulcan is a planet' does not. These differences strongly suggest that the semantic content of 'x is a planet' differs from that of 'Vulcan is a planet'. The sentence semantically expresses the gappy proposition $\langle _ , \text{being-a-planet} \rangle$. Therefore, the open formula does not, contrary to the objection. Perhaps the semantic content of 'x is a planet' contains a variable, as King (2001) holds, or a propositional analog of one, as Barwise and Perry (1981) maintain (they call propositional analogs of variables 'indeterminates'). Or perhaps open formulas have no semantic content: Salmon (1986, p. 156) thinks that open formulas have semantic contents only *relative* to assignments of values to variables.

4.2. *Negations of Atomic Gappy Propositions*

The arguments against the falsity of atomic gappy propositions are not persuasive. But

let's nevertheless suppose, for the moment, that they are not false and that sentences that express atomic gappy propositions are neither true nor false. Could one still reasonably hold that some *negations* of these sentences are true? I think one could.

To see this, assume (for the moment) that atomic gappy propositions are neither true nor false, and so sentences that express them are neither true nor false. Now consider a sentence that expresses an atomic gappy proposition, such as (19), and one of its negations, (20).

19. Vulcan exists.

20. It is not the case that Vulcan exists.

(20) contains an embedded 'that'-clause that refers to the proposition expressed by (19), and attributes the property of not-being-the-case to this proposition. So, (20) is necessarily equivalent with (20a).

20a. That Vulcan exists is not the case.

Paraphrase: "The proposition that Vulcan exists is not the case."

In fact, (20) is virtually synonymous with (20a): they are as close in meaning as a typical active sentence is with its passive version, for instance, 'Mary kissed John' and 'John was kissed by Mary'. (20a), in turn, is necessarily equivalent to (20b).

20b. That Vulcan exists is not true.

Paraphrase: "The proposition that Vulcan exists is not true."

So, (20) is necessarily equivalent with (20b). Now we are (for the moment) assuming that (19) expresses a gappy proposition that is neither true nor false. (20b) correctly says that this gappy proposition is not true. Thus (20b) is true, and since it is necessarily equivalent to (20), (20) is also true. Thus, (20) is true on the Gappy Proposition Theory, even if (19) is neither true nor

false.

Consider next the syntactically internal negation of (19), namely (21).

21. Vulcan does not exist.

It is reasonable to think that (21) is ambiguous. On one reading, (21) is synonymous with (20), and so expresses a *true* gappy proposition. On another reading, it expresses a gappy proposition that lacks truth value.¹² So admitting that sentences that express atomic gappy propositions are neither true nor false would not force a Gappy Proposition theorist to say that all negations of those sentences are neither true nor false.

4.3. *Arguments For the Falsity of Atomic Gappy Propositions*

Let's now return to the main issue: are atomic gappy propositions false? What follows are some considerations in favor of thinking that they are.

As we have already noted, some things are untrue, and yet are not false, for instance, Piccadilly Circus and the Eiffel Tower. The most salient difference between untrue objects that are false and untrue objects that are not false is that the former are propositions (or items that semantically express propositions). Thus, it is reasonable to conclude that this is the crucial difference between being untrue and being false: untrue objects that are also propositions (or things that express propositions) are false. Atomic gappy propositions are propositions and are untrue. Therefore, they are false.

This proposal closely fits our use of the term 'false'. We restrict our use of the term 'false' to untrue propositions (or items that express untrue propositions), and we tend not to use the term in a more restrictive way than this: ordinary speakers rarely attempt to distinguish

between propositions (or claims or beliefs) that are untrue and propositions (or claims or beliefs) that are false.¹³

Even if the property of being an untrue proposition is not *the* property of (propositional) falsehood, there is reason to think that it is *a* kind of falsehood. Consider sentence (19) again. (19) is false just in case the negation of (19), or the genuine contradictory of (19), is true. If (19) has more than one sort of negation, then (19) is false *in one sense* if *one* of its negations is true. Sentence (20) is a strong candidate for being the, or at least *a*, genuine negation and contradictory of (19). But (20) is necessarily equivalent with (20b), and we saw earlier that (20b) is true. So (20) is true, and we can conclude that (19) is false (in at least one sense), and therefore that the untrue atomic gappy proposition that it expresses is false (in that same sense).

4.4. *A Tentative Conclusion*

I tentatively conclude that atomic gappy propositions are false, in at least one reasonable sense of ‘false’. My conclusion is tentative for two reasons. First, the above considerations in favor of their falsehood (in at least one sense) are not demonstrative. Second, we do not yet know how atomic gappy propositions fit into a more comprehensive semantic theory. For instance, do they figure in the proper treatment of semantic presupposition (if there is such a thing) and semantic paradox? If so, is it crucial that they lack truth value? Until we have answers to these questions, our conclusions concerning the truth values of atomic gappy propositions must be tentative.¹⁴

5. Gappy Propositions and Intuitions about Truth Values

Fortunately, none of these questions about the truth values of atomic gappy propositions really matter much for the Gappy Proposition Theory. Consider a slightly revised version of the theory that says that all atomic gappy propositions, and their negations, are neither true nor false. This revised Gappy Proposition Theory entails that sentences (19)-(22) are all truthvalueless.

19. Vulcan exists.
20. It is not the case that Vulcan exists.
21. Vulcan does not exist.
22. Sherlock Holmes is a grapefruit.

This consequence is contrary to ordinary intuition. But the revised Gappy Proposition Theory can give a remarkably simple and plausible explanation of these ordinary intuitions—in fact, the same explanation that the original theory can give. Here it is: Ordinary speakers think that the sentence ‘Vulcan does not exist’ is true because they believe the gappy proposition that Vulcan does not exist. They think that the sentence ‘Sherlock Holmes is a grapefruit’ is false because they believe the gappy proposition that Sherlock Holmes is not a grapefruit.

This explanation might seem deliberately obtuse. You might be tempted to say, “Look, the propositions that Vulcan does not exist and that Holmes is not a grapefruit are gappy, and have no truth value, on your view. So how could ordinary speakers believe them?”¹⁵ But our earlier reflections on Twin Earth showed that an agent can rationally believe an atomic gappy proposition. Twin You can rationally believe the atomic gappy proposition that he or she would express with the sentence ‘Napoleon was a general’. Le Verrier can rationally believe the atomic gappy proposition that Vulcan exists. Moreover, these agents can have *good reasons* for believing these propositions, even if they lack truth value. Twin You has the testimony of

history teachers and textbooks. Le Verrier has his calculations, his beliefs about the masses of Mercury and the Sun, his well-confirmed beliefs in Newton's laws, and so on. Rational people can also have good reasons for believing the negations of atomic gappy propositions, even if those propositions lack truth value. Stephen Hawking, for instance, may believe that general relativity explains Mercury's orbit and that there is no planet between Mercury and the Sun. If he were to consider the proposition that Vulcan does not exist, he would very likely fail to recognize that it is gappy and truthvalueless. Thus, he could rationally come to believe it.¹⁶

The above explanation might surprise philosophers who have come to expect Gappy Proposition theorists to use *pragmatics* to explain away ordinary intuitions. Consider a sentence that semantically expresses a gappy proposition, such as 'Vulcan does not exist'. A pragmatic explanation of typical intuitions about its truth value says that typical utterances of this sentence conversationally implicate a non-gappy proposition that really has a truth value, for instance, the proposition that there is no planet between Mercury and the Sun. Many ordinary speakers believe this latter proposition. A Gappy Proposition theorist might claim that ordinary speakers confuse the implicated proposition with the semantically expressed proposition. They then judge that the sentence 'Vulcan does not exist' is true, even though it has no truth value. But pragmatic proposals of this sort cannot explain all intuitions about the truth values of sentences containing empty names. Consider a person who is ignorant of astronomy and who hears Hawking utter 'Vulcan does not exist', but never hears anyone express an opinion about Vulcan's location. This person may come to believe the gappy proposition that Vulcan does not exist, but never entertain the proposition that there is (or is not) a planet between Mercury and the Sun. Similar examples raise similar problems for other pragmatic proposals.¹⁷

The crucial issue in explaining intuitions about the truth values of sentences such as ‘Vulcan exists’ and ‘Vulcan does not exist’ is whether agents can rationally *believe* atomic gappy propositions and their negations. They can, whether or not those propositions have truth values.¹⁸

6. Fictional Names, Fictional Characters, and Reference

I hope to have convinced you that *if* there are any non-referring names, then they do not show that Millianism is false. But are there any non-referring names? I earlier *assumed* that the names ‘Vulcan’ and ‘Sherlock Holmes’ fail to refer. Let’s reconsider that assumption, starting with the fictional name ‘Sherlock Holmes’.

6.1. Fictional Characters

Saul Kripke (unpublished), Peter van Inwagen (1977), Nathan Salmon (1998, 2002), and Amie Thomasson (1999) argue that fictional characters are actually existing entities. Thomasson and van Inwagen point out that there are seemingly true utterances of sentences such as (23) and (24) that apparently entail the existence of novels and plots.

23. Some novels were written in the 19th century.

24. Dickens’s novel *Martin Chuzzlewit* has a complex plot.

Most philosophers do not resist the conclusion that there are such things as novels and plots. But there is similar evidence for the existence of fictional characters. For instance, there are seemingly true utterances of sentences that apparently entail the existence of fictional characters, such as (25) and van Inwagen’s sentence (26).

25. There are fictional characters that appear in more than one of Conan Doyle's stories.
26. There are characters in some 19th-century novels who are presented with a greater wealth of physical detail than is any character in any 18th-century novel.

These considerations, and others that I cannot go into here, suggest that fictional characters are actually existing abstract artifacts of (roughly) the same ontological category as novels and plots. Authors create characters when they create their fictions. Their existence supervenes on the pattern of activities of authors and readers, just as the existence of novels does.¹⁹

I believe we should accept the existence of fictional characters, even if we have questions about their exact nature (for instance, their supervenience bases). But the metaphysical claim that fictional characters exist leaves open many semantic issues. For example, do all utterances and inscriptions of the name 'Sherlock Holmes' refer to a fictional character? One reason to think that *some* do is that some utterances of (27) and (28) seem to be true.

27. Sherlock Holmes is a fictional character.
28. Sherlock Holmes is more famous than any real detective.

But there are also seemingly true utterances of (29), whose truth seems to require that some utterances of the name fail to refer.

29. There is no Sherlock Holmes.

And there is (30), which most of us would be willing to utter in non-theoretical moments.²⁰

30. 'Sherlock Holmes' does not refer to anything.

We can begin to sort out these matters by distinguishing between different types of utterances and inscriptions of these names.

6.2. *Authors' Inscriptions of Fictional Names*

Consider, first, authors' acts of inscribing fictional names as they write their stories. The above philosophers disagree about whether these inscriptions refer to fictional characters.

Thomasson says that Conan Doyle's inscriptions of 'Sherlock Holmes' referred to the character. Kripke and van Inwagen say that Conan Doyle's inscriptions of the name failed to refer, and that utterances and inscriptions of the name referred to the character only later, after readers reflected on Conan Doyle's stories. Salmon agrees (very roughly) with Kripke and van Inwagen.²¹

In my opinion, the thoughts and intentions that authors have as they inscribe names determine whether their inscriptions refer to characters. Conan Doyle's inscriptions of 'Sherlock Holmes' referred to the abstract fictional character only if he had singular thoughts and intentions about that thing. Perhaps he did have such thoughts and intentions. Suppose that as he sat down to write his first story he said to himself "I shall soon create a fictional character, which I hereby dub 'Holmes', and I shall write a bunch of sentences about that character, and pretend to assert various propositions about it." He would then have had some abstract fictional character "in mind" as he wrote his stories. His inscriptions of 'Holmes' would have referred to the character. As he wrote sentences containing the name, he would have pretended to assert singular propositions that have the character Sherlock Holmes as a constituent.²²

But Conan Doyle might not have had such singular thoughts and intentions. Perhaps he just started writing his story with the non-singular intention that he pretend to refer to something with the name 'Holmes'. He would then *not* have had a particular character "in mind". His inscriptions of 'Holmes' would then have been non-referring and his inscriptions of 'Holmes

smoked his pipe' would have semantically expressed a gappy proposition. While inscribing the latter sentence, he would have pretended to assert the gappy proposition his inscription expressed. His pattern of activity would have created the fictional character Holmes, but his inscriptions of 'Holmes' would not have referred to that character.²³

There are more complicated possibilities. Conan Doyle might have begun writing his first story with the non-singular thoughts and intentions described above, but gradually have started to have singular thoughts and intentions regarding the character as he wrote more of his story. Then his first inscriptions in writing the story would have failed to refer, while his later inscriptions would have referred to the fictional character—and there might be some indeterminacy regarding some inscriptions in between. Another possibility is that he had rather mixed intentions from the beginning. He might have intended merely to pretend to refer to something with his inscriptions of 'Holmes', but at the same time, he could have thought that he was writing a bunch of sentences about the character Holmes. (It would not be too surprising if Conan Doyle had inconsistent thoughts about what he was doing when producing his fiction. He was not thinking about philosophy of language.) In this case, there could be some indeterminacy about the reference and content of his inscriptions.

Conan Doyle's later reflections on his stories might introduce further equivocation or indeterminacy in the reference and content of his inscriptions of the name. Suppose that the inscriptions of 'Holmes' that Conan Doyle produced as he wrote his first story failed to refer. After finishing the story, he could have reflected on it and uttered 'Sherlock Holmes is a fictional character that I created'. It would be entirely natural and understandable for him to utter this sentence. But he would then be trying to use 'Sherlock Holmes' to refer to a fictional character,

while also intending to use the name in the same way he did before, even though he did *not* intend to refer to a character while he wrote the story, and even though his earlier inscriptions of the name did not (semantically) refer to the character. At this point, he really should introduce two new names or two new uses of the name: ‘Holmes₁’, a name (or use of ‘Holmes’) that fails to refer, and ‘Holmes₂’, a name (or use) that refers to the fictional character that he created. But, of course, Conan Doyle would do no such thing. He was not, after all, a fussy philosopher. As a result, there may not be any determinate fact of the matter about whether his later inscriptions of ‘Holmes’ refer to the character or fail to refer.

We have seen that there are at least four possibilities regarding the semantic reference and content of Conan Doyle’s inscriptions of ‘Holmes’ as he writes his first story and as he subsequently reflects on the story. (i) All of the inscriptions fail to refer. (ii) All of the inscriptions refer to the fictional character Holmes. (iii) Some fail to refer while the rest refer to the character. (iv) Some (or all) are such that it is indeterminate whether they fail to refer or refer to the character.²⁴ Which possibility is actual depends on (at least) the actual thoughts and intentions of Conan Doyle as he wrote and spoke. I do not know what happened with Conan Doyle, but I think that (iv) is more likely than many philosophers have supposed.

6.3. *Our Utterances of ‘Holmes’*

What about *our* utterances of ‘Sherlock Holmes’? Do all of them semantically refer to the character? Or do some fail to refer, for instance, when we utter ‘Sherlock Holmes does not exist’? The same four possibilities that held for Conan Doyle’s inscriptions hold for our utterances and inscriptions. Moreover, our pre-theoretic intentions seem mixed. Sometimes we

seem to intend to use the name to speak of the fictional character, whereas at other times we seem to treat the name as if it fails to refer. But we do not consciously distinguish between these types of use. Further, the empirical facts that determine reference and content are at least as complicated in our case as they are in Conan Doyle's, for our utterances stand in semantically relevant causal relations to Conan Doyle's. We have a standing intention to use the name in the same way that those around us do, and those people intend to use the name in the same way as those from whom they got the name did, and so on, until we reach Conan Doyle. (For those who have read the stories, this chain may be rather short.) So, the references and contents of our utterances and inscriptions are determined, in part, by the references and contents of Conan Doyle's utterances and inscriptions. But our thoughts about fictional characters may also be relevant to determining the references and contents of our utterances of 'Holmes'. Given these facts, I think that the most likely possibility is that there is some indeterminacy in the semantic reference and content of our utterances of 'Sherlock Holmes'.

Whatever the semantic facts are, we should *not* expect ordinary speakers' intuitions to reflect them in any straightforward manner. Consider (31).

31. There is no Sherlock Holmes. Sherlock Holmes does not exist. Sherlock Holmes is just a fictional character.

(31) seems true, when we do not think about it too hard. But, on reflection, it appears to be contradictory. If the third conjunct of (31) is true, then there *is* such a thing as Sherlock Holmes, and so the first conjunct is false. So is the second conjunct, assuming (contrary to Meinongians) that everything that there is exists. Thus, ordinary, pre-theoretic intuition appears to be incoherent. And ordinary intuition does not give any consistent guide as to which beliefs we

should give up.

Nevertheless, many theorists think that ordinary speakers who have the typical initial intuitions about (31) must be right about *something*. Some such theorists give (31) a non-straightforward semantics that implies that (31), or a suitable disambiguation of (31), semantically expresses a true proposition. For instance, on one theory ‘Sherlock Holmes’ is ambiguous between the non-referring ‘Holmes₁’ and the referring ‘Holmes₂’, and (31) is true if ‘Holmes₁’ replaces the first two occurrences of ‘Holmes’ and ‘Holmes₂’ replaces the third.²⁵ Other theorists say that (31) semantically expresses a contradictory proposition, but speakers who utter (31) intend to pragmatically convey some other, more complicated, proposition that really is true (according to the theorist’s favorite philosophical theory). For instance, if a theorist thinks that all utterances and inscriptions of ‘Holmes’ refer to the fictional character, then she might say that when ordinary speakers utter the first conjunct of (31), they intend to convey that there is no such *real person* (or *non-fictional character*) as Sherlock Holmes, or that there is no person who did the things related by the stories. When they utter the second conjunct, they intend to convey that there does not exist a *real person* who is identical with Holmes.²⁶

None of these hypotheses is plausible. There is little or nothing in speakers’ thoughts and intentions that indicates that the name ‘Holmes’ is ambiguous in their mouths. There is little or no evidence that speakers who utter (31) intend to convey some complicated proposition that is true under some favored philosophical theory. Most ordinary speakers just do not reflect enough to notice that there are problems with sentences like (31). Point out the problems with (31) to an ordinary speaker who has uttered it and the result will be incomprehension, followed by confusion, followed by all sorts of (usually incoherent) claims about what he or she really meant

and thought. Most of the claims will be freshly formulated philosophical theory, rather than a report on what he or she had previously intended to convey. (If the elaborations were just a report on what the speaker previously meant, then he or she would not be confused by the initial challenge.) Moreover, even if ordinary speakers *do* intend to convey some complicated true proposition when they utter a sentence like (31), they *also* seem to (unreflectively) believe, and intend to convey, the false (or truthvalueless) proposition that (31) seems to literally express. Most ordinary speakers' beliefs about fiction really are (deep down) confused and inconsistent. This should not surprise us. Fiction, after all, raises *hard* issues in semantics and metaphysics. We should not expect ordinary speakers to (tacitly) believe a coherent, unproblematic theory of fiction, when philosophers have so many difficulties formulating an explicit one that fits their pre-theoretic intuitions.

These incorrect semantic and pragmatic hypotheses can be transformed into useful *recommendations* to sophisticated theorists about how they should *reform* their speech. For instance, if a theorist is convinced that all ordinary speakers' utterances of 'Sherlock Holmes' refer to a fictional character, then she might recommend that we sophisticated theorists refrain from uttering the literally false (31). Instead, we should utter 'There is no such real person as Holmes. It is not the case that there exists a real person who is identical with Holmes'. I find this theorist's claim about ordinary utterances of 'Sherlock Holmes' implausible. Therefore, I prefer a different set of recommendations: Resolve the ordinary indeterminacy in the name 'Holmes'. Replace the name (or the current use of it) with two names (or two uses), the non-referring 'Holmes₁' and the referring 'Holmes₂'. Distinguish carefully between the two, even if you do not always pronounce the subscripts. Do not expect the thoughts, intentions, and

utterances of ordinary speakers to reflect your sophisticated theorizing and linguistic reforms.²⁷

7. Mythical Names, Mythical Objects, and Reference

We have considered whether fictional names such as ‘Sherlock Holmes’ are empty. Let’s now turn to mythical names, such as ‘Vulcan’.

Nathan Salmon’s (1998) view about the mythical name ‘Vulcan’ resembles his view about the fictional name ‘Sherlock Holmes’. Le Verrier believed a false theory, that there is a planet between Mercury and the Sun. Salmon calls such false theories ‘myths’. Salmon says that when Le Verrier mistakenly came to believe his false theory, he inadvertently created an abstract artifact, which Salmon calls a ‘mythical object’.²⁸ This mythical object is not a planet, though it is one *according to* Le Verrier’s false theory. When Le Verrier tried to give the intra-Mercurial planet the name ‘Vulcan’, he inadvertently named the mythical object instead. When he uttered ‘Vulcan is a planet’ (in French), he asserted a false singular proposition about the mythical object.²⁹ *Our* utterances of the name also semantically refer to the mythical object, most obviously in utterances of sentences such as ‘Vulcan is a mythical planet’.

Thus Salmon holds that some names that we are inclined to think are non-referring are actually referring. He admits, however, that there can be genuinely non-referring names, though he thinks they are “rare—and bizarre” (1998, p. 306). To illustrate, he asks his readers to consider whether someone has seized control of France and declared himself emperor. Though Salmon thinks there is no such person, he stipulates that the name ‘Nappy’ shall refer to the new emperor of France, if there is one, and shall refer to nothing otherwise (1998, p. 305). Salmon thinks that he did not create a fictional character or mythical object when he imagined a coup in France, for

he did not believe that there was an emperor of France (unlike Le Verrier, who believed there was an intra-Mercurial planet) and he did not pretend to use the name as a name for a person (unlike Conan Doyle with ‘Holmes’). He concludes that ‘Nappy’ fails to refer.³⁰

Salmon and I agree about the semantics of sentences containing genuinely non-referring names, such as those containing the name ‘Nappy’: they express gappy propositions. But Salmon thinks that there are very few non-referring names, and that ‘Vulcan’ is not one of them.

8. Failure to Refer to Mythical Objects

On Salmon’s theory, if Le Verrier had uttered the sentence ‘Vulcan exists’ (in French) he would have said something true: he would have asserted a true singular proposition about the mythical planet Vulcan.³¹ This seems to me an indication that Salmon’s theory is incorrect. In what follows, I shall attempt to describe where Salmon’s theory goes wrong.

Salmon’s theory says that Le Verrier’s utterances of ‘Vulcan’ refer to a mythical object. This claim is a consequence of two other claims, one metaphysical and the other semantical.³² The metaphysical claim is that Le Verrier creates an abstract artifact (a mythical planet) when he engages in his mistaken theorizing. The semantical claim is that his utterances of ‘Vulcan’ refer to the object that he creates.

I believe that the metaphysical claim is correct: Le Verrier’s mistaken theorizing does create an abstract artifact. The activities that occur during mistaken theorizing, such as Le Verrier’s, are importantly similar to those that occur during storytelling. In both, names are used and predicative sentences containing them are formulated. Reasoning and other mental processes occur. Texts that are seemingly susceptible to evaluation for truth are produced.

Thus, if storytellers' activities create fictional characters, then mistaken theorizers' activities create abstract objects of a similar sort. So I grant that Le Verrier's mistaken theorizing creates an abstract artifact.³³ In fact, I am, for similar reasons, willing to go even further in allowing for the creation of abstract artifacts: I believe that Salmon's *musings* on France's government create an abstract artifact, an object that we could appropriately call an *imaginary object*.³⁴

However, I disagree with Salmon's semantical claim that Le Verrier's utterances of 'Vulcan' refer to the mythical object that he creates. His utterances of 'Vulcan' do not refer to the mythical object. They refer to nothing at all.

One reason to resist Salmon's semantical claim is that it is difficult to see how Le Verrier's utterances of 'Vulcan' could end up referring to the mythical planet.³⁵ The mythical planet does not satisfy (or even come close to satisfying) any reference-fixing description that Le Verrier might have had in mind, for the mythical planet has virtually none of the properties that Le Verrier thinks that Vulcan has: it is not a planet, it has no mass, it does not perturb Mercury, it does not orbit the Sun—it is not even a heavenly body. Furthermore, the causal relations that hold between the mythical planet and Le Verrier's utterances of 'Vulcan' do not resemble the causal relations that typically hold between objects and utterances of names that refer to them. For instance, the mythical planet Vulcan is not a cause of Le Verrier's utterances of 'Vulcan'. If anything, the reverse is the case: Le Verrier's activities, including (perhaps) his utterances, cause the mythical planet to exist. A proponent of Salmon's theory might claim that Le Verrier's utterances of 'Vulcan' refer to the mythical planet because they cause it to exist.³⁶ But Le Verrier's utterances and other activities cause the existence of many objects and events to which his utterances do *not* refer, for instance, vibrations of air and neural events in 19th century

astronomers. Thus, the causal relation alone could not be enough to make his utterances of ‘Vulcan’ refer to the mythical planet.

A second reason to resist Salmon’s semantic claim has to do with Le Verrier’s intentions when he introduced ‘Vulcan’. I shall argue that his intentions forced his utterances of ‘Vulcan’ to be non-referring.³⁷ I shall do so by describing a series of cases that will become increasingly similar to Le Verrier’s.

Goldbach’s conjecture is the claim that every even positive integer greater than or equal to four is the sum of two prime numbers. It has not yet been proved, but has been verified for integers up through 2×10^{16} (as of 2003). Suppose that Matt is a mathematician who eccentrically believes that Goldbach’s conjecture is false. But suppose he thinks that there is not yet a proof of its falsehood, and that there is a slight chance that he could be wrong. One day he finds that it would be convenient to have a name for the smallest integer that falsifies Goldbach’s conjecture. Being a mathematician, he hesitates to introduce a name for a mathematical object whose existence and uniqueness he cannot prove. So he cautiously introduces the name ‘Goldie’ as follows: “The name ‘Goldie’ shall refer to the least positive even integer greater than or equal to four that is not a sum of two primes, if there is one, and to $(2 \times 10^{16}) + 2$, otherwise”. Matt believes that, whether Goldbach’s conjecture is true or false, ‘Goldie’ refers to an even positive integer. Matt then utters sentences such as “Goldie is even and greater than 2×10^{16} . Goldie minus 2 is the sum of two primes . . .”. Let’s suppose that Goldbach’s conjecture is true (as most mathematicians think). To what, if anything, do Matt’s utterances of ‘Goldie’ refer, under this assumption? Surely $(2 \times 10^{16}) + 2$, just as Matt intended and stipulated.

Here is a more homey, non-mathematical example of the same type. Suppose that Ted is

reading a romance novel, *Love in Latvia*. His copy does not give the author's name or any other information about the author. Ted thinks he can detect whether a book has more than one author. He believes that *Love in Latvia* has exactly one, whom he suspects is Barbara Cartwright. He thinks that the author, whoever he or she is, perpetuates harmful stereotypes in this novel, as does Cartwright in many other novels. Ted wishes to write an essay about what he takes to be the author's mistakes. He wants a name to refer to the author, but he thinks that there is a slight chance that the author of *Love* may not be Cartwright, and a slight chance that the book is co-authored. So near the beginning of his essay, he writes: "Let's use 'Babs' to refer to the author of *Love in Latvia*, whosoever he or she may be, if there is exactly one such author, and to Barbara Cartwright, otherwise." Ted then goes on to write "Babs has written at least one novel that perpetuates harmful stereotypes". Ted believes that, whether or not *Love* has exactly one author, he is writing something that is true. Let's suppose that, in fact, *Love in Latvia* has two authors. Then, I take it, the name 'Babs' refers to Cartwright, just as Ted stipulated it would.

Both Matt and Ted stipulate "fallback referents" for their names, in case nothing satisfies their reference-fixing descriptions. Their stipulations and intentions successfully force the names to refer to the fallback referents. Similar intentions and stipulations can force a name to be non-referring when nothing fits the reference-fixing description.

Suppose Sue hears scratching noises coming from the walls of her house. She believes that a mouse is causing the sounds. She wants to name it. But she thinks that there is a slight chance that she might be mistaken in thinking that exactly one mouse is causing the sounds, and she wants the name she introduces to refer to the cause of the sounds only if it is a *mouse*. She does *not* want the name to refer to some other sort of thing (say, a raccoon). So she says "I will

use ‘Mickey’ to refer to the mouse that is causing those scratching sounds, if there is exactly one; otherwise, the name will refer to nothing at all.” She then utters sentences such as “Mickey is a mouse” and “Mickey makes noises in my house”. She thinks that her statements are true, but she also says things such as “If there is no mouse causing the sounds, then there is no such thing as Mickey and the name ‘Mickey’ fails to refer.” Suppose that, in fact, there is no mouse in Sue’s house—the noises were caused by tree branches brushing up against her house. Then her name ‘Mickey’ fails to refer, just as she intended and stipulated.

Once again, an explicit stipulation about the reference of a name seems to control the reference of a name if nothing satisfies the reference-fixing description. Matt’s and Ted’s stipulations force their names to refer to a certain number and author, whereas Sue’s stipulation forces her name to be non-referring.

Matt, Ted, and Sue believe false theories. We outside observers know this. So, we may judge that Matt, Ted, and Sue create certain mythical objects during their theorizing. We might think about those mythical objects as we reflect on their cases. We might even introduce names to refer to them. But Matt’s, Ted’s, and Sue’s names do not refer to mythical objects. Even if their activities create mythical objects, their intentions force their names to refer to real objects, or to nothing at all.³⁸

Suppose, probably contrary to fact, that Le Verrier introduced the name ‘Vulcan’ in a formal ceremony similar to Sue’s, in which he made explicit provision for the reference of the name in case there were no intra-Mercurial planet. Suppose he uttered (the French translation of) “I hereby introduce the name ‘Vulcan’ for the planet between Mercury and the Sun that perturbs Mercury’s orbit, if there is one. If there is more than one, or none, then the name

‘Vulcan’ shall not refer”. If Le Verrier had so stipulated, then his utterances of the name ‘Vulcan’ would have failed to refer, just as Sue’s utterances of ‘Mickey’ failed to refer. This would have been so, even if his activities had created a mythical planet.

Consider now the actual case of Le Verrier. It is unlikely that he went through such a formal ceremony when he introduced the name ‘Vulcan’. But his thoughts and intentions were similar to those he would have had if he had gone through such a ceremony. He certainly wished to speak about a planet, and not about another completely different type of object. He surely thought that if there were no intra-Mercurial planet, then Vulcan would not exist. If he had been asked about what ‘Vulcan’ would name if there were no intra-Mercurial planet, he would surely have said that it would name nothing at all. He intended the name to be non-referring if there were no intra-Mercurial planet, just as in the previous counterfactual case.³⁹

I conclude that Le Verrier’s utterances of ‘Vulcan’ failed to refer to a mythical planet, or to anything else, because of his intentions concerning the name’s reference when he introduced it. When Le Verrier uttered sentences containing ‘Vulcan’, he asserted gappy propositions. His utterances (in French) of ‘Vulcan exists’ were either false or truthvalueless.⁴⁰

9. An Objection and Reply

A proponent of Salmon’s theory might reply that a name-introducer’s intentions do not always determine reference, or failure of reference. In a hypothetical case that Salmon (1998) discusses, some ancient astronomers introduce the name ‘Hesperus’ while intending it to be a name for a *star*, but the name ends up referring to a *planet*.

Kripke says that in attempting to use the name [‘Vulcan’], 19th century astronomers

failed to refer to anything. But this verdict ignores their unintended relationship to the mythical planet. One might just as well judge that the ancients who introduced ‘Hesperus’ as a name for the first star visible in the dusk sky, unaware that the “star” was in fact a planet, failed to name that planet. . . . Plausibly, as the ancients unwittingly referred to a planet believing it to be a star, so Le Verrier may have unknowingly referred to Babinet’s mythical planet . . . (Salmon 1998, p. 305)

I agree with Salmon that there are hypothetical cases in which the ancients introduce the name ‘Hesperus’ as a name for a star, yet the name ends up referring to a planet. But these examples differ in important ways from Le Verrier’s case. To see the differences, let’s consider two such examples.

Suppose the ancients often observed the night sky, but never at dusk, and so they did not know which heavenly object first appears at dusk. But one day just before dusk, they gathered in a tent and uttered (a translation of) “We hereby introduce the name ‘Hesperus’ for the first star visible at dusk, whatsoever it may be”. Suppose that they really distinguished between stars and planets, and that they deliberately chose to stipulate that ‘Hesperus’ would refer to the first *star* visible at dusk, rather than the first *planet* (this is crucial to constructing a Salmonian example).⁴¹ Then the name would at that time have referred to the first star visible at dusk—the star Sirius, let’s suppose. Suppose that they then emerged from their tent, pointed at the *planet* Venus, and said ‘That is Hesperus’. Then they asserted a false proposition. Suppose, however, that (through fantastic lack of attention) they got into the habit of pointing at Venus and saying ‘That is Hesperus’.⁴² Then the reference of the name ‘Hesperus’ would eventually have *shifted* from the star Sirius to the planet Venus.

Here is the second example.⁴³ Suppose the ancients harbored *mixed* intentions when they introduced the name. They stared at Venus in the dusky sky, and said “Let’s use ‘Hesperus’ for the first *star* visible at dusk, which, of course, is *that* thing over there”. Then (perhaps) their perceptual contact with Venus, and their singular intention to use ‘Hesperus’ as a name for it, “trumped” their intention to use ‘Hesperus’ as a name for a star.

Le Verrier, however, had no such mixed intentions, or shifts in intention, when he introduced and used the name ‘Vulcan’. He was like the ancients in the first example, at the time that they gathered in a tent and introduced the name ‘Hesperus’. Like them, Le Verrier did not see some planet that he wanted to name. His sole way of specifying a referent for the name was descriptive. Since there was nothing that fit his description, his utterances of ‘Vulcan’ failed to refer.

10. Our Utterances of ‘Vulcan’

Le Verrier’s utterances of ‘Vulcan’ failed to refer. But what about *our* utterances of the name? We, unlike Le Verrier, know that there is no planet between Mercury and the Sun. So we could consciously use the name ‘Vulcan’ to refer to a mythical planet. Sometimes we do seem to use the name in this way, as in utterances of ‘Vulcan is a mythical planet’. But we are also inclined to utter the sentence ‘Vulcan does not exist’ and even ‘The name ‘Vulcan’ does not refer to anything’.

The facts that determine the reference and content of ‘Vulcan’ in our mouths are complicated—at least as complicated as those that determine the reference and content of ‘Sherlock Holmes’ in our mouths. We have mixed intentions regarding the name ‘Vulcan’. We

intend to use it as Le Verrier did (or to use it as those from whom we got the name did, who intended to use it as the people from whom they got it did, . . . , who intended to use it as Le Verrier did). At least we seem to intend so when we say ‘Vulcan does not exist’. This suggests that our utterances of ‘Vulcan’ are non-referring and have no semantic content. But we also sometimes intend to use the name to speak of the mythical planet, at least when we utter ‘Vulcan is a mythical planet’. These observations might initially lead one to suspect that the name ‘Vulcan’ is ambiguous, or has two uses: ‘Vulcan₁’ is non-referring, whereas ‘Vulcan₂’ refers to the mythical planet. Yet we do not ordinarily distinguish between different uses of the name, and we do not ordinarily think of the name as ambiguous in the way that we do the name ‘John’. So it is doubtful that it is ambiguous, or has distinct uses, in our pre-theoretic language.⁴⁴ All of this suggests that there is some indeterminacy in the reference and content of the name ‘Vulcan’ in our pre-theoretic language. It is indeterminate whether it fails to refer and has no content, or instead refers to a mythical object and has that object as its content. We sophisticated semantic theorists can avoid this indeterminacy by introducing two new names (or uses), ‘Vulcan₁’ and ‘Vulcan₂’.⁴⁵ But ordinary speakers do not.⁴⁶

Bibliography

Adams, Fred and Dietrich, Laura. (2004) "What's In a(n Empty) Name?" *Pacific Philosophical Quarterly* 85, 125-148.

Adams, Fred, Fuller, Gary, and Stecker, Robert. (1997) "The Semantics of Fictional Names," *Pacific Philosophical Quarterly* 78, 128-148.

Adams, Fred and Stecker, Robert. (1994) "Vacuous Singular Terms," *Mind & Language* 9, 387-401.

Barwise, Jon and Perry, John. (1983) *Situations and Attitudes*. Cambridge, MA: MIT Press.

Braun, David. (1993) "Empty Names," *Noûs* 27, 449-69.

Braun, David. (1998) "Understanding Belief Reports," *Philosophical Review* 107, 555-595.

Braun, David. (2001) "Russellianism and Explanation," *Philosophical Perspectives* 15, 253-289.

Braun, David. (2002) "Cognitive Significance, Attitude Ascriptions, and Ways of Believing," *Philosophical Studies* 108, 65-81.

Braun, David and Saul, Jennifer. (2002) "Simple Sentences, Substitutions, and Mistaken Evaluations," *Philosophical Studies* 111, 1-41.

Braun, David and Sider, Theodore. (Ms.) "Vague, So Untrue."

Burgess, John and Rosen, Gideon. (1997) *A Subject With No Object*. New York: Oxford University Press.

Caplan, Ben. (2002) "Empty Names: An Essay on the Semantics, Pragmatics, Metaphysics, and Epistemology of Empty Names and Other Directly Referential Expressions," UCLA PhD dissertation.

Caplan, Ben. (2004) "Creatures of Fiction, Myth, and Imagination," *American Philosophical Quarterly*.

Currie, Gregory. (1990) *The Nature of Fiction*. New York: Cambridge University Press.

Donnellan, Keith. (1974) "Speaking of Nothing," *Philosophical Review* 83, 3-32.

Everett, Anthony. (2003) "Empty Names and 'Gappy' Propositions," *Philosophical Studies* 116, 1-36.

Fitch, G. W. (1993) "Non Denoting," *Philosophical Perspectives* 7, 461-486.

Goodman, Jeffrey. (2003) "Where Is Sherlock Holmes?" *Southern Journal of Philosophy* 41, 183-198.

Kaplan, David. (1989) "Demonstratives," in Joseph Almog, John Perry, and Howard Wettstein (Eds.), *Themes from Kaplan*, pp. 481-566. New York: Oxford University Press.

King, Jeffrey. (2001) *Complex Demonstratives: A Quantificational Approach*. Cambridge, MA: MIT Press.

Kripke, Saul. (1980) *Naming and Necessity*. Cambridge, MA: Harvard University Press.

Kripke, Saul. (Unpublished) "Reference and Existence: The John Locke Lectures for 1973."

Lewis, David. (1978) "Truth in Fiction," *American Philosophical Quarterly* 15, 37-46.

Reprinted, with postscripts, in his 1983, *Philosophical Papers Volume I*, pp. 261-280, New York: Oxford University Press.

Mill, John Stuart. (1843) *A System of Logic*. New York: Harper Brothers.

Phillips, Matthew. (2001) "What a Solution to the Problem of Empty Names Cannot Be."

Paper presented at the 2001 Pacific Division meeting of the American Philosophical Association.

URL= http://www.rci.rutgers.edu/~mphil/empty_names.htm. Accessed October 2002.

Reimer, Marga. (2001a) "A 'Meinongian' Solution to a Millian Problem," *American Philosophical Quarterly* 38, 233-248.

Reimer, Marga. (2001b) "The Problem of Empty Names," *Australasian Journal of Philosophy* 79, 491-506.

Richard, Mark. (1998) "Commitment," *Philosophical Perspectives* 12, 255-281.

Roseveare, N. T. (1982) *Mercury's Perihelion from Le Verrier to Einstein*. New York: Oxford University Press.

Russell, Bertrand. (1910-11) "Knowledge by Acquaintance and Knowledge by Description," *Proceedings of the Aristotelian Society* 11, 108-128.

Salmon, Nathan. (1986) *Frege's Puzzle*. Cambridge, MA: MIT Press.

Salmon, Nathan. (1998) "Nonexistence," *Noûs* 32, 277-319.

Salmon, Nathan. (2002) "Mythical Objects," in Joseph Keim Campbell, Michael O'Rourke,

and David Shier (Eds.), *Meaning and Truth: Investigations in Philosophical Semantics*, pp. 105-123. New York: Seven Bridges Press.

Taylor, Kenneth. (2000) "Emptiness Without Compromise," in Anthony Everett and Thomas Hofweber (Eds.), *Empty Names, Fiction, and the Puzzles of Non-existence*, pp. 17-36. Stanford, CA: CSLI Publications.

Thomasson, Amie L. (1999) *Fiction and Metaphysics*. New York: Cambridge University Press.

Van Inwagen, Peter. (1977) "Creatures of Fiction," *American Philosophical Quarterly* 14, 299-308.

Notes

1. Most contemporary Millians ascribe semantic contents to *expressions with respect to contexts* or *utterances*, rather than to expressions themselves. I ignore this refinement in much of this paper. I also ignore tense and context-sensitivity.
2. This name may be misleading, for Mill himself did not explicitly accept any views about the nature of propositions. Thus a theorist who thinks that names are non-descriptive, but rejects the existence of Russellian structured propositions, would have a strong claim to being a follower of Mill. The theory here might be less misleadingly called ‘the Millian-Russellian theory’. It has gone under many other names, among them ‘Direct Reference Theory’, ‘The Naive Theory’, ‘Russellianism’, ‘Neo-Russellianism’, and ‘The ‘Fido’-Fido Theory’. I often called it ‘Russellianism’ in previous work.
3. The term ‘empty name’ is tendentious because it suggests that non-referring names are empty of meaning, which is contrary to Fregean theories of non-referring names.
4. I am here following Salmon’s (1998) use of the term ‘mythical name’. Here is a history of name ‘Vulcan’ in astronomical theory. In the mid-19th century, astronomers were still unable to predict the movements of Mercury, using Newton’s laws of motion and gravity and their hypotheses about the masses of the Sun and the planets. In 1859, the French astronomer Urbain Jean Joseph Le Verrier (1811-1877) showed that the discrepancies in Mercury’s movement could be traced to a rotation in the location at which Mercury makes its closest approach to the Sun. This movement is known as the precession, or the advance, of Mercury’s perihelion. To

explain this anomaly, while adhering to Newton's laws of gravity and motion, Le Verrier hypothesized that there was matter orbiting between Mercury and the Sun. Le Verrier suspected that the intra-Mercurial mass was a planet, but initially admitted that it might instead be a series of asteroids. After an amateur astronomer claimed to have observed the transit of an intra-Mercurial planet across the Sun, Le Verrier became convinced that there was such a planet and attempted to name it 'Vulcan'. There was, however, no planet between Mercury and the Sun (nor any other significant matter). Mercury's precession was ultimately explained by the theory of general relativity, some seventy-five years after Le Verrier advanced his theory.

Several scientists before Le Verrier had hypothesized the existence of intra-Mercurial matter, among them the prominent French physicist Jacques Babinet (1794-1872), who is now most famous for his work in optics. In 1849, Babinet was concerned to explain reported observations, made during the 1842 solar eclipse, of prominences on the surface of the Sun. Babinet suggested that the appearance of prominences was due, not to actual solar prominences, but to the incandescence of ring-shaped clouds of matter orbiting the Sun at a very rapid rate (one revolution every four hours). Babinet attempted to name the cloud-like rings of matter 'Vulcan'. Very few astronomers of Babinet's time accepted his hypothesis. Most importantly for our purposes, Babinet did not hypothesize the existence of such matter to explain Mercury's movements. In fact, the mass that Babinet ascribed to this intra-Mercurial matter was insufficient to perturb Mercury's orbit. See Roseveare (1982) for more details.

Given these historical facts, it is almost certain that Le Verrier was aware of Babinet's theory and also skeptical of it. Since Le Verrier almost certainly rejected the existence of matter satisfying Babinet's theory, he surely did not think that the same intra-Mercurial matter

explained both Mercury's precession and the appearance of solar prominences. (No single bit of intra-Mercurial matter could do so.) It is therefore unlikely that when Le Verrier formulated his theory, he wished to speak about the same intra-Mercurial matter as Babinet. More than likely, Le Verrier simply found the name 'Vulcan' an appealing one to use for a very hot planet. It is not too far fetched to imagine Le Verrier saying to himself (in French) "Babinet's Vulcan does not exist, but I shall appropriate the name 'Vulcan' to name the real intra-Mercurial planet that explains the precession of Mercury." Thus I strongly suspect, contrary to Salmon (1998, p. 296; 2002, p. 112-6), that 'Vulcan' in Le Verrier's mouth is a different name (or has a different use) from 'Vulcan' in Babinet's mouth. Strictly speaking, we should use subscripts to distinguish these names (or uses), for instance, 'Vulcan_{Babinet}' and 'Vulcan_{LeVerrier}'. In any case, both 'Vulcan_{Babinet}' and 'Vulcan_{LeVerrier}' are plausible examples of non-referring names.

5. Contemporary Millians distinguish several different sorts of meaning, including linguistic meaning, character, semantic (or propositional) content, intension, and extension. Some theorists (for instance, Fitch [1993] and Taylor [2000]) think that it is important to pay attention to distinctions among these meanings when defending Millianism from problems concerning the meaningfulness of empty names. Nevertheless, I shall here focus exclusively on semantic (propositional) content.

6. My use of set-theoretic notation is sometimes misconstrued. I do not claim that propositions (or propositional structures) are n-tuples or sets or trees. I merely claim that we can adopt various *conventions* for using n-tuples or sets or trees to *represent* or model propositions. Assume that the basic constituents of a non-gappy atomic proposition are a relation (or property) and the subjects to which the relation (or property) is attributed. Here is one convention for

representing such propositions.

Convention 1

If R is an n -place relation, and o_1 - o_n are objects, then the $(n+1)$ -tuple $\langle o_1, o_2, \dots, o_n, R \rangle$ shall represent the (non-gappy) proposition whose constitutive relation is R , whose first subject constituent is o_1 , whose second subject constituent is o_2, \dots , and whose n th subject constituent is o_n .

When I use the notation ' $\langle \text{Bush}, \text{being-a-planet} \rangle$ ', I refer to a certain ordered pair. Under Convention 1, this ordered pair represents the proposition whose constitutive relation is being-a-planet, and whose sole constitutive subject is Bush. Convention 2 is another set-theoretic convention for representing propositions.

Convention 2

Let each of S_1 - S_{n+1} be either a singleton set or the empty set. Assume that the member of S_{n+1} , if any, is an n -place relation, and that the members of S_1 - S_n , if any, are objects.

Then the $(n+1)$ -tuple $\langle S_1, S_2, \dots, S_n, S_{n+1} \rangle$ shall represent the proposition whose constitutive relation (if any) is the member of S_{n+1} (if any), whose first subject constituent (if any) is the member of S_1 (if any), whose second subject constituent (if any) is the member of S_2 (if any), \dots and whose n th subject constituent (if any) is the member of S_n (if any).

If I use the notation ' $\langle \{\text{Bush}\}, \{\text{being-a-planet}\} \rangle$ ', I refer to a certain ordered pair, which under Convention 2 represents the proposition whose constitutive relation is being-a-planet, and whose sole subject constituent is Bush. This is the same proposition represented by $\langle \text{Bush}, \text{being-a-planet} \rangle$ under Convention 1. We can similarly describe a convention for using trees to represent

propositions.

Convention 2 can be used to represent *gappy* propositions: the notation ' $\langle \{\}, \{\text{being-a-planet}\} \rangle$ ' refers to a certain ordered pair, which under Convention 2 represents the atomic gappy proposition whose constitutive relation is the property being-a-planet and which has no subject constituent. Notice that this proposition does *not* attribute being-a-planet to the empty set: the proposition represented by $\langle \{\{\}\}, \{\text{being-a-planet}\} \rangle$ under Convention 2 does that. There is a similarly very natural way to use trees to represent gappy propositions. There is no comparably immediate or natural way to use or extend Convention 1 so as to represent gappy propositions. But we could adhere to Convention 1 for non-gappy propositions and adopt a special notation for referring to gappy propositions, namely the underlining notation, as in ' $\langle \underline{\quad}, \text{being-a-planet} \rangle$ '. This expression does *not* refer to any set (or ordered pair). So if we adopt this notation for gappy propositions, then we will be adopting a *mixed notation* for referring to propositions. We could think of the underline notation as a place-holder for a future set-theoretic representation. (Salmon, who uses the underline notation, seems to think of it in this last way. See Salmon 1998, note 53.)

7. I did not discuss such metafictional sentences in Braun 1993. The Gappy Proposition Theory cannot easily be combined with David Lewis's well-known theory of truth in fiction (Lewis 1978), but can be combined with Gregory Currie's (1990) theory. Adams et al. (1997) present a theory of truth in fiction that uses gappy propositions.

8. Thanks to Earl Conee for discussion of the issues raised in this paragraph.

9. Thanks to Mark Richard and Jennifer Saul for urging me to address it.

10. Caplan (2002) and Everett (2003) argue that the view that atomic gappy propositions are false entails unintuitive results about the truth values of certain sentences containing empty names. Everett seemingly concludes that atomic gappy propositions (if there are any) have no truth value. Caplan, by contrast, argues that every view about the truth values of atomic gappy propositions clashes with some intuitions about sentences' truth values; he holds that atomic gappy propositions are false.

11. I presented an argument in Braun 1993 for the claim that atomic gappy propositions are false. It failed to persuade many readers, and I now agree that it was not compelling.

12. Salmon (1998) calls this the difference between *choice* and *external* negation. The ambiguity may be either lexical or a matter of scope. I will not try to characterize it here. See Everett (2003) for critical discussion of the ambiguity claim.

13. There are exceptions involving vagueness: ordinary speakers think that some utterances of 'That man is bald' are neither true nor false. There may also be exceptions involving semantic paradox: ordinary speakers might think that liar sentences are neither true nor false, though I think they are more likely just to be confused by them.

14. On this point, I think I am agreeing with Salmon 1998, p. 282. In fact, I suspect there is some indeterminacy about whether our pre-theoretic uses of 'false' express a property that applies to atomic gappy propositions. If there is such indeterminacy, then a decision either to apply 'false' to atomic gappy propositions, or to withhold 'false' from them, would (in effect) be a decision to precisify the meaning of 'false' in a particular way. Such a decision should be made on the basis of theoretical fruitfulness. Which decision will be more fruitful will not be

clear until we know how atomic gappy propositions fit into a more comprehensive semantic theory.

15. You might have a different reason for thinking that I am being obtuse. On my view, an agent can believe the gappy proposition that Vulcan does not exist and yet fail to think that the sentence ‘Vulcan does not exist’ is true—if, for instance, he believes this proposition in a “Holmes-y” way, but not a “Vulcan-y” way. Thus you might think that if my theory is correct, then I cannot *explain* the agent’s thought that the sentence is true *simply* by pointing out that he believes the gappy proposition that Vulcan does not exist—I must also mention that he believes the proposition in a “Vulcan-y” way. If this is what you think, then I disagree with your assumptions about explanation. The agent’s belief (that Vulcan does not exist) is a cause of his thought (that the sentence ‘Vulcan does not exist’ is true). Therefore, when I say that he believes that Vulcan does not exist, I provide some information about the causal history of the agent’s thought about the sentence, even though I do *not* mention the *way* in which he believes the proposition. But providing information about the causal history of an event is sufficient to explain it. So, my belief ascription explains the agent’s thought about the sentence’s truth value. For more on Millianism and explanation, see Braun 2001.

16. In section 3, I used Twin Earth to make two points about believing atomic gappy propositions. First, it is not *introspectively* obvious to Twin You that she believes an atomic gappy proposition. Second, Twin You cannot use *a priori* reasoning to discover that she believes an atomic gappy proposition. Stephen Hawking is similar to Twin You in the first respect: it is not introspectively obvious to him that the proposition that Vulcan does not exist is gappy and truthvalueless. But perhaps Hawking (unlike Twin You) could use *a priori* reasoning

to discover that he believes a gappy, truthvalueless proposition. A skeptic might use this claim to argue against the Gappy Proposition Theory, as follows. Suppose that gappy propositions are neither true nor false. Then a rational person could know this *a priori*. Therefore, if a rational person believed that ‘Vulcan’ does not refer, then he could use purely *a priori* reasoning to conclude that the sentence ‘Vulcan does not exist’ expresses a gappy proposition that lacks truth value. If such a person *could* use *a priori* reasoning to make this discovery, then he *would*. And if he were to use *a priori* reasoning to discover that the proposition that Vulcan does not exist is truthvalueless, then he would not believe that proposition. But Hawking is a rational person who believes that the name ‘Vulcan’ does not refer, and yet also believes that Vulcan does not exist. Therefore, this version of the Gappy Proposition Theory is incorrect. In reply, one might reasonably deny that the Gappy Proposition Theory is knowable *a priori*. But the objection’s more obviously weak premise is its claim that if a person *could* use *a priori* reasoning to discover that the proposition that Vulcan does not exist is gappy and truthvalueless, then he *would*. This claim is highly implausible. Many perfectly rational people fail to engage in the highly theoretical reasoning that is required to formulate and justify semantic theories. Even those who do sometimes fail to discover that the Gappy Proposition Theory is true. And even those who discover that the proposition that Vulcan does not exist is gappy may rationally (if mistakenly) come to believe that it is true rather than truthvalueless. (Thanks to Ted Sider for discussion.)

17. I considered and rejected a pragmatic explanation of intuitions about ‘Vulcan is a planet’ in Braun 1993. Adams and Stecker (1994) advocate such an account; Reimer (2001a, 2001b) and Everett (2003) criticize it; Adams and Dietrich (2004) reply to Everett (2003). Caplan (2002)

and Everett (2003) systematically describe and criticize a wide variety of pragmatic explanations. Advocates of pragmatic accounts often seem to assume (as I once did) that if an ordinary speaker, who is informed of all the relevant facts, thinks that an utterance of the sentence ‘Vulcan exists’ is false, then that utterance must either semantically express or pragmatically convey a false proposition, which the speaker entertains, and whose entertainment explains the speaker’s intuition. I now reject that assumption. See Braun and Saul 2002, and Braun 2002, for reasons to doubt it.

18. Caplan (2002) reaches the same conclusion after considering many different attempts to explain away intuitions that conflict with the Gappy Proposition Theory. Assuming that atomic gappy propositions and their negations are truthvalueless, we sophisticated theorists should refrain from uttering the sentence ‘Vulcan does not exist’ and refrain from believing the proposition that it semantically expresses. We should instead more cautiously say, ‘The proposition that Vulcan exists is not true’, and believe the proposition that this sentence expresses.

I am now in a position to reply to another objection to the Gappy Proposition Theory. Reimer (2001a, pp. 237-8) says that the Gappy Proposition Theory fails to preserve or explain away what she calls *content intuitions* about the name ‘Vulcan’, for instance, the intuitions that (i)-(iii) are true. (See also Reimer 2001b.)

- i. The sentence ‘Vulcan does not exist’ is about Vulcan.
- ii. A person who utters ‘Vulcan’ refers to Vulcan.
- iii. The name ‘Vulcan’ refers to Vulcan.

Reimer is correct to point out that some speakers who are aware of the relevant facts about Le

Verrier and ‘Vulcan’ sometimes say and think that (i)-(iii) are true. But these intuitions are consistent with the Gappy Proposition Theory. (i)-(iii) express gappy propositions. Speakers may believe these propositions, even though they are either false or truthvalueless. (Such speakers may also be inclined to say “‘Vulcan’ does not refer to anything”. See the ends of sections 6 and 10, and notes 20, 27, and 45, for more on inconsistent beliefs of this sort.)

19. Thomasson (1999) and Salmon (2002, p. 112) say that fictional characters lack spatial location. This seems to be their main reason for holding that fictional characters are abstract entities. Goodman (2003), however, has persuasively argued that the character Sherlock Holmes has a rough spatial location (e.g., on Earth and not on the Sun). If fictional characters have rough spatial locations, then it is unclear in what sense, if any, they are abstract. See Burgess and Rosen (1997, section I.A.1.b) for a discussion of the difficulties in distinguishing abstract from concrete objects. (Thanks to Ben Caplan for discussion.)

20. As Reimer (2001b) and Caplan (2002) point out, many people are also willing to utter “‘Sherlock Holmes’ refers to Sherlock Holmes”, which, of course, is inconsistent with (30). See subsection 6.3 for more on inconsistent beliefs about fictional characters.

21. Kripke (unpublished) and van Inwagen (1977) think that authors merely pretend to refer as they write. This is a point about *speaker-reference*: the *authors* do not refer to the characters. Kripke holds, furthermore, that the author’s utterances and inscriptions of fictional names do not *semantically* refer to the characters, or to anything else. (Van Inwagen does not distinguish between speaker and semantic reference.) Kripke and van Inwagen hold that (speaker-)reference to fictional characters occurs only later, after reflection on the piece of fiction produced by the

writing. Kripke holds, in addition, that names like ‘Sherlock Holmes’ are semantically ambiguous in *our* present language. ‘Sherlock Holmes₁’ does not semantically refer, whereas ‘Sherlock Holmes₂’ semantically refers to a fictional character.

Salmon’s (1998) view of authors’ inscriptions is harder to summarize. Salmon says “a name semantically refers to this or that individual only relative to a particular kind of use, a particular purpose for which the name was introduced. . . . It is a confusion to think of a name as referring, or not referring, other than as doing so *on* a particular use.” (p. 299). For example, the name ‘Mark’ refers to Mark Crimmins relative to one kind of use, and to Mark Richard relative to another. We can use ‘Mark₁’ and ‘Mark₂’ to designate these names-relative-to-a-kind-of-use (Salmon sometimes does this with subscripted versions of ‘Holmes’). A person can use a name-relative-to-a-kind-of-use, such as ‘Mark₁’, by uttering the name ‘Mark’ with the right sort of intention. Such a person *uses* the name ‘Mark’ *on a use* of that name. Salmon says that Conan Doyle only *pretended* to use the name ‘Holmes’ when he wrote his first story. Therefore, Salmon says, Conan Doyle’s utterances of ‘Holmes’ did not establish or generate a genuine *use* of the name (that is, a name-relative-to-a-kind-of-use, such as ‘Holmes₁’ or ‘Holmes₂’): “The problem with saying that ‘Sherlock Holmes’ is nonreferring on Conan Doyle’s use is that in merely pretending that the name had a particular use, no real use was yet attached to the name on which it may be said to refer or not to refer” (p. 299). But later, Salmon says, a genuine use of the name is established. The name, relative to this genuine kind-of-use, refers to the character: “. . . there is at first only the pretense of a use, including the pretense that the name refers to a brilliant detective, a human being on that use. Later the name is given a genuine use, on which it names the very same entity that it named according to the pretense” (p. 300). Hence, Salmon

says, there is no use of ‘Holmes’ on which it fails to refer. Furthermore, “. . . once the name ‘Sherlock Holmes’ has been imported into genuine discourse, Conan Doyle’s sentences involving the name express singular propositions about his character” (pp. 300-1). The Sherlock Holmes fiction is a sequence of propositions, many of which are about the Holmes character. Conan Doyle pretended to assert those propositions as he inscribed sentences containing ‘Holmes’ (p. 301). See also note 23.

22. It may not be quite accurate to say that Conan Doyle *pretended* to assert propositions—see Currie 1990 on fictive intent—but this issue is orthogonal to my main concern here.

23. I can now describe some of my worries about Salmon’s (1998) view. (Salmon’s view is complex. Some of my worries may be due to misunderstandings.) Salmon says “. . . once the name ‘Sherlock Holmes’ has been imported into genuine discourse, Conan Doyle’s sentences involving the name express singular propositions about his character” (1998, p. 301—see also p. 303). Perhaps the *sentences* that Conan Doyle inscribed do express such propositions *with respect to our use of the name ‘Holmes’ in our language*. But on Salmon’s view, Conan Doyle’s language did not contain a use of ‘Sherlock Holmes’ at the time that he wrote the story. So what (if anything) do his (seeming) sentences semantically express in *his* language *before* the name has a genuine use? Better yet: what (if anything) do Conan Doyle’s *utterances* and *inscriptions* (acts of inscribing) of (seeming) sentences semantically express? Salmon does not say. But he does say that Conan Doyle only pretended to use the name ‘Holmes’ as he wrote his first story, and therefore did not establish a kind of use for it. Given Salmon’s views about use and reference, this strongly suggests that Conan Doyle’s inscriptions of the name semantically failed to refer, and failed to have semantic content. But his inscriptions of other expressions of

ordinary English, such as ‘smoked a pipe’, surely did have semantic content. (Even if Conan Doyle only *pretended* to assertively inscribe sentences, he still inscribed those sentences *as expressions of English*, as Alonzo Church might put it.) Altogether this strongly suggests that Conan Doyle’s inscriptions of sentences containing ‘Sherlock Holmes’ semantically expressed gappy propositions, even though he inscribed those sentences in a merely pretending-to-assert manner. However, Salmon says that Conan Doyle pretended to assert various singular propositions about the character Holmes (1998, p. 301). So, it seems that on Salmon’s view, Conan Doyle pretended to assert propositions that were not semantically expressed by his inscriptions. That is a bit peculiar, but coherent, for we often assert propositions that are not the semantic contents of our sentence utterances. Yet Salmon also says that Conan Doyle did not (speaker-) refer to the character (1998, p. 302). But how could Conan Doyle pretend to assert these singular propositions about the character without (speaker-) referring to the character and without producing name inscriptions that semantically refer to the character? Perhaps Salmon would reply that (i) Conan Doyle pretended to refer to the character without speaker-referring to it, and (ii) his pretending to refer to the character was sufficient for him to pretend to assert a proposition about it. I think it is more accurate to say that a person who pretends to assert a proposition about an object is speaker-referring to the object (despite his pretense).

I also have worries about Salmon’s views on kinds-of-use and names-relative-to-a-kind-of-use. Salmon seemingly assumes that a speaker does not establish a kind-of-use for a name (or a name-relative-to-a-kind-of-use) until he utters it in a non-pretending manner. But if Conan Doyle had the character “in mind” as he wrote his first story, then surely he could have used the name to refer to the character, even while merely pretending to assert propositions about it. This

seems to be enough to establish a real use for the name. Salmon also says that the subsequent genuine kind-of-use of 'Holmes' for a character "is the very use it has in the story" (1998, pp. 300-1). This is puzzling. Let's agree that the following sentence is true (in our language): "According to the *Holmes* stories, there is a (kind of) use of 'Holmes' on which it refers to Holmes." What follows from this is that there is a *fictional* kind-of-use of 'Holmes'. But surely a fictional use is not a real use, any more than a fictional detective is a real detective. So how could the subsequent genuine use of the name (for a fictional character) be *identical* with the prior fictional use?

24. (iv) hides several possibilities. If some, but not all, of the utterances are indeterminate in reference and content, then it could be the case that (a) all of the remaining utterances refer to the character, or (b) all of the remaining utterances fail to refer, or (c) some of the remaining utterances refer to the character while the rest fail to refer.

25. I am assuming here that gappy propositions have truth values.

26. This proposal is close to Thomasson's (1999, pp. 112-3). Salmon (1998, pp. 303-4) says that ordinary speakers use 'Holmes does not exist' to convey (roughly) that there is no person who is identical with the fictional character Holmes₂ and who possesses most of the properties ascribed to Holmes₂ in the stories. Van Inwagen (1997, p. 308, note 11) seems to endorse a view similar to Salmon's.

27. If our utterances of 'Holmes' before linguistic reform are indeterminate in reference and content, then our utterances, before linguistic reform, of sentences containing the name are indeterminate in content (that is, do not uniquely semantically express a single proposition), and

therefore lack truth value. This includes our utterances of the sentence ‘According to *The Hound of the Baskervilles*, Holmes is a detective’. (See Braun and Sider (ms.) for more on the effects of semantic indeterminacy on truth value. Even if our utterances do not bear truth values as a matter of semantics, we might nevertheless use the sentence to speaker-assert truth-value-bearing gappy propositions or propositions concerning the fictional character.) After reform, we replace occurrences of ‘Holmes’ with either the non-referring ‘Holmes₁’ or the referring ‘Holmes₂’ and we replace the previous sentence with versions containing the subscripted names. The truth values of the replacement sentences depend on the reference of ‘*The Hound of the Baskervilles*’.

Let us, for simplicity, assume that a novel is identical with an ordered pair, consisting of a sequence of propositions together with the sequence of storytelling acts that its author performed. (That way, the identity and existence conditions of the novel depend upon the identity and existence conditions of both the propositions and the author’s storytelling actions.) Conan Doyle’s storytelling sentence inscriptions may have expressed gappy propositions, or expressed *character-saturated* propositions, or been indeterminate in content. So there are at least two candidates for the reference of ‘*The Hound of the Baskervilles*’ before reform: (i) the ordered pair consisting of a sequence of gappy propositions and a sequence of Conan Doyle’s storytelling actions, and (ii) the ordered pair consisting of a sequence of character-saturated propositions and a sequence of Conan Doyle’s actions. Before reform, the name ‘*The Hound of the Baskervilles*’ may have been indeterminate in reference between at least (i) and (ii). So we should reform our language by replacing the name with subscripted variants. ‘According to *The Hound of the Baskervilles*_(i), Holmes₁ is a detective’ is true, whereas ‘According to *The Hound of the Baskervilles*_(ii), Holmes₁ is a detective’ is false. ‘According to *The Hound of the*

*Baskervilles*_(ii), Holmes₂ is a detective' is true, but 'According to *The Hound of the Baskervilles*_(i), Holmes₂ is a detective' is false.

28. Salmon (1998, p. 96; 2002, pp. 112-6) thinks that Le Verrier's utterances of 'Vulcan' referred to a mythical planet that Babinet had previously unintentionally created and named 'Vulcan'. I think this gets the historical facts wrong: see note 4. I shall assume that, on Salmon's theory, Le Verrier's theorizing created a *new* mythical planet (distinct from Babinet's) to which Le Verrier's utterances of 'Vulcan' referred. This does not affect the main points of Salmon's theory.

29. More importantly, Salmon's theory entails that Le Verrier is able to *believe* singular propositions about it. Thomasson does not explicitly discuss cases of false theorizing, but her *intentional object theory of intentionality* strongly suggests that she would agree with Salmon that Vulcan is some type of abstract object created by Le Verrier's theorizing. See Thomasson 1999, pp. 88-9.

30. A reader might get the impression that Salmon (1998) thinks that his musings on France do not create an abstract artifact that is similar to a fictional character or mythical object (e.g., an imaginary object). But Salmon (1998) never asserts this. In fact, in personal correspondence, he says that he intended to remain neutral on the issue. In any case, Salmon (1998) clearly and explicitly says that 'Nappy' does not refer. It follows that 'Nappy' does not refer to any abstract entity that his musings might have created. See Caplan (2002, 2004) for further discussion. Thomasson's (1999, pp. 88-89) theory apparently entails that Salmon's act of imagining created the abstract (imaginary) object Nappy, and that 'Nappy' refers to it.

31. I suspect that many people have noticed this consequence of Salmon's theory. I believe that Reimer (2001b) was the first to point it out in print.

32. Caplan (2002) makes this point very helpfully.

33. Salmon (2002, p. 121, note 28) similarly argues for mythical objects, by pointing to similarities between theorizing and storytelling. See Caplan (2002, 2004) for further discussion.

I do not deny that there are important differences between theorizing and storytelling. In theorizing, people attempt to believe and assert true propositions; in storytelling, they do not.

34. Nothing that Salmon (1998, 2002) explicitly says rules out the possibility that his musings create some sort of abstract artifact, such as an imaginary object. See note 30. *True* theorizing resembles false theorizing in the respects mentioned in the text. So does true theorizing also create abstract objects that are similar to fictional characters? I suspect it does. (I am not sure, because I do not know enough about the supervenience bases and existence conditions of fictional, mythical, and imaginary objects to say anything definite.) But even if true theorists create such abstract objects, their words do not refer to those objects, and they do not believe propositions that have those objects as constituents. See Phillips (2001) and Caplan (2002, 2004) for further discussion.

35. Richard (1998) and Phillips (2001) make points similar to those in the following paragraph.

36. Thomasson (1999) seems to hold that authors refer to the fictional characters that they create because their activities cause those entities to exist.

37. On this point, I am agreeing with Mark Richard (1998) and Matthew Phillips (2001), though

for somewhat different reasons.

38. Is Salmon committed to saying that the names that ‘Goldie’, ‘Babs’, and ‘Mickey’ refer to mythical objects? Reading Salmon 1998 might leave one with the impression that he endorses the following principle:

Suppose agent A believes that there is exactly one F, and uses a description of the form “the F” to fix the reference of name N. And suppose that there is no F. Then N refers to a mythical object.

Matt, Ted, and Sue are counterexamples to this principle. But, in fact, Salmon 1998 does not endorse this principle. Nor does Salmon 1998 explicitly present any other general principle along this line (though Salmon 2002 [p. 122, note 25] seemingly comes close to doing so).

Salmon 1998 merely discusses particular cases. The cases of Matt, Ted, and Sue resemble Salmon’s cases in some respects, but not in all respects that Salmon might consider important.

Consider Salmon’s ‘Vulcan’ case and ‘Nappy’ case. Le Verrier believes his theory when he introduces ‘Vulcan’; in this respect, he is like Matt, Ted, and Sue. But Matt, Ted, and Sue explicitly make stipulations about the references of their names, should their reference-fixing

descriptions fail to pick out a unique (real) object, whereas Salmon assumes that Le Verrier made no such stipulation. (So Salmon informs me in correspondence; his 1998 does not

explicitly state that Le Verrier makes no such stipulation.) A follower of Salmon could say that

Matt’s, Ted’s and Sue’s stipulations either (i) prevent their activities from creating mythical

objects or (ii) prevent their names from referring to the mythical objects that they create. In the

‘Nappy’ case, Salmon explicitly stipulates that the name shall be non-referring if there is no

emperor of France. In that respect, Salmon’s ‘Nappy’ case is like those of Matt, Ted, and Sue.

But unlike Matt et al., Salmon does *not* believe his theory. (Salmon's 'Vulcan₃' example is similar in this respect to his 'Nappy' example—see his 1998, p. 381, note 52). Thus, a follower of Salmon could consistently agree with his judgments about 'Vulcan' and 'Nappy' and yet also agree with my judgments about Matt, Ted, and Sue.

39. Phillips (2001) similarly argues that Babinet's "latent" intentions prevent 'Vulcan' from referring to an abstract object.

40. This paper was accepted by *Noûs* in January 2003. Salmon read it in January 2005 and afterwards wrote me to clarify his view about 'Vulcan'. As I said above (note 21), Salmon holds that a name *semantically* refers to an object only relative to a *type* (or *kind*) of use. (A name can also fail to semantically refer on a type of use.) According to Salmon's note, Le Verrier used a definite description such as 'the planet perturbing Mercury's orbit' in an attempt to introduce a *new* type of use for 'Vulcan' (a type of use distinct from the one on which it refers to a mythical Roman god). When Le Verrier attempted to do this, he mistakenly assumed that there was exactly one such intra-Mercurial planet. Salmon doubts that Le Verrier made any provision for what the name would refer to if there were no such planet. Given this, Salmon thinks that Le Verrier's initial introduction-activities failed to endow 'Vulcan' with a new type of use, and therefore failed to endow it with a new type of use on which it semantically refers to the mythical planet. (Neither did he establish a new type of use on which it semantically referred to something else, or on which it failed to semantically refer.) This is contrary to the view I attributed to Salmon in the main text. However, since Le Verrier thought there was an intra-Mercurial planet, he immediately began to produce utterances of the name. Salmon thinks that at some point Le Verrier successfully *speaker*-referred to the mythical planet when he uttered

‘Vulcan’. Given one or more such utterances, he inadvertently established a new type of use for the name. On that new type of use, the name ‘Vulcan’ semantically referred to the mythical planet. The overall upshot of the view given in Salmon’s note is *roughly* this: Le Verrier’s initial utterances of ‘Vulcan’ may not have semantically referred to the mythical planet, but his later utterances did.

I am happy to learn these details of Salmon’s view, and I regret that my original text does not reflect them. I suspect, however, that many of Salmon’s readers take his view to be the one I attributed to him. In any case, this commonly attributed view is worthy of critical evaluation. Many of my criticisms of this latter view apply with little change to the view Salmon sets out in his note, for Salmon’s note claims that Le Verrier’s *later* utterances of ‘Vulcan’ semantically referred to the mythical planet, whereas I present reasons to think that *none* of Le Verrier’s utterances did. My criticisms concerning semantic-reference also transfer with little change to Salmon’s views about speaker-reference: Le Verrier did not use ‘Vulcan’ to speaker-refer to the mythical planet because (a) Le Verrier did not stand in an appropriate causal relation to the mythical planet, (b) no definite description that he associated with the name ‘Vulcan’ singled out the mythical planet, and (c) he had opinions and intentions that determined that those utterances failed to speaker-refer or semantically-refer. Salmon’s remarks about types of use raise new worries for me. One compelling reason to think that Le Verrier’s introduction-activities did successfully introduce a new type of use for the name ‘Vulcan’ is that, from that point onward, Le Verrier and others apparently needed to distinguish between an “astronomical” type of use for the name and an older “Roman god” type of use for the name. (Roughly speaking, the name ‘Vulcan’ became ambiguous as soon as Le Verrier tried to introduce a use for it as a name for a

planet.) Perhaps Salmon simply uses the term ‘type of use’ differently than I do. If so, then I suspect that Salmonian types of use are not the types of use that are of most interest to semantics. (Thanks to Ben Caplan for discussion and to the editors of *Noûs* for permission to add this note in March 2005.)

41. If the ancients did not distinguish between stars and planets, then no matter what words they used, they would, in effect, have introduced the name ‘Hesperus’ as a name for the first *heavenly body* visible at dusk (other than the Moon). Venus satisfies the latter description. So the referent of the name would have satisfied the description used to fix its reference, contrary to Salmon’s intentions in presenting his example. (Thanks to John Bennett for discussions about this.)

42. The supposition is fantastic because Venus’s motion with respect to the stars is more easily observed than any other planet’s motion. So Venus is the planet that is most obviously a planet, and most obviously not a star. But for Salmon’s purposes, it is crucial that the ancient astronomers in the example distinguish between stars and planets, and yet mistakenly think of Hesperus as a star. (See the previous note.)

43. Richard (1998, p. 264) discusses a similar example when criticizing Salmon. It is historically unrealistic for the same reasons that the previous one is: it is unlikely that an ancient astronomer who knew the difference between a planet and a star would have consistently mistaken Venus for a star.

44. I am ignoring irrelevant uses of ‘Vulcan’, for instance, as a name of a Roman mythical god, or as a name of the fictional home planet of *Star Trek*’s fictional character Mr. Spock.

45. Compare with the case of ‘Holmes’ at the end of section 6. If our name ‘Vulcan’ is indeterminate in content before reform, then utterances of ‘Le Verrier believed that Vulcan is a planet’ that occur before reform lack truth value. Similarly for utterances of ‘Vulcan is a mythical planet that was believed by Le Verrier to affect the orbit of Mercury’ before reform. (See Salmon 2002, p. 116, for a similar sentence that he cites to support his theory. See also Richard 1998 for discussion.) After reform, we obtain the sentences ‘Le Verrier believed that Vulcan₁ is a planet’, which is true; ‘Le Verrier believed that Vulcan₂ is a planet’, which is false; ‘Vulcan₁ is a mythical planet that was believed by Le Verrier to affect the orbit of Mercury’, which is either false or lacking in truth value, because ‘Vulcan₁’ appears outside the complement clause of the belief ascription; and ‘Vulcan₂ is a mythical planet believed by Le Verrier to affect the orbit of Mercury’, which is false. There are two prime candidates for the reference of the possessive phrase ‘Le Verrier’s theory’: one contains many gappy propositions (and some of their consequences), while another contains many propositions concerning the mythical planet (and some of their consequences). Both are, in some sense, Le Verrier’s theory: the first is a theory he *believed*, but the second is a theory that he *created*, in one reasonable sense of ‘create’, because he created the mythical planet. Utterances of ‘Le Verrier’s theory’ by ordinary (pre-theoretic) speakers who do not distinguish the two theories might be indeterminate in reference. Utterances of ‘Le Verrier’s theory’ by people who distinguish the two theories *might* (determinately) semantically refer to one or the other, depending on the speaker’s intentions (whether this is so depends partly on complicated issues in the semantics of possessives). Utterances of ‘According to Le Verrier’s theory, Vulcan₁ is a planet’ in which the utterance of ‘Le Verrier’s theory’ semantically refer to the first theory are true, while those in which it refers

to the second theory are false. Vice versa for ‘According to Le Verrier’s theory, Vulcan₂ is a planet’.

46. Thanks to John Bennett, Ben Caplan, Greg Carlson, Earl Conee, Reinaldo Elugardo, Anthony Everett, Richard Feldman, David Hunter, Jennifer Saul, Lenhart Schubert, Theodore Sider, Susanna Siegel, and the members of my seminar in fall 2002 for many useful comments and discussions. Thanks to Nathan Salmon for correspondence concerning his views. Thanks also to audiences at the University of Manitoba, the University of Rochester, and the Central APA in Cleveland in April 2003, where I presented ancestors of this paper. Many thanks to Mark Richard, who was my commentator at the Central APA. Finally, thanks to two anonymous referees for their helpful comments.