Useful False Beliefs

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The purpose of this chapter is to examine the role of false beliefs in the production of knowledge. False beliefs are generally thought to play no role, and certainly no "essential" role, in the production of knowledge, which some philosophers have defined as true belief that does not rely in an essential way on a falsehood.\(^1\) To the contrary, I will present some cases in which false beliefs play a crucial role in the production of knowledge.

I dedicate this essay to Jerome Balmuth, a former colleague and valued friend, in celebration of his fiftieth anniversary of teaching at Colgate University.

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A distant ancestor of this chapter was presented at a conference at the Pontifical Catholic University in Porto Alegre, Brazil, in 1999; the discussion there was very helpful. Not so distant ancestors were presented at the University of Miami, February 2004, the University of Missouri, October 2004, the University of Nevada, November 2004, and Wayne State University, March 2005. The chapter was revised after each of the discussions at those universities. In addition, I would like to thank the anonymous referee who provided a useful criticism (see n. 35). For another approach to the problem, see Ted A. Warfield, ‘Knowledge from Falsehood’, *Nous-supplement*, 19 (2005), 405–16.

beliefs play an essential role in both the justification and causal production of cognition, and then I will propose a general account of the conditions in which such false beliefs—what I will call "useful false beliefs"—can make essential contributions to the acquisition of knowledge.  

1. Some key notions employed in this chapter

I want first to explain some of the key notions employed in this chapter, although I will not defend them in any great detail. I have discussed many of them in other papers, and some of them are not contentious, so I state them merely to ensure that the reader and I share a common vocabulary. In addition, they will help to clarify some aspects of the otherwise puzzling phenomenon of useful falsehoods.

1.1. Propositional justification and doxastic justification

The two notions of propositional justification and doxastic justification can be explained in turn. I take propositions to be the contents of beliefs or discussions] is that knowledge requires justified true belief and something else as well—there is a fourth condition of knowledge. Saying just what that condition is turns out to be remarkably difficult... What seems to be crucial is that the justification not essentially depend upon anything false" (p. 37; emphasis in original).

Of course, there is a non-controversial way in which a false belief can play an essential role in producing knowledge, if that means merely that had I not had the false belief, I would not have acquired the knowledge. For example, believing falsely that today is the day on which trash is collected, I could come to know that there is a rabbit in the yard as I carry the garbage can to the sidewalk. If I had not had the false belief, I would not have discovered the rabbit. But, in such a case, my knowledge that there is a rabbit is neither justified nor caused by my false belief. The claim I will be making is that in some cases the false belief is essential both to the justification and to causal production of knowledge.

As far as I know, this distinction was first introduced by Roderick Firth in "Are Epistemic Concepts Reducible to Ethical Concepts?", in Alvin Goldman and Jaegwon Kim (eds.), Values and Morals (Dordrecht: D. Reidel, 1978: 215–29). Later, Alvin Goldman distinguished ex ante justification from ex post justification, a distinction that, in many ways, parallels that between propositional and doxastic justification, respectively. See Alvin Goldman, "What is Justified Belief?", especially sect. III. It was originally published in G. S. Pappas, (ed.), Justification and Knowledge (Dordrecht: D. Reidel, 1976), 1–23. It has been reprinted in many places that are more accessible, for example, in Quentin Smith (ed.), Epistemology (Oxford: Blackwell, 2000), 340–53, esp. p. 351. The terms "propositional" and "doxastic" justification are better suited to this chapter, since they make clear that the former concerns the evidential basis for a proposition, and the latter refers, in part, to the causal conditions that produce a belief.
other mental states such as perceptions or memories. A proposition may be justified for S although S does not believe it. We can say that a proposition, h, is propositionally justified for S, just in case S has an epistemically adequate basis for h. My primary concern is with cases in which that epistemically adequate basis is either another proposition that S believes (occasionally or dispositionally) or a proposition that is merely available to S. If foundationalism is correct, that basis could be something other than the propositional content of a belief. For example, the content of a perceptual state or even an event or state of affairs in the “external world” could provide an adequate epistemic basis for a proposition. I will explicitly attempt to accommodate these foundationalist views at relevant points in this chapter.

For a proposition to be available to S, it must either (i) be the propositional content of S’s actual mental states, or (ii) be appropriately “hooked up” to S’s actual mental states. For example, if S believes that p, and p (relevantly) entails q, then q is available whether or not S recognizes that consequence of her beliefs. A difference between Holmes and Watson is that Holmes recognized what was available, whereas Watson did not put two and two together. Whether Holmes’s ability to draw the available conclusions is best understood as (i) having a

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4 Some might prefer to limit the scope of propositions to the contents of beliefs because, they claim, the contents of perceptions and memories are neither true nor false. Those contents might be deemed accurate or inaccurate, rather than true or false. While understanding that reluctance to take my rather permissive view of the scope of “proposition”, I will use “proposition” to designate the full class of mental contents, for the sake of ease of presentation. Nothing in the argument depends upon that choice. Wherever appropriate, the reader may use, e.g., “proposition-like” when referring to the contents of all mental states, and, e.g., terms like “accurate” and “inaccurate”, rather than “true” or “false.”


6 I will discuss later whether availability requires that the connection between the contents of S’s mental states and other propositions must be as strong as entailment.
disposition to believe that q, or (ii) having a second-order disposition to form a disposition to believe that q, is a matter of detail that can be set aside.7

My primary concern in this chapter is with the conditions in which a proposition is justified by another proposition.8 Determining the conditions under which one proposition justifies another proposition is a central and difficult task for epistemology as a list of only a few of the suggestions currently on issue makes apparent. A proposition, say p, is held to be an epistemically adequate basis for q iff:

(a) p is probable, and if p is probable, then q is probable; or
(b) in the long run, p would be accepted as a reason for q by the appropriate epistemic community; or
(c) p would be offered as a reason for q by an epistemically virtuous individual; or
(d) believing that q on the basis of p is in accord with one’s most basic epistemic commitments.

Luckily, we do not have to settle this matter here. We can just help ourselves to whatever turns out to be the best account and plug it in whenever we use the expression “x propositionally justifies y”.

Beliefs—that is, belief states—are the bearers of doxastic justification. I will take a belief that h to be doxastically justified for S when and only when the belief that h has an appropriate causal pedigree.9 Doxastic justification, and not mere propositional justification, is what is referred to by the “J” in a JTB account of knowledge—that is, S’s belief that h must be doxastically justified in order for S to know h. For, even if S holds a true belief that h, and h is propositionally justified, and there is no genuine defeater of the propositional justification, it does not follow that S has knowledge. S must also believe h for the “right” reasons. It is widely assumed that those “right” reasons must be true. This chapter challenges that assumption.

8 Although, to allow for foundationalism, we must also consider cases in which something other than a proposition can provide an adequate epistemic basis for a proposition.
9 There are other accounts of doxastic justification—for example, an explicitly normative account in which a belief that h is doxastically justified for S just in case S believes h in an epistemically responsible way. I choose to employ the explicitly causal account because, as it will soon be apparent during my discussion of evidential and causal overdetermination, doing so helps to make clear the particular issues under discussion here.
Useful False Beliefs / 29

Propositional justification and doxastic justification (where the cause of the belief is another belief) are related in at least these ways:

I (a proposition, e, propositionally justifies another proposition, h) ≡ (for any S, if S were doxastically justified in believing that e, then S would be doxastically justified in believing that h if S were to believe that h and S's belief that h were to be caused by S's belief that e);

II (S's belief that h is doxastically justified by another belief that e) → (S's belief that h is caused by the belief that e, and e propositionally justifies h).\(^\text{10}\)

Both concepts of justification are conceptually opaque if we cannot specify one of them without appealing to the other. Which, if either, is basic might be a good way to characterize the fundamental disagreement between normative epistemology and naturalistic epistemology, but I will not discuss that in this chapter.

What is crucial here is that, although the two notions are closely related, they should not be confused with one another. One has to do with the epistemic status of a proposition, the other with the epistemic status of a belief (that is, a belief state). The reason for keeping them distinct will become clear immediately below.

1.2. Causal and evidential overdetermination

We can say that an event or state is causally overdetermined iff it has at least two actual causes each of which, in the actual circumstances, acted as a sufficient cause to produce that state or event.\(^\text{11}\) For example, it might be thought that two forces, each sufficient to move an object, can overdetermine that it moves, or it might be thought that turning on both the hot and cold water

\(^{10}\) There are at least two reasons that this is not an equivalence. First, the belief that e must have some epistemic status in order for it to be able to render the belief that h doxastically justified. Second, since propositional justification is defeasible, we would have to add a clause requiring that S's beliefs contain no overriding propositions of the justification of h by e. There might be other necessary additions to the consequent in order to make it strong enough to entail the antecedent. Exactly what those additions are and how to address the impending possible regress are issues that I will discuss briefly at points in the chapter, but, for our primary purpose—namely, determining the role that useful falsehoods play in the production of knowledge—it will suffice to note the entailment. That there is such an entailment, I think is not contentious.

\(^{11}\) It is important to distinguish causal overdetermination from causal pre-emption. The proposed definition is designed to do that.
valves overdetermines that water flows from the faucet.\textsuperscript{12} On the other hand, propositions cannot be causally overdetermined, because they are not the kind of thing to be caused at all. Beliefs, however, are caused, and, hence, they are the kind of thing that might be causally overdetermined.

Whether there are any genuine cases of causal overdetermination is a contentious matter.\textsuperscript{13} For the sake of my argument, I will grant that there can be such cases. Permitting beliefs to be causally overdetermined makes my task much harder. For, as we will soon see, if beliefs cannot be causally overdetermined, then previous attempts to characterize the role that false beliefs play in producing knowledge are \textit{obviously} mistaken. I will argue that those previous characterizations, which implicitly presuppose that beliefs can be causally overdetermined, are mistaken about the role false beliefs can play in the acquisition of knowledge even if there are instances in which beliefs are causally overdetermined.

We can say that a proposition, \(p\), is \textit{evidentially overdetermined} for \(S\) iff there exist at least two independent evidence bases available to \(S\) each of which is sufficient propositionally to justify \(p\).

That there are cases of evidential overdetermination is uncontroversial. The proposition that someone is at the party can be justified by two truth-functionally independent propositions—for example, \textit{Anne is at the party} and \textit{Peter is at the party}. This is a case in which the evidential base consists of two propositions each of which \textit{entails} the propositionally justified proposition. But it is also easy to construct cases in which there are two independent evidential bases each of which contains sufficient, but not entailing, evidence to justify a proposition.

Suppose I want to know whether the Yankees won the baseball game today. I ask someone who attended the game, and she says that they won. Later I read in the sports pages that the Yankees won. In such a case, although having two pieces of evidence might increase the degree of propositional justification, each piece of evidence is sufficient propositionally to justify (to the degree required

\textsuperscript{12} Thanks to Ernest Sosa for the water-flowing example.

\textsuperscript{13} See Martin Bunzl, “Causal Overdetermination”, \textit{Journal of Philosophy}, 76 (1979), 134–50. Bunzl argues that there are no genuine instances of causal overdetermination and that all supposed instances are actually instances of something else—for example, evidential overdetermination or causal pre-emption. But see Douglas Ehring, “Bunzl on Causal Overdetermination”, \textit{Philosophical Studies}, 39 (1981), 209–10, for a response to Bunzl including a supposed example of overdetermination.
by knowledge) the claim that the Yankees won. If one were to hold that only
the combination of the two pieces of evidence provides an adequate evidential
base propositionally to justify that the Yankees won, just change the example
so that two people who attended the game tell me that the Yankees won and
two newspapers independently report that the Yankees won.

1.3. Knowledge

Although this is not the place to present a full discussion of the analysis
of knowledge, some brief comments are necessary if we are to determine
how false beliefs can play an essential role in its production. I do not expect
these comments to convince anyone that my account of knowledge as true,
genuinely undefeated, justified belief is correct in all aspects. I have developed
and defended it in other places. For the purposes of this chapter, it is
sufficient to take that account as a working hypothesis in order to see how it
should be amended in the light of the existence of useful falsehoods.

The basic intuition that informs the defeasibility account of knowledge is
that S's doxastically justified, true belief falls short of being knowledge if S
felicitorously acquired the true belief on the basis of part of the relevant evidence
when some other part of the evidence, if combined with the evidence S did
acquire, defeats the justification. S is lucky to have acquired the evidence that
led her to the truth, for she could have acquired that very evidence along with
further evidence that together would not have led her to the truth.

Since our concern is with the role that false beliefs can play in the production
of knowledge, we can confine our discussion primarily to inferential know-
ledge. Although an important revision of this definition will be required after

471–82; Certainty (Minneapolis: University of Minnesota Press, 1981), esp. 137–66; “Knowledge,
Causality and Defeasibility”, Journal of Philosophy, 73/20 (1976), 792–812; “Warrant, Proper Function,
Reliabilism and Defeasibility”, in Jonathan Kvanvig (ed.), Warrant and Contemporary Epistemology (New
York: Rowman & Littlefield, 1996), 97–130; and more recently “Knowledge is True, Non-defeated
very similar view to my earlier proposals, please see Risto Hilpinen, “Knowledge and Justification”,

15 For a discussion of genuine and misleading defeaters, see the items listed in n. 14 and
“Misleading 'Misleading Defeaters' ”, Journal of Philosophy, 76/7 (1979), 382–6; “Misleading Evidence

16 Since I believe that all knowledge is inferential and that there is no such thing as basic
knowledge (see n. 5), this definition would cover all instances of knowledge. But nothing in
we discuss useful falsehoods, here is the standard way to define inferential knowledge within the defeasibility theory of knowledge:

\[ S \text{ inferentially knows that } h \iff \]

(i) \( h \) is true,

(ii) \( S \) believes that \( h \),

(iii) \( S \)'s belief that \( h \) is inferred (directly or indirectly) from and doxastically justified (directly or indirectly) by another belief, say the belief that \( e \), which is doxastically justified.\(^1\)

(iv) There is no genuine defeater of the propositional justification of any of the propositions in the evidential path up to and including \( e \), and there is no genuine defeater of the propositional justification of any proposition between \( e \) and \( h \).

I should note that condition (iii) does not itself lead to an infinite regress of doxastically justified beliefs. It is consistent with foundationalism because some beliefs could be doxastically justified but not caused by other beliefs. For example, beliefs that arose as a result of a perception or a memory could be doxastically justified. Condition (iii) is also consistent with coherentism of various sorts, since nothing in condition (iii) prevents mutual causation (as teepee poles are mutually causally responsible for each other's remaining

this chapter depends on that controversial claim. Further, throughout the chapter I employ, at least implicitly, a foundationalist picture of propositional and doxastic justification in which the propositions inherit their justificatory status from other propositions or proposition-like entities, and the beliefs inherit their justificatory status from other beliefs or belief-like mental states. My own view is that the inheritance view of justification is mistaken, and that (i) propositional justification exists only when there is an infinite chain of non-repeating propositions that are reasons for the given proposition, and (ii) \( S \)'s belief reaches the required degree of doxastic justification when \( S \) has traced those reasons back far enough. (See the papers mentioned in n. 5, especially "Response to Ginet" and "How to be an Infinitist about Doxastic Justification"). But the inheritance view of justification is so familiar and so widely accepted that, for the purposes of this chapter, it seemed best to explicate both propositional and doxastic justification employing it.

\(^1\) Some might think that the belief that \( e \) need not rise to the level of doxastic justification. On this view, a set of beliefs with some positive degree of doxastic plausibility (but not as high as the level required for justification) can, coupled with the fact that the set is coherent, gain additional degrees of epistemic warrant. A kind of bootstrapping might occur. (See, e.g., Roderick Chisholm, Theory of Knowledge (Englewood Cliffs, NJ: Prentice-Hall, 1966), especially 53–4.) If so, they could rewrite condition (iii) as follows: \( S \)'s belief that \( h \) is inferred from and doxastically justified by another belief, say the belief that \( e \), which has the appropriate degree of doxastic warrant. In the interests of full disclosure, I should point out that I think that even this revised condition is too strong for the reasons mentioned in n. 16.
erect). Finally, condition (iii) is consistent with infinitism, since it does not rule out an infinite, non-repeating series of beliefs, each such that it is justified only if some other belief is doxastically justified.

Further, if someone were to hold that a doxastically justified belief could causally depend upon another belief that was not itself doxastically justified, as some coherentists, foundationalists, and infinitists might, condition (iii) could be modified appropriately. I think it will be granted that the belief having \( e \) as its content must have some positive justificatory status if it is to provide the inferential basis for and doxastically justify the belief that \( h \).

For example, we could replace “doxastically justified” with “doxastically plausible” in condition (iii) if someone were to hold that in order for the belief that \( h \) to be doxastically justified by the belief that \( e \) we need require only that the belief that \( e \) rise to the level of doxastic plausibility (that is, some positive level of epistemic entitlement lower than justification). For the purposes of this

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Ernest Sosa has suggested a possible exception to this claim. Suppose that \( S \) is not at all doxastically justified in believing that \( p \) (\( \text{BP} \)), but is doxastically justified in believing that he or she believes that \( p \) (\( \text{BBP} \)). Is not this a case where \( \text{BP} \) is not doxastically justified but it is a belief that doxastically justifies \( \text{BBP} \)? The answer is that although \( \text{BP} \) is not doxastically justified and \( \text{BBP} \) is doxastically justified (if one takes introspection to be a reliable indicator of one’s beliefs), what doxastically justifies \( \text{BBP} \) is not \( \text{BP} \) but rather \( S \)’s introspection of his or her beliefs. So, this is not a case in which a doxastically justified belief is inferred from another belief that is not doxastically justified. The doxastically justified belief (\( \text{BBP} \)) is produced or caused by the introspection. I take it that introspections, like memories and perceptions, are not themselves beliefs—although they typically give rise to beliefs and they do have propositional, or what I have called “propositional-like”, content (see n. 4). I think they are not themselves beliefs because it strikes me as logically possible for \( S \) to introspect \( x \) and not believe that \( x \)—if, for example, \( S \) has no confidence whatsoever in his or her powers of introspection. Of course, non-doxastic mental states like introspections, memories, and perceptions as opposed to, say, wishful thoughts, can confer some positive doxastic status on beliefs that they cause, and for which they provide the inferential basis. If \( S \) believes that \( x \) because \( S \) infers that \( x \) from his or her memory that \( x \), then, \( \text{ceteris paribus} \), \( S \)’s belief that \( x \) has some positive doxastic justificatory status because memories have a positive, but defeasible, epistemic status. Whereas, if \( S \) believes that \( y \) on the basis of an inference from his or her wish that \( y \), then, \( \text{ceteris paribus} \), \( S \)’s belief that \( y \) has no positive doxastic justificatory status.

Nevertheless, since “belief” is so elastic, I could imagine someone insisting that introspection is enough like a typical belief so that it should be counted as a belief. But the general claim would still remain true because \( \text{BBP} \) is inferred from and is doxastically justified by the introspection that \( \text{BP} \) (which is now considered to be a belief). The introspection that \( \text{BP} \) now being taken to itself be a belief does not provide an exception to the general claim since introspection is not a form of inference. Even if the introspection that \( p \) were a doxastically justified belief, \( S \) does not infer it from the totally unjustified \( \text{BP} \).
chapter we can stipulate that the appropriate degree of entitlement is doxastic justification in both this definition of inferential knowledge and the account of useful falsehoods I present later. Nothing crucial depends upon the level of entitlement that is required.

A word or two about defeaters. Suppose that there is a chain of justifiers from \( e \) to \( h : e \) justifies \( e_1 \), \( e_1 \) justifies \( e_2 \), \( e_2 \) justifies \( e_3 \), \ldots \( e_n \) justifies \( h \). A defeater, \( d \), of the propositional justification of \( h \) by \( e \) is a true proposition that is such that either (1) the conjunction of \( d \) with any proposition that precedes \( h \) in the chain fails to justify its immediately succeeding link in the chain to \( h \) or (2) \( d \) renders plausible some other proposition, \( d_1 \), and \( d_1 \) renders plausible \( d_2 \), and \( d_2 \) renders plausible \( d_3 \), \ldots and \( d_{n-1} \) renders plausible \( d_n \), and the conjunction of \( d_n \) with any proposition that precedes \( h \) in the chain fails to justify its immediately succeeding link in the chain to \( h \). That is, a defeater can defeat directly or it can do so indirectly through a series of propositions each of which is rendered plausible by a previous member in the series. All defeaters are true, but some of them defeat only by initiating a series of rendered-plausible propositions that contains at least one false proposition. Defeaters that depend on false propositions in order to defeat are "misleading defeaters". Genuine defeaters employ only the truth to defeat. For example, in the so-called misleading Grabbit Case, S has good evidence that Tom Grabbit stole a book. In fact, Tom stole it. But Mrs Grabbit (Tom’s mother) says, apparently sincerely, that not Tom, but his identical twin, John, stole the book. The proposition Mrs Grabbit said, apparently sincerely, that John was the thief is a defeater. However, if what she said is false and there is no twin, that proposition is a misleading defeater, because it defeats only by rendering plausible the false proposition that John stole the book. On the other hand, if there really is a twin who stole the book, then Mrs Grabbit said, apparently sincerely, that John was the thief is a genuine defeater. The distinction between misleading and genuine defeaters will be

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19 In other places I have defended the view that the chain of justifiers is infinite. The account here would have to be modified slightly to account for the chain being infinitely long. (See n. 5.)

20 Of course, there can be more than one genuine defeater. In the non-misleading Grabbit Case, Tom did not steal the book is the most obvious genuine defeater of whatever propositionally justifies Tom stole the book. Thus, the defeasibility account can insur the tight connection between warrant and truth, if "warrant" is taken to be whatever must be added to true belief to raise it to the level of knowledge. To generalize, if the propositional justification of \( h \) has no genuine defeaters, \( h \) must be true (because \( \sim h \) is a genuine defeater). Thus, there is an answer available to Linda Zagzebski's worry about the ubiquity of the Gettier problem presented in her "The Inescapability of the Gettier Problem", Philosophical Quarterly, 44 (1994), 65–73.
important when we “test” my account of the role that useful falsehoods play in producing knowledge.

2. Setting the stage: A brief review of the Gettier Problem

There are two ways of viewing the Gettier Problem. The first focuses on the two principles upon which it depends; and the second focuses on some specific cases that illustrate a consequence of accepting the principles. Both perspectives can help us understand the issues surrounding useful falsehoods.

Gettier’s principles are these:

III Fallibilism A person, S, can be doxastically justified in believing a proposition, \( p \), and \( p \) can be false.

IV Closure If a person, S, is doxastically justified in believing a proposition, \( p \), and \( p \) entails \( q \), and S comes to believe that \( q \) on the basis of deducing it from \( p \), then S is doxastically justified in believing that \( q \).

Since a false proposition can entail a true proposition, the combination of the two principles leads to a recipe for constructing any number of counterexamples to knowledge construed as mere doxastically justified, true belief. Just locate a true, doxastically justified belief that S has inferred from a false, doxastically justified belief. In every such case, it might seem appropriate to claim that S will have a doxastically justified, true belief that will not be knowledge. S cannot gain knowledge on the basis of a false belief. Or so it might seem.

A typical Gettier Case might help to reinforce that unfounded intuition: the Havit/Nogot Case.²¹

Nogot, Havit and I are classmates. I see Nogot driving a Ford, I watch him park it in his garage, and I hear him tell me that he owns the Ford. So, I come to believe that Nogot owns a Ford, and I deduce that someone in the class owns a Ford. Suppose that someone in the class does own a Ford, but

²¹ I think Keith Lehrer was the first to use this example in “Knowledge, Truth and Evidence”, *Analysis*, 25 (1965), 168–75.
that it is not Nogot. The owner of the Ford is Havit, about whom I have no
beliefs whatsoever concerning what automobiles, if any, he owns.

Even though the belief that someone in the class owns a Ford is doxastically
justified and true, it is not knowledge. In such a case, I do not have knowledge;
I arrived at the truth only by a lucky break. I was lucky to arrive at the truth
because there is a genuine defeater of my justification—namely, Nogot does not
own a Ford.

It might seem, then, that any belief that is doxastically justified by a false
belief cannot be knowledge. But that would be a hasty generalization. Even
though the Havit/Nogot Case is a clear case of the felicitous coincidence
of a doxastically justified belief and a true belief (and hence is not a case
of knowledge), the conjunction of the Fallibilism Principle and the Closure
Principle does not entail that all true, doxastically justified beliefs deduced
from a doxastically justified, false belief fall short of knowledge. There still
could be cases in which a false belief provides an adequate basis for knowledge.

3. Examples and preliminary discussion of useful
falsehoods

Although Gettier showed only that some doxastically justified, true beliefs fall
short of knowledge, are there really any cases in which S arrives at knowledge
that p, as a result of inferring p from a false belief? Here are four such cases. 22

A The Appointment Case. On the basis of my apparent memory, I believe
that my secretary told me on Friday that I have an appointment
on Monday with a student. From that belief, I infer that I do have
an appointment on Monday. Suppose, further, that I do have an
appointment on Monday, and that my secretary told me so. But she
told me that on Thursday, not on Friday. I know that I have such an
appointment even though I inferred my belief from the false proposition
that my secretary told me on Friday that I have an appointment on
Monday.

22 Risto Hilpinen has given several other examples of what I call useful falsehoods; see
"Knowledge and Conditionals", in J. E. Tomberlin (ed.), Philosophical Perspectives, 2 (1988), 157–82,
esp. 163–4.
B  The Santa Claus Case. Mom and Dad tell young Virginia that Santa will put some presents under the tree on Christmas Eve. Believing what her parents told her, she infers that there will be presents under the tree on Christmas morning. She knows that.

C  The Average Rainfall Case. Weatherman believes that the average annual precipitation in Northwest Montana is about 13 inches because he believes that accurate records have been kept for over eighty years and the rainfall depicted in the number of years that records were kept averages to 13 inches. The average rainfall is about 13 inches, but accurate records were kept for only seventy-nine years. Weatherman knows that the average rainfall is about 13 inches.23

D  The Ptolemaic Astronomer Case. The date is 2 September 1203; the place is Oxford University. An astronomy class is in session and the instructor, one of the most noted Ptolemaic astronomers of the thirteenth century, is showing students how to calculate the relative positions of the sun and planets both backward and forward in time using the deferent and epicycle orbits of those bodies and their (then) current positions. After carefully explaining the method, he asks the students to determine whether Mars will be visible from the earth 800 years later, supposing, of course, that it is not cloudy that night, that both the Earth and Mars still exist, and so on. The students enter the (then) current relative positions of the Sun, Mars, and Earth as they believe them to be according to Ptolemaic astronomy and then they extrapolate using the method they have just learned. They conclude that, ceteris paribus, Mars will be visible on 2 September 2003. On the assumption that the assigned orbits and then-current relative positions of the three bodies allow for sufficiently accurate extrapolations, the students know that Mars will be visible on 2 September 2003, even though their beliefs are based on false beliefs about the fixed position of the Earth and the orbits of the Sun and Mars.

Some of these four cases might more obviously be instances of useful falsehoods leading to knowledge than others. But each of them is such that

23 This case is similar to one presented by Risto Hilpinen in “Knowledge and Conditionals”, 163–4, and it is similar to the one presented by John Turk Saunders and Narayan Champawat in “Mr Clark’s Definition of ‘Knowledge’”, in *Analysis*, 25/1 (1964), 8–9. I think the Saunders and Champawat article is the first contemporary mention of the role of false beliefs in the production of knowledge. However, they do not discuss the case or its significance in any detail.
it is plausible to believe that at least some people will take it to be a case of a false belief producing knowledge. Near the end of this chapter, I will suggest that a test of the correct account of useful falsehoods is that it can explain varying intuitions that might arise when considering whether to classify these and other cases as knowledge.

All these cases have three relatively obvious features in common:

1. The two extant "rival" theories of knowledge—that is, the defeasibility theory and reliabilism, do not have straightforward ways of accounting for these cases. First, the defeasibility theory takes inferential knowledge that $h$ based on $c$ to obtain only if there are no genuine defeaters of the propositional justification of $h$ by $c$. But that account runs afoul of the problem of useful falsehoods because there is a genuine defeater of the justification in each of the four cases—namely, the denial of the useful falsehood. For, if some false belief that $c$ doxastically justifies $S$ in believing that $h$, then, since $\sim c$ is true, there is a genuine defeater ($\sim c$) of the propositional justification of $h$ by $c$ because the conjunction ($c$ and $\sim c$) fails to justify $h$ (since it cannot justify anything). 24

24 I do not take these to be genuine rivals because (the belief that $h$ arise in some fashion in context $C$) $E$ is not a reliable process in $C$ is, if true, a genuine defeater of the justification of $h$. Thus, reliabilist intuitions cannot be captured by the defeasibility theory without incurring the generality problem because no general account of reliable processes is required by the defeasibility theory. All that is required is to fill in a particular description of $E$ to specify the defeater.

Claudio de Almeida, in a paper entitled "Benign Falsehoods: A Lesson about Inferential Knowledge," presented an account of useful falsehoods that employs the assets of defeasibility theory. Here is his suggestion using the terminology developed in this chapter:

$b$ is a useful falsehood in producing $S$'s knowledge that $h$ iff:

1. $b$ is false, and the belief that $h$ doxastically justifies the belief that $h$.
2. There is a true proposition, $h_1$, such that $h$ renders $h_1$ somewhat plausible—even if very weakly so.
3. $S$ believes (at least dispositionally) that $h_1$.
4. No proposition that is incompatible with $h$ is a genuine defeater of the justification of $h_1$.

If I've understood the suggestion correctly and correctly stated it in the terminology employed in this chapter, I think the proposal excludes too many useful falsehoods—indeed, I think it excludes them all. First, though, two general comments about his proposal: (1) This proposal is similar in many ways to the structure of the proposal in this chapter, in part, because de Almeida's proposal was designed to correct my account of useful falsehoods presented at a conference at the Pontifical Catholic University in Porto Alegre, Brazil, in 1999. (2) I wish that his account were correct because it is a much more elegant solution than the one I am presenting here.
Hence, the defeasibility theory is too strong. It will rule out all cases in which a false belief doxastically justifies another belief.  

Second, the four cases of useful falsehoods point to a particularly virulent instance of the generality problem for reliabilism. In these cases, a false belief plays an essential causal role in producing the cognition, so the problem for reliabilists is to specify in some general way the conditions in which false beliefs can reliably bring about knowledge. Reliabilists can employ subjunctive

But, for the reason just cited in the text, I do not think this proposal will succeed because \( \sim h \) is a genuine defeater of the justification of \( h \), and it is a genuine defeater of the justification (however weak) of \( h \). If that is correct, it makes this suggestion too strong because it rules out all cases of useful falsehoods. To see that, consider the Santa Claus Case:

\begin{align*}
\ h & \quad \text{Santa will put a present under the tree on Christmas Eve.} \\
\ h_1 & \quad \text{Either Santa or someone will put a present under the tree on Christmas Eve.} \\
\ h & \quad \text{There will be a present under the tree on Christmas morning.} \\
\end{align*}

Now, \( \sim h \) is a proposition incompatible with \( h \) and it is a genuine defeater of the justification of \( h_1 \), since, according to his account, the proposition that justifies \( h_1 \) is nothing other than \( h \), and, as we have seen, since \( \sim h \) is true and such that the conjunction (\( h \& \sim h \)) fails to justify (or even render weakly plausible) \( h_1 \).

I think the only possible response here would be to claim that \( \sim h \) is not a genuine defeater of the justification of \( h_1 \). But the result of accepting that response is that we would, then, have to say that \( S \) has knowledge based upon a useful falsehood in some standard Gettier Cases. Consider the following values:

\begin{align*}
\ h & \quad \text{Nogot owns a Ford} \\
\ h_1 & \quad \text{Either Nogot owns a Ford or Havit owns a Ford} \\
\ h & \quad \text{Someone in the class owns a Ford} \\
\end{align*}

If \( \sim h \) were not a genuine defeater of \( S \)'s justification for \( h_1 \), then \( S \) could arrive at knowledge that someone in the class owns a Ford on the basis of the false belief that Nogot owns a Ford.

\[26\] This is not just a problem for my particular way of stating the defeasibility theory. Consider Keith Lehrer's version. Lehrer asks us to consider the "verific alternative" to \( S \)'s actual doxastic system. Over the years, Lehrer has modified the way in which that alternative system is characterized, but one constant is that all the false beliefs in that system are first removed, and then one determines what \( S \) is still justified in believing. But, since the useful falsehoods will be removed, there will remain no justification for believing what was based upon the falsehood—unless there is another belief that provides such a basis. I will argue shortly that there is no guarantee that there is a true belief that provides such a basis. Hence, whenever there is no such true belief, \( S \) would fail to know. See Lehrer, Knowledge, 224 ff., and Chisholm, Theory of Knowledge (2nd edn.; Boulder and San Francisco: Westview Press, 2000), 169–75. Robert Shope makes this point regarding Lehrer's defeasibility analysis in his "Conditions and Analyses of Knowing", in Paul Moser (ed.), The Oxford Handbook of Epistemology (Oxford and New York: Oxford University Press, 2002), 46.

conditionals of the form: If $S$ were to have used a true belief, $t$, that can be characterized in some way, $W$, in order to reach the belief that $h$, then the process would have been an instance of a reliable one. For example, as I will soon argue, in each of the four cases, there is a true proposition, $t$, entailed by the useful falsehood that is such that, had $S$ employed the belief that $t$ to reach the belief that $h$, then $S$ would have employed a reliable process. But the force of the generality problem in this instance is that the useful falsehood entails many true propositions—an infinite number in fact—and only some of them are such that, had $S$ used them, $S$ would have gained knowledge. For example, in the Appointment Case, the false proposition my secretary told me on Friday that I have an appointment on Monday entails both of the following true propositions: my secretary told me that I have an appointment on Monday, and either my secretary told me on Friday that I have an appointment on Monday or 1 is a number. Only the former true proposition justifies the proposition I have an appointment on Monday. Thus, the problem for reliabilism is to develop some characterization, $W$, of the true propositions entailed by the useful falsehood such that $S$’s doxastic justification of the cognition depends on just those true propositions that satisfy $W$. To anticipate a bit: I will offer such a characterization below and, even though the characterization I will offer makes use of the normative notion of propositional justification, I will show how a reliabilist can adopt that characterization. In other words, my proposal should be acceptable to both defeasibility theorists and reliabilists. I take that to be a point in favor of it.

2. General skeptical worries aside, in all of the cases of useful falsehoods, knowledge is obtained even though some of the beliefs on which the cognition was causally based contain false propositions. The false propositions in the cases are:

- **Case A**: My secretary told me on Friday that I have an appointment on Monday.
- **Case B**: Santa Claus will put presents under the tree on Christmas Eve.
- **Case C**: Accurate rainfall records were kept for over eighty years and the rainfall depicted in the number of years that records were kept averages to 13 inches.
- **Case D**: The Sun and Mars orbit the Earth as depicted in Ptolemaic Astronomy.

28 From now on, I will speak of “false beliefs” when I mean to be referring to beliefs whose content is false.
Useful False Beliefs / 41

The qualification that we are here ignoring general skeptical worries is important. Those worries are serious. But I can set them aside here because they would apply to cases in which all the beliefs employed in acquiring the further beliefs are true (the skeptical worry is whether the further beliefs rise to the level of knowledge). Hence, those worries are not directly relevant to the issue at hand—namely: how can false beliefs produce knowledge?

3. A false belief plays an essential causal role in producing knowledge in each of the cases. That is, if the false belief were simply removed from the actual causal chain that resulted in knowledge, no causal chain resulting in the cognition would remain. This fact is crucial to understanding what I take to be the central issue because, although some epistemologists have noted that false beliefs could play a role in the production of knowledge, they take those false beliefs to be inessential. Keith Lehrer considers a variation on the Haviv/Nogot Case (call it the harmless falsehood Haviv/Nogot Case) that we can put as follows:

Suppose that I am doxastically justified in believing that Haviv owns a Ford (which is true) and also justified in believing that Nogot owns a Ford (which is false). On the basis of those two beliefs, I infer, and thereby come to know, that someone in the class owns a Ford.

In this case, Lehrer says, "though part [emphasis added] of what justifies me in accepting that at least one person owns a Ford is my false belief that Mr Nogot owns a Ford, I have a justification that does not depend upon my false belief". After presenting a similar case, Alvin Goldman writes that this is "a sort of case in which one of S's grounds for p may be false without preventing him from knowing that p... [because] the false proposition is a dispensable background assumption". Goldman puts the point succinctly when he writes that

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30 Lehrer, Theory Of Knowledge, 157. I changed the make of the automobile from what Lehrer used—a Ferrari—to a Ford in order to make the case more intuitively accessible to us poor philosophers!

“reasoning that essentially involves false conclusions, intermediate or final, cannot give one knowledge.”

Indeed, the generally received opinion among epistemologists is that a false belief can play a causal role in producing knowledge only when those false beliefs are benign or “harmless” (to use Lehrer’s term). Put another way, the claim is that, so long as “enough” true beliefs are contained in the causal ancestry of the known proposition, the false beliefs can be considered as inessential or harmless because the known proposition is both propositionally justified by enough true propositions (of the proper sort) and the belief is doxastically justified because it is appropriately caused by enough true beliefs (of the proper sort).

To use our terminology, in the harmless falsehood Havit/Nogot Case the cognition is held to be both evidentially and causally overdetermined. The true proposition (Havit owns a Ford) and the false proposition (Nogot owns a Ford) each separately fully justifies the known proposition that someone in the class owns a Ford, and, further, both the true and the false belief are sufficient causes in the actual causal chain that results in the cognition.

I am willing to grant for the sake of the argument in this chapter that there are cases of harmless falsehoods even though I am far from certain that there are any such cases. Although there are clear cases of evidential overdetermination, it is not clear that these cases are also cases of causally overdetermined beliefs. In the case just considered, S’s belief, $a$, that someone in the class owns a Ford, would be causally overdetermined by the belief, $n$, that Nogot owns a Ford and by the belief that $h$, that Havit owns a Ford only if (1) both the belief that $n$ and the belief that $h$ actually contributed to the causal production of S’s belief that $a$, and (2) both the belief that $n$ and the belief that $h$ actually acted as independently sufficient causes to bring about S’s belief that $a$.

I can imagine how to fulfill condition 1. Just consider some S such that both the belief that $n$ and the belief that $h$ actually contribute causally to the belief that $a$. Such an S would be an extremely cautious epistemic agent, perhaps bordering on epistemic cowardice, who, in general, is so afraid of coming to believe something that, in order to believe that $a$, he or she must have two beliefs such that the propositional content of each entails $a$. S would be so

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32 Harman, *Thought*, 120.
33 Lehrer refers to them as “harmless” errors in *Knowledge*, 219.
constituted that in this case were he or she to lack the belief that Nogot owns a Ford, he or she would not believe that someone in the class owns a Ford. But, then, this would not be a case of causal overdetermination since condition 2 is not fulfilled. For if the false belief that Nogot owns a Ford were simply dropped from the set of S's beliefs, our overly cautious S would no longer believe that someone in the class owns a Ford.

Perhaps there is a way to construct a completely clear case involving harmless false beliefs that bring about knowledge, but I do not see how to do it. Nevertheless, even if there were such cases, those false beliefs would not be at all useful in producing knowledge precisely because they could be eliminated from among the causes of the cognition, and S's knowledge would remain intact (because a true belief is still acting as a sufficient cause of the cognition). Our target here is false beliefs that are essential to the production of knowledge. Harmless falsehoods, if there were any, would be epistemic danglers precisely because, if they were simply removed from the cause of the cognition, the cognition would remain (because, supposedly, the cognition is causally overdetermined). But, if we simply drop the false belief in the four cases of useful falsehoods, there might not be a true belief that S already has (either occurringly or dispositionally) that is capable of causing and justifying S's cognition.

Someone might object that the false proposition in each of the four cases is equivalent to a conjunction one of whose conjuncts is the false proposition itself and the other conjunct is both true and sufficient propositionally to justify the known proposition. Those equivalences are:

Case A  
My secretary told me on Friday that I have an appointment on Monday \( \equiv \) [(My secretary told me on Friday that I have an appointment on Monday) & (My secretary told me that I have an appointment on Monday)]

Case B  
Santa will put a present under the tree on Christmas Eve \( \equiv \) [(Santa will put a present under the tree on Christmas Eve) & (Someone will put a present under the tree on Christmas Eve)]

Case C  
Accurate annual rainfall records were kept for over eighty years and the rainfall depicted in the number of years that records were kept averages 13 inches \( \equiv \) [(Accurate annual rainfall records were kept for over eighty years and the rainfall depicted in the number of years that records were kept averages 13 inches) & (Accurate annual rainfall records were kept for seventy-nine years and the rainfall so depicted averages to 13 inches)]
Case D  The Sun and Mars orbit the Earth as depicted in Ptolemaic astronomy \( \equiv \) [(The Sun and Mars orbit the Earth as depicted in Ptolemaic astronomy) \& (The relative positions of the Sun, Mars, and Earth are such that they repeat in a manner predictable just as if Ptolemaic astronomy were correct)]

The false propositions are equivalent to these conjunctions simply because each equivalence is an instance of the general principle that if \( A \rightarrow B \), then \( A \equiv (A \& B) \). That the instantiations of A and B are such that A entails B should be obvious. Further, in these cases the true conjunct, B, does propositionally justify the known proposition.\(^{34}\)

Case A  My secretary told me that I have an appointment on Monday propositionally justifies I have an appointment on Monday.

Case B  Someone will put a present under the tree on Christmas Eve propositionally justifies there will be a present under the tree on Christmas morning.

Case C  Accurate annual rainfall records were kept for seventy-nine years and the rainfall depicted in the number of years that records were kept averages 13 inches propositionally justifies the average annual rainfall is 13 inches.

Case D  The relative positions of the Sun, Mars, and Earth are such that they repeat in a predictable manner just as if Ptolemaic astronomy were correct propositionally justifies Mars will be visible on 2 September 2003.

It could then be claimed that, since S believes the useful falsehood in each case, S would also believe the conjunction, and, hence, each conjunct. If so, then perhaps there is no crucial difference between a merely harmless falsehood and a useful falsehood. For, as we saw in the harmless falsehood Havit/Nogot Case, it could be claimed that if S believes two propositions and (i) one proposition (Havit owns a Ford) is true and sufficient propositionally to justify someone in the class owns a Ford, and (ii) the belief that someone in the class owns a Ford is doxastically justified by the belief that Havit owns a Ford, then the belief that Nogot owns a Ford is a harmless falsehood. There are two possible replies to this objection.

First, although it is true that the false proposition is equivalent to the conjunction in each of the four cases of useful falsehoods, there are well-known problems of substituting truth functionally equivalent propositions

\(^{34}\) All these are defeasible justifications, and, strictly speaking, require a clause that refers to additional background beliefs. But listing all the background beliefs would needlessly complicate the exposition.
into belief contexts—for example, the Hesperus/Phosphorus Case. Hence, we
cannot automatically assume that, if S believes a proposition that is equivalent
to a conjunction, then S believes the conjunction. In addition, even in the
most simple of cases, it seems to me that S could believe \( p \) but not believe that
\((p \& p)\), because S either lacks the concept of conjunction or fails to deploy it.
Finally, in some of the four cases, even though S has the false belief, S might
either lack a concept required to reach the true belief or fail to deploy it. For
example, Virginia could have the appropriate belief about Santa but lack the
existentially generalized concept of “someone”, or she might fail to deploy it;
and the Ptolemaic astronomers could possibly lack the rather sophisticated
concept of “as if”, or they might fail to deploy it.

Nevertheless, I am willing to grant that, with some ingenious chisholming,
the four conjuncts might be stated in a way such that one could plausibly
claim that, necessarily, for any S, if S believed the false proposition, S would
also believe the conjunction, and, hence, each of the conjuncts, while at
the same time satisfying the constraint that the true conjunct be sufficient
propositionally to justify the known proposition. Therefore, this reply to the
objection is not absolutely compelling.

However, a second reply to the objection is irresistible. Recall that the objection
seeks to show that the supposed cases of useful falsehoods are nothing but
implicit cases of harmless falsehoods. In cases of harmless falsehoods, if one
were to remove the false belief, a true belief would remain that in fact was
actually acting as a sufficient cause of the cognition. But in the four cases of
useful falsehoods, if the false belief were removed from S’s belief set, there is
no guarantee that the true belief would remain. Indeed, if believing the false
proposition really is identical to believing each of the two conjuncts, then
removing the false belief would result in removing the conjunction from S’s
belief set.

Further, there is an important evidential relationship between the false
proposition and the true conjunct. To see that, consider the Appointment
Case, and suppose that I no longer believe that my secretary told me on Friday
that I have an appointment on Monday. There is no reason to suppose that
I would still believe that she told me on any day that I had an appointment on
Monday! I might still believe that. But I need not. It could very well be that I
believe that she told me that I had an appointment on Monday because I believe
that she told me that on Friday. Hence, if the false belief were simply removed,
there is no reason to suppose that my belief set would still contain the belief
that she told me that I have an appointment on Monday. In other words, even if one did believe each of the two conjuncts whenever one believed the conjunction, there is no guarantee that the true conjunct would remain if one removed the false conjunct. By way of contrast, in the harmless falsehood Havit/Nogot Case, the true belief does remain if one simply removes the false belief, because they are, so to speak, from the beginning residing independently of each other both evidentially and causally in S's belief set.

In the other three cases, it is even more clear that the evidential and causal relationships are such that, if the false belief were simply removed, the true conjunct might not remain. For example, in the Santa Claus Case, Virginia’s belief that someone will put a present under the tree (if indeed she has that belief) seems causally dependent upon her belief that Santa will put a present under the tree. Thus, these are cases in which the causal process leading to knowledge involves the false belief essentially. Remove the false belief, and the causal basis on which the cognition actually depends is eliminated.\(^5\)

\(^5\) An anonymous referee has objected to my reply to this objection in the following way: “[The cases that Klein considers] concern the counterfactual situations in which the relevant false beliefs are removed. I agree that in those situations, the conjunctions that are (alleged to be) equivalent to the false beliefs might also be removed, in which case ceteris paribus the agent would have no chance of acquiring the knowledge that she does in fact acquire. But the objection does not concern any counterfactual situation; it makes no claims about what would or would not happen if the relevant false beliefs were to be removed. The objection maintains that, given that the agent holds the false belief in question, the agent will (therefore) believe a particular conjunction, one conjunct of which is false (and hence accounts for the falsity of the conjunction), and the other conjunct of which is true and sufficient to justify the known proposition. The objection has it, then, that the false conjunct—i.e., the conjunct that accounts for the falsity of the belief in question—plays no essential role in the acquisition of knowledge; there is in fact nothing false that plays an essential role in the acquisition of knowledge. To show that this objection fails, one must show that there is in fact something false that plays an essential role in the acquisition of knowledge (and I’m not at all sure that this can be shown; it seems to me that the objection is sound). Talk of counterfactual situations does nothing to show that the objection fails.”

I agree that the issue concerns what is actually acting as a cause in these cases. I do not agree that “talk of counterfactual situations does nothing to show that the objection fails.” It is certainly not in general true that “counterfactual situations” give us no basis for claiming what is a cause in the actual world. We often look to counterfactual situations in order to provide a basis for showing that something, \(c\), is essential to the acquisition (causal production) of something else, say knowledge, \(k\). For example, if one could show that in every near world in which \(c\) is removed, \(k\) does not occur, then there would be fairly good (but not conclusive) evidence that \(c\) was essential to the causal production of \(k\). It is not conclusive evidence because, for example, \(c\) could be
Useful False Beliefs / 47

We can conclude that, although there might be cases of harmless falsehoods, they cannot provide a basis for understanding cases of useful falsehoods. In cases of useful falsehoods, were the false belief simply removed from the causal chain that produced knowledge, there might not be another actually present causal chain that independently resulted in the cognition. Harmless falsehoods, if there are any, do no epistemic harm, but they do no any epistemic good either. Useful falsehoods do good.

Nevertheless, there are two important lessons to be learned from the unsuccessful attempt to reduce useful falsehoods to harmless falsehoods. First, in each of these cases of useful falsehoods, the false proposition entails a true proposition that is sufficient propositionally to justify the known proposition. Second, there are important evidential relationships among the relevant propositions that must be kept in mind.

4. The proposed characterization of useful falsehoods

In the four cases of useful falsehoods, S arrives at knowledge because, although the false belief produces the cognition (that is, the false belief doxastically justifies the cognition), there is a true proposition that is closely related, to the false one, which is such that it propositionally justifies the known proposition, and, were S to have believed it, S could have employed that belief doxastically to justify the cognition. Hilpinen puts the point as follows: “a person can know things not only on the basis of (valid) inference from what he or she knows, but in some cases even on the basis of inference from what is not known (or even an epiphenomenon accompanying the actual cause. But, in the cases we are considering, i.e., the false belief, cannot be an epiphenomenon precisely because it is alleged by the objection to be identical to the real cause—namely, the conjunctive belief. So, if the false belief were removed, the conjunctive belief could not remain and i would not arise because the “real” cause is not present.

The objection depends upon it being the case that the false belief is identical to the conjunctive belief. I suggested a reason for denying that, namely that S might have the false belief but lack a concept required to form the conjunctive belief or fail to deploy it. But, putting that aside, the point of the chapter is that the correct understanding of knowledge includes recognizing that knowledge can arise on the basis of false beliefs. Whether it actually ever happens is an empirical matter. I can only (and need only) claim that the four cases are easily imaginable—for, if so, they reveal something interesting about the role false beliefs can play in the production of knowledge.
true) provided that the latter (evidential) propositions are sufficiently close to the truth. (emphasis added).” Here is my suggestion for capturing that intuition:

The belief that \( u_f \) is a useful falsehood to S (for acquiring knowledge that \( h \)) by producing a doxastically justified belief that \( h \text{ iff} \):\(^{37}\)

1. \( u_f \) is false.
2. The belief that \( u_f \) is doxastically justified for S.
3. The belief that \( u_f \) is essential in the causal production of the belief that \( h \).
4. \( u_f \) propositionally justifies \( h \).\(^{38}\)
5. \( u_f \) entails a true proposition, \( t \).\(^{39}\)
6. \( t \) propositionally justifies \( h \).
7. Whatever doxastically justifies the belief that \( u_f \) for S also propositionally justifies \( t \) for S.\(^{40}\)

\(^{36}\) Risto Hilpinen, “Knowledge and Conditionals”, 164. Hilpinen’s work on this topic was called to my attention by Robert Shope in a portion of a manuscript of his that he emailed to me in June 2001. In that manuscript, commenting on the cases that Hilpinen discusses, Shope says the following: “I am not presently in a position to clarify this way of being reasonably close. But neither has Hilpinen done so. I presume that I shall some day avail myself of whatever progress epistemologists make on that issue... Of course, this must await a clarification of being ‘reasonably close’.” I hope this chapter is a first step in accomplishing what Shope called for.

\(^{37}\) The reason for the parenthetical qualification is to underscore that I am interested in falsehoods that are useful for acquiring knowledge by producing a doxastically justified belief. They could be useful for other purposes. For example, suppose that I were paid $25 for each doxastically justified, false belief I acquired. Such doxastically justified, false beliefs might be useful for the purpose of acquiring money rather than being useful for the sake of acquiring knowledge.

\(^{38}\) I am using “justify” here to mean “justifies overall” so that, if \( e \) justifies \( h \) for S, then there is no other proposition contained or represented in S’s belief set that overrides the justification of \( h \) by \( e \) for S. I could have defined a weaker notion, e.g., “\( u_f \) contributes to the justification of \( h \)” but doing so would needlessly complicate the account. It should be kept in mind, however, that \( u_f \) could be a conjunction, each conjunct of which contributes to the justification. If one of those conjuncts is false, \( u_f \) is false, but \( u_f \) would imply a true conjunction (simply remove the false conjunct) and, if the resulting conjunction, \( t \), satisfies the other constraints in the definition of a useful falsehood, \( u_f \) would be a useful falsehood. It is not a harmless falsehood if the belief that \( u_f \) rather than the belief that \( t \), actually caused the belief that \( h \). If one removed the belief that \( u_f \) from S’s belief set, there is no guarantee that \( t \) would remain.

\(^{39}\) The entailment must be a form of relevant entailment, otherwise \( t \) could be a necessary truth that could be known on the basis of a false proposition.

\(^{40}\) It should be understood that the propositional justifications referred to in conditions 4, 6, and 7 might all have intermediate steps. That is represented by the dotted lines in the diagram depicting the branching justificational paths.
This definition does not yet fully explicate the role of false beliefs in the production of knowledge since I am concerned at this point only with the so-called third condition in the analysis of knowledge: the doxastic justification condition. The definition is intended to explicate only the conditions under which a false belief can produce a belief that is "held for the right reasons"—reasons that, in some cases, are sufficient to bring about knowledge. A central notion is that, even though \( uf \) is false, it is "close enough to the truth", so that, if believing \( uf \) causes S to believe that \( h \), then, ceteris paribus, S knows that \( h \). Although I argued earlier that \( \sim uf \) is a genuine defeater of the propositional justification of \( h \) by \( uf \), the primary goal of my account of useful falsehoods is to specify a closely related path of propositions that has the potential of not being defeated. That useful path branches just before \( uf \), and it continues to \( h \). Where \( x \) is whatever doxastically justifies \( uf \), that path looks like this:

\[
\begin{array}{c}
  x \\
  \downarrow \\
  uf \ldots h \\
  \uparrow \\
  t \ldots h
\end{array}
\]

As just mentioned, there will be a genuine defeater of the path \( x \sim uf \sim h \) at the \( uf \)-step, but there might not be a genuine defeater at any step on the path \( x \sim t \sim h \). The path \( x \sim t \sim h \) is the path not taken, but in this case its mere existence makes it possible for S to acquire knowledge by having taken the other, defeated path. Indeed, as we will see, all that is required to complete the task of explicating the role that false beliefs play in the producing knowledge is to flesh out the ceteris paribus clause by requiring that there be no genuine defeater of the evidence path from \( x \) to \( h \) that goes through \( t \).

The standard defeasibility analysis of knowledge does not allow for the possibility of useful falsehoods in producing knowledge because the standard fourth condition in the analysis is:

(iv) There is no genuine defeater of the propositional justification of any of the propositions in the evidential path up to and including \( e \), and there is no genuine defeater of the propositional justification of any proposition between \( e \) and \( h \).

But, since \( e \) could be false, we have to amend condition (iv) as follows:

(iv) revised \quad If \( e \) is true, then there is no genuine defeater of the propositional justification of any of the propositions in the evidential path
up to and including \( e \) and there is no genuine defeater of the propositional justification of any proposition between \( e \) and \( h \); if \( e \) is false, then there is no genuine defeater of the propositional justification of any of the propositions in the evidential path up to and including \( t \) and there is no genuine defeater of the propositional justification of any proposition between \( t \) and \( h \), where \( t \) is defined by Conditions 1–7.

Why are Conditions 1–7 necessary conditions of \( uf \) being a useful falsehood in producing a doxastically justified belief that is a candidate for knowledge? Conditions 1–4 are non-controversial and require only very brief comments. Conditions 5–7 require more extended discussion.

Condition 1 is analytically required because \( uf \) must be false.

Condition 2 is an instance of the general requirement that doxastic justification which depends on another belief requires that that belief be doxastically justified.\(^{41}\)

Condition 3 is analytically contained in the notion of a useful falsehood that doxastically justifies \( h \), since such falsehoods, unlike the so-called harmless ones, are essential in producing doxastically justified beliefs.

Condition 4 follows from the general account of doxastic justification given earlier. One consequence of that account is that, if the belief that \( uf \) doxastically justifies the belief that \( h \), then \( uf \) propositionally justifies \( h \).

Condition 5 is designed to capture the intuition that lies behind Hilpinen’s suggestion that the useful falsehood has to be “close enough” to the truth. Since \( h \) is known, \( h \) must be true, and, if \( h \) is true, there will always be some other true proposition that propositionally justifies \( h \). To see that, consider any false proposition, \( f \). The proposition, \( h \), is propositionally justified by the true proposition: \([ (f \lor h) \& \lnot f ] \). Condition 5 coupled with Conditions 6 and 7 jointly indicate which true propositions are “close enough” to the false proposition so as to make it the case that S’s belief that \( h \) is a candidate for knowledge, even though the belief that \( h \) is doxastically justified by a false belief.

I have made Hilpinen’s “sufficiently close” very close by requiring that the useful falsehood entail \( t \). We have seen that there is an appropriate true

\(^{41}\) Recall that I had said earlier that “doxastic justification” could be replaced in the account of inferential knowledge with some lower degree of epistemic entailment—for example, epistemic plausibility (see n. 17). Whatever degree is the correct one in the account of inferential knowledge would be applicable here.
Useful False Beliefs / 51

proposition entail by the useful falsehood in each of the four cases presented earlier, but perhaps some weaker form of "closeness", perhaps subjunctive implication, would suffice. Consider this case:

Suppose I believe that I am witnessing Mr Butterfingers at the top of the Empire State Building apparently dropping a glass toward the empty sidewalk below. On the basis of the belief that he is doing that, I come to believe, and thereby know, that a glass will soon break on the sidewalk below. Suppose, further, that he did not drop the glass, but, rather, it slipped out of his fingers.

This is a case of a useful falsehood producing knowledge. In this case, a true proposition, the glass in Mr Butterfingers' hand will drop rapidly to the ground, is subjunctively implied (and not entailed) by the false proposition that he dropped the glass from the top of the Empire State Building, and that true proposition also satisfies Conditions 6 and 7. Thus, this case might suggest that we need not make the relation as close as entailment.

But, in this case, there is another true proposition that is entailed by the false one that also satisfies Conditions 6–7—namely, either the glass was dropped or the glass slipped from Mr Butterfingers' hand. In fact, Condition 5 obtains in every case I have been able to think of. In addition, what counts in favor of entailment is that too much leniency here will not honor the intuition, which extends back to Plato, that knowledge is "prized higher" than mere true belief.\footnote{Meno, 97d–98b.}

Knowledge should not be so easy to obtain, and, since we have already allowed for false beliefs to be part of the essential cause of cognitions, loosening the connection between the false proposition and the truth might allow for too much epistemic luck. Nevertheless, because there might be some cases in which only a weaker relationship between the false proposition and the truth obtains, I will continue to employ entailment, with the caveat that some weaker relationship might suffice.

Condition 6 might look redundant. For it might seem that if \(u\) propositionally justifies \(h\), and \(u\) entails \(t\), then \(t\) propositionally justifies \(h\) because that conditional is an instance of this general principle: if \(x\) propositionally justifies \(y\), and \(x\) entails \(z\), then \(z\) propositionally justifies \(y\). But that general principle is not true. The proposition, \(x\), could contain a conjunction with three conjuncts: one proposition, say \(e\), that propositionally justifies \(y\); one proposition, \(a\), that overrides the justification of \(y\) by \(e\); and one proposition, \(r\), that overrides the
effect of \( \delta \) either by providing additional evidence for \( y \) or by neutralizing the
effect of \( \phi \). In addition, \( z \) could merely be the conjunction \((\varepsilon \land \phi)\) that, by
stipulation, does not propositionally justify \( y \). So, Condition 6 is not redundant.

Condition 6 needs to be included simply because, if \( t \) were not propositionally
to justify \( h \), then one would wonder why it matters that \( uf \) is close to the truth.
The truth must contribute something to the acquisition of knowledge that
\( h \). We have seen that, even were \( S \) to believe that \( t \), the belief that \( t \) cannot be
the actual cause of the belief that \( h \), because we would then have a case of a
harmless rather than a useful falsehood. If the belief that \( t \) does not contribute
causally to the production of the belief that \( h \), there appears to be nothing
that \( t \) can contribute toward knowledge that \( h \) other than to the propositional
justification of \( h \).

Condition 7 is important because it ensures that there is some good evidence
path available to \( t \) for \( S \) (in the sense of “available” discussed at the outset of
this chapter). If such a path were not available to \( S \), then one would wonder
how a truth that is not propositionally justified could contribute to making
\( h \) known. So I think it is safe to assume that there must be some evidence path
that renders \( t \) propositionally justified for \( S \). The question, then, becomes this:
what would guarantee that there is such an evidence path to \( t \)?

There are only three types of evidence paths that would guarantee that, if
\( uf \) is propositionally justified, then \( t \) is propositionally justified: (1) whatever
propositionally justifies \( uf \) also propositionally justifies \( t \); (2) \( uf \) propositionally
justifies \( t \); (3) \( t \) appears before \( uf \) on the evidence path that propositionally
justifies \( uf \). Option 1 is the only one that can help us account for the role that
falsehoods play in the production of knowledge.43

Option 1  Whatever propositionally justifies \( uf \) also propositionally justifies \( t \).

Recall the entailment we noted earlier:

\[(S's\ belief\ that\ \( h \)\ is\ doxastically\ justified\ by\ another\ belief\ that\ \varepsilon)\ \rightarrow\ (S's\ belief\ that\ \( h \)\ is\ caused\ by\ the\ belief\ that\ \varepsilon,\ and\ \varepsilon\ propositionally\ justifies\ \( h \))\]

Up to this point, that entailment sufficed because we have been interested in
cases in which the propositional content of the doxastically justified belief was
potentially a case of inferential knowledge. But foundationalists would hold

43 For more on evidence paths see my “Skepticism”, 342–6, and “How a Pyrrhonian Skeptic
Might Respond to Academic Skepticism”, 78–90.
that in some cases—that is, cases of so-called basic beliefs—what doxastically justifies a belief is not another belief, and that it is possible that a useful falsehood could be the content of a basic belief. In order to accommodate foundationalism and allow for the possibility that something other than beliefs can doxastically justify a belief, we must generalize the entailment to this (where “x” stands for whatever doxastically justifies a belief):

(S’s belief that \( h \) is doxastically justified by \( x \)) \( \rightarrow \) (S’s belief that \( h \) is caused by \( x \), and \( x \) propositionally justifies \( h \))

We can guarantee that there is an evidence path to \( t \) by requiring that whatever propositionally justifies \( uf \) must also propositionally justify \( t \). In each of the four cases of useful falsehoods, the content of whatever doxastically justifies the false belief does propositionally justify the true proposition. For example, whatever propositionally justifies the Ptolemaic astronomers in believing that Ptolemaic Theory correctly predicts the location of Mars, the Earth, and the Sun also justifies the proposition that their locations are predictable \textit{just as if} the Ptolemaic Theory were correct. That is so even if the thirteenth-century astronomers failed to believe the “as if” proposition. For the issue here is what \textit{proposition} is propositionally justified; the issue is not what belief is doxastically justified.

Indeed, as we have seen, \( uf \) is equivalent to \( (uf \& t) \). Thus, if the following principle is exceptionless, there appears to be an easy argument to show that Condition 7 must be true.** That seemingly “exceptionless principle” is this: if \( x \) propositionally justifies \( (y \& z) \), then \( x \) propositionally justifies \( y \), and \( x \) propositionally justifies \( z \). And the easy argument is as follows:

1. Assume that \( x \) is whatever doxastically justifies the belief that \( uf \) for S.
2. If \( x \) doxastically justifies the belief that \( uf \) for S, then \( x \) propositionally justifies \( uf \) [from the generalized entailment concerning doxastic justification given above].
3. \( x \) propositionally justifies \( uf \) [MP, from 1, 2].
4. \( uf \) is equivalent to \( (uf \& t) \) [because \( uf \) entails \( t \)].

** I say that there \textit{appears} to be an easy argument, because it might be that substitution of equivalent propositions in step 5 should not be permitted. It certainly is not permitted in belief contexts, but the reason for the prohibition in belief contexts does not seem to transfer here. That reason is that S, the believer, might not know that the propositions are equivalent. But here the issue is just about propositional justification—not doxastic justification. Nevertheless, since I am not wedded to this argument for Condition 7, even if this argument failed, Option 1 is the only one that will help in the account of useful falsehoods.
5. $x$ propositionally justifies $(uf \& t)$ [from 3 and substitution of equivalents].
6. $x$ propositionally justifies $t$ [from 5 and the exceptionless principle given above].
7. Whatever doxastically justifies the belief that $uf$ for $S$ also propositionally justifies $t$ for $S$ [conditional proof, from 1-6].

So, if the “exceptionless principle” is correct, we need not list Condition 7. But I have not argued for that principle here and, thus, it seems best to include that condition explicitly.

**Option 2** The proposition, $t$, is propositionally justified by $uf$.

Since $uf$ entails $t$, and $uf$ is propositionally justified, we could ensure that there is an evidence path to $t$ by requiring that the evidence path to $t$ include $uf$ prior to $t$. The evidence path, then, would look like this:

$$x \rightarrow uf \rightarrow t.$$  

In addition, I have already argued that, if $S$ believes that $t$, then it might only be on the basis of believing that $uf$. Further, the following principle seems as “exceptionless” as the one mentioned above: if $x$ entails $y$, then $x$ propositionally justifies $y$. Since $uf$ entails $t$, it might seem that Option 2 is at least as good as Option 1 for inclusion in the necessary conditions.

But, if Option 2 replaced Condition 7 in my account of useful falsehoods, that account could not assist us in arriving at our overall goal of explicating the role of useful falsehoods in the acquisition of knowledge, since any path that contains $uf$ would be genuinely defeated (by $\neg uf$). In other words, although there is an evidence path $x \rightarrow uf \rightarrow t$ that continues to $h$, it is genuinely defeated. Thus, although $uf$ does propositionally justify $t$, Option 2 is not the appropriate way to guarantee that there is a good evidence path to $t$.

**Option 3** The proposition, $t$, occurs prior to $uf$ on the evidence path to $h$.

That requirement does not square with the four cases of useful falsehoods, because the propositions that justify $uf$ for $S$ do not include $t$. In general, there is no guarantee that conjuncts are in the evidence paths leading to a conjunction.\(^{46}\)

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\(^{45}\) Given the restriction that $x$ and $y$ range over contingent propositions. Otherwise, for example $(p \& \neg p)$ would justify any proposition and $(p \lor \neg p)$ would be justified by any proposition.

\(^{46}\) Here is an evidence path such that the conjunction appears before an individual conjunct:

$$(r \rightarrow (p \& q)) \& r \rightarrow (p \& q) \rightarrow p$$
Only Option 1 will (i) guarantee that there is a good evidence path to \( t \) whenever there is one to \( uf \), and (ii) help us to achieve the final goal of explicating the role that useful falsehoods play in producing knowledge. Option 1 is nothing other than Condition 7.

Thus, Conditions 1–7 appear to be necessary conditions for \( uf \) being a useful falsehood for S’s acquisition of knowledge. However, I want briefly to address three objections to these conditions before moving to consider whether these conditions are sufficient.

**Objection 1**

It appears that the belief that \( uf \) cannot be epistemically basic belief since \( uf \) has to be propositionally justified.

**Answer**

To say that a proposition is propositionally justified for S does not imply that the proposition is justified by another proposition. It is merely to say that S has an epistemically adequate basis for \( h \). So, \( uf \) could be a basic.

**Objection 2**

Since S might not have the belief that \( t \), how can \( t \) propositionally justify \( h \)?

**Answer**

The definition of “a proposition, \( e \), propositionally justifies another, \( h \)” does not require either that S believe that \( e \) or that S believe that \( h \). It specifies an epistemic relationship between propositions, not a causal relationship between beliefs.

**Objection 3**

How can \( t \) make the belief that \( h \) doxastically justified?

**Answer**

It does not. The false belief, \( uf \), makes the belief that \( h \) doxastically justified.

I now turn to consider whether Conditions 1–7 capture what is sufficient for \( uf \) to be a useful falsehood. Although there is no definitive argument to show that they are sufficient, there are three considerations that tend to confirm that they are. First, as we examined the proposed conditions, the only qualifications that seemed at all appropriate were ones that weakened them somewhat. We considered reducing entailment to some weaker form of implication in Condition 5. We considered reducing doxastic justification to doxastic plausibility in Condition 2. That only weakening the conditions seemed worth considering does count in favor of their sufficiency. Even those weakened conditions remain within the spirit of the account—namely, that among the necessary and jointly sufficient conditions there are two that together require both that (i) there is a true proposition implied (in some form) by the useful falsehood, and (ii) the true proposition has some relatively high degree of epistemic entitlement conferred on it by whatever confers that
same degree of entitlement on the false proposition. Second, I will argue below that this analysis is able to account for differing intuitions about the scope of our knowledge that arises from believing falsehoods. Third, the class of cases we have examined is diverse. Nevertheless, it remains possible that there is another class of cases that I have overlooked. So, I present this account as only the first step in understanding the important and initially surprising fact that a false belief can play an essential role in producing knowledge.

However, there is one misunderstanding of the account that might prompt a question concerning the sufficiency of Conditions 1–7 that would be useful to address—namely, this: are there not standard Gettier cases in which Conditions 1–7 are met, but yet S would fail to know that h? In the standard Havit/Negot Case, Negot and Havit are S's classmates, S acquires good evidence for the false proposition *Negot owns a Ford*, but S has no evidence for the true proposition, *Havit owns a Ford*. It appears that Conditions 1–7 are fulfilled if h is taken to be *someone in S's class owns a Ford*, and uf is taken to be *Negot owns a Ford*, and t is taken to be *Negot or Havit owns a Ford*. But surely S does not know that someone in the class owns a Ford on the basis of believing that Negot owns a Ford. The false belief in this case does not produce knowledge; yet, Conditions 1–7 are satisfied.

This objection underscores both (a) the significance of the Gettier Problem—the problem of producing a necessary and jointly sufficient set of conditions for knowledge, and (b) the fact that Conditions 1–7 were designed only to portray those circumstances in which a false belief yields a doxastically justified, true belief that is a candidate for knowledge. The conditions were not designed to specify those cases of useful false beliefs that actually produced knowledge. In other words, useful falsehoods produce doxastically justified true beliefs, some of which are knowledge and some of which are not. The revised defeasibility theory of knowledge would come into play here. If the path that contains only truths—that is, the path x†h—is genuinely defeated, then S lacks knowledge.

In the standard Havit/Negot Case, there is a genuine defeater of the justification of *someone in S's class owns a Ford*; that defeater is: *Negot does not own a Ford*. To see that, suppose that the evidence that S has for *Negot owns a Ford* is that Negot drives a Ford, garages one, says he owns one, and has a valid looking title. The conjunction of the propositions expressing those facts with *Negot doesn't own a Ford* would fail propositionally to justify the proposition *Negot owns a Ford*. It is crucial here to note that the same defeater defeats the propositional justification for either *Negot owns a Ford* or *Havit owns a Ford*, because the only
evidence for the disjunction is the false disjunct. In other words, although *either Nogot owns a Ford or Havit owns a Ford* propositionally justifies *someone in S’s class owns a Ford*, there is a genuine defeater of that justificational path prior to the disjunction, and hence S does not know that someone in the class owns a Ford.

This is not the place to offer a general defense of the defeasibility theory. My current task is to show that employing that account can help to explain how useful falsehoods can produce knowledge. The relevant point is that useful falsehoods can produce knowledge in cases where there is no genuine defeater along the path of propositions involving *t*. Recall the diagram of the two evidential paths to *h*:

```
   x __________ t . . . h
      
    uf . . . h
```

If the path from *x* to *t* to *h* is not defeated by a genuine defeater, then S would have knowledge that *h* even though there is always a genuine defeater of the path from *x* to *uf* to *h* (i.e., *¬uf*).

To make that clear, consider the Santa Claus Case and let:

- *m* Mom and Dad said that Santa would put presents under the tree.
- *r* Mom and Dad are reliable truth tellers.
- *s* Santa will put presents under the tree.
- *p* There will be presents under the tree.
- *n* There is no Santa Claus.
- *t* Someone will put presents under the tree.

The evidence path that S actually employed looks like this: (*m & r*) → *s* → *p*. The defeater, *n*, breaks the path between (*m & r*) and *s*. That is, (*m & r & n*) fails to justify *s*.

Contrast that path with the one not taken but specified by Conditions 1–7: (*m & r*) → *t* → *p*. It is obvious that *n* does not break the path between (*m & r*) and *t* (or at any other point).

Generalizing, we can say that a belief, *h*, causally based upon a false belief that *uf*, is knowledge just in case there is some *t* for which Conditions 1–7 are satisfied, and there is no genuine defeater of the propositional justification of any of the propositions in the evidential path to *h* that includes *t*.

That is my account of the role that useful falsehoods play in the production of knowledge.
5. A test of the account

Conditions 1–7 are designed to capture the salient features of clear cases of useful falsehoods, but we should not test the account by using clear cases alone; we must also examine how it handles some not-so-clear cases, in which intuitions about the scope of knowledge will vary. A good account should be useful in explaining divergent intuitions.

Revamping the Average Rainfall Case provides one such example. Suppose that instead of there being seventy-nine years of accurately recorded rainfall measurements, there are only two. In such a case, the false belief that there are over eighty years of accurate records and the rainfall depicted in the number of years that records were kept averages 13 inches cannot yield knowledge. Thus, somewhere in the range between two and seventy-nine years there will be some borderline cases in which intuitions will vary concerning whether S knows on the basis of falsely believing that records were kept for over eighty years. Let fourteen years be in the borderline range. In other words, let it be the case that, if there were exactly fourteen years of accurately recorded annual rainfall, some people will intuit that there are over eighty years of records, etc. is a useful falsehood in producing knowledge and others will intuit that it cannot be used to produce knowledge.

The point in favor of the analysis is that people with differing intuitions in the borderline cases can employ the account to explain their intuitions. Mr Lax who thinks that Weatherman does gain knowledge on the basis of the false belief can explain his own intuition by arguing that the proposition that accurate records were kept for fourteen years and the records depicted an average rainfall of 13 inches propositionally justifies the average rainfall is 13 inches; whereas Ms Stringent, who denies that Weatherman has knowledge, can explain her intuition by claiming that the proposition is not sufficient to justify the average rainfall is 13 inches. Mr Undecided can withhold judgement because he neither believes that the proposition justifies the generalization nor believes that it does not. The fact that Lax, Stringent, and Undecided can employ my analysis to explain their differing intuitions about the scope of S’s knowledge is evidence that the account is correct.

Similar considerations apply to the Santa Claus Case. Someone might think Virginia does not know that there will be presents under the tree, because there is a genuine defeater of the evidential path of propositions employing the “close” truth that someone will put presents under the tree. They would
point to *Mom and Dad fib all the time about Xmas matters* as a genuine defeater, because it breaks the step between \((m \& r)\) and \(t\). Other people, however, might think that Virginia does know that there will be presents under the tree, even though they will grant that the step is defeated at that point. They will think that *Mom and Dad fib all the time about Xmas matters* is a misleading defeater, because it defeats only by rendering plausible the false proposition that no one will put presents under the tree. Once again, the account of useful falsehoods is vindicated because it can account for varying intuitions.

One final "vague" case illustrates how the defeater condition works. Consider this variation of the Grabbit Case:

I have worked with Tom Grabbit for years and have come to know him quite well, but I have no information or beliefs about whether he has any siblings. I see someone I take to be Tom stealing a book from the library, and I come to believe on that basis that Tom stole the book. I infer and come to believe that one of Mrs. Grabbit's children has stolen a book. Suppose, further, that it was Tom's identical twin, John, who stole the book.

People will have varying intuitions about whether I know that one of Mrs. Grabbit's children stole a book from the library. Some will think I do know, some will think I do not know, and some will be undecided. An advantage of the proposed account of knowledge based upon useful falsehoods is that all three intuitive responses can easily be explained by employing it. To see that, let be:

\[
\begin{align*}
  s & \quad \text{There is a Tom Grabbit-like looking person apparently stealing a library book.} \\
  f & \quad \text{Tom Grabbit stole a book.} \\
  c & \quad \text{One of Mrs Grabbit's children stole a book.}
\end{align*}
\]

The evidence path I actually followed to my doxastically justified belief is this: \(s \rightarrow f \rightarrow c\). There clearly is a genuine defeater of that justification path—namely, \(\sim f\)—since \((f \& \sim f)\) fails to justify \(c\). But those who think I do have knowledge could point to the following (very short) evidence path to \(c\) that just employs only true propositions: \(s \rightarrow \sim f = c\). They could, then, claim either

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47 I have given this case to many people, and the intuitions did vary. But the sample was rather unrepresentative consisting of friends, colleagues and philosophy undergraduate and graduate students!

48 In this case, \(f\) entails a true proposition, \(t\), and an obvious candidate for such a proposition is \(c\). Thus, in order to capture this case in a completely parallel fashion to other cases of useful
that \( \sim f \) does not defeat that justificational path, or, that, if it does, it is a misleading defeater because it defeats only by rendering plausible the false proposition that \( \sim c \).\(^9\) Thus, from the perspective of someone who believes that I have knowledge, \( f \) is a useful falsehood not only making my belief that \( c \) doxastically justified because Conditions 1–7 are satisfied, but, in addition, since there is no genuine defeater of that path, I know that \( c \). On the other hand, although those who think that I do not know that \( c \) must grant that Conditions 1–7 are satisfied, they will think that \( \sim f \) is a genuine defeater of the justification of \( c \) by \( s \). Those who cannot decide whether \( \sim f \) is a misleading defeater or a genuine one will be undecided about whether I know that \( c \).

Therefore, in these vague cases, when we combine the definition of useful falsehoods with the defeasibility theory, we can account for varying intuitions about the scope of knowledge. The combination enables persons with differing views about the extent of S's knowledge to pinpoint exactly what leads to their differing intuitions about the scope of S's knowledge. That is exactly what a good account of useful falsehoods should do.

6. Reliabilism reconsidered

I mentioned earlier that the existence of useful falsehoods presented a particularly difficult challenge to reliabilism, but that reliabilists could accept my proposal. I would like to cash in that promissory note. Recall that the problem presented by useful falsehoods to reliabilists is that such falsehoods require them to develop an account that picks out all and only those false beliefs that reliably produce knowledge.

Because of the relationship between doxastic and propositional justification noted at the outset, if the proposed account is correct, the reliabilist can simply appropriate the set of conditions listed here and replace all uses of falsehoods, we would have to say that \( c \) propositionally justifies \( c \), and, hence, the undefeated evidence path would be: \( s \rightarrow c \rightarrow c \). But some may think the correct account of propositional justification, and more particularly the correct account of an epistemically adequate basis, should preclude any proposition from propositionally justifying itself. In order to accommodate that view, we could say that \( f \) entails \( o \), where \( o \) is \( (f \text{ or another one of Mrs. Grabit's children stole a book}) \). That avoids the problem — if, indeed, it is one.

\(^9\) This is the view that I think Claudio de Almeida holds in such cases. See n. 25.
"propositional justification" in my account in favor of "doxastic justification". For example, Condition 6 could be replaced with this condition:

6* If S were doxastically justified in believing that t, then S would be doxastically justified in believing that h if S were to believe that h and S’s belief that h were to be caused by S’s belief that e.

Thus, even though I have used the normative/evidentialist concept of propositional justification in formulating the account, reliabilists could help themselves to the account. Of course, whether reliabilism is otherwise acceptable is another issue—and not one appropriate for this chapter. The point here is that my account of useful falsehoods ought to be acceptable to reliabilists as well as to defeasibility theorists. I take that to be a significant point in its favor.

7. Conclusion

Contrary to the received opinion, there are cases in which false beliefs play an essential role in producing knowledge. When S acquires inferential knowledge that h based only on truths, the causal chain to the belief that h mirrors the evidential path to the true proposition, h. In cases of falsehoods that are useful in the production of knowledge, the causal chain and the evidential path diverge. The causal chain contains false beliefs that are such that their propositional contents instantiate an evidential path that is genuinely defeated; but the evidential path contains only true propositions and that path is not genuinely defeated. The causal chain and the evidential path are related as specified in Conditions 1–7.

The moral is that, in some cases, not taking a good path is just as good as having taken it.50

50 There is corollary of the primary conclusion. Foundationalists typically take inferential knowledge to arise only from what is known. But as the quotation from Hilpinen indicates (see p. 47 above), knowledge can arise from what is not known because what is known can be inferred from what is false. Once that is noticed, then alternative accounts of doxastic justification immediately become more plausible. (See nn. 5 and 16.)