A RELEVANT ALTERNATIVES ANALYSIS OF KNOWLEDGE

DISSERTATION

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By

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ABSTRACT

This project shows that a relevant alternatives account of knowledge is correct. Such accounts maintain that knowing that something is the case requires eliminating all of the relevant alternatives to what is believed. Despite generating a great deal of interest after Dretske and Goldman introduced them, relevant alternatives accounts have been abandoned by many due to the inability of those who defend such analyses to provide general accounts of what it is for an alternative to be relevant, and what it is for an alternative to be eliminated. To make sense of the notion of relevance, a number of relevant alternatives theorists have adopted contextualism, the view that the truth conditions for knowledge attributions shift from one conversational context to the next. The thought that the only way to make sense of relevance is to adopt a controversial thesis about how knowledge attributions work has led others to despair over the prospects for such accounts.

I rescue the relevant alternatives approach to knowledge by providing the missing details, and doing so in purely evidentialist terms, thereby avoiding a commitment to contextualism. The account of relevance I develop articulates what it is for a state of affairs (possible world) to be relevant in terms of whether the person is in a good epistemic position in that state of affairs with respect to what the person actually believes. Eliminating a possibility, on my account, is a matter of one’s evidence being incompatible with a relevant state of affairs. Since each of these notions is explicated
in evidentialist terms (that is, in terms of the evidence one has), I also provide an account of having evidence which is superior to extant accounts. To show that the resulting account of knowledge is correct, I show how the account fares well in the face of problems which plague its competitors. The upshot of the project is that a relevant alternatives analysis is correct, and that endorsing such an account no longer involves concerning oneself with its occult status.
I dedicate this dissertation to my beautiful wife, my amazing son, and the one on the way—my motivations for so many things.
First and foremost, I thank my adviser, George Pappas, for his patient guidance, helpful criticisms, and for providing a model of philosophical excellence. I cannot imagine how this project could have been completed without his input. I also thank Louise Antony for tremendously helpful discussions about some of the central parts of this project. I thank William Taschek for many helpful suggestions, most notably those that will make reading this dissertation much, much easier.

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CHAPTER 1

INTRODUCING THE PROBLEM

1.1 Introduction

The traditional analysis of empirical knowledge maintains that there are three individually necessary and jointly sufficient conditions for knowledge. For a person $S$ to know some proposition $p$, (i) $S$ must believe that $p$, (ii) $S$’s belief that $p$ must be justified, and (iii) $p$ must be true.

This analysis is inadequate, however, as Gettier’s celebrated counterexamples show. Imagine Gene, who hears on the radio that the local bowling alley has burned down. On the basis of this, Gene comes to justifiably believe that the local bowling alley has burned down, and from this infers and comes to justifiably believe that a building in town has burned down. As it turns out, however, the radio program was mistaken, since the building that burned down was the building just north of the bowling alley. Gene has a justified true belief that a building in town burned down, but he does not know that a building in town burned down. Thus, the three conditions offered by the traditional analysis are insufficient for knowledge.
There are several possible responses to this problem: one can reject of one of the necessary conditions in favor of some other condition, one can explicate the justification condition so that there is no gap between truth and justification, or one can add more conditions to the traditional analysis.

Relevant alternative accounts of knowledge (henceforth, (RA) accounts) adopt the third approach to analyzing knowledge. Such accounts maintain that a person $S$ knows a proposition $p$ when $S$ has a justified true belief that $p$, and $S$’s evidence rules out all of the relevant alternatives to $p$. Several concepts need clarification to make evaluation of (RA) accounts possible. One might ask, for instance, what an alternative is, or what makes an alternative relevant, or what it is for one’s evidence to rule out an alternative.

To help make sense of these notions, some people (for instance, Alvin Goldman (Goldman 1976)) maintain that knowledge involves our discriminatory capacities. That is, in order to know that $p$, we have to be able to discriminate $p$ from other things. The things from which we must be able to discriminate $p$ are the relevant alternatives. What it takes to discriminate those things from $p$ is what it is to eliminate those alternatives. In what follows, (RA) accounts are to be understood in terms of our discriminatory capacities. Before proceeding further, however, perhaps it will be helpful to offer another intuitive way to understand these notions.

Intuitively, an alternative to a believed proposition is a proposition which is a logical contrary to that proposition. Suppose that you believe that your favorite

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1. Some (RA) accounts, such as Nozick (1981) and Dretske’s (1981a) tracking account, replace the justification condition with subjunctive conditionals. But those accounts seem to encounter problems (see, for example, (Schaffer 2003) and (Luper-Foy 1987b).), and shall not be discussed here.

2. Goldman holds this view for perceptual knowledge. One goal of this project is to expand this way of thinking to all empirical knowledge.
professional football player wears the number four on his jersey. An alternative to
the proposition you believe is that your favorite player wears the number five on his
jersey.

Ruling out (or eliminating—the terms shall be used interchangeably) an alterna-
tive is, again intuitively, to have good evidence against that alternative. For instance,
you might know that your favorite football player’s team does not have anyone on
the team assigned to the number five, so no one on the team wears a jersey which
bears that number.

Typically, people do not think that all alternatives are relevant. For instance, to
know that your favorite football player is wearing the number four on his jersey during
a given game, you do not need to have evidence against the proposition that your
favorite football player was abducted by aliens, and is currently being held captive
aboard the mothership while a talented look-a-like plays in the game. The intuitive
explanation for this fact is that some alternatives are simply too remote to require
eliminating. The relevant alternatives are, in terms of possible worlds, only nearby
worlds in which \( p \) is not the case.\(^3\)

While offering an intuitive understanding of the fourth condition of (RA) accounts
is relatively simple, providing the details is not. This project aims to offer those
details.

Chapter Two takes a close look at the notion of relevance, by first critically eval-
uating the substantive claims made about relevance available in the literature, and
then employing the best of that work to fashion a new account of relevance. The

\(^3\)The skeptic, of course, thinks that this is false. The skeptical challenge is addressed in §2.3

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product is a possible worlds account, but one that eschews the appeal to nearby possible worlds in favor of an account that allows distant worlds to be relevant.

Chapter Three lays the groundwork for Chapter Four, in which the notion of eliminating an alternative is discussed. Since one’s evidence eliminates an alternative, the notion of having evidence needs careful explication.\textsuperscript{4} This is the focus of Chapter Three.

Chapter Four is a discussion of the notion of eliminating an alternative. Since, in Chapter Two, a possible worlds account of relevance was offered, eliminating a possibility becomes the focus. Elimination of a possibility, it turns out, is (roughly) logical incompatibility between the set of sentences comprising a person’s evidence and the set of sentences which are true at a given world.

Chapter Five brings everything together. There, the (RA) account that results from the previous three chapters is presented. It is compared to defeasibility analyses, and other (RA) analyses. One way of illustrating the benefits of the (RA) account developed in Chapters Two through Four will be to show how it handles traditional problems such as Gettier cases and the Lottery Paradox. Handling these cases will require some final fine tuning on the account.

1.2 Preliminaries

There are several different “types” of (RA) analyses present in the literature. These types differ along three primary axes: whether the account is contextualist, whether the account is internalist or externalist, and whether the account is consistent

\textsuperscript{4}Along the way, what sorts of things count as evidence is also clarified.
Table 1.1: Varieties of (RA) Analyses

<table>
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<td>Accept Closure</td>
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with a deductive closure principle for knowledge. The eight possible (RA) accounts of knowledge are above, with representatives of those positions.

While there are instances of most of these variations in the literature, they are offered so that the assumptions of this project can be made explicit. What follows will roughly fall into one of the open boxes in the non–contextualist column. That is, the view developed here is presented in non–contextualist terms, is compatible with a closure principle for knowledge, and is presented as though internalism is correct. Simply assuming these positions is not really acceptable, but each topic is worthy of its own treatment. So in the next few sections, adopting these positions will be motivated. At the end of the day, the account of relevance offered here could be contextualized (as is illustrated in Appendix B) and recast in externalist terminology (as is illustrated in Appendix A).

1.2.1 Contextualism

Contextualism is the linguistic thesis that the truth-conditions for knowledge attributions shift from one conversational context to another. So when Bob and Sal are in different conversational contexts, Bob may truly say of Tom that Tom knows that $p$, and Sal may truly say of Tom that Tom does not know that $p$. This is because
the term “knowledge”, according to the contextualist, behaves like indexical terms such as “I”, “here”, and “now”. Consider the term “I.” If Bob is tall (suppose that he is seven feet tall), and Sal is short (suppose he stands four feet tall), there is no contradiction between the sentences

(a) I am tall.

(b) I am not tall.

when Bob utters (a) and Sal utters (b). Likewise, Bob and Sal’s claims about what Tom knows do not contradict each other.

Some epistemologists adopt contextualism, and tout the resulting view as a response to skepticism. To help keep the issue clear, think of skepticism as a paradox, consisting of three mutually inconsistent statements.5

(1) I know that \(o\) (where \(o\) is some ordinary statement like, “I have hands”).

(2) If I know that \(o\), then I know that not–sk (where \(sk\) is some skeptical hypothesis like, “I am a disembodied brain-in-a-vat”).

(3) I do not know that not–sk.

These three sentences constitute a paradox because they are inconsistent, yet each has a high degree of intuitive plausibility. To reject one sentence rather than one of the others, some principled reason should be given. Moreover, that reason should help to explain why anyone ever thought that (1) – (3) were all true in the first place. Cohen puts the point in the following way. A resolution “must explain the undeniable

5This presentation of the skeptical paradox follows Cohen’s presentation in his (Cohen 1988).
appeal of skeptical arguments. For this is what gives rise to the paradox” ((Cohen 1999, p. 63)).

According to the contextualist, the truth-conditions for knowledge attributions shift from context to context. This is because contextualism is often employed as an aid in explaining the notion of relevance. Whether an alternative is relevant, according to contextualists, depends on the knowledge attributor’s context. In **low-standard** contexts, people employ low standards for knowledge and few alternatives are relevant. Therefore, such people know most of what they take themselves to know (e.g., that they have hands). In **high-standard** contexts, people employ high standards and many alternatives are relevant. Therefore, such people know very little if anything at all. So in low-standard contexts, (1) and (2) are true, and (3) is false. In high-standard contexts, (2) and (3) are true, and (1) is false. Notice that (2) is true in either context (though the contextualist maintains the stronger claim that (2) is true in all contexts, since it is an instance of the deductive closure principle).

The explanation for why anyone ever took the skeptic seriously that falls out of this resolution is that the skeptic (when arguing from (2) and (3) to the denial of (1)) makes a very subtle shift in context. That is, when the skeptic employs (2) in his argument, there is a subtle context shift from a low-standard context in the antecedent of (2) to a high-standard context in the consequent.⁶

To make this point more precise, one can make explicit the context-indexing in the skeptic’s argument.

(2) If I know in context \(c\) that \(o\), then I know in context \(c^*\) that not–\(sk\).

(3) I do not know in context \(c^*\) not–\(sk\).

⁶(Cohen 1988, p. 110).
When the skeptical argument is presented this way, (2) loses much of its intuitive plausibility. To see this, consider the following conditional.

(c) If I am tall, then I stand at least six feet.

Recall tall Bob and short Sal from above. If we shift from Bob’s context in the antecedent to Sal’s context in the consequent, and then argue from (c) and (a) to the claim that Sal (who we supposed is four feet tall) stands at least six feet, we can see that shifting contexts from the antecedent to the consequent of conditionals causes trouble. Thus, (2) can be evaluated in one and only one context at a time. The skeptic, then, has been making a subtly illicit move.

This is indeed a neat solution to skepticism, but whether it works depends on whether contextualism is correct. What has been offered so far has only been a description of the view, and how it has been employed. What reasons are there for thinking it is true?

Contextualists usually point to cases in which the only thing that seems to have changed is the context of the knowledge attributer. Consider the following two cases.

**Case 1** Max and Lily are discussing whether Lily cleaned the litter box. Lily says that she has, as she remembers having done so earlier in the day.

**Case 2** Max and Lily are discussing whether Lily cleaned the litter box. Lily says that she has, as she remembers having done so earlier in the day. But Max points out that, since they are leaving for the weekend, if she is wrong, the house will reek when they return. At this point, Lily begins to wonder if she did clean the litter box this morning.
Ordinarily, one is inclined to say that Lily knows that she cleaned the litter box in Case 1, but not in Case 2. What seems to have changed is the knowledge attributer’s context—the importance of Lily’s being right is a salient feature of Case 2.

While contextualists claim that such cases show that contextualism is correct, there are other ways to explain our intuitions about these cases. For instance, one could hold that our intuitions diverge, not because the truth–conditions for knowledge attributions differ between the two cases, but instead because the warranted assertibility conditions for knowledge attributions are different for the two cases. The conditions under which one is warranted in asserting that one knows can diverge from the conditions under which one knows. For instance, Alex might know that the Statue of Liberty is in New York. Robby, who has no idea who or what Alex is, is not warranted in asserting that Alex knows the location of the Statue of Liberty. So if, in the two cases involving Max and Lily, the change in warranted assertibility conditions explains our intuitions about the two cases, then the motivation for contextualism will have been undercut.\(^7\)

Another response is to claim that it is not the change in the attributer’s context that matters with respect to explaining our intuitions about the two cases. Rather, it is the difference in the epistemic subject’s context that matters. The idea is that something is different about Lily in Case 2. There, that she is right is more important than in Case 1. But notice that this is a fact about her context, not the context of a knowledge attributor. This fact, according to the advocate of this line of thinking, explains why we are tempted to say that she does not know that she changed the

\(^7\)Keith DeRose discusses such a response in his (DeRose 1999a)
litter box in Case 2. If this is right, then, once again, the contextualist’s motivation for his view has been undermined.  

Establishing one of these views as preferable to contextualism would take this project too far afield. What follows will be presented as though (something like) one of these two views is right, and that contextualism is not. But again, for those who like contextualism, the account of knowledge to be developed can be contextualized (as can any account of knowledge).

1.2.2 Closure

The deductive closure principle is that one knows the obvious or clear consequences of the things one knows. It is of interest because it plays a central role in a popular argument for skepticism. In §2.1, the sentence labeled (2) is an instance of the closure principle. The skeptical argument was rehearsed there, so if need be, the reader can refer back to it on page 6. The general principle is usually stated like this.

\[(DC) \text{ If } S \text{ knows that } p, \text{ and } p \text{ deductively entails } q, \text{ then } S \text{ knows that } q.\]

The principle as stated is obviously false, since it has the consequence that people know every logical consequence of a given belief. But most people are such that they do not even believe most of the logical consequences of their beliefs. Thus, they do not know them.

Perhaps the principle should be understood in this way.

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8 This response is developed by John Hawthorne in his (Hawthorne 2004) and is critically discussed by Keith DeRose in his (DeRose 2004).

9 For discussions of other problems contextualism faces, in case the above reasons for not endorsing contextualism are insufficient, see (Feldman 1999), (Rysiew 2001), (Klein 2000) and (Sosa 2000).

10 Throughout the remainder of this section, the term ‘deductively’ shall be dropped. Therefore any mention of entailment is to be understood as deductive entailment.
(DC\textsuperscript{1}) If $S$ knows that $p$, and $S$ knows that $p$ entails $q$, then $S$ knows that $q$.

This is a little better, since it avoids the result that everyone knows every logical consequence of their beliefs. But it is still false, since one can know that $p$, know that $p$ entails $q$, yet fail make the inference from these two things to $q$ and thereby fail to believe that $q$ (and thereby fail to know it). So (DC\textsuperscript{1}) is false.

To avoid this, the belief requirement can be added to the antecedent. Doing that yields the following principle.

(DC\textsuperscript{2}) If $S$ knows that $p$, and $S$ knows that $p$ entails $q$, and $S$ believes that $q$, then $S$ knows that $q$.

This principle avoids the counterexample to (DC\textsuperscript{1}), but faces a problem of its own. Suppose that $S$ knows that $p$, and $S$ knows that $p$ entails $q$, but comes to believe $q$ for some unrelated, and completely inadequate reason? Surely in such a case $S$ does not know that $q$. So (DC\textsuperscript{2}) is false as well.

The problem seems to be that (DC\textsuperscript{2}) fails to take into account the basing relation. When the basing requirement is added, the following principle results.

(DC\textsuperscript{3}) If $S$ knows that $p$ on the basis of evidence $e$, and $S$ knows that $p$ entails $q$ on the basis of $e'$, and $S$ believes that $q$ on the basis of $e$ and $e'$, then $S$ knows that $q$ on the basis of $e$ and $e'$.

(DC\textsuperscript{3}), by making explicit $S$’s knowledge bases, does not allow that one know a consequence of something else one believes when one believes the consequence for unrelated reasons. This principle avoids the problem plaguing (DC\textsuperscript{2}).

This new principle runs into an all-too-familiar type of counterexample, due to Fred Dretske ((Dretske 1970)). Imagine a child at the zoo, standing in front of the
pen marked “zebras”. The child is generally good at identifying zebras when he sees them, and is in good position to see the animals in the pen. The child sees what looks like a zebra, and he comes to believe that the animal at which he is looking is a zebra. Does he know that the thing in the pen is a zebra? Intuitively, the answer is yes. Now suppose that he comes to believe that the animal is not a cleverly–disguised mule on the basis of the evidence for which he believes that the animal is a zebra.\(^{11}\) Does he know that it is not a cleverly–disguised mule? Intuitively, the answer is no. But then (DC\(^3\)) is false.

In an attempt to show that Dretske’s zebra-in-the-zoo case is not a counterexample to the closure principle, Jonathan Vogel ((Vogel 1990a)) argues that Dretske is mistaken in holding that one has no evidence to support the claim that the animals in the pen are not cleverly disguised mules, despite knowing that they are zebras and that their being zebras entails their not being cleverly disguised mules. Vogel claims that Dretske overlooks the importance of the background evidence the subject has. Dretske calls attention to the fact that we all believe that zoos do not normally have cleverly disguised mules in their zebra pens, but dismisses this as sufficient evidence for knowing that the animals in the pen are not cleverly disguised mules. Vogel disputes this claim, and suggests that the background evidence is sufficient evidence on which to know that the animals in the pens are not cleverly disguised mules.

There is a very serious problem with Vogel’s suggestion, however. He assumes that anyone in a situation like our zoo–goer’s has the requisite background knowledge. But even semi–sophisticated three–year olds know, when they are standing in front of the

\(^{11}\)Assume that the child also knows that if it is a zebra, then it is not a cleverly–disguised mule. He simply has not made the inference from this and his belief that it is a zebra to the fact that it is not a cleverly–disguised mule.
zebra pen, that what they are looking at is a zebra. Yet most (if not all) of them do not have any beliefs whatsoever about how zoos normally function. So it seems that Vogel’s objection fails. Thus, (DC³) must be rejected.

Aside from facing counterexamples, (DC³) has come to be called a warrant transmission principle, which is to be kept distinct from the deductive closure principle.¹² A warrant transmission principle is one in which the knowledge base mentioned in the antecedent is the same as the knowledge base in the consequent. The idea is that the warrant (knowledge base) for the entailing proposition transmits across deductive entailment and constitutes a warrant for the entailed proposition. A deductive closure principle is one in which the entailing proposition is the knowledge base for the entailed proposition (along with whatever other propositions are required for the deduction).

The question now is, where does one go from here? Some readers might be puzzled by the steps from (DC) to (DC³)—they might think that (DC³) simply fails to capture what they had in mind with respect to closure. Those maneuvers pushed toward a warrant transfer principle, not a deductive closure principle. How then, should one think of closure?

Consider what Richard Feldman says about the intuitive plausibility of closure.

To say, “Yes, I accept that [p] is true and that [p] implies [q], but I draw the line at [q]; I do not commit myself to that”, is to be patently unreasonable. It is to refuse to accept what you know to be the consequences of your beliefs. That is the sort of thing we routinely counsel our first-year student not to do ((Feldman 1995, p. 493-494)).

Feldman seems to be imagining a situation like the following. Suppose Annie and Michele are discussing their views on abortion, and Annie claims that abortion is

¹²See (Wright 2000a) and (Pryor 2004).
permissible because only rational beings can be persons, and it is permissible to kill non-persons. Michele, somewhat taken aback by this, points out that then it is permissible to kill infants, since they lack rational abilities that would qualify them as persons. After reflecting for a moment, Annie realizes that this is a consequence of her view, but she then informs Michele that she refuses to believe that it is permissible to kill infants, but that she also refuses to give up her views on abortion.

Such a situation should strike the reader as bizarre (unfortunately, though, not because it is uncommon!). Annie is here being irrational. She sees the inference from her belief that abortion is permissible to the permissibility of killing infants, but she refuses to follow through with the inference. As Feldman notes, we are not too surprised to see this in first–year students, but it is unacceptable for one deeply concerned with being rational.

The reason, one might think, that situations like the one involving Annie and Michele are so problematic is that they violate the closure principle. But one is unlikely to think it strange that Annie does not accept that killing infants is permissible merely on the force of her reasons for thinking that killing non-persons is permissible and that only rational beings can be persons (as (DC$^3$) would have it). Rather, what is striking about Annie’s refusal to take on the belief that killing infants is permissible is that the fact that this is entailed by her views on the permissibility of abortion is obvious to her. She has done the deduction.

Considerations about cases like this have led some authors to conceive of the deductive closure principle in the following way.$^{13}$

$^{13}$See, for instance, (Klein 1995) and (Hawthorne 2004).
(DC⁴) If S knows that p on the basis of evidence e, and S knows that p entails q on the basis of e’, and S believes that q on the basis of p, then S knows that q on the basis of p.¹⁴

Unfortunately, however, this principle, too, is false. Stewart Cohen offers the following kind of counterexample.¹⁵ Imagine that you wonder about an atlas’ reliability. The atlas says that Madison is the capital of Wisconsin. You reason that if Madison is the capital, then what the atlas says is not a misprint. So what the atlas says is not a misprint. But notice that using what the atlas says to determine its reliability when the atlas’ reliability is in question is hardly an acceptable practice.

This sort of counterexample generalizes, and the lesson is this: one cannot come to know that q on the basis of p when one’s reasons for thinking that p include q. Ultimately, the point is that circular reasoning cannot justify.

Taking this lesson into account yields the following principle.

(DC⁵) If S knows that p on the basis of evidence e, and S knows that p entails q on the basis of e’, and S believes that q on the basis of p, and q plays no role in justifying p, then S knows that q on the basis of p.

If the skeptical argument depends on (DC⁵), then the skeptical challenge has quite a different character than is usually thought. The challenge is usually taken to be universal—if successful, the skeptical argument is supposed to show that no one knows anything about the external world. But if (DC⁵) is what the skeptic is using,

¹⁴Actually, S should believe that q on the basis of both p and the fact that p entails q to know that q in such cases. I have suppressed the second part for ease of expression. Moreover, I take it to be the case that believing q on the basis of p and the fact that p entails q amounts to having made the inference from the latter to the former.

¹⁵See his (Cohen 1999, pp. 74-75)
then the skeptical result is secured only when the antecedent of (DC5) is satisfied. That is, the skeptical result is secured only in those cases in which one recognizes that some ordinary proposition entails the denial of some skeptical scenario, and believes the denial of the skeptical scenario on that basis. This happens to philosophers, but that is a small percentage of epistemic subjects. The skeptical result is far less wide-reaching than most would think.

This is not to say that the skeptical challenge becomes uninteresting, however. The challenge becomes, instead of showing that people know things about the external world, showing that ignorance is not an epistemic virtue. Those who know things about the external world, given the skeptical argument employing (DC5), are those who pay no mind to skeptical scenarios. That is, the knowers are the ones who are ignorant of certain entailments (those who satisfy only the first conjunct of (DC5)). Those who are not ignorant of those entailments lose their knowledge of the external world. So what seems like an expansion of knowledge is not—explaining why this is the wrong result seems to be the skeptical challenge.

If this is so, then those interested in understanding human knowledge still have a subject. The skeptic’s claim that there is no human knowledge, and therefore nothing to understand, is not well supported. Either it depends on a false premise, or simply does not follow from the premises the skeptic does offer.

Worrying about whether an account of knowledge respects the closure principle is then a matter of making sure the account does not have consequences that violate (DC5). The account developed here meets that requirement.
1.2.3 Internalism

Internalism in epistemology is a term used in many different ways. It is used here to refer to the view that the grounds upon which one knows that \( p \) are internal to the epistemic agent. So things like beliefs, sensory states, and experiential states can be grounds upon which someone knows something. The terms “evidence” and “reasons” are meant to refer to such grounds.

Externalism, then, is the view that some things external to the epistemic agent can play a role in the agent’s knowing something. Goldman’s reliabilism (as presented in his (Goldman 1986)) is the standard example of an externalist view about justification. Reliabilism is (roughly) the view that a person is justified in holding a belief just in case that belief was produced by a reliable process. Notice that while the process is internal to the agent, the facts concerning the reliability of that process are not. Thus, things external to the epistemic agent play a role in determining whether the agent’s belief is justified.

There seems to be an interesting counterexample to reliabilism, which shows that internal grounds are necessary. The counterexample comes from Stewart Cohen (1984). Cohen asks us to imagine a perfectly ordinary individual in the actual world, who comes to believe some ordinary proposition (say, that there is a tree before him) on the basis of perceptual evidence. Now imagine someone who believes exactly as the ordinary person believes, and has exactly the same perceptual evidence, but is in a world in which an evil demon is deceiving him by feeding him experiences of a tree when there is no tree nearby. Imagine that these two people are exactly alike for their whole mental lives, and that the ordinary individual’s beliefs are often correct but that the person in the demon world is always mistaken about the external world.
According to the reliabilist, those instances in which the ordinary individual’s belief-forming processes are reliable, the person is justified. But the person in the demon world, whose belief-forming processes are never reliable is never justified. But there is the very strong intuition that the two individuals are justified to exactly the same degree. Reliabilism, therefore, has a counterintuitive consequence which seems to show that reliability is unnecessary for justification.

Laurence BonJour ((BonJour 1985)) has produced a counterexample which shows that reliability is not sufficient for justification, either. He asks us to consider Norman, who has the clairvoyant ability to correctly believe where the president is at any given time. Norman has no beliefs about clairvoyance, nor about his clairvoyant abilities. One day, as a result of his ability, Norman forms the belief that the president is in New York. Is his belief justified?

According to reliabilism, Norman’s belief is justified. Intuitively, however, this is the wrong result. Norman’s belief is not justified. Since Norman’s belief is the result of a reliable process, but his belief is not justified, reliably produced belief is insufficient for justification.

These two cases—Cohen’s new evil demon case and BonJour’s clairvoyance case—show that reliability is neither sufficient nor necessary for justification. Other externalist theories of justification face similar problems with these two cases.¹⁶ Given the problems these cases pose for externalism, internalists use them to illustrate certain properties of justification.

¹⁶For instance, Swain’s (1981) reliable indicator account of justification has trouble with the new evil demon problem, and Plantinga’s account of warrant (1993a) seems to have trouble with the clairvoyance cases.
One might maintain that the Cohen’s case shows that only mental states can justify a person’s belief. The reasoning might go something like this. The ordinary person and the person in the demon world are exactly alike justificationally, so long as they are exactly alike mentally. Alter anything else about them, and their epistemic status remains alike (i.e., they are both justified). Alter one’s mental states but not the other’s, and immediately their epistemic statuses differ.\textsuperscript{17} Thus, the best explanation of these intuitions seems to be that mental states are what determine whether one is justified or not. This view has come to be called mentalism, and has recently been defended by Richard Feldman and Earl Conee (2001).

The clairvoyance cases suggest another way of thinking about justification. To support this conception of justification, BonJour offers the following reasons for thinking that Norman’s belief is unjustified.

Norman’s acceptance of the belief about the President’s whereabouts is epistemically irrational and irresponsible, and thereby unjustified.\ldots Part of one’s epistemic duty is to reflect critically upon one’s beliefs, and such critical reflection precludes believing things to which one has, to one’s knowledge, no reliable means of epistemic access (BonJour 1985, p. 42).

Thus, BonJour takes a lack of accessibility to what would (were they accessible to him) justify his belief as the problem with Norman. BonJour seems to maintain, then, that having justified beliefs requires access to whatever it is that does the justifying. Feldman and Conee refer to this view as accessibilism.

Notice that mentalism and accessibilism come apart. One can hold either view without holding the other. While no position will here be taken on whether accessibilism is correct, a position closely akin to mentalism is endorsed in chapter three.\textsuperscript{17}

\textsuperscript{17}Of course, the mental difference must be germane to the proposition believed.
When the notion of having evidence is considered, it turns out that the notion of interest involves when mental states can play a particular role (even for the reliabilist). Whether anything above and beyond having evidence is required for justification is left an open question.

1.3 Conclusion

Relevant alternatives accounts of knowledge employ several notions that require careful explication before the consequences of such accounts is clear. These notions have not received enough attention, however, and so (RA) accounts do not enjoy the standing they deserve in the literature. The following chapters are an attempt to remedy this problem, by offering the details of a particular type of (RA) account.

The type of (RA) account to be developed is one that is non-contextualist. That is, it holds that the truth–conditions for knowledge attributions do not shift from conversational context to conversational context. It may be, as is shown in Appendix B, contextualized.

The account requires that one have good reasons for thinking that $p$ in order to know that $p$. This requirement is in response to Cohen’s new evil demon case. Whether some external factors can play a role in one’s being justified is left open.

Finally, the account respects the deductive closure principle, when that principle is understood as $(DC^5)$. 
CHAPTER 2

RELEVANT POSSIBILITIES

2.1 Introduction

The previous chapter motivated adopting a relevant alternatives (RA) account of knowledge that denies closure, is internalist, and non-contextualist. Two things about such an account need clarification: first, the notion of relevance, and second, the notion of eliminating an alternative. In this chapter, attention is turned to the first step of clarifying such an account, by turning attention to the notion of relevance.

Recall that one of the motivations for this project is to show that relevant alternatives accounts of knowledge are plausible, and that certain criticisms of such accounts can be met. Ernest Sosa claims that without a careful explication of the notion of relevance, (RA) accounts will be “unacceptably occult” (Sosa 1986, p. 585). The main aim of this chapter is to save (RA) accounts from their occult status.\(^\text{18}\)

This requires the following. A critical canvas of the little available literature on relevance sets the stage. The literature can be broken into two different approaches to relevance: those that appeal only to the actual world and those that appeal to possible worlds. Since the actual world approach seems to have a fatal flaw, it is considered and dispatched before the discussion of the possible worlds approach. While there

\(^{18}\text{For another excellent set of criticisms concerning the notion of relevance, see (Vogel 1999).}\)
is no satisfactory account of relevance available, consideration of the possible worlds approach reveals its strengths, and a positive account of relevance is constructed on those strengths. Finally, some objections are considered, which helps to support the positive proposal.

2.2 The Actual World Approach

One way to think about the notion of relevance is in terms of what is the case. A very good example (if not the only example) of such an approach is from Stewart Cohen (1988). For Cohen, a relevant alternative is one that actually precludes one from knowing.\textsuperscript{19} That is, for Cohen, a relevant alternative is what, above, was referred to as an uneliminated relevant alternative. So Cohen is not distinguishing between the notions of relevance and eliminating an alternative.\textsuperscript{20}

That these notions are not being distinguished explains why Cohen appeals only to the actual world. Recall the intuitive characterization of eliminating an alternative from above—an alternative is eliminated just in case one has good evidence against that alternative. The evidence $S$ has is evidence that $S$ has in the actual world. So when the notion of relevance is understood as alternatives that are uneliminated by $S$’s evidence, appeal must be made to the actual world.

Cohen claims that there are two factors concerning whether or not an alternative is relevant. One, the “internal criterion,” concerns the evidence an epistemic agent

\textsuperscript{19}He defines relevance as follows. 

an alternative (to $q$) $h$ is relevant (for $S$) =df $S$’s epistemic position with respect to $h$ precludes $S$ from knowing $q$ (p. 101).

\textsuperscript{20}Put another way—for Cohen, there is no such thing as an eliminated relevant alternative. Any alternative that is eliminated is not relevant; it is merely an eliminated alternative.
has. The other, “external,” criterion concerns how the subject is situated in the world.

The external criterion is as follows.

An alternative (to $q$) $h$ is relevant, if the probability of $h$ conditional on reason $r$ and certain features of the circumstances is sufficiently high (where the level of probability that is sufficient is determined by context) (1988, p. 102).

Here ‘$q$’ is the purportedly known proposition, and ‘$h$’ is an alternative to it. To illustrate this criterion with a concrete example and to see its plausibility, consider Goldman’s famous barn facade case (1976). Imagine a person driving through the countryside, where he sees what he takes to be, and in fact is, a barn. Unbeknownst to this person, barn facades litter the county through which he is driving. It seems to be the case that the person in question does not know that he sees a barn. Returning to the external criterion, let ‘$q$’ be “that is a barn,” and ‘$h$’ be “that is a barn facade,” and the person’s reasons ‘$r$’ in this case are the visual experience of a barn-like object. The external criterion tells us that the likelihood that what the person is seeing is a barn facade, given the person’s reasons and the fact that the area he is in is littered with barn facades, is rather high, and is therefore relevant. Thus, the external criterion seems to yield the correct result in this case.

The internal criterion is motivated by cases like the following. Suppose that $S$ believes, solely on the basis of his friend Jim’s testimony, that the Ohio State Buckeyes won the 2002 Division I-A NCAA football title. And suppose that Jim is a reliable testifier, although $S$ has reason to believe that Jim is not a reliable testifier. Does $S$ know that the Buckeyes were the national champions in 2002? Surely not. The reason,
according to Cohen, is that one’s evidence (in this case, for the proposition that Jim is unreliable) can play a role in determining whether an alternative is relevant.

To capture this idea, Cohen puts the internal criterion as follows. “An alternative (to q) h is relevant, if S lacks sufficient evidence (reason) to deny h, i.e., to believe not-h” (1988, p. 103). In the above example, S does not know that the Buckeyes were the national champions because there is a relevant alternative uneliminated by S’s evidence—namely, that the Buckeyes were not the national champs. Since S has reason to believe that his friend Jim is unreliable, and he believes that the Bucks were the champs solely on Jim’s testimony, S has no better reason to believe that the Buckeyes were the national champs than he does to believe that they were not. Thus, the internal criterion secures the correct result.

One should note that each of Cohen’s criteria are merely sufficient conditions for relevance. Cohen is straightforward about the fact that he has not provided a general account, and does not seem worried by it when he asks,

But why is it not enough for the relevant alternatives theorist to define “relevance” and then to point out some of the factors that can sometimes account for relevance? Why must he state in general what factors account for relevance? Why must he provide general criteria of relevance? (1988, p. 115).

The prospect of providing such a general account, according to Cohen, is dim indeed, so the burden is on the opponent of the relevant alternatives approach to show why one is needed.

Jonathan Vogel argues that Cohen’s rhetorical questions should not be answered in the affirmative because one of his criteria is open to counterexample, which makes Sosa’s complaint that much more poignant. The counterexample runs as follows.

Suppose you know a proposition D. Let E be an alternative probable enough to be relevant to D, and let F be any other alternative to D which
should count as irrelevant. Consider the disjunction \( (E \lor F) \), which is logically incompatible with \( D \). This disjunction is at least as probable as its disjunct \( E \), so it is probable enough to be relevant with respect to your knowing \( D \). Now, since \( (E \lor F) \) is relevant with respect to your knowing \( D \), you need to have good evidence for the negation of \( (E \lor F) \), namely the conjunction \( (\sim E \land \sim F) \). If you have good evidence for \( (\sim E \land \sim F) \), you presumably have good evidence for \( \sim F \) alone. So, \( F \) isn’t irrelevant to your knowing \( D \) (1999, pp. 163-64).

So consider two alternatives, one relevant and one irrelevant. The disjunction of them will be relevant, since the probability of the disjunction will be no less than the probability of the relevant alternative. Thus, the disjunction must be eliminated by one’s evidence in order for the person to know the given proposition. This is accomplished when one has evidence against the negation of the disjunction, which is logically equivalent to a conjunction of the denial of each alternative. To rule out the disjunction, one must have evidence against each alternative.

Voge’s counterexample fails, however. It fails because it employs the notion of relevance as it is being understood for this paper—not as Cohen understands it. Recall that for Cohen, a relevant alternative is one which actually precludes one from knowing. So for Cohen, there are no eliminated relevant alternatives—every relevant alternative is uneliminated. The question, therefore, of eliminating a relevant alternative does not arise for Cohen. So Vogel’s claims about ruling out the alternative \( (E \lor F) \) are simply misplaced in a discussion of Cohen’s criteria.

If Vogel’s counterexample fails, then why should one not be satisfied with Cohen’s criteria? For those sympathetic to Sosa’s comments about the occult status of the (RA) approach, Cohen’s comments are less than satisfactory. Presumably, what Sosa means when he says that (RA) accounts are “unacceptably occult” without a general account of relevance is that evaluating them is difficult, at best. For those who do not
endorse such accounts, and want to understand why they fail, doing so is virtually impossible without a general account of relevance. One should not have to rely on an (RA) theorist to say of a putative counterexample whether it is one.

2.3 The Possible Worlds Approach

Since the most well developed version of the actual world approach seems to suffer a serious drawback, the possible worlds approach may be considered. While this approach has received more attention in the literature than the actual world approach, no satisfactory general account is available. In this section, the wheat of available thoughts on relevance is separated from the chaff. The lessons learned from this section motivate the positive proposal in the next section.

2.3.1 Dretske on Relevance

Fred Dretske introduced the notion of relevant alternatives into the literature in his seminal paper “Epistemic Operators” (Dretske 1970). There, he did little to clarify the notion of relevance, but in his “The Pragmatic Dimension of Knowledge” (Dretske 1981b), however, we find a more explicit discussion of the notion.

Dretske offers the following five considerations concerning when an alternative is relevant.

(1) The subject term used in a claim to knowledge,

\[\text{21}\] All that is required for an approach to count as a possible worlds approach is that it make \textit{some} appeal to possible worlds other than the actual world.

\[\text{22}\] Dretske does not offer a relevant alternatives account of knowledge where the fourth condition is a relevant alternatives condition. Instead, he eschews the justification condition in favor of what has come to be called a “tracking condition”. This move allows Dretske to avoid altogether appealing to the notion of relevance in his account of knowledge, and thereby the obligation to provide a general account of that notion. But he discusses the notion to help understand why his account of knowledge has the consequences it does.
(2) contrastive focus,

(3) how one comes to know,

(4) the importance to the subject of the proposition known,

(5) how remote the nearest world at which the alternative obtains is.

The first consideration is that the subject term employed in a knowledge claim can determine which alternatives are relevant. Suppose that you believe that your aunt is watching the film *Casablanca* (or any other film—it does not matter which) with you. At one point toward the end of the film, you glance over, and, on the basis of your aunt’s smile and her fixation on the movie screen, you come to know that your aunt is enjoying the film. In this case, you do not need to rule out the possibility that your aunt is the sort of thing that is capable of enjoying films, since your evidence (i.e., her behavior) concerns whether she enjoyed the film. Your belief that it is your aunt gives you enough reason to believe that she is the sort of thing that enjoys movies, so your evidence need not bear on it. Contrast this with a different situation, in which you believe that you are watching the film with *something*, though you are not sure what it is. At some point during the film, you take the thing next to you to be smiling and fixated on the screen, and come to believe that it is enjoying the film. In this case, your belief that the thing next to you is merely a something does not give you reason to think that it is capable of enjoying films, and so the possibility that it cannot becomes relevant.

The second consideration is the contrastive focusing of statements. For instance, if you know, on the basis of evidence $e$, that *Jake* crashed the car, then $e$ rules out *Alex’s* crashing the car. Your evidence need not, however, rule out Jake’s *parking* the
car rather than *crashing* it. The reason is that *e* bears on Jake, not on what Jake did with the car. That is, *e* is evidence concerning the fact that Jake did something, and it might be evidence that the car was crashed only to a very small degree.

Notice that the notion of contrastive focus fits quite nicely with the intuitive understanding of relevance offered above. If relevance is a matter of nearness of worlds, then the alternatives like Jake’s parking the streetsweeper rather than crashing the car are more distant than *Alex’s* crashing the car. So contrastive focus seems quite consistent with the intuitive notion of relevance.

To make the discussion of Dretske’s first two considerations more clear, consider David Sanford’s (1981) observation about these two claims. Sanford notes that contrastive focus and choice of subject term determine the content of the proposition known. One who knows that his aunt enjoyed the film knows something different than one who knows that the thing next to him enjoyed the film. And one who knows that *Jake* crashed the car (rather than Alex) knows something different than one who knows that Jake crashed the *car* (rather than the streetsweeper). Which alternatives are relevant will of course depend on the content of what is known (what is relevant to knowing that this is a hand is different from what is relevant to knowing that whales are mammals, for instance). Therefore, these two considerations should not be startling. The flipside of the coin, however, is that these two considerations do rather little in determining whether an alternative is relevant.

The third consideration about relevance is more substantive. *How* one comes to know can determine whether an alternative is relevant. For instance, suppose that one knows something on the basis of perceptual evidence. The mere logical possibility that the person is hallucinating does not preclude the person’s knowing,
and is therefore irrelevant. If, however, the person comes to believe something on the basis of an unreliable source, then the person does not know, so long as the possibility that the source is faulty is uneliminated.

The intuitive account of relevance seems compatible with this consideration as well. If, in the actual world, a person sees a tree before him, then those worlds in which he merely hallucinates that there is a tree are more distant than the worlds in which there is a shrub, or a flower before the person. Thus, this consideration is quite plausible.

The importance to the subject of what is known can also influence whether an alternative is relevant. Suppose that $S$ is watching a trivia show, and he learns about some particular law from one of the answers. $S$ thereby comes to know something about that law. Suppose that some time later, $S$ is being charged with some crime under that law, and faces a significant prison sentence if he is found guilty. He consults his lawyer, who tells $S$ that he has nothing to worry about, because the lawyer knows some relevant fact about the law. When $S$ asks the lawyer about the relevant fact, the lawyer informs $S$ of what it is, to which $S$ responds by pointing out that he knew that, and learned it on a trivia show. The lawyer then informs $S$ that he also learned the relevant fact from the trivia show, and that he has not been able to find it in the books yet, but $S$ ought not worry. Given the importance of the information for the lawyer, one is less inclined to attribute knowledge to the lawyer in this case. When what is believed is merely a matter of trivia, knowledge comes easy, whereas when there are serious consequences for believing a certain proposition, knowledge is harder to acquire.\(^{23}\)

\(^{23}\)Dretske himself winds up rejecting this consideration. Consider a case in which a perfectly reliable coolant temperature gauge causes one to believe, upon looking at the gauge, that the coolant
This consideration is plausible, not because it fits with the intuitive notion of relevance, but because the examples are intuitively compelling. To help make a case for this consideration, consider the following example. Imagine a situation in which John, a business person with an ordinary knowledge of medicine, has cold-like symptoms: runny nose, watery eyes, and a scratchy throat. John has been sick with colds before, and he is also a chronic allergy sufferer. Since it is spring, and he was mowing his lawn, John comes to believe on the basis of past experience that his symptoms do not indicate that he has a cold (since he takes them to be an indication of an allergy attack). In this case, the inclination is to say that John knows that he does not have a cold. Imagine another situation, in which John has symptoms consistent with bacterial meningitis. John is experiencing sensitivity to light, has a very stiff neck, and other flu-like symptoms. To those unfamiliar with bacterial meningitis, it is a rather frightening bacterial infection which is often fatal. John has not developed any spots on his extremities, which is characteristic of the bacterial form of meningitis, but often do not appear in the significantly less severe viral form. On the basis of this John comes to believe that he does not have bacterial meningitis. The inclination to say that John knows in this situation seems less strong. The reason seems to be because in cases in which there is a lot at stake, the boundary of relevance moves further from the actual world. Knowing that one is suffering from temperature is low enough to keep the engine going without incident. Suppose this very same, perfectly reliable, gauge is later moved from the car onto a nuclear reactor to make sure that its coolant is at an acceptable temperature. Does one who takes a reading in the new situation know that the coolant level is acceptable? Dretske thinks that there is no reason for denying that the person knows. One might suggest that anyone who had to rely on this gauge would probably be quite nervous in having to do so. Dretske suggests that the uneasiness is best explained by the fact that the person has no clue when he stops knowing, rather than that he does not know that the coolant is at an acceptable level. Dretske’s dismissal seems altogether too quick. The lawyer case from the body illustrates this. We shall return to this consideration in the next section.
allergies rather than a cold is of little consequence—whether one has the bacterial or
viral form of meningitis is a serious matter indeed.

The last consideration is that the remoteness of an alternative can determine
whether it is relevant. For instance, many people claim that knowledge is possible
despite not being able to rule out skeptical hypotheses. They claim that those possi-
bilities are simply too remote to affect one’s knowledge. Those possible worlds are too
distant. Notice that this just is the intuitive way to capture the notion of relevance.

Dretske’s considerations about relevance seem plausible, as they are compatible
with the intuitive notion of relevance, and they are also intuitively correct when
viewed on a case–by–case basis.

2.3.2 Lewis’ Rules for Relevance

Employing a different approach to knowledge than Dretske—one that straightfor-
wardly employs the notion of relevance—David Lewis presents a contextualist relevant
alternatives analysis of knowledge. As he puts it, “S knows that P iff S’s evidence
eliminates every possibility in which not–P—Psst!—except for those possibilities that
we are properly ignoring” (Lewis 1996, p. 554).

Two omissions from this definition should be addressed before continuing. Notice
that there is no mention of truth, justification, or belief in Lewis’ analysis. This
is because Lewis does not think that belief is necessary for knowledge. Concerning
the truth condition, Lewis stipulates a rule of relevance to handle it. These issues
are addressed below. For now, it is important to note that this analysis is a drastic
break from the traditional analysis, since it requires neither belief nor justification for
knowledge.
The clause before the “Psst!” in the analysans states that one’s evidence must eliminate the possibilities in which not–p in order for that person to know that p. What follows the “Psst!” is what makes the account a relevant alternatives account. Those possibilities that are properly ignored are the irrelevant alternatives. Altogether, then, the right hand side of the biconditional says that one’s evidence must eliminate all of the relevant alternative to p for that person to know that p.

While what comes before and after the “Psst!” in Lewis’ analysis is now clear, one can understand exactly what the “Psst!” is doing. As indicated above, this account is contextualist. Recall that a contextualist theory of knowledge is one that holds that the truth–conditions for knowledge attributions can shift from conversational context to conversational context. One way in which conversational contexts can shift is via the salience of some possibility. Many contextualists maintain that this is why skepticism is true in those contexts in which skeptical alternatives are being considered—in such contexts the skeptical possibilities are salient. In ordinary contexts, skeptical alternatives are not salient, and so are not relevant. The “Psst!” is necessary, then, because one cannot mention the alternatives that one is properly ignoring, lest they become salient, and thereby relevant (more on this below). Put simply, the “Psst!” makes clear that this is a contextualist account of knowledge.

Like Dretske, Lewis has no general account of relevance, and so offers rules for determining when an alternative is relevant. Altogether, there are seven rules which, again, are not intended to perfectly capture the notion of relevance. They are intended to be a guide. The seven rules are:

(1) the rule of actuality

(2) the rule of belief
(3) the rule of resemblance

(4) the rule of attention

(5) the rule of reliability

(6) the rules of method

(7) the rule of conservatism.

Rules (1)–(4) concern what one may not properly ignore, while rules (5)–(7) concern what one may properly ignore.

The rule of actuality states that what is actual may not be properly ignored—what is the case is relevant. This is required so that one who believes falsely cannot know. Given that the analysis is contextualist, it is important to make clear that the actuality that cannot be ignored is that of the epistemic subject (as opposed to the knowledge attributer). This rule is necessary for Lewis because the analysis makes no mention of truth. Thus, this rule is entirely unnecessary for an analysis of knowledge that, like the traditional analysis, explicitly requires that the proposition known be true.

The rule of belief has two parts. The first states that a possibility that a subject believes to obtain (rightly or wrongly) cannot be ignored. So if one believes that one sees a hand before him because he is being deceived by an evil demon, then this alternative is relevant. The second is that a possibility that the subject ought to believe to obtain, given one’s evidence, cannot be ignored. So if one has excellent evidence that one’s son is on drugs, but refuses to believe it because he loves his
son so much, regardless of how much one ignores the possibility, it is not a proper ignoring.\textsuperscript{24}

The rule of belief’s first part is necessary because the analysis in question does not require belief for knowledge. One’s evidence can rule out all of the relevant alternatives to $p$, even if the person in question does not believe that $p$. So the first part of this rule precludes the following type of scenario from obtaining. Imagine a situation in which $q$ (which is incompatible with $p$) is irrelevant to knowing that $p$. Then Lewis’ analysis has the consequence that a person $S$ can know that $p$, while believing that $q$.

The second part of the rule of belief is less idiosyncratic. Intuitively, if one ought to believe that something is the case, given one’s evidence, then that alternative is relevant. In terms of the intuitive account of relevance from above, one usually does not have evidence for thinking that distant worlds obtain. In those situations, then, when one’s evidence is such that the person ought to believe some alternative, then that alternative usually represents a nearby possible world, and is therefore relevant.

The rule of resemblance states that if one possibility may not be ignored (as a consequence of some rule other than this one), then no possibility that saliently resembles the possibility may be ignored. But doesn’t the world in which you are radically deceived by an evil demon exactly resemble the actual world, as far as your evidence is concerned? It does, but by \textit{ad hoc} stipulation such cases are not deemed relevant by this rule.\textsuperscript{25}

\textsuperscript{24}Lewis admits, however, that he is willing to allow knowledge without belief. As we shall see below, his account of knowledge fails for exactly that reason

\textsuperscript{25}Lewis explicitly says that the stipulation of this rule is \textit{ad hoc}, and that he does not know how to avoid this problem. See (1996, pp. 556-57)
This rule is clearly compatible with the intuitive account of relevance. Worlds that resemble each other are (typically) near each other. As the *ad hoc* stipulation makes obvious, however, this is not always the case. Given that the only way to avoid the problem seems to be a suspect move, an account of relevance that avoids this problem is preferable.

The rule of attention states that possibilities that are not ignored cannot be properly ignored. The idea is not that one *could have* ignored a possibility—but that one is ignoring the possibility. This rule stems from the contextualist aspect of the analysis. The ignoring in question is that of the knowledge attributer. Recall the situation from Chapter One, in which there are two conversations about whether Joe knows that his car is locked. The ordinary folk are ignoring the possibility that Joe is being deceived by an evil demon, and the epistemologists are not. Thus, in the ordinary context, the sentence “Joe knows that his car is locked” is true, while it is false in the epistemologists’ context.

One must be very careful with this rule, as there seems to be more than one way to understand the notion of attending to a possibility. One way to think of it is that the mere mention of a possibility makes it relevant. Another way is that a possibility is attended to just in case it is seriously considered. Perhaps in this latter sense of attending, attending to an alternative is sufficient for that alternative’s relevance.

There is a compelling reason to think that the rule of attention is misguided altogether, however.\(^{26}\) One might think of relevance in the following way. “The difference between a relevant and an irrelevant alternative resides, not in what we

\(^{26}\text{Due to Dretske (Dretske 1981b). The reason to follow is distinct from the rejection of the contextual aspect of this rule. One who is not a contextualist might be inclined to hold that what an epistemic agent attends to is relevant. This position is, strictly speaking, the one I address.}\)
happen to *regard* as a real possibility (whether reasonably or not), but in the kind of possibilities that actually exist in the objective situation” (Dretske 1981b, p. 377). The difference between one who thinks of relevance this way and one who thinks that attending to a possibility makes that possibility relevant is traceable to a disagreement about what is necessary for knowing. If one thinks that belief is necessary for knowledge, then one will likely think that if a person $S$ attends to a skeptical hypothesis, in the sense that $S$ is in a position to say something like, “I know that $p$, but I am not sure about $p$ because I might be a brain-in-a-vat,” the $S$ fails to satisfy the belief condition for knowledge.27 One who does not think that belief is necessary for knowledge needs a rule like Lewis’ rule of attention for such situations.

Why should one prefer an analysis that requires belief for knowledge over one which does not but accepts the rule of attention? The reason is that Lewis’ analysis is open to counterexample. The type of counterexample involves situations in which a putative knower has all the evidence required for knowing that $p$ right in front of him, but he fails to appreciate the evidence.28 For instance, imagine a mechanic who, when presented with a car that will not hold an electrical charge and keeps overheating, grabs and looks at the frayed and worn belt that runs the alternator and water pump. He goes on to check the alternator and water pump, and finds them in perfect working order. Since he cannot determine the problem, he informs the customer that he does not know what is wrong with the car. Lewis’ analysis has the consequence that the mechanic *does* know that the tattered belt is responsible

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27 As Dretske puts it, “I do not know exactly how to express the belief condition on knowledge but it seems to me that anyone who believes (reasonably or not) that he *might* be wrong fails to meet it” (Dretske 1981b, p. 376)

28 Such cases are due to Jonathan Schaffer (Schaffer 2001). He calls them “missed clues” cases.

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for the problems, which seems to be the wrong result. Recall that all the analysis
requires for a person to know is that the person’s evidence rules out all the relevant
alternatives to the known proposition. In this case, the mechanic saw that the belt
was tattered, but did not appreciate that this was responsible for the car’s problems.29
Since the mechanic’s evidence (his having seen the belt, checked the alternator and
water pump, and relevant background beliefs) is sufficient to know that the belt is
the culprit, it rules out all of the relevant alternatives.

The correct assessment as to why the analysis yields the wrong result is that
it does not require belief.30 The mechanic does not know that the belt is causally
responsible for the car’s problems because he does not believe it. He fails to appreciate
his evidence as excellent evidence for the proposition that the belt is faulty.

Returning to the question whether requiring belief, but adopting the rule of atten-
tion, is preferable to requiring belief and maintaining that one who thinks he might
be wrong fails to satisfy that condition, one can see that not requiring belief leads
to counterexample.31 Thus, the traditional belief requirement stands, and the rule of
attention is not an appropriate consideration about relevance.

One might object at this point that the present claim, that attending to certain
possibilities does not play a role in determining whether an alternative is relevant, is

29For those less familiar with the inner workings of many automobiles, a single belt runs the
alternator and the water pump. If the belt is sufficiently worn, it will slip, rather than turn the
pulleys on the alternator and water pump, thereby resulting in a car that overheats and whose
battery is drained.

30Schaffer attributes the failure of Lewis’ account to the fact that it is a relevant alternatives
account. Anthony Brueckner (Brueckner 2003) correctly identifies the absence of a belief (and
basing) condition as the reason for the failure.

31At least, it does for Lewis’ account. There might be a way around the missed clues cases, but
exactly what an account of knowledge that does not require belief but avoids the missed clues cases
would look like is not obvious.
inconsistent with the earlier claim that the importance (to the epistemic subject) of the proposition believed can play a role in determining which alternatives are relevant. But one might think that people attend to possibilities when a certain proposition is important to them. That is, isn’t it the case that when a proposition believed is important to one that she will attend to it? If so, it seems that it is inconsistent to claim that one thing can play a role in determining the relevance of a given alternative and the other cannot.

These two things are distinct—they come apart, as the following examples illustrate. First, to show that one can attend to a possibility without it being important to that person, consider the following example. Imagine that Tod goes to a car show. He sees what looks like, and in fact is, an original Shelby Cobra, and comes to believe that he has seen an original Shelby Cobra. Stan, who is with him, asks how Tod can be sure that it is not a Cobra made from a kit, as opposed to being an original. Tod considers the claim for a moment, decides that he has no way of determining whether it is an original or not. He then claims that he does not care enough to worry about it, and drops the matter, holding on to his belief that he saw an original Shelby Cobra. Tod attends to the possibility that the car he saw was merely a kit car, but that possibility is not relevant to his knowing that it was an original.

Now consider the following case, which shows that an alternative can be relevant even when one does not attend to it. Imagine Rod, who is a car collector, and is looking for an original Shelby Cobra. Rod has just become interested in Shelby

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32 One might be inclined to think that this example only shows that the kit car possibility is relevant while Tod is attending to it, but is not when he stops attending to it. Therefore it does not show that attending to something is not sufficient for that possibility to be relevant. This would be a mistake, however. It is not hard to imagine that Tod’s belief is at no time shaken, and he even has a hard time taking seriously the possibility that the car before him was put together from a kit. Compare this to how most of us react to the more outlandish conspiracy theories.
Cobras, and is unaware that one can buy a kit to build a fiberglass Cobra body, while the original Cobra bodies were made from aluminum. He sees, at a car show, what he takes to be, and in fact is, an original Shelby Cobra. On the basis of this, he comes to believe that the car is an original Shelby Cobra, and tries to find the owner to inquire about purchasing the car for a large sum of money.\textsuperscript{33} Given the importance of Rod’s being right, it seems that the possibility that the car is merely a kit car is relevant, even though he has not entertained this possibility.

These two cases show that attending to a possibility is a different matter than the importance of the proposition believed to the subject.\textsuperscript{34} The rule of attention then, can be rejected.

The rule of reliability is the first rule concerning what may be ignored. This rule states that those processes that are usually reliable, and usually confer knowledge are such that the possibility of their failure may be properly ignored. For instance, one can usually ignore the possibility that she is hallucinating. This rule is supposed to capture what is correct about reliabilist accounts of epistemic justification.

The rules of method state that one may ignore the possibility that samples are unrepresentative, and that the best explanation is not the true one. More generally, we are allowed to ignore failures in these two standard methods of non-deductive inference.\textsuperscript{35}

\textsuperscript{33}While a Cobra made from a kit can be expensive, they pale in cost to an original in comparable condition.

\textsuperscript{34}Notice that this claim is compatible with it sometimes being the case that the two go together for a given individual. I suppose that such cases are responsible for the confusion on this matter in the literature.

\textsuperscript{35}Notice that these rules are captured by Dretske’s third consideration about relevance. What was said regarding the plausibility of that consideration therefore applies here.
The rule of conservatism states that one may adopt the standards for ignoring of those around him. If people in one’s community typically ignore something, he is permitted to ignore it.

One who is a contextualist will find this rule sensible, since the context of the attributer determines whether one knows. Typically, those who attribute knowledge to one are members of that person’s community. If the members of one’s community typically ignore something and their standards for knowledge are compatible with this, then one who ignores the possibility in question will truly be said to know (in that context).

This rule seems, however, to have strange implications. Suppose that one is in a community of dullards, who lack the creativity to imagine alternative scenarios, and so ignore just about every alternative. Such a community, when they get things right, would know more than, say, a community of careful scientists. While the scientists spend time considering alternatives and gathering evidence to rule them out, the dullards already know. This seems strange, and avoiding it, desirable.³⁶

Having canvassed some claims about relevance that do not stem from a general account of relevance, we have seen that some considerations are not plausible. There is, however, much to be learned from those claims that are plausible. Before trying to turn the plausible claims into a general account, looking at a general account will be beneficial.

³⁶Again, for one of a contextualist bent, this rule will seem just fine. But for those of us who do not find contextualism plausible, this rule is unacceptable.
2.3.3 Greco on Relevance

John Greco presents an account of relevance that tries to capture, in a very straightforward way, the intuitive account of relevance from above. On his account, an alternative is relevant if it is true in at least one close possible world, where proximity is determined by overall world similarity. A more precise statement of the account is as follows.

\[ q \text{ is a relevant possibility with respect to } S\text{'s knowing that } p \text{ is true if and only if} \]

(i) If \( q \) is true, then \( S \) does not know that \( p \) is true, and
(ii) In some close possible world, \( q \) is true (Greco 2000, p. 206).

The first condition of the account merely makes explicit that \( q \) is an alternative to \( p \). Recall that, intuitively, an alternative \( q \), to \( p \) is a logical contrary to \( p \). Since knowledge that \( p \) requires that \( p \) be true, if some contrary to \( p \) is true, then \( p \) is unknowable because it is false. The second condition states that the proximity of worlds in which \( q \) determine whether those possibilities are relevant.

Greco maintains that this account is unsatisfactory, however, since there seem to be cases in which there are alternatives that must be ruled out that are not nearby. Imagine a case in which a person, \( S \), believes that Molly has a twin sister named Holly, when in fact, Molly has no siblings at all. \( S \) sees Molly at the store, and comes to believe that he saw Molly at the store. But he thinks to himself that it is just as likely that he saw Holly at the store. \( S \) does not seem to know in this case, because there is an alternative that his evidence cannot rule out—namely, that he saw Holly at the store. The possibility in which \( S \) saw Holly is distant, since it requires there being a person who does not now exist in this world. Nonetheless, one might hold that this alternative is relevant.
The amended account is as follows.

q is a relevant possibility with respect to S’s knowing that p is true if and only if

(i) If q is true, then S does not know that p is true; and
(ii) either
   (a) in some close possible world q is true, or
   (b) S believes that q is likely to be true, or
   (c) S ought to believe that q is likely to be true (Greco 2000, pp. 209-210).

This account suffers from three defects. The first is that it makes the same mistake Lewis’ rule of attention makes, in that maintaining that a person’s taking something to be relevant makes it relevant. We saw that in examples like the one in the preceding paragraph, the best explanation of the subject’s lack of knowledge is that the subject fails to meet the belief condition requisite for knowledge. So condition (b) of the account is unacceptable.

Moreover, Jonathan Schaffer (2003) and Mark Heller (1999b) offer examples which show that Greco’s conditions (b) and (c) do not capture the worry that there are distant worlds that are relevant. Greco takes his example to show that those distant worlds that are relevant are so because S has reason to think that those worlds obtain. But there are distant worlds that are relevant even if S has no reason to think that the worlds obtain. Consider the following example from Schaffer. Suppose that S justifiably believes that his father is approximately six feet tall. Presumably, a relevant world is one in which S’s father is one mile tall. A world in which S’s father is one mile tall is (if overall world similarity is the measure of distance for possible worlds) quite away from the actual world. Presumably, S has no reason to think that his father is a mile tall, and the world is distant, so Greco’s account has
the consequence that the possibility in question is not relevant, which seems to be the wrong result.\footnote{To help feel the intuitive pull of this example, ask yourself the following. If $S$ cannot discriminate between someone who is six feet tall and someone who is one mile tall, does $S$ know when he sees someone who is six feet tall?}

The third (and least serious) problem with Greco’s account is that condition (a) renders the account imprecise. Determining how far out a world can be and still be nearby is no simple task. This has the consequence that we might not be able to tell of a given world whether it is relevant or not. An account of relevance that does not suffer this defect will therefore be preferable.

Greco’s account had initial plausibility because it tried to straightforwardly capture the intuitive idea that distant possibilities are not relevant. This suggests that one should search for an account that draws a discernible boundary between those worlds that are relevant and those that are not in some other terms than the proximity of worlds. The task of developing such an account is taken up in the next section.

\subsection*{2.4 The Positive Proposal}

The last section illustrated that there is something quite right about the possible worlds approach to the notion of epistemic relevance. In this section, an attempt is made to capture what was right about Dretske, Lewis, and Greco’s work in an account of relevance.

To achieve this end, however, a preliminary revision to the notion of which things are relevant will be helpful. Recall that in the introduction an alternative was characterized as a proposition that is logically incompatible with a proposition believed. Since an approach to relevance that employs possible worlds is here being adopted,
Lewis (1996) and Greco’s (2000) language shall also be adopted, and *worlds* will be spoken of as being relevant, rather than alternatives. This allows for fine grained distinctions; if \( q \) is a proposition that is logically incompatible with \( p \), \( q \) can obtain at many different worlds. Some of these worlds might be relevant and others might not. If this is the case, then it is hard to say whether the alternative \( q \) is relevant or not.

To allow for a more fine grained notion of relevance, then, worlds (or possibilities)\(^{38}\) will be relevant or irrelevant rather than alternatives.

Given that those authors who have made substantive claims about what makes a world relevant have not been able to give a satisfactory general account, perhaps thinking about what makes a world relevant is not the best approach. Perhaps thinking about what makes a world *irrelevant* will make cracking the case easier. By understanding the notion of an irrelevant world, understanding the notion of relevance will be possible.

To guide the discussion of irrelevant worlds, consider the following well–worn example, due to Dretske (1970). Suppose that a person \( S \) is standing at the zoo, in front of the pen marked “zebras”, and he sees what he takes to be, and in fact is, a zebra. He is typically able to identify zebras correctly, and is in normal viewing conditions. Ordinarily, we would say that \( S \) knows that there is a zebra in the pen. But \( S \)’s evidence does not rule out the possibility that there is only a cleverly disguised mule in the pen (and thus no zebra). Since \( S \) knows, the world just mentioned must be irrelevant. Let us employ this example as a paradigm case and see what it tells us about irrelevant worlds.

\(^{38}\)The terms “world” and “possibility” are used interchangeably.
Two things seem to make the possibility that there is only a cleverly disguised mule in the pen irrelevant: S’s belief and what the epistemic status of that belief would be were it the case that there were only a cleverly disguised mule in the pen.

Suppose that S, an ordinary epistemic agent, is on a perfectly ordinary trip to the zoo. He stops in front of the zebra pen, and sees what he takes to be a zebra. Then, because he is more interested in seeing the tigers, he hurries toward the tiger cages. S, however, has gotten things wrong. In the pen marked ‘zebras’, there are no zebras, only cleverly disguised mules. Suppose that S has exactly the same evidence he would have had were he standing in front of a real zebra. It seems, then, that S is in a good epistemic position even though he has gotten things wrong.

Earlier it was suggested that when S really is looking at a zebra, the possibility that he is looking at a cleverly disguised mule is irrelevant. So one mark of an irrelevant possibility seems to be that even if it obtained, S would still be in a very strong epistemic position concerning his belief that p. Let us investigate the characteristics of this type of epistemic position.

Imagine that S walks up to the zebra pen in the zoo, and comes to believe that there is a zebra in the pen, when in fact, he is looking at a teacup, and it seems to S like a teacup.39 A world in which there is only a teacup in the pen (but is otherwise very like a world in which there is a zebra in the pen) is relevant. Surely, when a relevant possibility obtains and S still believes that p, we would think that something has gone awry concerning S’s epistemic position. But in the case in which S is looking at a cleverly disguised mule, we are not at all surprised that S comes to believe that

39Notice that there is nothing essential about it being a teacup in the pen. The point is made just as well if there is nothing in the pen, or a car, or anything that is not easily mistaken for a zebra.
there is a zebra in the pen. So one difference between relevant and irrelevant worlds seems to be that even if the irrelevant possibility obtains, \( S \) still believes that \( p \).

To conclude that this should be a necessary condition for irrelevance would be a mistake, however. Consider the zebra case. In the ordinary case, the alternative that there is only a cleverly disguised mule in the pen is irrelevant. Suppose though, that someone walks up behind \( S \) and injects him with a serum that makes him believe that there is a teacup in the pen.\(^{40}\) Is this possibility now relevant? It seems not. The possibility still seems irrelevant, even though at the world in question, \( S \) does not still believe what he believes in the actual world. Thus, it is not a necessary condition on irrelevance that \( S \) would still believe that \( p \) even if \( p \) were not the case.

The subjunctive conditional—\( S \) would still believe that \( p \) even if \( p \) were not the case—seems attractive because when people consider it, they probably think of nearby possible worlds, and consider whether \( S \) would still have the evidence he does in the actual world. If he does not, the thinking might go, then he should be in a position to tell that things are different—to use Alvin Goldman’s language, he should be able to discriminate between the actual world, and the worlds in which he no longer has the same evidence. So part of the strong epistemic position \( S \) must still be in for a world to be irrelevant has to do with his having the same evidence.

The problems with restricting one’s thinking to the distinction between nearby and distant worlds have been discussed above. Nonetheless, there is the strong intuition that at \( q \) worlds \( S \) is still in a strong epistemic position with respect to his belief that \( p \) when he still has the same evidence as he has at the actual world. What is the best way to capture this intuition?

\(^{40}\)I am indebted to Bill Roche for this example.
One way might be to claim that $S$ must still be justified in believing that $p$ at $q$ worlds. But, since this entails that $S$ believes that $p$ at those worlds, one runs into exactly the same problem encountered earlier when the thought was that $S$’s believing that $p$ at $q$ worlds was necessary for those worlds to be irrelevant. So requiring that $S$ still be justified in believing that $p$ will yield the wrong results.

The problem can be isolated and the requirement amended. Rather than requiring that $S$ is justified in believing that $p$ at $q$ worlds, the requirement can be that $p$ be justified for $S$ at those worlds for those worlds to be irrelevant.

The distinction between $S$’s being justified in believing that $p$ and $p$’s being justified for $S$ is that $S$’s being justified in believing that $p$ requires that $S$ believe that $p$, whereas $p$’s being justified for $S$ does not. However, $p$’s being justified for $S$ quickly becomes a case of $S$’s being justified in believing that $p$ when $S$ takes on the belief that $p$ on the basis of those grounds that justify $p$ for him.

The account of irrelevance so far is as follows.

\[(IW) \text{ A world } w \text{ at which } q \text{ is the case is irrelevant to an epistemic agent } S\text{'s justified belief that } p \text{ if and only if } p \text{ is justified for } S \text{ at } w.\]

A number of things need to be said by way of clarification. First, that $p$ is justified for $S$ when $q$ is the case is not enough for that world to be irrelevant to $S$’s belief that $p$. For suppose that in the actual world, $p$ is justified for $S$ on grounds $g$. Suppose, however, that when $q$ is the case, $p$ is justified for $S$ on grounds $g^*$, that are distinct

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41 This distinction first appeared in (Firth, 1978)

42 Another way to put the point: $S$’s being justified in believing that $p$ entails that $p$ is justified for $S$. Compare Feldman and Conee’s distinction between justification and well-foundedness in their (1985).

43 The irrelevance of a possibility is, of course, indexed to a particular time, which is here omitted for ease of expression.
from $q$. That the world in question is irrelevant to $S$’s belief that $p$ in this situation is not at all clear. Consider the following example. Suppose that the proposition that there is a zebra in the pen is justified for $S$ when there is one in the pen because he takes what he sees to be a zebra, and he is generally able to identify zebras when he sees them. But imagine some $q$ world, in which there is only a teacup in the zebra pen and $S$ is told by a usually reliable testifier that there is a zebra in the pen. Assume further that the person who tells $S$ that there is a zebra in the pen sincerely believes that there is one and has good reason for thinking that there is one (he has just gotten it wrong this time). Moreover, imagine that $S$ did not look into the pen, and so he has no evidence for the claim that there is no zebra in the pen. The proposition that there is a zebra in the pen still seems to be justified for $S$ by the testimonial evidence, but the possibility that there is a teacup does not seem to be irrelevant.

The best explanation for why the possibility that there is only a teacup in the pen is not irrelevant even though the proposition that there is a zebra in the pen is justified for $S$ is because $S$’s grounds for the belief have changed. This suggests that for a possibility to be irrelevant, the proposition must be justified, in worlds in which the alternative obtains, on the basis of the same evidence on the basis of which the proposition is justified in the actual world.

This does not mean, however, that $S$ must have exactly the same grounds in $q$ worlds in order for those worlds to be irrelevant. If this were required, then any time $S$’s grounds differed in the slightest bit, worlds at which $q$ obtains would be relevant. But this is not an acceptable result, so $S$’s grounds need not be identical in $q$ worlds for those worlds to be irrelevant. So to what extent must they be the same?
To answer this question, a notion characterized by Marshall Swain (1981, p. 193) may be invoked. Swain defines the notion of one set of grounds being essentially the same as another set of grounds as follows.\textsuperscript{44}

\textbf{(ESG)} The set of grounds $g'$ is essentially the same as the set of grounds $g$ with respect to justified belief that $p$ (by a person $S$) iff some subset of $g'$ is identical with that subset of $g$ which results from the deletion from $g$ of all members that are inessential to justifiably believing that $p$ (for person $S$).

The idea here is pretty straightforward. Imagine some grounds, $g$. If $g$ is pared down until paring it down any further will make it unable to justify $p$ for $S$, the essential parts of $g$ are what remain. Now imagine another set of grounds, $g'$. If some subset of $g'$ is identical to the pared down version of $g$, then $g$ and $g'$ are essentially the same set of grounds.

There is a problem, however, with putting things in these terms.\textsuperscript{45} Suppose that $S$ has two distinct sets of grounds, $g$ and $g'$ which each justify $p$ for him. Call the union of these sets $g^*$. Now imagine a set that is essentially the same as $g$. This set will not, according to (ESG), be essentially the same as $g^*$. This is because $g$ could be deleted from $g^*$, and $g'$ could do all of the justificatory work. So some set of grounds might be essentially the same as $g$, but not some sets of which $g$ is a proper subset.\textsuperscript{46}

\textbf{(ESG') } The set of grounds $g'$ is essentially the same as the set of grounds $g$ with respect to justified belief that $p$ (by a person $S$) iff some subset of $g'$ is identical with some subset of $g$ which results from the deletion

\textsuperscript{44}Swain employs the term ‘reasons’ rather than ‘grounds’, but nothing here turns on the distinction.

\textsuperscript{45}I am indebted to Timmy Fuller and John Bennett for pointing out this problem.

\textsuperscript{46}Notice that similar reasoning would show that a set essentially the same as $g'$ would fail to be essentially the same as $g^*$. Also, for the sake of simplicity, assume that $g$ and $g'$ justify $p$ for $S$ to exactly the same degree.
from $g$ enough members such that, $g$ still justifies $p$ for $S$ and the deletion of any more members of $g$ would make it the case that $g$ fails to justify $p$ for $S$.

The idea is now this. Imagine two sets of grounds. They are essentially the same, so long as there is some way to pare down the larger set until paring down any further would make it impotent with respect to justifying $p$, and the resulting set is identical with a subset of the other set. Consider $g$, $g'$, and $g^*$, from above. (ESG') has the consequence that both $g$ and $g'$ are essentially the same set of grounds as $g^*$, which avoids the problem that (ESG) faced.\(^{47}\)

(ESG') helps to clarify (IW), which now reads as follows.

\begin{quote}
(IW) A world $w$ at which $q$ is the case is irrelevant to an epistemic agent $S$’s justified belief that $p$ if and only if $p$ is justified for $S$ at $w$ on the basis of essentially the same set of grounds that justify $p$ for $S$ in the actual world.
\end{quote}

(IW) is now immune to the counterexamples offered so far.

The account is not immune to all counterexamples, however. To see this, imagine the following case. Stan is standing on the edge of a field, and sees what looks like his favorite sheep, Woolly. He comes to believe that Woolly is in the field, and then (generalizing), that there is a sheep standing in the field. As it turns out, what Stan took to be Woolly was a sheep-shaped rock. Unbeknownst to Stan, there is a sheep behind the rock. The question for the relevant alternatives theorist is whether the possibility that there is no sheep in the field is a relevant possibility to Stan’s belief that there is a sheep in the field. Intuitively, the answer is yes.

\(^{47}\)Some might find it odd that $g$ is essentially the same as $g^*$, and $g'$ is essentially the same as $g^*$, but $g$ and $g'$ might be quite distinct. If so, (ESG') may be thought of strictly as a technical notion, or the reader may substitute the term “roughly” for the term “essentially” throughout.
Does (IW) have the consequence that a world in which there is no sheep in the field relevant? Unfortunately, no. In the world in which everything is the same as the actual world, but there is no sheep in the field, Stan has exactly the same grounds he has in the actual world. According to (IW), then, the possibility in question is irrelevant, which seems to be the wrong result. Thus, the account so far is lacking. What is missing?

To answer this question, consider why the possibility that there is no sheep in the field is not irrelevant. There seems to be some evidence Stan does not have (viz. that what he is taking to be a sheep is actually a rock), that is such that if Stan were aware of the evidence, he would no longer believe that there is a sheep in the field. This suggests another condition on (IW). Not only must it be the case that in worlds in which \( q \) is the case \( p \) must still be justified for \( S \), but there must be no more inclusive body of evidence relevant to \( p \)’s being justified for \( S \) than that on which \( p \) is justified for \( S \).\(^{48}\)

This addendum helps to avoid getting the wrong result in cases like the one involving Stan and Woolly, but as the defeasibility literature has shown, conditions such as the one on offer are too strong as conditions on knowledge, and the condition on irrelevance is also too strong. Consider again the zebra in the zoo case. We agreed that, normally, the possibility that there is only a cleverly disguised mule in the cage is irrelevant to \( S \)’s belief that there is a zebra in the cage. But in worlds in which there is only a cleverly disguised mule in the cage, there is evidence available relevant to the justificatory status of \( S \)’s belief (for example, that the animal at which \( S \) is looking does not have the genetic makeup of a zebra). The proposed second condition

\(^{48}\)A body of evidence \( e \) is more inclusive than another body of evidence \( e' \) just in case \( e' \) is a proper subset of \( e \). This characterization is a quite rough, but is sufficient for present purposes.
yields the result that worlds at which there is only a cleverly disguised mule in the pen are relevant, which is the wrong result. Thus, this condition is too strong.

The reason that it is too strong is that it fails to take into account S’s other grounds. The condition in question treats S as though the only thing relevant to the justificatory status of his belief is the evidence he does not possess. This ought not be the case, since the evidence will be added to S’s grounds, and the justificatory status of S’s belief will have to be assessed on this new set of grounds. Perhaps the way to specify the condition is as follows.

(ii) There is no evidence e at w, such that, if S had e, the conjunction of e with S’s grounds g would justify q (but not p) for S at w.

Notice, however, that (ii) still does not solve the problem. (ii) is compatible with it being the case that the conjunction of e and g justifies q for S, but only because e does all of the justificatory work. That is, e could justify q in spite of S’s grounds g.

Consider again the barn facade case. Imagine that S is driving through the countryside, and sees what he takes to be, and in fact is, a barn. Ordinarily, when there are no barn facades anywhere nearby, we would say that the possibility that S is merely looking at a barn facade is irrelevant to S’s belief that there is a barn. But imagine a world in which S is looking at a barn facade. In such a world, there is evidence that would justify the proposition that there is not a barn in the field, namely, the evidence S would have if he were to take a walk around the perimeter of the barn facade. Even when conjoining that evidence with S’s other grounds that justify for him that it is a barn would yield the result that the proposition that there is a barn facade is justified for him. Thus, the condition must be remedied.
The malady with (ii) seems to be that S’s grounds can fail to play a role. So for a possibility to irrelevant, S’s grounds must play a role in justifying that alternative. Moreover, the role S’s grounds play must be an essential role.\textsuperscript{49} The evidence S does not possess might be sufficient to justify \( q \) for S by itself, and S’s grounds might simply bolster that justification. This would be unacceptable for exactly the same reason it was unacceptable for S’s grounds to play no role.

Taking these things into consideration yields the following condition.

(ii’) There is no evidence \( e \), at \( w \), such that, if S had \( e \), the conjunction of \( e \) with S’s grounds \( g \) would justify the proposition that \( q \) (but not \( p \)) for S, where \( g \) plays an essential role in justifying \( q \) for S.

This condition solves the problems raised so far, but faces still more problems. Consider again the barn facade case. If one imagines that S is driving through an area littered with barn facades, when he comes to believe that there is a barn in the field (when he is in fact looking at the only actual barn in the area), one is inclined to say that the possibility that S is merely looking at a barn facade is not irrelevant. But (ii’) has the consequence that said possibility is irrelevant, since the available evidence in a world in which S is looking at a barn facade is sufficient by itself to justify for S the proposition that there is a barn facade in the field.

(ii’) goes awry because it does not differentiate between S’s ‘good’ grounds and his ‘bad’ grounds. In the actual world, S’s belief that there is a barn in the field is partly based on his belief that if something looks like a barn, then it is one. In a situation in which there are a lot of barn facades nearby, S’s belief that if something looks like a

\textsuperscript{49}Some grounds \( g_1 \) play an essential role in justifying \( p \) if and only if, were \( g_1 \) removed from the overall set of grounds, \( p \) would no longer be justified for S.
barn, then it is one is false. This sort of ‘bad’ reason is what makes (ii') yield the wrong result. What is needed, then, is to amend (ii') so that bad reasons are screened off, and cannot play a role in determining whether a possibility is irrelevant. Notice, too, that the evidence $S$ does not possess must also be available at the actual world. This explains why, when there are barn facades nearby, the worlds at which $S$ is looking at a barn facade are relevant, and when there are no barn facades nearby, those worlds are not relevant. These two points are related—they suggest that relevant worlds are evidentially similar to the actual world, but are such that $S$’s evidence and the evidence available at those worlds (and the actual world) justify for $S$ an alternative to what he believes.

(ii') can be altered as follows.

(ii'') There is no evidence $e$, at $w$ and at the actual world, such that, if $S$ had $e$, the conjunction of $e$ with $S$’s true or veridical\(^{50}\) grounds $g$ would justify $q$ for $S$ (but not $p$), where $g$ plays an essential role in justifying $q$ for $S$.

This condition seems adequate. It accommodates how the actual world is, which should surely play a role in determining which possibilities are relevant. This, after all, was the point of the barn facade example. When there are no barn facades nearby, the possibility that $S$ is looking at a barn facade is irrelevant, but when the area is littered with them, the possibility is relevant. The difference between the two cases is how the world is, and must therefore be taken into account. (ii'') does this by allowing that only $S$’s true (or veridical) grounds play a role in determining which

\(^{50}\)The distinction between truth and veridicality is that if experiences have no propositional content, truth concerns beliefs, while veridicality concerns experiences. I want to leave open the possibility that experiences have no propositional content, and cannot, therefore, be true, but can still play a justificatory role.
possibilities are irrelevant, and requiring that the evidence available at a world also be available at the actual world.

The addition of (ii") to (IW) renders the account correct. The final account is as follows.

(W) A world $w$ at which $q$ is the case is irrelevant to an epistemic agent $S$’s justified belief that $p$ if and only if

(i) $p$ is justified for $S$ at $w$ on the basis of essentially the same set of grounds that justify $p$ for $S$ in the actual world; and,

(ii) There is no evidence $e$, at $w$ and at the actual world, such that, if $S$ had $e$, the conjunction of $e$ with $S$’s true or veridical grounds $g$ would justify $q$ for $S$ (but not $p$), where $g$ plays an essential role in justifying $q$ for $S$.

Assuming that classical logic holds, (IW) is equivalent to an account of relevant worlds. A possibility, if it is not irrelevant, is relevant. Thus, we have the following account of relevance.

(RW) A world $w$ at which $q$ is the case is relevant to an epistemic agent $S$’s justified belief that $p$ if and only if

(i) $p$ is not justified for $S$ at $w$ on the basis of essentially the same set of grounds that justify $p$ for $S$ in the actual world; or,

(ii) There is evidence $e$, at $w$ and at the actual world, such that, if $S$ had $e$, the conjunction of $e$ with $S$’s true or veridical grounds $g$ would justify $q$ for $S$ (but not $p$), where $g$ plays an essential role in justifying $q$ for $S$. 

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2.5 Objections

2.5.1 The Actual World Can Be Irrelevant?

Suppose that thirty-five year old Sally justifiably believes that Rick is her father, but he is not—Tad is Sally’s biological father. Moreover, suppose that Rick, and Sally’s mother, and any friend or relative who knew that Rick was not Sally’s biological father has also died. Finally, suppose that there is not any other evidence concerning Sally’s relationship to Tad. Let $p$ stand for the proposition, “Rick is Sally’s biological father.” Let $q$ be the proposition, “Tad is Sally’s biological father.” The actual world is a world at which $q$ is true. Is the actual world relevant to Sally’s belief that $p$? According to (IW), the answer is no.

Condition (i) of (IW) is trivially satisfied, since Sally’s belief that Rick is her father is justified at the actual world, so at the actual world, her belief is justified by essentially the same reasons as it is at the actual world. Condition (ii) is satisfied since there is no evidence that would justify the claim that Tad is Sally’s father for Sally, since there is no evidence whatsoever about who her father is, save the evidence she has. Thus, the actual world is irrelevant to Sally’s belief that her father is Rick.

For those sympathetic to Lewis’ view, this result will seem odd, given Lewis’ rule of actuality. That rule states that what is actual may not be properly ignored (i.e., is relevant). The intuition that the actual world must be relevant is, it seems, the same as the intuition that one cannot know a false proposition. But (IW) is to be embedded in an analysis of knowledge that requires justified, true belief. Thus, Sally cannot know that Rick is her father, since her belief is false. (IW) thereby captures the intuition.
The lesson to be learned is that, when one has a false belief, yet the person has all the evidence to be had concerning what she believes, the actual world might be irrelevant. Put another way, the person’s epistemic situation cannot be better, but the person might be unlucky. When the person is so, the person fails to know. The truth condition handles such cases, so the seeming oddity of the actual world’s irrelevance in such cases is benign.

### 2.5.2 Simple Deduction

Another seemingly counterintuitive consequence of (RW) is that there are examples in which, intuitively, a certain possibility is irrelevant, but there is evidence which, when coupled with $S$’s evidence, justifies for $S$ an alternative which obtains at that world.\(^51\) Consider the following example. Suppose that $S$ has some body of propositional evidence $e$ which justifies for him the proposition that there is a tree before him. At the world $w$, $S$ is standing before a holographic projection of a tree. Suppose, too, that the creator of the hologram projector is standing just a hundred yards away from $S$ (but out of $S$’s view). In the creator’s shirt pocket is a slip of paper that reads, “If $e$, then there is no tree, just a holographic image of a tree.”\(^52\) Condition (ii) of (RW) seems satisfied, since $S$’s true or veridical grounds are playing an essential role in justifying for $S$ an alternative to $S$’s belief that there is a tree before him, and it is doing so along with some evidence that occurs at $w$. Thus, $w$ is a relevant possibility, which seems to be the wrong result.

51I am indebted to William Melanson and Timothy Williamson for raising this objection.

52Suppose two things. First, that the creator keeps this slip of paper in his pocket so that he remembers what he is doing—he is an absent-minded professor. Second, that the slip of paper does not really say “$e$”, but whatever it is for which $e$ stands.
The details of this case (and others like it) are missing, and are what save (RW) from the counterintuitive consequence. Presumably, the person has some evidence which is not here being taken into account, such as there seeming to the person as though there is no hologram projector, and other background information concerning trees and how they typically appear. The evidence $S$ does not have must be coupled with his body of evidence, which includes the background information $S$ possesses. Once it is made explicit that the body of evidence which will play a role includes $S$’s background information, it is far less clear that the proposition “There is no tree before me” is justified for $S$ at $w$.

One might respond by pointing out that the counterexample under consideration requires appeal to the following closure principle for justification.

\[(CJ) \text{ If } h \text{ is justified for } S, \text{ and } h \text{’s entailing } k \text{ is justified for } S, \text{ then } k \text{ is justified for } S.\]  

Given the intuitive plausibility of this principle, the background information must not play an important role in justifying the proposition in question, and the counterintuitive result holds. The truth of (CJ) guarantees the transmission of justification.

This principle is false, however. To see that, consider the following case. Suppose that the proposition “That is a blue barn” is justified for Jimmy on the basis of perceptual evidence. Suppose also that the proposition “If something is a barn, then it is not a blue barn” is also justified for Jimmy, because he knows the local foreman of the construction crew who builds all the barns in the area, and hates the color blue. If (CJ) were true, it would follow that the proposition “That is not a barn”

\[53\text{Notice that this principle is a close relative of the principle employed in Gettier cases.}\]
would be justified for Jimmy, even though the proposition “That is a blue barn” is justified. This result is unacceptable.

The reason (CJ) fails is that it does not allow other information a person has to play a role in determining whether a proposition is justified for someone. Put another way: more is needed than entailment relations between a subset of one’s evidence for that proposition to be justified for the person. What more must be taken into account? Presumably, whatever evidence one has concerning a given proposition. Jimmy’s situation goes awry because he has other evidence about barns and their blue-ness—namely, the knowledge that if something is a blue barn, then it is a barn.

(CJ) may be amended to avoid such examples, however, yielding the following principle.

(CJ′) If h is justified for S, and h’s entailing k is justified for S, and S has no other evidence concerning k, then k is justified for S.

(CJ′) avoids situations like the Jimmy case by giving background information its due, has all the intuitive appeal of (CJ), and works just as well as (CJ) in constructing Gettier cases. It does not, however, help the objection to (RW) under consideration get off the ground.

2.5.3 The Problems of Inductive Knowledge

Jonathan Vogel (1999) has developed a series of problems facing any (RA) theory of knowledge. He has dubbed them “the problems of inductive knowledge”.

Inductive knowledge poses a problem for (RA) theories in the following way. Vogel considers Margaret, who

... examines a large number of emeralds, and observes their color. After she has examined a sufficient sample, say a thousand emeralds, she comes
to know G, that all emeralds are green. Margaret’s evidence doesn’t entail that there are no non–green emeralds. In that sense, she can’t rule out the alternative Y, that the next emerald she sees will be yellow… Margaret can know that all emeralds are green only if Y is an irrelevant alternative to G… But now suppose that Margaret has looked at only one or two emeralds and found them to be green. Nevertheless, she leaps to the conclusion G, that all emeralds are green. It would be incorrect to say that she knows G. The RA theorist will have to say that there is some relevant alternative to G that Margaret hasn’t ruled out (p. 170).

Vogel sums up the problem by asking, “how does the RA theorist account for the fact that Margaret can’t know G by observing one or two emeralds, but she can know G by observing a great many?” (Ibid.).

The (RA) theory Vogel is considering is one in which the whole story to be told about knowledge is told in terms of relevant alternatives. Knowledge, on that picture, is simply a matter of one’s evidence ruling out all of the relevant alternatives to the proposition believed. As (RA) theories are being construed here, however, ruling out all of the relevant alternatives is only a necessary condition for knowing. One must also have a justified true belief. In the second case Vogel describes, Margaret is not justified in holding her belief, since she makes a hasty generalization, which is why she does not know.

The first case concerning Margaret is a little more difficult, however, than it first appears to be. Vogel asks that one

Consider the possibility U, that there is some yellow emerald no one has or will observe. U is an alternative to G, but no one has evidence that entails the falsity of U. So, unless U is an irrelevant alternative to G, no one, including Margaret, can know G. (Ibid. p. 171)

According to (IW), however, U is an irrelevant possibility. At the world where there is a yellow emerald, Margaret has exactly the same evidence she has in the actual world,
and since she is justified in the actual world, she is justified at the world in question as well. Thus, condition (i) of (IW) is satisfied. Moreover, the evidence available about the yellow diamond would justify the proposition that not all diamonds are green on its own. Thus, condition (ii) of (IW) is satisfied. The possibility in question is therefore irrelevant.

2.6 Conclusion

A critical discussion of the literature on the notion of relevance has yielded (RW). (RW) has two main benefits over those claims concerning relevance that have previously been offered. First, it draws a clear line between those alternatives that are relevant and those that are not. Second, it explains why some alternatives are relevant and others are not in a general way, which should appease those sympathetic to Sosa’s complaint. There are two ways one’s epistemic position can be worse at a world that will make that world relevant: either the person is unjustified in believing what the person believes at the actual world, or there is some evidence the person is missing at that world that would justify for her the alternative to what she actually believes.

Answering the challenges about relevance moves one closer to having a satisfying relevant alternatives analysis of knowledge. The notions of ruling out a possibility and having evidence still require careful study. Understanding the notion of relevance puts one in a position to undertake such a study with more than mere intuition to find satisfactory accounts of these notions.
CHAPTER 3

WHY HAVING EVIDENCE IS EASY

3.1 Introduction

The account of relevant possibilities developed in the preceding chapter employs the notion of having evidence. Exactly what it is for one to have evidence is not clear. Does one who cannot remember some fact have that fact as evidence? What about someone who saw something but never became aware of it, yet forms a belief about what he saw?

The (RA) theorist is not the only one who needs to make sense of what it is to have evidence. As Richard Feldman points out (2004), many accounts of justification must make sense of the notion. For instance, coherence theories of justification hold that a belief is justified just when it coheres with the person’s doxastic system. But what is it for some belief to count as being part of one’s doxastic system? Must it be easily retrievable? Can it have been genuinely forgotten, but such that the person would again have the belief given a particular prompt? The theory of justification Feldman himself endorses (1985), evidentialism (the view that one’s belief is justified just in case it fits the evidence one has), is stated explicitly in terms of having evidence.

Perhaps surprisingly, reliabilism must also make sense of what it is to have evidence. The issue arises for Goldman’s version of reliabilism (1979) due to cases in
which one has a belief produced by a reliable process, but the person has evidence for thinking that the process is unreliable. Imagine, for instance, that your friends play a terrible trick on you. They falsely claim that they have drugged your drink with a powerful hallucinogenic drug which will prompt wild hallucinogenic experiences when you wake up the next morning. Despite your fears, you manage to fall asleep. Even if they’re cruel, your friends are thorough. As you sleep, they steal into your room, and place small pink elephant figurines all around your room. You wake up, afraid to open your eyes, since you remember your friends’ claim. Eventually, you do open your eyes. By the same visual process by which you normally gain experiential beliefs about your surroundings, you come to believe that there are little pink elephants in your room. Are you justified in so believing? It seems not. The reason, according to Goldman, is that your justification has been undermined by your belief that your friends have drugged you. Since Goldman allows that parts of one’s cognitive system (in this case, a belief) can undermine one’s justification, he must make sense of the conditions under which some such part of one’s cognitive system can do this. For instance, if you forget what your friends told you, is your justification undermined? Goldman needs to make sense of cases like this, thereby making sense of having evidence.

A very simple account of having evidence is developed in this chapter. After introducing the account, it is compared with three extant accounts of having evidence. The accounts differ only in the extent to which they require that evidence be accessible in order for one to have it. Constraining the having of evidence in terms of accessibility is a mistake, however, as is argued in §4. This realization helps to clear the way for the simple account.
3.2 The Account (HE)

Notice that (with the exception of evidentialism), the notion of having evidence arises with regard mental states (beliefs in the case of coherentism, and bits of one’s cognitive system for reliabilism). While one could be an evidentialist and hold that evidence consists of things other than mental states, Feldman himself does not. He and Earl Conee endorse a position called *mentalism*, which is the view that only mental states can justify one’s beliefs. So Feldman is interested in having evidence as it concerns mental states. That shall be the focus here, as well.  

Moreover two different types of mental states should be distinguished in order to make understanding the account to be developed, henceforth (HE), easier. The two types are belief states and non–belief evidential states. The view of beliefs endorsed here is a fairly common one, and Paul Moser describes it quite well. He says, “Believing, then, is a dispositional state of a person that is related to a propositional object. This in short is the state–object view of belief” (1989, p. 17, emphasis in original). Paying careful attention to detail, Moser distinguishes between one’s believing a proposition, and being merely disposed to believe a proposition (pp. 18–19). The difference between the two is that believing requires that one assent to the proposition either at or before the time in question, while being merely disposed to believe requires no such assent. For example, suppose $S$ believes that the Detroit Lions are the worst team in the NFL—this is a proposition $S$ has routinely asserted for the benefit of his next door neighbor, who is a Lion’s fan. $S$ believes this proposition. Now suppose that every Monday during the football season, $S$ checks the scores of

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54 Which also helps to maintain consistency with the extant views to be discussed, since they are spelled out in terms of mental states.

55 Compare Marshall Swain’s very similar distinction (1981, pp. 74–82).
the games he did not watch in the local paper, and believes that those are the correct scores. Imagine that it is Monday afternoon, and $S$ is about to pick up the paper and open it to the sports section. There, he will see that the Lions lost to the Packers by three touchdowns. Before he looks, he is disposed to believe that the Lions lost to the Packers by three touchdowns, but he has not yet assented to this proposition. Therefore, according to Moser, $S$ is merely disposed to believe that the Lions lost to the Packers by three touchdowns, but he does not yet believe it.

Non-belief evidential states include perceptual states, sensation states, and memory states. The distinction between belief states and non-belief evidential states allows all parties in the exchange over whether non-belief evidential states justify to be satisfied with what follows. For those who are friends of justification on the basis of perceptual states, the account can be judged on its own merits. For those friendly only to justification on the basis of belief states, what is said about non-belief evidential states may be ignored.

If mental states are all that count as evidence, then a very simple way to capture the notion of having evidence is as follows.

(HE) $S$ has evidence $e$ for proposition $p$ at time $t$ iff either $e$ is a belief state of $S$ at $t$ or $e$ is a perceptual/sensation/memory state of $S$ at $t$.

This account of having evidence might seem too simple. Surely the notion is more complicated than this. It is not. The next section consists of showing how three extant accounts of having evidence are simply expansions of (HE) in terms of the role the notion of accessibility plays in those accounts.
3.3 Having Evidence

3.3.1 Feldman’s Account

In his paper, “Having Evidence” (2004), Richard Feldman presents and defends an account of having evidence. To guide his discussion of several possible accounts of having evidence, Feldman sets out two conditions of adequacy on the notion.

**The Intuition Constraint** A satisfactory account of having evidence must not have consequences which violate our intuitions concerning having evidence.

**The Justification Constraint** A satisfactory account of having evidence must not have consequence which violate our intuitions about the notion of justification.

In support of The Intuition Constraint, Feldman says the following.

It is clear, for example, that I don’t have as evidence now facts I have never learned and have never thought about. Any theory that implies otherwise is mistaken. Things that I am consciously aware of now and explicitly use as the basis for some further belief are part of my available evidence, so no adequate account should rule them out. (2004, p. 227)

These are the clearest intuitions about having evidence that we have. Of course, between these extreme cases, questions about whether one has evidence are more difficult to answer, and the intuitions less clear. Such cases, according to Feldman, motivate the attempt to explicate the notion of having evidence.

In support of the Justification Constraint, Feldman points out that the notion of having evidence is understood as a necessary condition on justification. So if an account of having evidence has the consequence that one does not have evidence, and is thereby not justified, *contra* our intuitions, then the account of having evidence is mistaken.
Given these two constraints, Feldman considers and rejects several accounts of having evidence before settling on one he endorses. Among those rejected is one that is strikingly close to (HE). Against that account, Feldman claims that, “Easily desived examples suggest that [the account] is far too inclusive. Some such examples concern the evidential status of childhood memories that could only be recalled with extensive and highly directed prompting” (p. 228).

To support the claim that (HE) is too inclusive, Feldman suggests that those things (HE) maintains count as evidence one has might fail to be for one of two reasons. The first, which is relevant to Feldman’s description of counterexamples to (HE), is a “psychological accessibility condition”. Evidence that meets this condition is, in Feldman’s terminology, “available”. The second condition Feldman dubs an “epistemic acceptability condition,” according to which the evidence must actually support a given belief for it to count as evidence one has.

Feldman says precious little about the accessibility condition, but it plays a crucial role in his discussion. Every account of having evidence Feldman considers has as the analysandum “S has p available as evidence at t”.56 For Feldman, the notion of interest is one that has accessibility as a component. This is quite different than (HE), which simply addresses what it is to have evidence, not what it is for one to have evidence that is accessible. It should therefore be no surprise that Feldman finds cases of the kind he describes problematic for (HE), since such cases involve evidence that is not accessible to the epistemic agent. The issue of accessibility, and whether it favors (HE) or some other view, is addressed in detail below.

56Actually, two accounts have “S has p available as evidence relative to q” as the analysandum, but for present purposes this makes no difference. What is crucial is that Feldman builds availability into the analysandum.
The view upon which Feldman settles is the following.

\[(\text{HE}_F) \ S \text{ has } p \text{ available as evidence at } t \text{ iff } S \text{ is currently thinking of } p \] (2004, p. 232).

This account seems, on the face of it, quite different from (HE), and indeed it is. But it is only a few short steps from one to the other. (HE_F) deals only with evidence one has occurrently, and therefore is silent concerning, for instance, dispositional beliefs one has which count as evidence. (HE) is perfectly general. (HE_F) has accessibility built into the analysandum. (HE) makes no mention of accessibility.

On the other hand, both accounts are mentalistic. Feldman is explicit that beliefs play a crucial evidential role, and he says, “In what follows I will sometimes refer to pieces of evidence as beliefs, but I do not wish to rule out the possibility that experiences or perceptual states can count as evidence as well” (pp. 225–26). These considerations suggest that one can only be “currently thinking of” mental states.

A very simple way to restrict (HE) to occurrent mental states would be to hold that one has evidence just in case one is in some occurrent mental state. If one thought that having accessible evidence was the correct notion to be assessing, a straightforward way to capture that notion might be to hold that one must be thinking of that evidence for it to count as accessible (occurrently). Thus, (HE) and (HE_F) are more similar than it appears at first blush.

3.3.2 Moser’s Account

Moser’s account may be summarized as follows.

\[(\text{HE}_M) \ S \text{ occurrently has a justifying reason, } X, \text{ for a proposition, } P \text{ if and only if } X \text{ is occurrently a justifying, maximal probability–maker for } P \text{ for } S \text{ (1989, pp.151–52).}\]

\[57\text{Moser does not give a formal account. The account offered above is extracted from what he says about having evidence.}\]
The first thing to notice about Moser’s account is that it addresses only evidence one currently has. Moser claims that, “My remarks on one’s currently having a reason have direct analogues to one’s noncurrently having a reason” (1989, p. 155). Moser claims to have thereby given a general account of having evidence (more on this below).

Moser employs the notion of a “justifying, maximal probability-maker” to explicate the notion of having evidence. This is a technical notion Moser goes to lengths to articulate, but the details are not all relevant to this discussion—most of them concern the relation that must hold for one proposition to count as a evidence for another. The only aspect of justifying, maximal probability-makers that is relevant to having evidence is Moser’s requirement that they be “present to S’s awareness” (1989, pp. 139–140).

The notion of presentation is, according to Moser, to be understood in terms of direct nonconceptual awareness. Moser says,

> On my notion of presentation, one is presented with nonconceptual contents only if one is directly aware of those contents; and the directness of such awareness consists in its not essentially involving awareness of any other contents.

Of concern here is that Moser maintains that a necessary condition for being presented with some content (and thereby a necessary condition for having evidence) is that one be directly aware of those contents. The following seems quite plausible: one can be aware of a particular content only if one is in a mental state with that content. So for Moser, one has some evidence only if one is in a particular mental state.

(HEₐ) differs from (HE), then, only in the extent to which it requires that one’s mental states be accessible to one for those states to count as evidence one has. It
differs from \((\text{HE}_F)\) in that the awareness appears in the analysans, rather than in the analysandum.

### 3.3.3 Swain’s Account

Marshall Swain characterizes having evidence as follows.\(^{58}\)

\[(\text{HE}_S) \; S \text{ has or had reason } r_j \text{ at a time } t_n \text{ if and only if } r_j \text{ is, or was, a potential reason state of } S \text{ at } t_n \] (Swain 1981, p. 82).

Understanding Swain’s account requires getting clear about the notion of something’s being a potential reason state. According to Swain, some state \(r\) is a potential reason state for a person \(S\) just in case \(r\) is a state of \(S\), and either \(r\) is one of \(S\)’s belief states or it is possible for \(S\) to be directly aware of \(r\) (p. 81).

Notice that belief states that are potential reason states might be such that one need not be able to be directly aware of them.\(^{59}\) Non-belief states, such as perceptual states, are such that one must possibly be directly aware of them. This has the consequence that belief states are potential reason states even though one might not possibly have direct awareness of his beliefs.\(^{60}\)

Given \((\text{HE}_S)\), and the fact that belief states are potential reason states even though one might not have any awareness whatsoever of those states, it follows that one can have as a reason (evidence) a belief of which one cannot be aware. This is an incredibly weak requirement on having evidence.

\(^{58}\)Swain speaks in terms of having reasons. For the purposes of this paper, understanding the terms “reasons” and “evidence” as synonyms raises no difficulties.

\(^{59}\)Swain leaves the notion of awareness primitive. So shall the notion of direct awareness be left primitive here, as it is not essential for what follows.

\(^{60}\)Swain is not explicit about this, but it seems that he leaves open the possibility that a belief state be a potential reason state even though one does not possibly have any awareness of it.
The disjunct of the account concerning non-belief potential reason states seems only slightly less weak. It says that, in order for a non-belief state to be a reason, it need only be possible for the person in question to be directly aware of it. Swain does not specify what type of possibility he has in mind. If it is logical possibility, then the requirement is very weak indeed. Most likely Swain is thinking of practical possibility, which would render the account of potential reason states (and thereby the account of having evidence) less weak. It remains to be seen, however, how this is to be spelled out.

Swain’s account of having evidence amounts to this. One has some bit of evidence just in case that bit of evidence is a belief state that the person is in, or is a non-belief mental state that the person is in and of which the person could be directly aware. As noted, this is a fairly permissive account of having evidence.

(HE) Differs from Swain’s account only in that Swain requires, of non-belief mental states, that it be possible for the epistemic agent to be directly aware of them for them to count as evidence the agent has.

3.4 Accessibility

(HE), (HE_F), (HE_M), and (HE_S) differ in the degree to which they require accessibility. (HE) makes no mention of accessibility. Swain’s account allows that it be merely possible for one to have access to perceptual states for those states to count as evidence one has. Moser’s account goes beyond this, and requires that one actually be aware of a mental state for that state to count as evidence one has. Feldman’s account goes beyond this, and builds the accessibility into the analysans.
The disagreements, moreover, are substantive. Feldman considers a counterexample to his view like the following. Consider a fan or Corvettes who has been a fan for a number of years. One day, the fan is driving down the road, and his wife points out that there is a Corvette just ahead of them. The husband says, “Yup, it’s ’62.” The wife, who is well aware of her husband’s fondness for Corvettes, accepts her husband’s assessment. Assume that, if asked, the husband could tell his wife (or anyone else) what it is about the car that distinguishes it as a 1962 rather than a 1961 model or a 1963 model.61

The fan seems justified in believing that the car is a 1962 Corvette, but he is not currently thinking about what distinguishes that model from earlier and later models. On Feldman’s account, since he does not seem to be currently thinking about those features of the car, he does not have the recognition of those features as evidence, and therefore his belief is not justified.

Feldman responds to this example by suggesting that the fan, when first learning how to identify the differing body styles of Corvettes, consciously checked various aspects of the styles. Feldman goes on to say

The process that previously occurred consciously still occurs, but not consciously. If \([HE_P]\) is interpreted to imply that this additional evidence is available, then \([HE_P]\) does not conflict with out intuitive judgment that the [fan’s] belief is justified. (p. 240)

According to Feldman’s account then, one can be non–consciously thinking of something, and that evidence is thereby available.

This conflicts quite sharply with Moser’s account. Recall that Moser requires that one have direct awareness of the contents of a mental state for it to count as evidence.

61 In 1963 the Corvette body was changed dramatically, as that is the first year of the Stingray. The 1961 model is very similar to the 1962 model, however, and are easily confused by those who do not know what changes were made on the newer model.
one has. Since, in the case of the Corvette fan, he is not aware of the features of the Corvette at which he is looking, the mental states the content of which involve the features of the car that distinguish it as a 1962 Corvette do not count as evidence he has. Therefore, the fan’s belief is not justified on Moser’s account.62

Swain has a very simple answer to the fan case. For Swain, it need only be possible for the fan to access the contents of the mental states having to do with the features that distinguish the car as a 1962 model. But, according to the details of the case, the fan could do this. So this case is no problem at all for Swain’s case.

What’s at issue, then, between the accounts of having evidence is a substantive disagreement about accessibility. (HE) is silent about accessibility. Why prefer such an account to one of the accounts that does make mention of accessibility?

3.5 Why (HE)?

Those who endorse an account of having evidence involving accessibility typically do so as the result of considering cases in which one is in a particular mental state that is not accessible, and is such that the person thereby has an unjustified belief. If, however, an account of having evidence like (HE) were correct, the person would have a justified belief, which is intuitively the wrong result. On the basis of this, they conclude that accessibility must play a role in an account of having evidence. To see what is wrong with this sort of reasoning, consider the following.

62 Some might think that this constitutes a counterexample to Moser’s account of having evidence. Moser could, however, make adjustments elsewhere (like in his account of justification) which would ward off the counterexample. Moreover, Moser could try to explain away the intuition that the fan’s belief is justified. At any rate, whether this is in fact a counterexample to Moser’s view is not addressed here.
NASCAR drivers do not have a great view from their seats. In fact, much of the safety equipment in the car’s cockpit prevents the driver from seeing out either side of the car. The driver sees behind the car by using the rearview mirror, but has no side mirrors. To prevent accidents, each driver has a “spotter”—a person standing high on the grandstands who communicates other cars’ relative positions to the driver via radio.

Aside from these means of finding out when a car is next to them, drivers will often say that they “feel” another car next to them. The explanation usually offered for this feeling is that how the air flows off of the car changes when another car pulls along side, and the driver is noticing how the change in the air flow is affecting how the car handles. You can experience this phenomenon on a slower scale. The next time you are on a multi–lane highway, pull up next to a semi. As you approach the front of the semi, your car will handle as normal. But when you pull almost even with the tractor, you will feel you car pull as the air coming off of the front of the semi blasts the front of your car. Once you complete the pass, your car will again handle normally.

With this in mind, consider the following.

**The Dale Case:** Dale is fifteen years old, and has been receiving driving lessons from his father. Having only his learner’s permit, Dale has little experience behind the wheel of a car. Dale’s father is a little frustrated with Dale, because Dale has already gotten into the bad habit of changing lanes without checking his mirrors or his blind spot. Fearing an accident, and what that will do to his insurance premiums, Dale’s father is constantly watching his son as Dale drives. As it turns out, however, Dale is something of a freak—he is carefully
attuned to how the air moves off of the car, and can tell immediately when it changes, and whether that change is caused by another car in close proximity. Thus, whenever there is a car next to his, Dale can feel it by noticing how the handling of his car changes—he is perfectly reliable concerning whether there is a car next to his. Dale does not, however, have any beliefs about his abilities, nor about airflow and how it affects how a car handles.

One day, as he and his father are driving down the highway, Dale’s father instructs Dale to change lanes. Dale’s father has been intently watching Dale to see if has been checking his mirrors (and found that he has not), and is keenly attentive to whether Dale will check his mirrors before changing lanes. Dale does not check his mirrors, forms the belief that there is no car there on the basis of the car’s handling not changing, and changes lanes. There was no car there, but this does not stop Dale’s father from reprimanding him for his seemingly unsafe driving practices.

Is Dale’s belief that there is no car next to his (just before he changes lanes) justified? Seems not. Notice that the structure of the Dale case is similar to what Keith Lehrer refers to as “the opacity objection” to externalism (2000, pp. 185–88). The most well–known version of the opacity objection is probably BonJour’s Norman case (1985, pp. 41–5).

Norman is a clairvoyant who has no beliefs about clairvoyance generally, nor about his particular clairvoyant abilities. He is perfectly reliable with respect to the whereabouts of the president of the United States. According to one externalist account of justification, process reliabilism63, one’s belief is justified just in case it

63For what is perhaps the most clear and complete discussion of reliabilism, see (Goldman 1986)
was produced by a reliable belief forming process. Any particular belief about the whereabouts of the president Norman has was reliably produced, and thereby justified, according to reliabilism. This seems to be the wrong result, which poses a problem for reliabilism.

Bonjour offers the following assessment of the problem.

Norman’s acceptance of the belief about the President’s whereabouts is epistemically irrational and irresponsible, and thereby unjustified... Part of one’s epistemic duty is to reflect critically upon one’s beliefs, and such critical reflection precludes believing things to which one has, to one’s knowledge, no reliable means of epistemic access (1985, p. 42).

Thus, Bonjour takes Norman to be unjustified because he does not have access to his reasons.

Notice that if Norman’s situation is modified so that he does have access to his reasons, then he will be justified. Suppose that Norman has beliefs about how clairvoyance works in general, and he has established a track-record concerning how well his clairvoyant abilities work. In this modified situation, Norman seems to be justified in holding beliefs concerning the whereabouts of the president, when they are based on his clairvoyance.

Dale’s case seems quite similar. Suppose that Dale’s father gives Dale the historical background offered above (just before the Dale case), and Dale establishes a track record concerning his ability to detect changes in his car’s handling that are caused by the close proximity of another car. He would then seem to be justified in believing, on the basis of his ability, that there is a car next to his.

Since Dale’s belief is unjustified when he does not have access to his reliability and the feeling of how the car’s handling is affected by another car’s proximity, but his belief is justified when he does have such access, an account of having evidence
which allows, in the former situation, that Dale has as evidence what would justify his belief in the latter case, violates Feldman’s Justification Constraint. Such an account is therefore unacceptable.

Or is it? Suppose that an account of justification that requires having evidence also requires that the evidence one has be accessible. Such an account, coupled with (HE) would not have the counterintuitive consequence that Dale’s belief is justified. Dale would have as evidence the feeling of the car’s handling remaining constant, but his belief would not be justified, because it would fail to meet a necessary condition for justification—namely, that his evidence be accessible.

Why should one think that accessibility is a necessary condition on justification rather than being an important aspect of the notion of having evidence? For one motivated by the opacity objection, there are two reasons. The first is that, as shown above, exactly to what accessibility amounts is not obvious. The notion is, however, at the center of the internalism/externalism debate.\(^{64}\) Since the notion is an important one in epistemology, and there are substantive disagreements about it, it deserves its own treatment. The discussion about accessibility ought not be bound up in the discussion of having evidence. It should receive its own consideration as a necessary condition for justified belief.

Consider the following analogy. Imagine that just after Gettier published his famous result, defenders of the justified, true belief analysis of knowledge placed a “Knowledge Constraint” on accounts of justification. The constraint required that any account of justification not have counterintuitive consequences concerning knowledge. Then imagine that someone gave an account of justification which did not address

\(^{64}\)See, for instance, Conee and Feldman’s discussion in (2004b), and (Alston 2001), and (Goldman 2001).
Gettier cases. Would it be appropriate for one to invoke the Knowledge Constraint and maintain that the account of justification in question is unacceptable? Surely not. The reason seems to be that the Knowledge Constraint extends only so far as the notion in question plays a role in human knowledge. Justification, many maintain, is irrelevant to whether one is gettiered and thereby does not know. Gettier cases require something over and above justification for one to have knowledge. The Knowledge Constraint on justification should be understood something like this: an account of justification, when coupled with whatever else is required for knowledge, cannot have counterintuitive consequences concerning knowledge.

Feldman’s Justification Constraint on an account of having evidence should be understood in the same way, *mutatis mutandis*, if the analogy holds. Since we have pre-theoretic intuitions about having evidence (as evidenced by the Intuition Constraint) as we do about justification, and justification has several necessary conditions as knowledge does, the analogy seems fine. When understood in this way, the Justification Constraint does not tell against (HE) in the way Feldman thinks it does. The defender of (HE) can and should embrace the Justification Constraint as well.

The second reason concerns the use to which the notion of having evidence is put. The notion is considered here for the role it plays in the account of relevant possibilities developed in the previous chapter, and the role it will play in the account of eliminating a possibility developed in the next chapter. As Feldman notes in his discussion of the notion\(^{65}\), however, it has wider application. The notion of having evidence appears in a number of accounts of justification, and, somewhat surprisingly, even plays a role in process reliabilist accounts of justification.

\(^{65}\)See pp. 223–25
Reliabilists hold (roughly) that a belief is justified just in case it was produced by a reliable process—that is, a process that produces more true beliefs than false ones. Suppose, though, that one believes that his great-grandmother has become an unreliable testifier. But then, at a moment when he is not thinking about her reliability, his great-grandmother tells him that the uncle’s house is white, and he comes to believe that his uncle’s house is white on this basis (suppose that this process is reliable). In this case, it is not clear that the person’s belief is justified because, according to the reliabilist, there is another reliable process which could have been used and would not have produced the belief that the uncle’s house is white.\textsuperscript{66}

Of Goldman’s account, Feldman asks, “Which inferences from which stored but unconsidered beliefs are available at any given time? Thus, questions about evidence possessed arise for this reliability theory as questions about availability” (2004, p. 225).

Perhaps Feldman’s conclusion is too quickly drawn, however. Feldman takes the questions about evidence possessed for Goldman to be questions about availability. To see that they are not, consider what Goldman says in response to cases like BonJour’s Norman case (which differs from the case above because Norman has no beliefs about the reliability of his clairvoyant abilities). Concerning cases like the Norman case, Goldman says, “For although they do not in fact believe that the target beliefs are unreliably caused, they are justified in so believing (in a sense to be specified below)” (1986, p. 111). The sense specified is what was, in the last chapter, referred to as propositional justification (which Goldman calls ex ante justification). Recall that some proposition $p$ can be justified in this sense, given the evidence one has, even if

\textsuperscript{66}See, for example, (Goldman 1986, esp. pp. 110–13)
one does not believe that $p$. Goldman holds that the proposition that he does not have reliable clairvoyant abilities is justified for Norman (even though he does not hold the corresponding belief). Since this belief is \textit{ex ante} justified for Norman, there is a process which Norman could have used which would not have produced the belief that Norman actually has.\textsuperscript{67}

Goldman has articulated the notion of \textit{ex ante} justification as follows.

\begin{enumerate}
\item \textbf{(EAJ)} Person $S$ is \textit{ex ante} justified in believing $p$ at $t$ if and only if there is a reliable belief–forming operation available to $S$ which is such that if $S$ applied that operation to his total cognitive state at $t$, $S$ would believe at $t$–plus–delta (for a suitably small delta) and that belief would be \textit{ex post} justified. (1979, p. 21)
\end{enumerate}

The notion of availability that Goldman is here employing is quite different than the notion Feldman uses. Goldman means available in roughly the sense that current scientists have superconductors available to do experiments while scientists two hundred years ago did not have them available. One should therefore not be misled by that term into thinking that Goldman requires that the process be accessible to the agent in order for one to be \textit{ex ante} justified.

Notice that nothing else in (EAJ) suggests accessibility. Moreover, Goldman himself is critical of the idea that access is required for a belief to be justified (2001). So if some proposition’s being \textit{ex ante} justified for one is sufficient for that proposition to undermine the justification for some other belief, and accessibility appears in neither notion of justification (\textit{ex ante} or \textit{ex post}), then Goldman’s need to make sense of accessibility will not be served by an account of having evidence which requires

\textsuperscript{67}Goldman says, “[Norman] is \textit{ex ante} justified in believing that he does not possess reliable clairvoyant processes. This undermines his belief in [the president’s whereabouts]” (1986, p. 112)
accessibility. In fact, the language Goldman uses when he speaks of applying an operation to one’s “total cognitive state” suggests that (HE) would far better serve his purposes.

The point is that Goldman and his fellow reliabilists need not maintain that their commitment to the notion of having evidence has anything to do with the availability of one’s evidence. (HE) can do all the work the reliabilist needs, and it does so without committing the reliabilist to the notion of accessibility (which is anathema to reliabilists).

Moreover, a relevant alternatives theorist need not think that accessibility is require for justification. If not, the (RA) theorist might maintain that accessibility is not required for a world to be relevant or for one’s evidence to eliminate a world. In such a case, (HE) would be available.

Since (HE) keeps distinct the notions of having evidence and accessibility, and it better serves the wider uses of the notion of having evidence, it is preferable to any of the accounts considered above.

### 3.6 The Intuition Constraint

Finally, it is worth pointing out that (HE) satisfies the intuition constraint. Recall what Feldman says about the Intuition Constraint.

It is clear, for example, that I don’t have as evidence now facts I have never learned and have never thought about. Any theory that implies otherwise is mistaken. Things that I am consciously aware of now and explicitly use as the basis for some further belief are part of my available evidence, so no adequate account should rule them out. (2004, p. 227)

Notice that (HE) gets the clear intuitions correct. One cannot be in the state of believing something one has never learned nor thought about. If one is consciously
considering aware of some mental state, then presumably one is in that mental state. So (HE) does not violate the Intuition Constraint.

3.7 Conclusion

Having evidence amounts to being in some mental state or other. Extant accounts of having evidence consider the notion of having evidence along with the notion of accessibility. Since there are substantive disagreements about what accessibility amounts to, and counterexamples to (HE) are counterexamples to account of justification that do not invoke the notion of accessibility, there is reason to think that the two notions should be considered individually. (HE) allows for this, as it treats the notion of having evidence by itself.

Moreover, (HE) satisfies Feldman’s two constraints on an account of having evidence, and it could be employed more broadly than the extant accounts (since it could be employed by the reliabilist and by the (RA) theorist). These considerations speak in favor of (HE).

If everything above is correct, it seems that having evidence is not a very interesting notion after all. The interesting notion, for those that are both interested in the notion of having evidence and are moved by the opacity objection, is accessibility. Rather than focusing on what it is to have evidence, those inclined toward internalism should focus on what it is for that evidence to be accessible.
CHAPTER 4

ELIMINATING A POSSIBILITY

4.1 Introduction

The last chapter gave reasons for thinking that the proper way to think of having evidence is simply in terms of the mental states one is in at a given time. So it is those mental states that play a role in determining which possibilities are relevant to one’s justified belief. Since the relevant possibilities must be eliminated in order for one to know, and it is one’s evidence that does the eliminating, it is the mental states one is currently in that eliminate possibilities.

This chapter spells out the details of exactly how the elimination works. Unfortunately, the notion of eliminating a possibility receives very little attention in the literature. What little work is available is discussed, and plays an important role in the final account.

4.2 Perceptually Eliminating an Alternative

Alvin Goldman (1976) and David Lewis (1996) provide (RA) accounts of perceptual knowledge. They provide similar accounts of eliminating an alternative (world). Goldman’s view is as follows.

68See James Pryor’s (2001) discussion, for example.
(EA) An alternative, $q$, to $S$’s belief that $p$ is eliminated if and only if, were $q$ the case, $S$ would not believe that $p$.\textsuperscript{69}

( EW) A possibility $w$ is eliminated if and only if the subject’s perceptual experience and memory in $w$ do not exactly match his perceptual experience and memory in actuality.\textsuperscript{70}

These two views are very closely related. Goldman’s view, since it is a counterfactual, can rather easily be understood as the elimination of a world: a nearby world $w$ at which an alternative, $q$, to $S$’s belief that $p$ obtains is eliminated if and only if, at $w$, $S$ does not believe that $p$. When Goldman’s view is stated in these terms, the differences between his view and Lewis’ becomes apparent.

The difference is that Goldman’s view is restricted (assuming a Lewis–Stalnaker account of counterfactuals) to nearby worlds. This explains an apparent difference between the two accounts. On the face of it, Goldman’s view seems as though it might have different consequence than Lewis’ because Lewis allows that one not believe an alternative to what the person actually believes without the possibility in question being eliminated (since the person’s evidence would have to change for it to be eliminated). But if Goldman’s account is restricted to nearby worlds, the two accounts are coextensive over those worlds. What would show that the two accounts come apart is a world at which one’s evidence stays the same, but the person does not believe what he believes at the actual world, and the world is not eliminated (or a world at which one’s evidence is different, but the person still believes what he believes at the actual world, and the world is eliminated). Such cases seem to require

\textsuperscript{69}Goldman offers this in his (1976, p. 778), but does not settle on it as his final account. He offers a more detailed final account the details of which are irrelevant for present purposes.

\textsuperscript{70}This is a slight reformulation of the view Lewis actually offers (1996, p. 553)—he expicates the notion of what it is for a possibility to be uneliminated.
enough changes in the world so that any such world would not count as a nearby world (assuming that overall world similarity is the metric for closeness).

One reason, for present purposes, that the difference between the two accounts is of interest is that (RW), the account of relevance with which an account of eliminating a possibility is to be coupled, allows that distant worlds be relevant. Goldman’s account will be of little help in that regard.

Perhaps if Goldman’s restriction to nearby worlds is lifted, it would serve an account of knowledge involving (RW) better even than Lewis’ account. This is not so. Recall from Chapter Two the problem with the thought that an world is relevant if, at that world, a person would no longer believe what the person believes in the actual world. Once worlds that are quite dissimilar from the actual world enter consideration, conditions like this are in trouble. At distant worlds, lots of things can make it the case that a person no longer believes what the person believes at the actual world, and many of those things will have no bearing on whether the person knows (at the actual world). Consider the following counterexample to Goldman’s modified view. Suppose that at the actual world, $S$ sees a tree and on this basis believes that there is a tree before him (and he is in normal and adequate lighting, and his cognitive faculties are functioning normally, etc.). According to condition(i) of (RW), the world $w$, at which there is only a teacup before $S$, but $S$ has received a blow to the head which leads him to believe that there is a tree before him even though it seems to him like a teacup, is relevant. But Goldman’s account of elimination has the consequence that this world is not eliminated, and therefore $w$ precludes $S$ from knowing that there is a tree before him. Lewis’ account, in contrast, does not

\footnote{It should be understood that $S$ is not hallucinating that there is a tree before him.}
have this consequence. On Lewis’ account, S’s perceptual experience is different at
\( w \) from what it is at the actual world, so \( w \) is eliminated.

Cases like this show that (EW) is superior to (EA). Some clarificatory remarks are
in order concerning (EW), however. Lewis’ view is that one’s perceptual experience
and memory differing even a bit at some world from what they are at the actual world
is sufficient for eliminating that world. But imagine a case where S’s evidence for
what he believes at the actual world is better in some world \( w \). For instance, suppose
that at the actual world, S believes that \( p \) on the basis of a visual experience. Suppose
that at \( w \), S is in better light and has a less obscured view than he does at the actual
world.\(^{72}\) According to a strict reading of (EW), the world in question is ruled out.
But this hardly seems right. For imagine a skeptical scenario in which S’s perceptual
experience differs slightly from the perceptual experience S has at the actual world.
The skeptical scenario would be ruled out, which seems to be the wrong result.

Lewis has a simple reply to such cases: restrict the analysandum of (EW) to
relevant worlds. A relevant world is one at which some alternative to what a person
actually believes obtains, and is such that either the person would not be justified
in believing what he actually believes or there is evidence at the world in question
which, along with the person’s actual evidence, justifies the alternative that obtains
at the world in question. At such a world, if S’s evidence is better for what he actually
believes, then the world will meet neither condition for relevance (assuming that what
actually believes is justified by the evidence he actually has). Thus, those worlds are
irrelevant, and therefore do not need to be eliminated for S to know what he believes

\(^{72}\)These differences would have to be unnoticeable to S. If S were to notice them, it is more
tempting to say that the world is indeed eliminated.
in the actual world. The restriction to relevant worlds is well motivated—the question of elimination simply does not arise for irrelevant worlds.

4.3 Generalizing (EW)

One might, at this point, be so smitten with (EW) that one thinks (EW) could be ripped from its natural place in an account of perceptual knowledge, and planted (with suitable amendments) into a more general account of empirical knowledge. If one so thought, one would be mistaken. The aim of this section is to show why (EW) cannot be generalized, and to motivate (EP), the positive proposal developed below.

Here is (EW) generalized.

\[(EW')\] A relevant possibility \(w\) is eliminated if and only if the subject’s evidence in \(w\) does not exactly match his evidence in actuality.

\[(EW')\] is open to counterexample, however.\(^{73}\) Suppose that Wally believes that his wife, who is a psychologist, is unfaithful. His evidence is that she routinely comes home smelling of men’s cologne, and that she spends long hours away from home. She is also less interested in Wally recently, and seems standoffish to Wally. Wally’s friend, Parker, also tells Wally that Wally’s wife is unfaithful. Wally places little trust in Parker’s testimony, however, since Parker is notoriously bitter after having been cuckolded—he thinks that every woman is unfaithful. Wally cannot, however, ignore Parker’s testimony—even though he is bitter, he might be right this time.

Now imagine a world, \(w\), at which Wally’s wife is faithful. Moreover, she has been involved in a study which aims to determine whether people of a particular gender react certain ways to certain smells only, or if those smells must be correlated with

\(^{73}\) Recall from chapter two the need to invoke Swain’s notion of two sets of grounds being essentially the same. The problem for (EW’) turns on that same issue: one’s evidence can shift from one world to the next.
familiar sights. Wally’s wife pretends to be an experimenter investigating something else, when really she is wearing men’s cologne to see how people will react to it as she asks them questions. Suppose that Wally still has exactly the same evidence at \( w \) that he has at the actual world, save that he has never spoken to Parker about his suspicions. According to (RW), \( w \) is relevant, since the evidence that will justify the proposition Wally believes will include some of his actual evidence (for instance, once learning about the experiment, Wally’s recognition of her coming home smelling of cologne will play a role in justifying the proposition that she is faithful). But according to (EW’), \( w \) is eliminated, since Wally does not have the same evidence at \( w \) that he has at the actual world. This seems to be the wrong result.

The reason that (EW’) seems to get the wrong result is perhaps best explained by thinking about eliminating possibilities in terms of our discriminatory capacities. Recall from Chapter One that what it is to be able to discriminate one possibility from another is what it is to eliminate that possibility. The idea here seems to be this. Were God to look at an epistemic subject’s evidence, and compare it with a relevant world, that world would be eliminated when the subject’s evidence is incompatible with that world.

Since many people hold that perceptual evidence lacks propositional content, articulating how one’s perceptual evidence is incompatible with some possible world presents a challenge. Lewis’ (EW) is an attempt to say what it is for some possible world to be incompatible with a subject’s perceptual experience. A world is incompatible with some experience when the person would fail to have exactly that experience at the world in question. Returning to the metaphor, were God to look at the range of relevant worlds, and look at whether the epistemic subject’s evidence
picks out the actual world, it must be the case that none of the relevant worlds are worlds in which the subject has exactly the same perceptual experiences. If there is even one, then the subject’s evidence fails to distinguish the actual world from the world in question. That is, the subject’s evidence does not allow God to distinguish between the actual world and some relevant world.

Returning, then, to the Wally case, the reason that case poses a problem for \((\text{EW}')\) seems to be that it would allow a world to be ruled out too easily. If God can look at Wally’s actual evidence, and note that he lacks some irrelevant evidence at some relevant world, then that world is eliminated. The reason that this seems to be too easy stems from the fact that Wally’s evidence is propositional—he believes, at the the actual world, that Parker told him his wife is unfaithful. If the elimination of an alternative is best understood in terms of logical incompatibility, then there is little reason to maintain that propositional evidence must be treated as nonpropositional evidence. The incompatibility between propositional evidence and a possible world is straightforward. Propositions are true or false at worlds (more on this below). Thus, either there is a logical incompatibility between some of \(S\)’s propositional evidence or not. If there is, then \(S\)’s propositional evidence eliminates the possibility; if there is not, then the world is uneliminated.

4.4 An Account of Eliminating a Possibility

4.4.1 The Account

All this suggests the following account of eliminating a possibility.

\((\text{EP}')\) A relevant possibility \(w\) is eliminated by evidence \(e\) that \(S\) possesses if and only if either

1. \(e\) is non–propositional and, at \(w\), \(S\) does not have \(e\), or;
(2) \( e \) is propositional and \( e \) is logically incompatible with a proposition true at \( w \).

This account captures the general idea behind the explanation of what is wrong with \((\text{EW}')\), but it faces exactly the same difficulty. Recall Wally’s situation. \((\text{EP}')\) would have it that the world \( w \) is eliminated because one proposition comprising Wally’s evidence is that Parker told him that his wife is unfaithful. But at \( w \), the proposition that Parker did not tell Wally that his wife is unfaithful is true. Thus, there is a logical incompatibility between Wally’s evidence and \( w \), and by \((\text{EP}')\), \( w \) is eliminated. As with the Wally case, this is the wrong result.

The reason \((\text{EP}')\) goes awry is that it allows that the propositions true at a given world that concern a subject’s evidence play a role in determining whether that world is relevant. This amounts to one’s evidence eliminating a possibility when one does not have the same evidence at that world.\(^{74}\) So the range of true propositions that can be incompatible with one’s evidence at a given world must be restricted.

Restricting the true propositions at a world yields the following account.

\((\text{EP})\) A relevant possibility \( w \) is eliminated by evidence \( e \) that \( S \) possesses if and only if either

1. \( e \) is non–propositional and, at \( w \), \( S \) does not have \( e \), or;
2. \( e \) is propositional and \( e \) is logically incompatible with a proposition true at \( w \), where that proposition is not the negation of some proposition comprising \( e \).

Notice that \((\text{EP})\) does not face the problematic result \((\text{EW}')\) does in the Wally case. Since, at world \( w \), Wally does not have the evidence of Parker’s testimony and that evidence is propositional, it plays no role in determining whether \( w \) is eliminated. Moreover, at \( w \), all the rest of Wally’s evidence is just what it is at the actual world,

\(^{74}\)This holds, at least, in those cases in which one lacks some bit of evidence at a world that the person has at the actual world.

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and it is not incompatible with any of the propositions true at \( w \). Thus, \( w \) is not eliminated, which is the correct result.

The rest of the clarificatory remarks about how (EP) handles cases are reserved for the next chapter, in which (EP) and (RW) are brought together to illustrate the elegance of the resulting account of knowledge. The consequences of (EP) are easier to see when considering cases of knowledge, as those intuitions are far more central and more clear than intuitions about eliminating a possibility.

### 4.4.2 Is There Nonpropositional Evidence?

Despite the mention of nonpropositional evidence in clause (1) of (EP), no stance is here being taken on whether there is such a thing.\(^{75}\) For those friendly to nonpropositional evidence, (EP) is fine as it stands. For those unfriendly to nonpropositional evidence, clause (1) is vacuous, and clause (2) would constitute the whole of (EP). Either way, whether there is nonpropositional evidence will only make a notational difference to (EP)—all parties to that debate may make use of (EP).

### 4.4.3 Are Possibilia Concrete or Otherwise?

Setting the stage for his account of knowledge, Lewis says the following.

> We needn’t enter here into the question whether [possible worlds] are concreta, abstract constructions, or abstract simples. Further, we needn’t decide whether they must always be maximally specific possibilities, or whether they need only be specific enough for the purpose at hand (1996, p. 552).

As with Lewis’ account of knowledge, no position will be taken on the exact nature of possible worlds here. Nor does (EP) commit one to a particular position on the

\(^{75}\)For two excellent discussions on this topic, see chapter four of (BonJour 1985) and (Brewer 1999).
nature of possible worlds. Suppose that one holds a version of Lewis’ realism, on which possible worlds are real. Just as there are true propositions at the world we call actual, so are there true propositions at every other world. (EP) works quite well with this view. Suppose that one holds a view like Plantinga’s actualism, on which possible worlds are maximal sets of sentences. (EP) is congenial to this view as well, since it straightforwardly allows the comparison between the propositions comprising the world and the propositions comprising one’s evidence.\(^{76}\)

(EP) might be inconsistent with some ways of thinking about possible worlds, but it is not committed to one particular view. I happen to favor thinking of possible worlds in Plantinga’s terms, but reader’s need not follow me in this regard. Important for present purposes is that (EP) is compatible with most (if not all) ways of thinking about possible worlds.

### 4.5 Conclusion

Lewis and Goldman’s accounts of perceptually eliminating a possibility capture what seems like the correct general idea concerning the elimination of a possibility: incompatibility between one’s evidence and a given world. The accounts, as stated, cannot be generalized. In order to that, the incompatibility must be spelled in terms of logical incompatibility.

\(^{76}\)In the case of nonpropositional evidence, things become a little more complicated. To see whether condition (1) of (EP) is satisfied on a view like Plantinga’s, one would have to find the propositions detailing what nonpropositional evidence one actually has, and then see whether, at the list of propositions comprising a relevant world, exactly those propositions appear. If so, the world is uneliminated. If not, then the world is eliminated.
The resulting account, (EP), does just this. It avoids the pitfalls into which an attempt to generalize Lewis’ account falls, and, as shall be seen in the next chapter, yields the correct consequences concerning knowledge when coupled with (RW).
CHAPTER 5

BRINGING IT ALL TOGETHER

5.1 Introduction

The pieces are now in place. We now have an account of relevance and an account of eliminating a possibility. The relevant alternatives theory of knowledge which set this investigation in motion may now be stated in all its glory.

(RPK) A person $S$ knows some proposition $p$ at some time $t$ if and only if

1. $p$; and,

2. $S$ believes that $p$ at $t$; and,

3. $S$ is justified in believing that $p$ at $t$; and,

4. for every logically possible world $w$ at which some alternative $q$ to $p$ obtains, such that either $p$ is not justified for $S$ at $w$ on the basis of essentially the same set of grounds that justify $p$ for $S$ in the actual world, or there is evidence $e$, at $w$ and the actual world, such that, if $S$ had $e$, the conjunction of $e$ with $S$’s true or veridical grounds $g$ would justify $q$ for $S$ (but not $p$), where $g$ plays an essential role in justifying $q$ for $S$, either $S$’s evidence $e$ is non–propositional and, at $w$, $S$ does not have $e$, or $e$ is propositional and $e$ is
logically incompatible with a proposition true at $w$, where that proposition is not the negation of some proposition comprising $e$.

The last condition seems more complicated than it is. Chapters two and four should make it seem less intimidating, and more clear. Chapter four, however, promised more clarification concerning exactly how to understand the notion of eliminating an alternative. What follows should help to make that notion, and the whole of condition (4) more clear.

There are two ways to illustrate how the account works. First, by showing how the account handles two problems facing any account of knowledge: Gettier cases and the lottery paradox. Second, by showing how it fares against problems other extant accounts of knowledge face.

5.2 Two Problems for an Account of Knowledge

5.2.1 How (RPK) Handles Gettier Cases

A Gettier case, in recent literature, is any case in which one has a justified, true belief but lacks knowledge.\footnote{Gettier’s actual cases have a very specific structure, which not all cases of justified, true belief that are not knowledge have. But since the importance of such cases was revealed by attempts to maneuver around Gettier’s original cases, they have come to be called Gettier cases.} Edmund Gettier (1963) showed that justified, true belief is not sufficient for knowledge. Recall from Chapter one the case used to illustrate Gettier’s celebrated result. Imagine Gene, who hears on the radio that the local bowling alley has burned down. On the basis of this, Gene comes to justifiably believe that the local bowling alley has burned down, and from this infers and comes to justifiably believe that a building in town has burned down. As it turns out, however, the radio program was mistaken, since the building that burned down was
the building just north of the bowling alley. Gene has a justified true belief that a building in town burned down, but he does not know that a building in town burned down.

(RPK) must have the result that Gene does not know that a building in town burned down. It does. There is a relevant possibility uneliminated by Gene’s evidence. There is a world at which the radio station is unreliable, and no building has burned down at all. In such a world, Gene’s belief that a building in town has burned down is not justified, so the world is relevant. Moreover, Gene has exactly the same evidence he does at the actual world, so the world is uneliminated. So condition (4) is not satisfied and (RPK) yields the correct consequence.

Other Gettier cases are handled in similar fashion. Consider one of Gettier’s own cases. Imagine Smith, who believes that his friend, Jones, owns a Ford (although Jones does not actually own a Ford). Smith believes this because Jones has, for as long as Smith can remember, owned a Ford, and Jones recently gave Smith a ride home in a Ford. Smith realizes that his belief about Jones entails that either Jones owns a Ford or Brown (another friend) is in Barcelona. Suppose that Smith has no information whatsoever about Brown’s current whereabouts, but that Brown is indeed in Barcelona. By believing that either Jones owns a Ford or Brown is in Barcelona, Smith has a justified, true belief that is not an instance of knowledge.

A relevant possibility is one in which neither Jones owns a Ford nor is Brown in Barcelona. More specifically, a world in which Smith’s memory is unreliable and he has exactly the same evidence he has at the actual world will be relevant, since he will not, at that world, be justified in believing that Jones owns a Ford (and thereby will not be justified in believing that either Jones owns a Ford or Brown is in Barcelona).
Moreover, since Smith has exactly the same evidence at that world, it is uneliminated. So Smith fails to know on (RPK), which is the right result.

The Gettier problem is no problem for (RPK), because cases of justified, true belief that are not knowledge fail to be instances of knowledge because there is a possibility that the subject’s evidence does not eliminate. Subjects in Gettier cases exhibit one of the two epistemic shortcomings in various possible worlds: either they are not justified in believing what they believe at the actual world, or there is some evidence at the world in question (that is also available at the actual world) that justifies them in believing something other than what they actually believe. And in either case, the subject’s evidence is compatible with the world in question.

5.2.2 How (RPK) Handles the Lottery Paradox

The lottery paradox was introduced by Henry Kyburg (1961) as a problem for justified belief. The paradox works like this. Imagine that Tara buys one ticket to enter a fair lottery in which there are exactly one million tickets sold, and exactly one of those tickets will be drawn at random and declared the winner. Tara is aware of how the lottery works, and is aware that the probability that her ticket will win is incredibly low (one–in–a–million). On the basis of this, suppose that she takes on the belief that her ticket will not win. Tara’s belief seems justified. The problem arises, however, when one realizes that Tara can reason exactly the same way for every ticket in the lottery. By conjoining the results, she would be justified in believing that no ticket will win, which contradicts her belief that the lottery is a fair one in which exactly one ticket will win. Theories of epistemic justification need to have the result that Tara’s belief that her ticket will not win is unjustified.
More recently, some authors have given accounts of knowledge which eschew the traditional justification condition in favor of some other condition. Such authors have realized that the lottery paradox will apply, *mutatis mutandis*, to their accounts of knowledge.\(^78\) Lewis (1996), for instance, associates the lottery paradox with the Gettier problem.\(^79\) Since (RPK) has a justification condition that must be adequate, the lottery paradox will not arise for (RPK), so the lottery paradox poses no problem.

Lotteries pose a different problem for (RPK), however. John Hawthorne has recently articulated the problem in his (2004). Hawthorne notices that the lottery problem generalizes. Suppose you are not at home. Do you know that your home is still standing? Intuitively, the answer is no (even if you know that you will be home for dinner tonight). Propositions such as the one about whether your home is still standing Hawthorne dubs *lottery propositions*. A lottery proposition is “a proposition of the sort that, while highly likely, is a proposition that we would be intuitively disinclined to take ourselves to know” (p. 5). The propositions prove difficult for a number of theories of knowledge to handle. Putting the point quite succinctly, Hawthorne says

> It should also be noted in passing that a number of popular ‘analyses’ of knowledge do especially badly at predicting our reactions to the lottery case. If we possessed some implicit standard of knowledge according to which knowledge is true justified belief, or true belief produced by a highly reliable belief–forming mechanism, or true belief supported by good evidence, then we would expect a positive epistemological verdict with regard to any true belief that a ticket in a (sufficiently large–scale) lottery is a loser. In effect, lottery cases all by themselves give us pretty good reason for rejecting many of the accounts of knowledge that have been offered in recent decades. (p. 9)

\(^78\)For those authors who accept the traditional justification condition, the lottery paradox is handled by that very condition. Thinking of the lottery paradox as a problem for accounts of knowledge arises as a result of giving up on the justification condition.

\(^79\)Stewart Cohen (1998a) shows how this leads to problems for Lewis.
An adequate account of knowledge, then, must yield the correct consequences concerning lottery propositions. (RPK) fares well against this problem, as its consequences correctly match ordinary intuitions. Consider whether you know that your home is still standing. According to condition (4) of (RPK), a relevant possibility is one in which your house is not standing because it has burned down. Suppose that at the world in question, your house has burned down as the result of a faulty safety switch on your toaster. Suppose that, at the actual world, you have no evidence concerning your toaster, only that it is a certain brand and toasts your English muffins perfectly. At the world in which your house burns down (and the actual world), suppose that the brand of toaster you have has recently been recalled because 90% of those sold have burned down the houses in which they reside. This information, coupled with your knowledge concerning the brand name of your toaster, would justify for you the proposition that your house has burned down. Moreover, this world is uneliminated by your evidence, as your evidence is exactly the same as it is in the actual world. Thus, according to (RPK), you do not know that your house is still standing, since there is an uneliminated relevant possibility.\textsuperscript{80} Other lottery propositions are handled in similar fashion. Lotteries thus pose no problem for (RPK).

5.3 (RPK) and Defeasibility

Another popular way of thinking about knowledge which has no troubles with Gettier cases or lotteries is the defeasibility approach. This approach to knowledge

\textsuperscript{80}Most people do not have a faulty toaster, but the example can be altered to accommodate everyone else. Instead of there being a toaster, it could be a coffee maker with a faulty heating element, or the wiring that you let your brother–in–law do, or the new fuse you think you put in properly, or your uncle who flicks his cigarette butts in the bushes next to your house without first making sure that they are out, or...
maintains that knowing is a matter of having a justified true belief where the justification is undefeated. While the relevant alternatives theorist must articulate the notion of relevance, the defeasibility theorist must articulate the notion of defeat.

Typically, this is done in the following way. A defeater is some true proposition such that, when added to the evidence that justifies a given belief, the conjunction of the defeater with the original body of evidence fails to justify the belief. For example, suppose that $S$ enters his grandmother’s house, sees an apple in a basket of fruit on the table, and comes to believe that there is an apple in his grandmother’s fruit basket. Suppose, though, that the only real piece of fruit in the basket is the apple—the rest of the items that appear to be fruit are made of plastic. Couple the proposition “Most of the items in the basket are fake fruit” with $S$’s evidence, and $S$ is no longer justified in believing there to be an apple in the basket. According to the defeasibility account, $S$ does not know that there is an apple in the basket, which seems to be the correct result.

There is, however, a problem with the defeasibility account when understood in this way. Consider the following case, due to Marshall Swain (1981), which is here quoted at length to benefit from Swain’s characteristic clarity.

Suppose $S$ attends a wedding ceremony in which two of his friends become married. The ceremony is performed by the bishop without any errors, and $S$ knows these things. It seems that $S$ knows, after having witnessed the ceremony, that his friends are married. But we can easily imagine the world being such that $S$’s belief is defeasibly justified in accordance with the interpretation under consideration. Imagine, for example, that at the time the ceremony is performed, but unknown to anyone involved with the ceremony (including $S$), the cardinal goes insane. He has long harbored a suppressed hatred of the bishop, and in his insanity falsely denounces the bishop as a fraud who is not authorized to marry anyone. There will then be a true body of counterevidence, $e’$ (namely, the proposition that the cardinal says the bishop is a fraud), such that belief that $e’$ combined with
S’s reasons would fail to be a set of reasons upon which the belief that
the people are married would be epistemically justified. Thus, an analysis
of knowing incorporating this requirement is too strong. (pp. 164–65)

The problem in the above case is that the defeater is *misleading*. It is a defeater,
but it does not preclude one from knowing. The proponent of the defeasibility account
must be able to distinguish misleading defeaters from those that actually preclude
one from knowing.

Peter Klein (1976) presents such a distinction. According to Klein, a defeater
is misleading just in case it is a true proposition that, when combined with one’s
evidence, fails to justify one in believing some proposition because the proposition
justifies one in believing something false (p. 809). Consider the case of the wedding
ceremony. In that case, the defeater (the cardinal’s saying that the bishop is a fraud)
is misleading because it justifies one in believing that the bishop is unfit to marry
people. Couple that with S’s evidence for thinking that his friends are married, and
S is not justified in believing that his friends are married.

With this distinction in hand, Klein amends the defeasibility analysis. According
to Klein, one knows something (inferentially) when one has a justified true belief that
*p*, and all the defeaters of one’s justification for *p* are misleading defeaters (Ibid.).

This analysis is problematic, however, as the following case illustrates. Suppose
that your friend, to whom you affectionately refer as “Pompous Purvis”, invites you
over to see his most recent purchases. Purvis tells you that he saw a house of wax
in which the wax figures were so life–like that he found it difficult to believe that
they were wax figures. Given that he likes to look at himself, Purvis convinced the
artist to create three life–like figures of himself. Purvis asked that the figures each
be made in a different greeting pose, so that he could place them in the foyer of his

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home and they will be there to greet him every time he comes home. You decide to go see these figures, as you have never seen wax figures before, and think it might be worth the visit if the craftsmanship is as good as Purvis claims. Moreover, you have never been greeted by a wax figure. Upon arrival, you realize that three of the four Purvis–like things in Purvis’ home will be wax figures. You then knock on the door, and hear a voice from within say, “Enter.” You open the door, look straight ahead, see a Purvis–like thing (that looks like what you had expected a wax figure to look like), and come to believe that the thing before you is a wax figure. Suppose that it is. Just then, Purvis enters from the left and begins to describe in excruciating detail how the wax figures capture his best features.

Just before Purvis enters, do you know that the object before you is a wax figure? It is indeed a wax figure, and you believe that it is one. Moreover, you are justified in so believing, given that there is a seventy–five percent chance that you are correct, and you knew that Purvis placed the wax figures in the foyer, which is where you entered the house. There do not seem to be any defeaters, so Klein’s defeasibility analysis has the consequence that you know that the object before you is a wax figure.

Let us stipulate, however, that the following counterfactual is true: had you seen Purvis upon entering the house, you would have believed that he was a wax figure. Once this aspect of the case is stipulated, the intuition that you know that the object is a wax figure diminishes significantly (if it was ever there at all). Notice, however, that the counterfactual does not count as a defeater. Adding it to your evidence would not have the consequence that you are no longer justified in believing that the thing is a wax figure. Your belief in the above case is a case of justified, true belief.
that is not knowledge. Yet Klein’s analysis would have it be an instance of knowledge, so Klein’s account is too permissive.

(RPK) yields the correct result in this case. According to (RPK), there is a relevant possibility uneliminated by your evidence. Consider a world at which it is Purvis you see when you enter the foyer, in exactly the pose of the figure you actually saw. This world is relevant, since at that world, there is evidence (namely, that the object at which you are looking is breathing) that will, when coupled with the rest of your evidence, justify for you the proposition that the object before you is not a wax figure (and your actual evidence will play an essential role, since your evidence includes the claim that some of the Purvis–like objects will be Purvis). Moreover, your evidence does not eliminate this world, since it is exactly the same at the world in question as it is in the actual world. Thus, (RPK) has the consequence that you do not know that the object before you is a wax figure.

One might object at this point that only one defeasibility analysis has been considered, and that others might fare well where Klein’s has not. Marshall Swain (1981) does an admirable job cataloguing and discussing the shortcomings of other defeasibility analyses, but his own proposal is well developed, and deserves treatment here.

Rather than articulate the notion of a defeater, Swain analyzes knowledge in terms of indefeasibly justified true belief. Swain offers the following account of indefeasible justification.

\[ (DIJ) \quad S’s \ belief \ that \ h \ on \ the \ basis \ of \ R \ is \ indefeasibly \ justified \ at \ t \iff: \]

\begin{align*}
(1) & \quad S’s \ believing \ that \ h \ on \ the \ basis \ of \ R \ is \ epistemically \ justified \ at \ t; \text{ and} \\
(2) & \quad S’s \ belief \ that \ h \ would \ have \ been \ epistemically \ justified \ and \ would \ have \ been \ based \ upon \ essentially \ the \ same \ set \ of \ reasons \ as \ in \ the \ actual \ world \ if
\end{align*}
(a) for every false proposition, \( q \), such that \( S \) would be epistemically justified in believing \( q \) to be true, \( S \) had instead justifiably believed \( q \) to be false; and

(b) \( S \)’s epistemic situation had otherwise been the same except for some minimal set of changes given (a). (p. 193)

This account is less intimidating than it first appears. Take some person with a justified belief, and go to the nearest worlds at which the person is justified in believing to be false all the propositions that, at the actual world, are false but the person is justified in believing to be true. At those worlds, if the person’s belief is still justified on essentially the same set of reasons, then the person’s belief is indefeasibly justified.

Recall the case in which \( S \) visits his grandmother and sees what appears to be an apple in a basket of fruit on the table. The apple is the only real piece of fruit in the bowl—the other items are plastic. \( S \) justifiably believes that there is an apple on the table, because he seems to see what looks like an apple (and we may suppose that \( S \)’s grandmother usually has a basket of real fruit on the table). But one proposition \( S \) would be justified in believing to be true, namely that there is only real fruit in the basket, is such that \( S \) would be justified in believing to be false if he were to more carefully investigate the items in the basket on the table. But in the situation in which \( S \) justifiably believes that not all of the items in the basket are real fruit, he is no longer justified in believing that the item at which is looking is a real apple. So according to Swain’s account, \( S \)’s belief is only defeasibly justified, and therefore does not constitute an instance of knowledge, which is the correct result.

Swain’s defeasibility account fares no better than Klein’s, however, when confronted with the Purvis case. In order for Swain’s account to yield the correct result in that case (that you do not know that the object before you is a wax figure), there
must be some false proposition that you would be justified in believing were you to believe it. But there do not seem to be any such propositions. Thus, Swain’s defeasibility account also fails.

The reason the defeasibility account fails can now be made explicit: such accounts fail to take into account what would happen to one’s epistemic situation were what one believed false. In the Purvis case, you would believe exactly what you do, even if Purvis were standing there to greet you rather than the wax figure. It is this fact that prompts the intuition that you do not know, and thereby causes problems for defeasibility analyses.

5.4 (RPK) and Tracking

Relevant alternatives analyses of knowledge in some ways begin with considerations about how good one’s epistemic situation would be were it the case that what one believes is false. At least, tracking theories (which are externalist (RA) theories) do. Robert Nozick’s tracking analysis is as follows (1981).

\[(T) \quad S \text{ knows that } p \text{ iff} \]
\[
\begin{align*}
(\text{i}) & \quad p; \text{ and,} \\
(\text{ii}) & \quad S \text{ believes that } p \text{ via method } M; \text{ and,} \\
(\text{iii}) & \quad \sim p \quad \square \rightarrow \quad S \text{ does not believe that } p \text{ via method } M; \text{ and,} \\
(\text{iv}) & \quad p \quad \square \rightarrow \quad S \text{ believes that } p \text{ via method } M.^{81}
\end{align*}
\]

Recall the Purvis case from above. There it was stipulated that had Purvis not been looking at a wax figure, he still would have believed that he was. Condition (iii) of (T) is unsatisfied, so according to the tracking theory, Purvis does not know that there is a wax figure before him, which is the correct result.

\[^{81}\text{The symbol ‘} \quad \square \rightarrow \quad ‘ \text{ is the connective for subjunctive conditionals. The sentence ‘} p \quad \square \rightarrow \quad q \text{’ is read, “If } p \text{ were the case, then } q \text{ would be the case.”} \]
Unfortunately, there are a number of counterexamples to (T). Consider the following example from Alvin Goldman, which shows that satisfying the conditions of (T) is not sufficient for knowledge.

Suppose a parent takes a child's temperature and the thermometer reads 98.6 degrees, leading the parent to believe that the child's temperature is normal, which is true. Suppose also that the thermometer works properly, so that if the child's temperature were not 98.6, it would not read 98.6 and the parent would not believe that the temperature is normal...

But now suppose there are many thermometers in the parent's medicine cabinet, and all but the one actually selected are defective. All the others would read 98.6 even if the child had a fever. Furthermore, the parent cannot tell which thermometer is which; it was just luck that a good thermometer was selected. Then we would not say that the parent knows that the child's temperature is normal, even though Nozick's analysis is satisfied. (1986, p. 45)

(T) seems to yield the wrong result in this case because it fails to take into account the fact that most of the thermometers in the medicine cabinet are defective.

(RPK) has no problem taking the presence of the defective thermometers into account. A relevant possibility is one in which the child’s temperature is not normal and the parent has grabbed a defective thermometer. At that world, there is evidence, namely the proposition that most of the thermometers in the medicine chest are malfunctioning, that justifies for the parent the proposition that the child’s temperature is not normal (given that the thermometer reads 98.6 as it does in the actual world). Couple that evidence with the parent’s actual belief that the thermometer used came from the medicine chest and the possibility meets the standards for relevance outlined by (RPK). Since the parent’s evidence at this world is exactly what it is in the actual world, the world is uneliminated. Thus, (RPK) yields the correct result for the thermometer case.
5.5 Conclusion

Defeasibility analyses of knowledge fail because they place too much focus on an epistemic subject’s actual situation, and not enough on what the subject’s situation is in other possible worlds. The tracking theory fails because it places too much focus on the subject’s situation in other worlds, but not enough on the subject’s actual epistemic situation. (RPK) is able to take both considerations into account, thereby avoiding cases that pose problems for its competitors.

Since (RPK) fares better than its competitors on problem cases, and is well-equipped to handle Gettier cases and the problems posed by lotteries, (RPK) is the best available analysis of knowledge. Moreover, given the absence of counterexamples, (RPK) is correct.
APPENDIX A

HOW A RELIABILIST MAY MAKE USE OF (RW)

In Chapter One internalism was assumed as the correct way to understand epistemic justification. (RPK) was then built on that assumption. The assumption need not have been made, however, as externalists may make use of (RW) and (EP). To illustrate this, (RW) shall be recast in process reliabilist terms. This will be sufficient to show that (RPK) does not depend on the assumption that internalism is correct.

Recall that (RW) is stated as follows.

(RW) A world \( w \) at which \( q \) is the case is relevant to an epistemic agent \( S \)'s justified belief that \( p \) if and only if

(i) \( p \) is not justified for \( S \) at \( w \) on the basis of essentially the same set of grounds that justify \( p \) for \( S \) in the actual world; or,

(ii) There is evidence \( e \), at \( w \) and the actual world, such that, if \( S \) had \( e \), the conjunction of \( e \) with \( S \)'s true or veridical grounds \( g \) would justify \( q \) for \( S \) (but not \( p \)), where \( g \) plays an essential role in justifying \( q \) for \( S \).

\(^{82}\)Since (EP) makes no mention of the notion of justification, only of incompatibility, there is no issue concerning its availability to externalists.
To show how a process reliabilist could recast (RW) in reliabilist–friendly terminology, each condition will be receive individual treatment.

Condition (i) of (RW) involves two notions that are not commonly invoked by process reliabilists. The first is the notion of propositional justification. Recall from chapter two that when a proposition is justified for one, the person need not believe the proposition at all. Reliabilists are generally interested in the conditions under which an actual belief is justified. But recall from chapter three that Goldman articulates the notion of ex ante justification, which is his name for propositional justification. So the fact that condition (i) of (RW) invokes the notion of propositional justification provides no problem. It can be altered as follows.

\[(i') \text{ } S \text{ is not } ex \text{ ante justified in believing that } p.\]

This does not yet capture the whole of condition (i), as it does not take the grounds on which the proposition is justified into account. According to the reliabilist, the reliability of the cognitive process that formed the belief in question determines whether the belief is justified. More specifically, it is the reliability of the process type that determines whether a belief produced by a token of that type is justified. So to take into account that condition (i) of (RW) requires that the grounds at the world in question be essentially the same as one’s actual grounds, the reliabilist needs to require that the process type be the same at the world in question as it was in the actual world.

There is a problem here concerning the notion of some process type’s being essentially the same at a given world as it is in the actual world. For present purposes, this problem need not be cause for concern. The reliabilist has room to maneuver. Depending on how broadly broadly specified the process is (for example, vision),
the essentiality requirement will be met. Of course, specifying the process type that broadly causes problems for the reliabilist, so the reliabilist will have to find some way of specifying the generality of the process type. But this problem has plagued the reliabilist from the start (Goldman 1979, p. 12). The fact that the problem appears here should be no cause for alarm above and beyond the alarm raised by the generality problem for reliabilism.

So condition (i′) can be restated as follows.

(i′′) $S$ is not *ex ante* justified in believing that $p$ because the process type that produced $S$’s belief that $p$ in the actual world is not available to $S$ at $w$.

Condition (i′′) is now a satisfactory rendering of (RW)’s condition (i) in reliabilist terms. Condition (ii) of (RW) requires a similar treatment to show that the reliabilist can make use of (RW).

To satisfactorily restate (ii) in reliabilist terms, the notion of evidence being available must be made more precise. Recall that the notion of evidence at play is mentalism—only mental states can be evidence. But how can a mental state be available to a person?

The intuitive idea is that there is evidence available to a person the world is such that, were the person situated differently, he would enter a mental state the content of which represents the world as it is. So, for instance, imagine Peter, who is looking at his computer while he is in his office, and has no information about his wife’s whereabouts. Since she is at the grocery store, there is evidence available to Peter that this is so—namely, the evidence he would have if he had an unobstructed view of her in the grocery store. Available evidence, then, is evidence a person would have were he situated differently in the world.
Condition (ii) allows only the true or veridical evidence to play a role in determining whether one is justified at some other world. The reliabilist has no problem accommodating this requirement. For the reliabilist, mental states act as inputs to processes that result in beliefs. (RPK) was developed treating evidence as mental states. So condition (ii) of (RW) already involves mental states, but unlike reliabilism, (RPK) treats them as evidence. This requirement can be amended so that only one’s true or veridical mental states can play a role.

The reliabilist may now render (ii) as follows.

(ii’) There is a way $S$ could be situated at $w$ and the actual world such that he would come to acquire mental states which, when coupled with his actually true or veridical mental states, make it the case that $S$ is $\textit{ex ante}$ justified in believing that $q$ (but not $p$), and $S$’s actual mental states play an essential role in $S$’s be so justified.

The final rendering of (RW) for the reliabilist, then, is this.

(RWR) A world $w$ at which $q$ is the case is $\textit{relevant}$ to an epistemic agent $S$’s justified belief that $p$ if and only if

(i) $S$ is not $\textit{ex ante}$ justified in believing that $p$ because the process type that produced $S$’s belief that $p$ in the actual world is not available to $S$ at $w$, or;

(ii) There is a way $S$ could be situated at $w$ and the actual world such that $S$ would come to acquire mental states which, when coupled with his actually true or veridical mental states, make it the case that $S$ is $\textit{ex ante}$ justified in
believing that \( q \) (but not \( p \)), and \( S \)'s actual mental states play an essential role in \( S \)'s be so justified.

Recasting (RW) in reliabilist terms shows that the assumption made in Chapter one that mentalism is correct is innocuous. Nothing turns on whether one favors internalism over externalism regarding (RPK).
Recall from Chapter one that a contextualist holds that certain epistemic terms’ (like ‘knows’) truth-conditions can shift from one conversational context to the next. So, for instance, two people can truly say of $S$ that he knows that $p$ in one context, while two other people in a different context can truly say of $S$ that he does not know that $p$. Knowledge is not the only epistemic term that contextualists have claimed behaves like an indexical. For instance, Stewart Cohen (1999) claims that attributions of justification are context sensitive, and Ram Neta (2002) maintains that attributions of evidence one has are context sensitive.

From the fact that justification attributions, for instance, are contextual, and justification is necessary for knowledge, it does not follow that knowledge attributions will vary from one context to the next. Some other necessary condition on knowledge might “mute” the contextual aspect of the justification condition. But (RPK) has no such muting condition, nor has (RW). So if one held that justification attributions are context sensitive, or attributions of evidence had are context sensitive, then attributions of relevance would be context sensitive. If relevance is determined in part by context, then so will knowledge.
Thus, since (RW) involves both the notions of having evidence and justification, it could be contextualized, thereby contextualizing (RPK).
BIBLIOGRAPHY


