# Ramsey's Reliabilism

Forthcoming in *Ergo*

**Abstract**

In a short note written in 1929, Frank Ramsey put forward a reliabilist account of knowledge anticipating those given by Armstrong (1973) and Goldman (1967), among others, a few decades later. Some think that the note comprises the bulk of what Ramsey has to say about epistemology. But Ramsey's ideas about epistemology extend beyond the note. Relatively little attention has been paid to his reliabilist account of reasonable belief. Even less attention has been paid to his reliabilist account of reasonable degree of belief. In this paper, I spell out these aspects of Ramsey's epistemology in more detail than has been done so far. I argue that Ramsey anticipates contemporary reliabilist accounts of justified belief and justified degree of belief. I also flesh out Ramsey's reasons for being a reliabilist. This is worth doing if only because Ramsey has one of the earliest arguments for reliabilism, but it has received scarce attention. Also, Ramsey calls his reliabilism "a kind of pragmatism," and examining the argument will help us clarify Ramsey's pragmatist commitments and better understand his version of reliabilism. I argue that when viewed through contemporary lenses, Ramsey's reliabilism contains revisionist elements: he's not opposed to what we now call "conceptual engineering."

## 1 Introduction

In 1929, Frank Ramsey put forward an early version of reliabilism in a short note titled "Knowledge".[1] According to him, "a belief was knowledge if it was

[1]Ramsey's works are cited as follows: "TP" refers to "Truth and Probability," "FP" refers to "Facts and Propositions," "RDB" refers to "Reasonable Degree of Belief," "GPC" refers to "General Propositions and Causality," "K" refers to "Knowledge," "P" refers to "Philosophy," "NPPM" refers to *Notes on Philosophy, Probability and Mathematics*, and "OT" refers to *On Truth*. (The first six works can be found in *Philosophical Papers*.) Peirce's works are cited as follows: "CLL" refers to *Chance, Love and Logic*, "CP" refers to *The Collected Papers of Charles Sanders Peirce*, and "EP" refers to *The Essential Peirce: Selected Philosophical Writings*. These

(i) true, (ii) certain, (iii) obtained by a reliable process" (K 110).[2] Commentators have observed that Ramsey anticipates reliabilist accounts such as those defended by David Armstrong (1973) and Alvin Goldman (1967, 1979) a few decades later.[3] Some also think that the note comprises the bulk of all that Ramsey has to say about epistemology. For example, in the introduction to an anthology devoted to Ramsey's work, we find the following remark: "As to epistemology, Ramsey only wrote one short paper called 'Knowledge'" (Frápolli 2005, 4).

But Ramsey's ideas about epistemology extend beyond this short note. Relatively little attention has been paid to his reliabilist account of *reasonable belief*.[4] Even less attention has been paid to his reliabilist account of *reasonable degree of belief*.[5] This paper shall spell out these aspects of Ramsey's epistemology in more

references are followed by Arabic numerals referring to page numbers (TP, FP, RDB, GPC, K, P, NPPM, OT, CLL), to volume and page numbers (EP), or to volume and paragraph numbers (CP).

[2]By "certain," Ramsey means *practically certain*. He holds that such "practical certainty [is] a certainty which is justified in the sense that the instinct to judge in this way leads to truth in the overwhelming majority of cases, and is therefore one which it is advisable or rather essential for men to trust"; further, such "judgments being (nearly always) true, certain and justified may properly be called knowledge, even though the processes which lead to them are not infallible" (OT 63). Cf. Peirce, who distinguishes between *practical* and *absolute* certainty and also between practical and absolute infallibility (CP 1.167, 2.664, 6.595). In Peirce's *Chance, Love and Logic*, which Ramsey read and took notes on, Peirce maintains that "[a]bsolute certainty can never be attained by mortals" (CLL 87). But "human certainty" is attainable and "consists merely in our knowing that the processes by which our knowledge has been derived are such as must generally have led to true conclusions" (CLL 105). Note Peirce's choice to use the word "generally" rather than "always."

[3]See, for example, Comesaña (2011), Olsson (2016), and in particular, Sahlin (1990). Armstrong (1973, 159) notes that Ramsey's account of knowledge has both causal and reliabilist elements.

[4]The same anthology mentioned above has an entry on Ramsey's reliabilism, but it focuses on what Ramsey says about knowledge, with little attention paid to what he says about reasonable belief (Quesada 2005). Likewise, encyclopedia entries on reliabilism tend to mention Ramsey's reliabilist account of knowledge without mentioning his reliabilist account of reasonable belief. See, for instance, Goldman and Beddor (2021) and Comesaña (2011). Also, Sahlin's (1990) seminal work on Ramsey observes that Ramsey has an early version of reliabilism but focuses on knowledge only. Some commentators such as Dokic and Engel (2001, 27–28) note explicitly that Ramsey has a reliabilist account of reasonable belief, but they do not delve into it. Olsson (2016) notes that "Ramsey also considered the application of reliabilism to beliefs arrived at through inference," but as we'll see, Ramsey is a reliabilist with respect to both inferential and non-inferential beliefs.

[5]Dunn (2015, 1938) notes that Ramsey has a notion of reliability for degrees of belief. Plantinga (1993, 183) explicitly notes that Ramsey has a reliabilist account of reasonable degrees of belief, though he does not discuss the account. Methven (2015, 64) writes that "Ramsey identifies as a reasonable degree of belief in $p$ that which accords with the relative frequency with which the argument type (or rule) by which one arrived at $p$ yields true conclusions." But we'll see that Ramsey is also concerned with reasonable degrees of belief arrived at via memory and direct observation.

detail than has been done so far.

I'll first spell out Ramsey's account of reasonable belief. I'll argue that while it anticipates Goldman's (1979) process reliabilist account of justified belief, it's even more similar to the account defended by William Alston (1988, 2005). Further, I'll argue that Ramsey anticipated contemporary reliabilist accounts of justified degree of belief.

Then I'll flesh out Ramsey's argument for reliabilism. This is worth doing if only because it's one of the earliest arguments for reliabilism but has received scarce attention. Also, Ramsey explicitly calls his reliabilism "a kind of pragmatism"; examining the argument will help us clarify Ramsey's pragmatist commitments and better understand his version of reliabilism (TP 93). I'll argue that when viewed through contemporary lenses, Ramsey's reliabilism contains revisionist elements: he's not opposed to what we now call "conceptual engineering."

## 2 Ramsey's Account of Reasonable Belief and Degree of Belief

Ramsey's reliabilist account of reasonable belief and degree of belief is found in section 5 of his 1926 paper "Truth and Probability." He focuses on degrees of belief but sometimes talks in terms of all-or-nothing belief or opinion.

### 2.1 A Human Logic

The section in question is titled "The Logic of Truth." Ramsey is interested in a *human logic*, which isn't "reducible to formal logic" and "is concerned not with what men actually believe, but what they ought to believe, or what it would be reasonable to believe" (TP 89). In other words, his concerns are *epistemological* in nature.

Ramsey thinks that "we can identify reasonable opinion with the opinion of an ideal person in similar circumstances" (TP 89). By "an ideal person," he has an mind an ideal *human* being and not an omniscient agent. As he puts it, "the highest ideal would be always to have a true opinion and be certain of it; but

this ideal is more suited to God than to man" (TP 89–90). According to Ramsey, the "human mind works essentially according to general rules or habits" (TP 90).[6] And the ideal person is one whose mental habits are "in a general sense... best for the human mind to have" (TP 90–91). Ramsey admits that the question of which habits are best is "large and vague," but he clarifies that whether a habit is any good depends on whether it's "useful"—on whether it's "conducive or otherwise to the discovery of truth or to entertaining such degrees of belief as will be most useful" (TP 90).

Set aside degrees of belief for now. Ramsey's suggestion is that reasonable opinions are produced by truth-conducive mental habits, which an ideal person would have. At this point, we can already see that his account of reasonable belief is similar to Goldman's (1979) process reliabilist account. Roughly, according to process reliabilists, a belief is justified if and only if it's produced by a reliable belief-forming process, where such a process tends to produce a high ratio of true to false beliefs. For example, suppose I've a visual experience as of a hawk and consequently form the belief that there's a hawk. According to process reliabilists, my belief is justified if it's formed via a reliable process—say, via careful observation in good light. But it's unjustified if it's formed via an unreliable process, say, that of forming beliefs via wishful thinking. Similarly, according to Ramsey, a belief formed in a certain situation is reasonable if and only if an ideal person in a similar situation would form that belief—that is, if and only if the belief is formed via a truth-conducive mental habit.

Just as for process reliabilists, the justifiedness of a single belief derives from the reliability of the process that produced it, for Ramsey, the reasonableness of a single belief derives from the reliability of the habit that led to it. Ramsey thinks that, fundamentally, a single belief is to be evaluated in terms of its usefulness, where a useful belief is true.[7] But he thinks that though, "given a single opin-

[6]Ramsey uses "habit in the most general possible sense to mean simply rule or law of behaviour"; he does not "distinguish acquired rules or habits in the narrow sense from innate rules or instincts" (TP 90–91).

[7]We'll see later that he thinks that a belief is useful when it's true because our desires are

ion, we can only praise or blame it on the ground of truth or falsity," we may nonetheless "praise or blame opinions *derivatively* from our praise or blame of the habits that produce them" (TP 92; my emphasis). In particular, he takes a belief to be reasonable insofar as it's produced by a truth-conducive habit and not reasonable otherwise. Though Goldman (1979) uses the terms "justified belief" and "belief-forming processes," whereas Ramsey uses the terms "reasonable belief" and "mental habits," the similarities between their accounts stand out.

That said, Ramsey's reliabilism bears even greater affinity with Alston's account of justified belief. Various features of their respective accounts are strikingly similar, and to show this, I'll first describe Alston's account in some detail. We'll then look at certain passages in "Truth and Probability" that support my claim.

### 2.2 Ramsey and Alston on Justified Belief

According to Alston (1988, 2005), a belief $b$ is justified if and only if it's based on a ground $g$, and the objective probability of $b$ being true given that it's based on $g$ is sufficiently high, where objective probability is understood in terms of hypothetical relative frequencies.

That's a lot to digest. Let's start more slowly and ask: What's the ground of a belief and what is it for a belief to be based on a ground?

Alston (2005) holds that the ground of a belief is the input to a belief-forming process that produces that belief. Such input comes in the form of "something psychological—some psychological state or process" such as a belief, a memory, or a visual experience (Alston 2005, 83, 122, 133–134). Suppose, for instance, that a belief-forming process takes our visual experience as of a cat on the tree as input and produces a belief that there's a cat on the tree as its output. Then the visual experience is the ground of the corresponding belief, and such a belief is based on the ground in question.

Further on Alston's view, our belief that there's a cat on the tree is justified

primarily served by true, rather than false, beliefs.

if and only if the objective probability of our belief's being true, conditional on its being based on the visual experience in question, is sufficiently high. He proposes that we understand objective probability in terms of hypothetical relative frequency, where the reference class is determined in part by the kind of input or ground that feeds into the belief-forming process.

In our example, to determine the objective probability in question, we first consider a class of cases similar to that in which our belief is formed. Such cases may be ones in which we are standing at a similar distance from the tree, have similarly good eyesight, are looking at the cat under similar lighting conditions, etc. The relevant objective probability is sufficiently high just in case there's a sufficiently high proportion of such cases in which the output belief is true.[8]

The example above involves non-inferential justification. But we can extend Alston's account to handle inferential justification. After all, Alston allows the ground of a belief to be other beliefs. Suppose that based on a belief that it's raining and a belief that if it's raining, the streets are wet, we form the belief that the streets are wet. Is the inferred belief justified?

The answer depends on answers to the following two questions. First, is the belief-forming process in question conditionally reliable—does it tend to produce true beliefs conditional on the input beliefs being true? Second, are the input beliefs justified? For any inference, if the input beliefs are justified but the inferential process is not conditionally reliable, the output belief will not count as being justified. And likewise if the inferential process is conditionally reliable, but the input beliefs are unjustified. In our current example, the inferential process is conditionally reliable—given that the inputs are true, the output has to be true. Whether the output is justified then boils down to whether the inputs are justified.

I won't attempt to spell out further how Alston may account for inferential

[8] Alston's 1988 account is often taken to be a version of indicator reliabilism, to be distinguished from process reliabilism (Alston 1988, 281–283). But he later argues that his account is both a kind of indicator reliabilism and a kind of process reliabilism. According to indicator reliabilism, a belief is justified if and only if the ground on which it's based indicates its truth. But Alston (2005, 137) thinks that for the ground to be truth indicative is for the process that produces the belief to reliably produce true beliefs in response to similar grounds.

justification. It suffices to note that he has the resources for a unified account of non-inferential and inferential justification.[9] As we'll see, Ramsey gives a similar treatment of both kinds of justification. He first discusses what he calls "habits of inference" before discussing what he calls "habits of observation and memory" (TP 92). But his remarks about the latter make the similarities between his account and Alston's especially striking. I'll discuss those remarks first.

According to Ramsey, his account of inferential habits

> can be applied...also to habits of observation and memory; when we have a certain feeling in connection with an image we think the image represents something which actually happened to us, but we may not be sure about it; the degree of direct confidence in our memory varies. If we ask what is the best degree of confidence to place in a certain specific memory feeling, the answer must depend on how often when that feeling occurs the event whose image it attaches to has actually taken place. (TP 92)

What does Ramsey mean by placing a degree of belief or confidence in a memory feeling? To have a degree of belief or confidence is to have a degree of belief or confidence in something being true. But a memory feeling is not in itself something that's truth-apt. Nonetheless, since it's connected with an image that represents something to be true, I take it that by "best degree of confidence to place in a memory feeling," Ramsey means the best degree of confidence to place in the corresponding representation being true.

Though Ramsey focuses on degrees of belief, we may extract an account of reasonable all-or-nothing belief from his remarks above. (I'll return to degrees of belief in section 2.3.)

For Ramsey, all-or-nothing beliefs are reasonable insofar as they are produced by a truth-conducive habit. This holds for memory beliefs formed on the basis of memory feelings too. Suppose that we've a memory feeling in connection with an

[9]For more details, see Alston (2005, 97–98; 122–123).

image that represents that we had pancakes for breakfast. Suppose further that a certain mental habit produces the belief that we had pancakes on the basis of such a feeling. If we ask whether it's best for us to form this belief on the basis of the feeling, we might imagine Ramsey holding that the answer must depend on "how often when that feeling occurs the event whose image it attaches to has actually taken place" (TP 92) Consider relevant cases in which the mental habit in question leads us to form a belief on the basis of a corresponding memory feeling. If in a high proportion of such cases the belief formed is true, we may praise the habit for being truth conducive. Derivatively, we may then praise the belief that we had pancakes for breakfast and deem it *reasonable*.

Ramsey's very brief remarks on habits of observation and memory show certain parallels between his account of reasonable belief and Alston's account of justified belief.[10] Alston would hold that to find out whether a memory belief based on a particular ground is justified, we should consider similar cases in which the relevant belief-forming process takes as input a similar ground and produces as output a similar belief.[11] He would then hold that the memory belief is justified just in case the proportion of cases in which the relevant output is true is sufficiently high. Now, substitute "reasonable" for "justified," "habit" for "belief-forming process," and "memory feeling" for "ground." The account that emerges is strikingly similar to Ramsey's.

Let's now turn to Ramsey on habits of inference. He writes:

> Let us take a habit of forming opinion in a certain way; e.g. the habit of proceeding from the opinion that a toadstool is yellow to the opinion that it is unwholesome. Then we can accept the fact that the person has a habit of this sort, and ask merely what degree of opinion that the

[10]Comesaña (2010) and Goldman (2011) discuss reliabilist accounts of justified belief that are similar to Alston's. One would expect similarities between these accounts and Ramsey's account too, though I lack the space to compare the accounts here.

[11]Alston (2005, 87) grants that not all memory beliefs are formed on the basis of memory experiences or memory images. But he thinks that such beliefs are still formed on the basis of some ground—perhaps "a sense of 'pastness', a sense that what I am believing to have occurred is an experience I really had in the past" (Alston 2005, 88).

> toadstool is unwholesome it would be best for him to entertain when he sees it; i.e. granting that he is going to think always in the same way about all yellow toadstools, we can ask what degree of confidence it would be best for him to have that they are unwholesome. And the answer is that it will in general be best for his degree of belief that a yellow toadstool is unwholesome to be equal to the proportion of yellow toadstools which are in fact unwholesome. (TP 91)

Again, Ramsey focuses on degrees of belief, though his remarks may also apply to (all-or-nothing) beliefs. Suppose we've a habit that proceeds from a belief that a toadstool is yellow to the belief that it's unwholesome. Extending Ramsey's remarks to beliefs, one might hold that whether a belief produced by this habit is reasonable depends on whether the proportion of yellow toadstools that are unwholesome is sufficiently high.

Compare this account to Alston's. Ramsey's habits of inference and Alston's inferential processes both take as input beliefs and deliver as output inferred beliefs. Now, consider a belief-forming process that takes as input a belief that a toadstool is yellow and produces as output a belief that the toadstool is unwholesome. What makes the output belief justified? According to Alston, the input belief must be justified. Further, the process in question has to be conditionally reliable. So a sufficiently high proportion of cases in which we base our belief that a toadstool is unwholesome on the true belief that it's yellow must be ones in which it's indeed unwholesome.

On the face of it, there's an important difference between Alston's account and Ramsey's (as it's presented so far). Given the latter, so long as the relevant proportion of yellow toadstools that are unwholesome is high enough, the inferred belief counts as reasonable—never mind whether the input belief is reasonable. On this score, Alston's account seems to fare better than Ramsey's. Nonetheless, to be charitable, one might take Ramsey to have made the simplifying assumption

that the relevant input beliefs are all reasonable.[12] This would bring his account of inferential justification closer to Alston's.

There's another difference. On Ramsey's account, whether the inferred belief is reasonable depends on the proportion of yellow toadstools that are unwholesome. But on Alston's account the relevant proportion is the proportion of yellow toadstools that we believe to be yellow and that are indeed unwholesome. The two can come apart. The first proportion might be high while the second is low—perhaps, for whatever reason, the many yellow toadstools that are unwholesome are invisible to us, and we see only the relatively few yellow toadstools that are wholesome. Yet, the two accounts of inferential justification remain close cousins. We can take a small, gentle step from Ramsey's account towards Alston's by praising the inferential habit in the toadstool example if and only if a high proportion of yellow toadstools—*that we believe to be yellow*—are unwholesome.[13]

[12]Even though, in the quote above, Ramsey does not say anything about how the reasonableness of an inferred belief depends on the quality of the input beliefs, there is some textual evidence for the above reading of Ramsey. Elsewhere, he holds that "we accept as giving knowledge any argument of sufficiently high probability: a confident judgment based on such an argument from *known premises* is regarded as knowledge when, as is usually the case, it is true" (OT 58; my emphasis). Though he is concerned in this quote with knowledge, it shows that for him, whether an output judgment counts as knowledge depends on the quality of the input beliefs—on whether they amount to knowledge. It's no big stretch to think that Ramsey would also hold that when we have an argument with sufficiently high probability, a judgment based on such an argument from reasonable premises is regarded as a reasonable judgment. I thank an anonymous reviewer for pressing me to think more about what Ramsey would say about the quality of input beliefs.

[13]An anonymous reviewer points out that Ramsey's account faces an obvious problem that would be a problem for Alston too. Suppose that, in fact, all yellow toadstools are unwholesome. We come to know that there's a yellow toadstool before us and on the mere basis of such knowledge make a wild guess and form a full belief that the toadstool is poisonous. The habit by which we form our full belief is conditionally reliable given the way the world is. But surely, that belief is not reasonable—it's true by sheer luck. Now, Ramsey does not discuss such a problem explicitly. But in "Reasonable Degree of Belief," he holds that "[r]oughly, reasonable degree of belief = proportion of cases in which habit leads to truth," and then goes on to say: "We cannot always take the actual habit: this may be correctly derived from some previous accidentally misleading experience. We then look to wider habit of forming such a habit" (RDB 97). It's not clear what Ramsey has in mind when he talks about an accidentally misleading experience. (He does not elaborate.) But the remark suggests that there'd be cases in which a habit leads to truth in a high proportion of cases, yet he'd be reluctant to hold that it produces reasonable beliefs. Perhaps he'd grant that the kind of case described above is one such case. His remark about the wider habit of forming habits also suggests a response to the problem. Ramsey might grant that the habit of making a wild guess that a toadstool is unwholesome on the mere basis of knowing that it's yellow may, by luck, lead to a high proportion of true beliefs. Nonetheless, the wider habit of forming similar habits—of, say, forming the habit of making a wild guess about certain properties of things merely on the basis of knowing their colours will tend not to lead to true beliefs. Perhaps, Ramsey might hold that to evaluate the reasonableness of an inference, we'd have to look at such wider habits. And if we do, then our wildly guessing that a toadstool is unwholesome will not count as

### 2.3 Ramsey and Justified Degree of Belief

Contemporary reliabilists have focused on justified all-or-nothing belief, with relatively little said about justified degree of belief. Only fairly recently have there been more attempts to extend reliabilism to account for the latter. I'll now argue that Ramsey's account of reasonable degree of belief anticipates some of these contemporary accounts.

On the face of it, reliabilism as usually formulated is not particularly well suited to accounting for degrees of belief. Degrees of belief are not in general true or false, and it doesn't seem promising to hold that a justified degree of belief of 0.6, say, is produced by a process that yields a high ratio of true beliefs. Perhaps one might suggest that such a degree of belief is justified if and only if it's produced by a process that yields true beliefs 60% of the time. But problems remain. First, the suggestion does not deal with cases in which a degree of belief is produced by a process that produces only degrees of belief. Second, there's something odd about holding that a process produces justified degrees of belief only if it also produces all-or-nothing beliefs that are unjustified. (A process that produces true beliefs merely 60% of the time is presumably unreliable.)

In response, one might suggest that we focus on whether processes that produce degrees of belief are well *calibrated*. Here's what van Fraassen (1984, 245) says about the notion of calibration:

> [C]onsider a weather forecaster who says in the morning that the probability of rain equals 0.8. That day it either rains or does not. How

reasonable.

Now, perhaps one could envisage cases in which one is incredibly lucky, and even the wider habit happens to result in mostly true beliefs. But another response might be to recommend, as Becker (2013, 3759) does, that "we construe reliable processes modally." Becker thinks that reliabilists need to do this anyway in order to handle cases in which processes lead to true beliefs due to sheer epistemic luck. A Ramseyan might hold that when a habit leads to a belief that a toadstool is unwholesome on the basis of one's knowing that it's yellow, such a belief counts as reasonable only if the habit wouldn't have led to the belief had the relevant proportion of unwholesome toadstools been low. This condition, inspired by Nozick's (1981) sensitivity condition for knowledge, would allow one to hold that a wild guess that a toadstool is unwholesome wouldn't lead to a reasonable belief. For presumably, one's wild guess about whether a yellow toadstool is unwholesome is insensitive to the proportion of yellow toadstools that are unwholesome. (This suggestion departs from Becker's own but stays true to the spirit of adding a modal element to reliability.)

> good a forecaster is he? Clearly to evaluate him we must look at his performance over a longer period of time. Calibration is a measure of agreement between judgments and actual frequencies. . .This forecaster was perfectly calibrated over the past year, for example, if, for every number $r$, the proportion of rainy days among those days on which he announced probability $r$ for rain, equalled $r$.

There's a good sense in which a calibrated process is reliable. Reliabilists might thus appeal to the notion of calibration to account for justified degree of belief. Say that a process is calibrated just in case, for any $y$, $100y\%$ of the propositions in which the process causes us to have a degree of belief of $y$ are true. Reliabilists might hold that a degree of belief in $p$ is justified if and only if it's produced by such a process. Call this account the *Simple Calibration Account*.

Goldman (1986, 113–115) was perhaps the first contemporary reliabilist to have considered such an account of justified degree of belief.[14] But as it stands, the Simple Calibration Account faces a problem.[15] Consider a weather forecaster who knows that the long-term relative frequency of rain in Bali is, say, 0.7. To ensure that she's perfectly calibrated, she reports a 0.7 probability of rain every day, disregarding whether it's the monsoon season or whether the skies are cloudy, etc. Such a weather forecaster is well calibrated, but there's a sense in which she's not very good at her job—she's not as informative as we would like our weather forecasters to be.[16]

Now consider a process that produces degrees of belief that match the corresponding relative frequencies in a similarly non-discriminating way. Such a process might be calibrated. But suppose the process ignores relevant evidence that comes one's way. Say, we receive evidence that suggests that it's almost certain to rain, but the process continues to produce a degree of belief of 0.7 in rain. The process may remain calibrated (given that the relative frequency of rain is 0.7) even if, in

[14] Also, see Lam (2011, 212–215), Goldman (2012, 26), and Dunn (2015).

[15] See Dunn (2015), Pettigrew (2021), and Tang (2016) for some discussion of the problem. The following illustration of the problem follows the discussion in Tang (2016).

[16] See Murphy and Winkler (1977, 41–42).

light of the new evidence, we might be hesitant to say that a degree of belief of 0.7 is justified. But the Simple Calibration Account says that it is. Thus, the account does not seem to be able to handle the phenomenon of *defeat*.

To get around the problem, I've suggested elsewhere that a justified degree of belief is produced by a process that is calibrated *relative to the evidence or grounds* on which the relevant degrees of belief are based (Tang 2016). My account is inspired by Alston's and extends the latter to handle degrees of belief. In Tang (2016, 80–81), I write:

> According to Alston, a belief is justified if and only if it is based on a certain ground, and the objective probability of the belief's being true given that ground is very high. Now suppose that belief comes in degrees. It is natural to think that the stronger (or weaker) the belief, the higher (or lower) the objective probability in question needs to be for the belief to be justified.

To extend Alston's account to handle degrees of belief and to deal with the phenomenon of defeat, I go on to propose the following:

> For any $x$, any proposition $p$, and any subject $a$, $a$'s credence of $x$ in $p$ is justified if and only if
>
> (1) it is based on some ground $g$, where the objective probability of the credence having a true content given (that it is based on) $g$ approximates or equals $x$, and
>
> (2) there is no more inclusive ground $g'$ had by $a$ such that the objective probability of the credence having a true content given (that it is based on) $g$' neither approximates nor equals $x$. (Tang 2016, 88)

Suppose that we have a visual experience as of rain and consequently form a degree of belief of 0.9 in rain. On my account, this degree of belief is justified if and only if the following two conditions are met. First, the objective probability that it's raining conditional on the degree of belief being based upon our visual experience

as of rain, should equal or approximate 0.9. Further, there should be no defeater—there should be no more inclusive ground g' such that the objective probability of rain given that our degree of belief in rain is based on this more inclusive ground neither approximates nor equals 0.9. (Here's an example of a more inclusive ground: a perceptual experience as of rain and a belief that our eyesight is not reliable.)

My aim is not to evaluate the Simple Calibration Account or to defend my account of justified degree of belief. My aim in describing them is to show that Ramsey's treatment of reasonable degree of belief anticipates such accounts.

Recall: Ramsey holds that "given a habit of a certain form, we can praise or blame it accordingly as the degree of belief it produces is near or far from the actual proportion in which the habit leads to truth" (TP 92). He adds, "[w]e can then praise or blame [degrees of belief] derivatively from our praise or blame of the habits that produce them" (TP 92).[17]

For example, suppose we've a memory image as of having had pancakes for breakfast and a reasonably strong feeling that the image represents something that happened. Suppose also that we've a habit of memory that, in response to such a memory feeling, produces a degree of belief of, say, 0.9 in our having had pancakes for breakfast. On Ramsey's view (recall the quote concerning memory feeling), this degree of belief is reasonable—and the habit from which it stems deserves praise—if and only if 90% of the relevant cases in which the habit produces a degree of belief of 0.9 in a similar proposition in response to a similar memory feeling are cases in which the proposition in question is true.

More generally, on Ramsey's view, a degree belief of $x$ in $p$ that's based on a memory feeling is reasonable if and only if $100x\%$ of the cases in which the relevant

[17]One might think that since Ramsey talks about the *actual* proportion in which a habit leads to truth, there's another difference between him and Alston on top of those discussed in section 2.2—in assessing whether a belief is justified, Alston appeals to *hypothetical* rather than actual relative frequencies. However, in "Reasonable Degree of Belief," Ramsey maintains that we "cannot take proportion of *actual* cases" for there may be "very few actual instances" (RDB 97; Ramsey's emphasis). And in "Truth and Probability," he writes: "the very idea of partial belief involves reference to a *hypothetical* or ideal frequency: supposing goods to be additive, belief of degree $\frac{m}{n}$... is the kind of belief most appropriate to a number of *hypothetical* occasions otherwise identical in a proportion $\frac{m}{n}$ of which the proposition in question is true" (TP 84; my emphases).

habit takes as input a similar memory feeling and produces a degree of belief of $x$ in a similar proposition are cases in which the proposition in question is true. Though Ramsey focuses on memory feelings, he also talks about habits of observation. Presumably he'll give a similar account involving perceptual experiences.

Ramsey is essentially suggesting that reasonable degrees of belief are produced by calibrated processes, thus anticipating the Simple Calibration Account. Granted, Ramsey's account holds that the processes in question should be calibrated with respect to the relevant memory images or perceptual experiences—or to what, following Alston (2005), I've referred to as the grounds of one's degrees of belief. Thus Ramsey also anticipates the account of justified degree of belief in Tang (2016). Though he does not talk about defeat, one may extend his account to handle defeat in the way discussed above.

It's worth stressing that Ramsey's account shares an important feature with typical reliabilist accounts in that reasonable belief is spelt out in terms of reliability rather than *known* reliability. The entry on Ramsey in the *Stanford Encyclopedia of Philosophy* maintains that in "Truth and Probability," "Ramsey concludes... with a lengthy discussion on what (in addition) might make a set of partial beliefs reasonable" and "proposes a condition of calibration, or fit with known frequencies." It then quotes the toadstool example from the same paper to support the preceding claim. I agree that Ramsey proposes a condition of calibration. But I disagree that this condition is fit with *known* frequencies.

After all, the very notion of calibration concerns fit with frequencies, not fit with known frequencies. Further, in both the toadstool example and the memory example (both discussed in section 2.2), Ramsey does not appeal to *known* frequencies. More generally, Ramsey consistently says that a subject's degrees of belief should match the relevant frequencies without saying or suggesting that the frequencies should also be known. Granted, given that knowledge is factive, someone who thinks that reasonable degrees of belief should match the relevant known frequencies will also think that they should match the relevant frequencies. But

we would also expect Ramsey to state the stronger condition explicitly if he thinks that it's a necessary condition for reasonable belief.[18]

In sum, Ramsey anticipates not just reliabilist accounts of knowledge but also—in some detail—reliabilist accounts of justified belief and degree of belief. In fact, since his 1926 account of reasonable degree of belief precedes his 1929 account of knowledge, one of the earliest versions of reliabilism concerns degrees of belief first and foremost.[19] Remarkably, Ramsey also offers an argument for reliabilism, to which we now turn.[20]

## 3 Ramsey's Argument for Reliabilism

Since Ramsey is not very explicit about the details of the argument, some reconstruction might be in order. As we've seen, he maintains that "we can only praise or blame [a single belief] on the ground of its truth or falsity," though we may praise or blame it "derivatively from our praise or blame of the habits that

[18]Also, recall that in his 1929 note on knowledge, Ramsey says that "a belief was knowledge if it was (i) true, (ii) certain, (iii) obtained by a reliable process" (K 110). He does not require that the subject know that the process is reliable. Admittedly, he also writes: "We say 'I know', however, when we are certain, without reflecting on reliability. But if we did reflect then we should remain certain if, and only if, we thought our way reliable" (K 110). One might take this to suggest that on Ramsey's view, a belief counts as knowledge only if we believe that the process that produced the belief is reliable. But the first line of the quote suggests that Ramsey is happy to hold that a belief may count as knowledge without our having any higher-order belief about whether the first-order belief was formed reliably. That's compatible with us losing such knowledge when we *reflect* on whether the belief in question was formed reliably, and we don't believe that it was. For related discussion, see Dokic and Engel (2001, 29–30).

[19]Why not *the earliest*? As Misak (2016, 239) points out, "Ramsey is... often seen as the first explicit proponent of what is now called reliabilism in epistemology." But in Misak's words, "the matter is complicated" (2016: 239). For instance, see Short (2000, 520), who holds that the view that "knowledge, as ordinarily conceived, is *true belief reliably formed*... fits much of what Peirce had to say" (Short's emphasis). See also Meyers (1999), who argues that Peirce has an externalist epistemology (though, of course, an externalist needn't be a reliabilist). Furthermore, in notes taken in 1928, Ramsey writes, "if freq((uency)) is $\lambda$, deg((ree)) of belief $\lambda$ is justified"; he also maintains that "[t]his is Peirce's definition" (NPPM 275). Now, Peirce does not in fact define reasonable or justified degree of belief explicitly. He does note, however, that "the chance [i.e., frequency] of an event has an intimate connection with the degree of our belief in it"; he also holds that when "there is a very great chance, the feeling of belief ought to be very intense" (CLL 87).

[20]It is even more remarkable given that, as Turri (2016, 190) observes, there is "surprisingly little explicit argumentation for knowledge reliabilism." Tolly (2021, 619) endorses this observation too, and though both Turri and Tolly focus on reliabilism about knowledge, similar observations would hold true with respect to justified belief. Consider, for instance, the *Stanford Encyclopedia for Philosophy* entry on reliabilism. It has sections devoted to answering objections levelled against reliabilism about justification. But there's no section discussing any explicit positive argument for the view.

produce [it]" (TP 92). This position—that a single belief is ultimately evaluated on whether it's true and any other kind of evaluation is derivative in nature—plays a major part in Ramsey's case for reliabilism. To see why he maintains the position, let's first turn to his pragmatist view of belief.

### 3.1 The Pragmatist View of Belief

About midway through Section 5 of "Truth and Probability," just before Ramsey begins his discussion of reasonable beliefs, he mentions in a footnote that "what follows to the end of the section is almost entirely based on the writings of C. S. Peirce" (TP 90). Ramsey is referring, in particular, to Peirce's *Chance, Love and Logic* (henceforth *Chance*), originally published as "Illustrations in the Logic of Science."[21]

A key ingredient in Ramsey's argument for reliabilism is the pragmatist view of belief, which he shares with Peirce, and which Peirce attributes to Alexander Bain (1859) (CP 5.12). Spelling out the view will help us understand why Ramsey thinks that a belief is ultimately to be praised or blamed depending on whether it's true. That will in turn help us see why he professes to subscribe to "a kind of pragmatism" where "we judge mental habits by whether they work" (TP 93). Focus first on all-or-nothing belief. In his 1927 "Facts and Propositions," Ramsey writes:

> [I]t is possible to say that a chicken believes a certain sort of caterpillar to be poisonous, and mean by that merely that it abstains from eating such caterpillars on account of unpleasant experiences connected with them... [I]t might well be held that in regard to this kind of belief the pragmatist view was correct, i.e. that the relation between the chicken's behaviour and the objective factors was that the actions were such as to

[21] As Methven (2015, 53) points out, we have evidence that Ramsey read *Chance* because he took "seven pages of notes on its contents." Methven (2015, 53) also writes, "Every reference to Peirce made by Ramsey, with just one exception, is attributable to this collection"; the exception in question is "Prolegomena to an Apology for Pragmatism." For more discussion of Peirce's influence on Ramsey, see Hookway (2005), Misak (2016), and Tiercelin (2004).

> be useful if, and only if, the caterpillars were actually poisonous. (FP 40)[22]

In the quote above, Ramsey posits an intimate connection between what a chicken believes, what it desires (to eat caterpillars but not those connected with unpleasant experiences), and what it does due to having such beliefs and desires. Along similar lines, he maintains in "Truth and Probability" that a person will "always choose the course of action which will lead in his opinion to the greatest sum of good," where "goods" are those "things a person ultimately desires" (TP 69-70). Elsewhere, he holds that a person's "actions result from his desires and the whole system of his beliefs, roughly according to the rule that he performs those actions which, if his beliefs were true, would have the most satisfactory consequences" (OT 45).[23]

Ramsey calls his view of belief "pragmatist." (I'll discuss whether the label is apt in section 3.3.) In "Facts and Propositions," he attributes the view to Bertrand Russell, but while it's arguable that Russell does not really hold such a view, it's fairly clear that Peirce does.[24] In *Chance*, Peirce holds that "our beliefs guide our desires and shape our actions" and that when we have a belief, it's "established in our nature some habit which will determine our actions" (CLL 14–15). Further, he thinks that it's "certainly best for us that our beliefs should be such as may *truly* guide our actions so as to satisfy our desires" (CLL 16; my emphasis). To clarify, Peirce does not think that belief will "make us act at once" (CLL 15). Rather, it "puts us into such a condition that we shall behave in some certain way, when

[22]Ramsey says in the same paper that his focus is on another kind of belief—namely, those "expressed in words, or possibly images or other symbols, consciously asserted or denied" (FP 40). But towards the end of the paper, he claims to be a pragmatist about such beliefs as well (FP 51). Further, in his manuscript *On Truth*, he holds that it is "impossible to give any satisfactory account of belief or even of thought without making any reference to possible resulting action"—even for beliefs expressible in words, it is "important to realise that it is not only a question of what [one] would think or say but also of what he would do" (OT 44–45). To use Ramsey's example, when we say that "a man believes that... the earth is flat," this is "partly an assertion about what he would think or say and partly (if [Ramsey] is right) one about how he would behave" (OT 45).

[23]Ramsey adds in a footnote that the "formula obviously requires modification to include the case of partial belief" (OT 53). We'll return to this point below.

[24]Misak (2016, 173) points out that Ramsey seems to be aware that Russell does not really subscribe to a pragmatist view of belief. In "Truth and Probability," Ramsey notes that Russell dismisses the view "that the degree of a belief is a causal property of it, which we can express vaguely as the extent to which we are prepared to act on it" (TP 65).

the occasion arises" (CLL 15). Likewise, Ramsey writes, "it is not asserted that a belief is an idea which does actually lead to action, but one which would lead to action in suitable circumstances" (TP 66). Ramsey does not specify what he means by *suitable*. But presumably, the thought is that for a circumstance to be suitable for action, the belief should at least be accompanied by a relevant desire. Suppose we believe that shouting at the top of our lungs will draw attention to ourselves. Without desiring to draw attention to ourselves, we'll not proceed to shout at the top of our lungs. But should such a desire arise (and we have no countervailing desire), we'd have a circumstance ripe for the relevant action.

### 3.2 The Argument

What does the pragmatist view of belief have to do with reliabilism? Ramsey does not spell out his argument in full explicit detail. But I'll argue that Ramsey's pragmatist view of belief, as well as his view that the ultimate value of belief lies in its connection to action, leads him to maintain that a single belief is ultimately to be praised or blamed depending on whether it's true. This, coupled with his view that beliefs are produced by mental habits, then leads him to think that insofar as we appraise certain individual beliefs as being reasonable or otherwise, such appraisal is derivative upon our appraisal of the relevant habits, which in turn depends on whether those habits are truth-conducive.

As we've seen, Ramsey holds that our desires and beliefs cause us to act in a way such that if our beliefs were true, our actions "would have the most satisfactory consequences" (OT 45). Or as he'd sometimes put it, a true belief is useful in suitable circumstances. But the chicken and caterpillars passage suggests he'd also maintain that a belief is useful in suitable circumstances only if it's true. In his own words, "[i]t is useful to believe *aRb* would mean that it is useful to do things which are useful if, and only if, *aRb*" (FP 40). To illustrate, suppose that in accordance with the pragmatist view of belief, our desire for chocolate and our belief that going to the shop will satisfy this desire lead to us going to the shop.

*Ceteris paribus*, our belief is useful—it'll lead to useful, desire-satisfying conduct—if and only if true. Or so Ramsey would maintain.

Now, one might point out that even if our belief is false, our desire can still be satisfied by luck—say, there's no chocolate in the shop but just as we leave the shop a friend comes along and hands us some. But I think Ramsey will deny that our belief is useful in this case. He might grant that our going to the shop has led to satisfactory consequences, but he'd presumably deny that the desire is satisfied via a belief or conduct that's useful—there's nothing about the belief itself that helps satisfy the desire in question.

One might also bring up standard examples in which we maintain false beliefs because of the consolation they offer or because they enhance our self-image, thus resulting in us performing better at our tasks. One might think that such beliefs, despite being false, are useful. But Ramsey will deny that these are counterexamples to the equivalence between true and useful belief. In holding that a belief is true if and only if it's useful, Ramsey is concerned with "primary utility," where a belief is useful *by way of its being true* (OT 91). We'll see more of what he has to say about the notion of primary utility in section 3.3. For now, note that given this notion, the right-to-left direction of the equivalence is trivial. But the converse is non-trivial. For instance, if you deny that beliefs interact with desires to bring about action or you think it's possible to have beliefs without having any desires—see Eriksson and Hájek's (2007) example of the Zen monk—you'd think that a true belief needn't be useful.

To clarify, in appealing to the aforementioned connection between truth and usefulness, Ramsey is not appealing to a pragmatist theory of truth, insofar as such a theory takes such a connection to give us a definition or analysis of truth.[25] Ramsey maintains that he has "a clear definition of truth" that is found in the "platitude that a belief that $p$ is true if and only if $p$" (OT 11; 13). This suggests that insofar as he maintains an equivalence between true belief and useful belief,

[25]Thanks to an anonymous reviewer for pressing me to clarify this point.

such equivalence is to be understood as extensional, not intensional, in nature. Or as Misak (2016, 224) puts the point, Ramsey's "pragmatist move... links truth to action, without defining it in terms of action." The fact that Ramsey understands usefulness as primary utility also shows that he is not defining truth in terms of usefulness, for such a definition would be blatantly circular.

Further, Ramsey explicitly holds that the claim that "a belief that $A$ is $B$ [is] roughly a belief leading to such actions as will be useful if $A$ is $B$, but not otherwise" is "an absurd answer" to the question "Given propositional reference, what determines truth?" (OT 90–91). He maintains, however, that the view is a "sensible sort of answer" to the question "What constitutes propositional reference?"—that is, to the question "what is meant by saying a belief is a belief that so-and-so" (OT 89–91).[26] Here, some commentators have interpreted Ramsey to be putting forward a theory of mental content subsequently known as success semantics—see, for example, Dokic and Engel (2001). But for our purposes, note that one might agree with Ramsey that a belief is useful in suitable circumstances if and only if it's true without subscribing to such a theory of mental content—one might agree with Ramsey about the connection between truth and usefulness without thereby thinking that the connection on its own suffices to fix the content of belief. (You might think, for instance, that to know the conditions under which our actions are useful, we'd also need to know the contents of our desires.)

We've finally clarified the first step in Ramsey's argument for reliabilism—his claim that a belief is true if and only if it's useful (in the primary sense and in suitable circumstances—I'll drop the qualifications in what follows). The discussion of the next step will be relatively brief. Ramsey holds that the ultimate value of a belief lies in its usefulness—as he puts it, "the ultimate purpose of thought is to guide our actions" (GPC 153). Granted, Ramsey's claim about the ultimate purpose of thought occurs in a context in which he's considering whether the claim

[26]Granted, Ramsey also holds that "an account of truth which accepts the notion of propositional reference without analysis cannot possibly be regarded as complete" (OT 14). But he insists that any complete account "must preserve the evident connection between truth and reference [that a belief that $p$ is true if and only if $p$]" (OT 14).

helps support the view that, essentially, all beliefs are beliefs in singular propositions and beliefs in general propositions or variable hypotheticals are "superfluous" (GPC 153). He answers the question in the negative but not because he denies the claim itself. In fact, he thinks that beliefs in general propositions or variable hypotheticals are essential precisely because they allow us to "praise and blame" people by considering "what would have happened if they had acted otherwise" (GPC 153–54).[27]

We can now put the first two steps together. Given that a belief is useful if and only if it's true, and given that a belief's ultimate value lies in its usefulness, it is to be ultimately valued if and only if it's true. This explains why Ramsey thinks that a single belief is ultimately to be praised or blamed depending on whether it's true. And since he maintains that beliefs are produced by mental habits, he'd also hold that such habits are to be valued—and deemed "useful"—according to whether they are truth conducive (TP 90–93).

Nonetheless, even if a single belief is to be valued—and thus praised or blamed—according to whether it's true, we do in practice evaluate beliefs by deeming them reasonable or unreasonable. Given the preceding, such evaluation can only be understood as being secondary in nature. It's then natural to hold, as Ramsey explicitly does, that such praise or blame derives from our praising or blaming the corresponding belief-forming habits. We praise a belief in the derivative sense—we deem it reasonable—if and only if it stems from a useful, truth-conducive habit.

We've seen that Ramsey's reliabilist account of reasonable belief is based on his pragmatist view of belief, his view about the ultimate value of belief, and his view that beliefs are produced by belief-forming habits. But what about reasonable degrees of belief?

Ramsey holds that we may criticize a mental habit "as being conducive or otherwise... to entertaining such degrees of belief as will be most useful" (TP 90). He also thinks that it is "in general... best" for a person's degree of belief to match

[27]Admittedly, there is a difference between purpose and value. But Ramsey's talk of "praise and blame" in the relevant context suggests that he has value in mind (GPC 154).

certain relative frequencies—recall his examples involving yellow toadstools and memory feelings (TP 91). If he's right, then correspondingly, we should praise or blame a habit according to whether it tends to produce degrees of belief that match certain relative frequencies. But why should useful degrees of belief—ones leading to useful conduct—be aligned with frequencies?

In the case of all-or-nothing beliefs, there's a straightforward sense in which Ramsey may maintain that it's best for us that such beliefs be true: when true, they help satisfy the relevant desires. But a degree of belief of $x$ in $p$ that matches the relevant relative frequency might lead to us acting in a way that doesn't satisfy our desires even if we act on it accordingly. For example, suppose our degree of belief in rain is 0.6, the relevant relative frequency is 0.6, and it in fact rains. Still, we might act in a way that benefits us if and only if it doesn't rain: perhaps we're out and about without an umbrella and desire not to get wet, but the cost of a new umbrella is exorbitant, and we decide to go without it. This decision may well be rational (in that calculated risks may be rational). In such a case, in what sense is a degree of belief of 0.6 in rain best?

Ramsey would grant that in a single case, acting on a degree of belief that matches the relevant relative frequency might not satisfy your desires. But he holds that "supposing goods to be additive, belief of degree $\frac{m}{n}$ is the sort of belief which leads to the action which would be best if repeated $n$ times in $m$ of which the proposition is true" (TP 84). Why does he think that?

Ramsey doesn't give an explicit answer. But here's one on his behalf. Our degrees of belief, in combination with our desires, lead to us performing certain actions. The principle of maximizing subjective expected utility tells us that we ought to perform those actions that maximize subjective expected utility. If we constantly have to choose between two actions A and B, and doing A has greater subjective expected utility than doing B, then from our subjective perspective, doing A will in the long run tend to lead to greater utility than doing B.

Now, suppose that this difference in expected utility is due to our assigning

a higher degree of belief to A leading to a desired outcome than to B leading to that same outcome. But suppose that A leads to the desired outcome with a lower frequency than does B. In that case, there's a mismatch between degree of belief and relative frequency. Then even though from our subjective perspective, doing A maximizes expected utility, it doesn't do so objectively speaking. In the long run, if we keep choosing A over B, it's overwhelmingly likely that we'll in fact be worse off. To avoid this, we should ensure that our degrees of belief match the relevant relative frequencies, in which case our subjective expected utilities will match the objective ones.

### 3.3 Two Worries

Let me now turn to a couple of worries.

First, one might wonder if Ramsey's view of belief is accurately labelled "pragmatist." For instance, Mellor (1990, xix) refers to it as what Ramsey "calls a 'pragmatist' (i.e. functionalist) account." One might read Mellor as suggesting that the view is at bottom functionalist in nature and only pragmatist in name. I agree that a functionalist or proto-functionalist might well accept the view. Nonetheless, the label "pragmatist" remains apt. As mentioned, Ramsey and Peirce share the pragmatist view of belief, which Peirce attributes to Alexander Bain. Peirce also thinks that "pragmatism is scarce more than a corollary" of Bain's account of belief (CP 5.12).[28] Given that in *Chance*, the pragmatist view of belief is central to Peirce's pragmatism and given that Peirce is considered to be one of the main founders of pragmatism, the label "pragmatist" is not misplaced.

To be sure, there are different varieties of pragmatism. Talisse and Aikin (2008, 8) point that that A. O. Lovejoy (1908) identified 13 distinct versions before

[28]Peirce thinks that the pragmatic maxim (of which more later), which he takes to be a core part of his pragmatism, follows from the pragmatist view of belief. See Zimmerman (2021, 335) for why Peirce thinks that. Admittedly, Peirce later became dissatisfied with justifying the pragmatic maxim by appealing to the pragmatist view of belief. For he thinks that the maxim is a principle of logic, and such justification is simply too psychologistic in nature (Hookway 2012, 200–202). Throughout the course of his life, he attempts several other ways to justify the maxim. It remains, however, that the pragmatist view of belief plays a central role in one of the major founding texts of pragmatism.

saying that it's "reasonable to suspect that the number of pragmatisms in currency today far exceeds 13." As they then go on to note, even the classical pragmatists—Peirce, James, and Dewey—"were often at odds with each other concerning central philosophical questions" (Talisse and Aikin 2008, 8). However, even if your preferred version of pragmatism clashes with what I say above, the following point remains. Ramsey has an early argument for reliabilism that's based on his view about the value of belief, his view that beliefs are produced by belief-forming habits, and his view on how beliefs and desires are intimately related to action—whether we call this last view pragmatist or not.

Here's another worry. Given that true beliefs or degrees of belief that match the relevant frequencies help satisfy our desires in the long run, a truth-conducive or well-calibrated habit may well be evaluated positively. But one might think that this shows at best that there's something *pragmatically* good—and not necessarily *epistemically* good—about the habit. One might thus worry that a belief produced by the habit may be praised only for pragmatic rather than epistemic qualities—and consequently, that Ramsey is talking about pragmatic rather than epistemic reasonableness.

But Ramsey is talking about reasonableness in an epistemic sense, even though on his view, the notion can be spelt out in pragmatic terms. To hold that the epistemic is to be spelt out in terms of the pragmatic isn't to deny that there are epistemic qualities, just as to hold that consciousness is to be spelt out in physical terms isn't to deny that consciousness exists.

It'd also help to see that Ramsey is *not* saying that it's reasonable to believe $p$ just in case believing $p$ leads to the best practical consequences overall. We've already seen that by "usefulness," Ramsey has primary utility in mind. Here's more of what he has to say about the notion:

> To say a man believes in hell means, according to the pragmatists that he avoids doing those things which would result in his being thrown into hell, and which he would not avoid on account of any other consequences

> they may have. Such conduct will be useful to the man if it really saves him from hell, but if there is no such place it will be a mere waste of opportunities for enjoyment. But besides this *primary* utility there are other ways in which such conduct may or may not be useful to the man or others; the actions from which a belief in hell would cause him to abstain might bring disasters in their train either for him or for others even in this present life. But these other consequences of the belief, whether useful or not, are clearly not relevant to its propositional reference or *truth*, and if the pragmatist definition makes them relevant this only shows that the definition must be corrected by qualifying clauses or even abandoned altogether. (OT 91–92; emphases mine)

In the passage, Ramsey distinguishes the primary utility and the non-primary utility of a belief, where the former but not the latter is tightly connected to the belief's *truth*.[29] While the passage is concerned with truth rather than reasonableness, Ramsey's maintaining a tight connection between reasonableness and truth conduciveness suggests that he'd also maintain a tight connection between reasonableness and practical consequences in a *primary* sense.

In particular, Ramsey would hold that a belief's reasonableness has to do with whether the mental habit from which the belief stems helps lead to positive practical consequences *by way of its being truth conducive*. On such an account, reasonableness is epistemic in nature. True, though wishful thinking is unreliable, it might sometimes bring one happiness. But such utility, Ramsey would maintain, is non-primary and has nothing to do with whether the beliefs formed via wishful thinking are reasonable. As Misak (2016, 210) puts it, for Ramsey, "the dimension of usefulness relative to epistemic assessment is such that the belief that $p$ will be useful *only if* $p$" (Misak's emphasis).

Ramsey's view thus accommodates the thought that reasonable beliefs needn't

[29]Ramsey opposes what he takes to be William James's notion of truth, on which whether something is true can depend on the non-primary utility of our belief in it (OT 92). For arguments that this is a misinterpretation or caricature of James's view on truth, see Chisholm (1992), Jackman (1999), and Putnam (2006).

always be best for one all things considered—reasonable beliefs, like true beliefs, can sometimes bring about negative practical consequences. And unreasonable beliefs might sometimes make one very happy. But why should we be interested in a notion of reasonableness spelt out in terms of *primary* usefulness instead of overall usefulness? Ramsey doesn't address this question explicitly, but the following offers an answer coherent with his view.

Ramsey holds that we want habits that "work" (TP 93). Granted, epistemically reasonable beliefs or truth-conducive habits may not always yield the best outcomes. But the concept of reasonable belief understood along Ramseyan lines may still earn its keep. For when judging whether a belief is reasonable along such lines, we're also judging whether it's produced by a truth-conducive habit. And it's helpful to identify such habits as long as there are significantly enough cases in which these habits help serve our desires. A truth-conducive habit might sometimes bring about bad consequences. But it'd still be helpful to identify such habits if, by and large, having truth-conducive habits serves our desires better than not having them. Also, while certain false beliefs might make us feel better or perform certain tasks better, one might think that most workaday beliefs are not like that.[30]

Contemporary epistemologists have likewise expressed the thought that true beliefs or truth-conducive habits tend to help serve our desires. Consider Alston's (2005: 31) claim that "where we seek to produce or influence one outcome rather than another, we are much more likely to succeed if we are guided by true rather than false beliefs about the likely consequences of one or another course of action." Similarly, Kornblith (1993, 373) holds that "it is for pragmatic reasons that truth takes on the importance that it does in epistemic evaluation." According to him, it's "of the first importance that our cognitive systems remain suitable for the purpose of performing the relevant cost-benefit calculations" and "what this requires is that our cognitive systems be accurate, that is, that they reliably get us at the truth";

[30]Hoffman (2019) has argued that there are evolutionary reasons to think that most of our beliefs are false rather than true. But for a response to such a line of thought, see Chalmers (2022, 435–436).

further he holds that "to evaluate our cognitive systems by their conduciveness to truth. . . is precisely what epistemic evaluation is all about" (Kornblith 1993, 372).[31]

I'm not, of course, aiming to provide a full-fledged defence of Ramsey's argument for reliabilism or of the claim that overall, having truth-conducive habits is better than not having such habits. But the claim has enough initial plausibility, I think, that Ramsey's argument for reliabilism, as presented, deserves airing.

## 4 The Pragmatic Maxim and Conceptual Engineering

We've seen how the pragmatist view of belief, together with Ramsey's view about the value of belief, helps lead to his account of reasonableness. But we've yet to say anything about a pragmatist principle that takes centre stage in Peirce's pragmatism. Given Ramsey's acknowledgement of Peirce's influence on him, one might wonder if the principle plays a part in Ramsey's argument for reliabilism.

Peirce puts forward this principle in "How to Make Our Ideas Clear," the second chapter in *Chance*; he writes:

> Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object. (CLL 45)

The principle is known as the *pragmatic maxim* (though Peirce does not use this term in *Chance*). As Legg and Hookway (2021) point out, Peirce takes the maxim to give us "a distinctive method for becoming clear about the meaning of concepts

[31] The aim in Kornblith (1993, 357) is to give a naturalistic account of epistemic normativity—to "ground epistemic normativity in our desires." It's not to give a reliabilist account of reasonable or justified belief. However, it contains the resources to help us argue for such an account. And indeed, Kornblith is a reliabilist; see, for example, Kornblith (2002). Arguably, Ramsey goes beyond Kornblith by giving us the resources to spell out and defend a reliabilist account of justified degree of belief. It's also interesting to note that Ramsey, like Kornblith, is a naturalist. He rejects the view that "rationality introduced some new element peculiar to logic, such as indefinable probability relations," and thinks that rationality (along with goodness and beauty) is "definable in . . . natural terms" (OT 4). (Recall that when Ramsey talks about "human logic," his concerns are epistemological in nature.) He also holds that "all the notions used in logical criticism can be defined in terms of natural qualities and relations, such as are involved in *ordinary psychological investigations*" (OT 83; my emphasis). I suspect he would be sympathetic to Kornblith's naturalistic project of grounding epistemic normativity in terms of desires. See section 4 for more on Ramsey's naturalism.

and the hypotheses which contain them"; we "clarify a hypothesis by identifying the practical consequences we should expect if it is true." For example, Peirce holds that a *hard* object is one that "will not be scratched by many other substances," while to "say that a body is *heavy* means simply that, in the absence of opposing force, it will fall" (CLL 47; second emphasis mine).[32]

Relatedly, Peirce maintains that "there is no distinction of meaning so fine as to consist in anything but a possible difference of practice" (CLL 44). If two hypotheses have the same practical consequences if true, they are the same hypothesis. If we apply this idea to two claims, the first of which says that a belief is reasonable and the second of which says that the same belief is not, we should be able to spell out the difference in terms of the practical consequences that we should expect on each hypothesis being true.

Someone who subscribes to the pragmatic maxim might be motivated to hold an account of reasonable belief like Ramsey's. Both Peirce and Ramsey hold that beliefs are produced by habits and that beliefs guide our desires and shape our actions. Given that beliefs are understood thus, it's plausible that any practical difference between a reasonable and an unreasonable belief is to be traced to a difference in whether the relevant actions lead to the satisfaction of one's desires or to a difference in the habits that produced the beliefs in question.

The latter difference seems to be the more important. For there are cases in which $p$ is true, but subject A's belief that $p$ is reasonable whereas subject B's belief in the same proposition isn't. Assuming that they have the same desires, then other things being equal, they will perform the same action. In such cases, it's plausible that any practical difference should be spelt out in terms of the different habits that produced the beliefs—in particular, in terms of their truth-conduciveness.

Was Ramsey influenced by the pragmatic maxim? Strictly speaking, one may endorse Ramsey's argument for reliabilism without invoking the maxim. For

[32] As Misak (2016, 14) points out, Peirce subsequently thinks that "will be" should be replaced with "would be." He subsequently maintains that a hard diamond is one "that *would* resist pressure" (CP 8.208; my emphasis). Note also that Peirce is concerned with *intellectual concepts*—"of those upon the structure of which arguments concerning objective fact may hinge" (EP 2.401).

instance, a functionalist might well think that beliefs and desires are related to action in the way that Ramsey thinks they do. Such a functionalist might in addition hold that the ultimate value of belief lies in its usefulness without also holding that hypotheses or concepts should in general be understood in terms of their practical consequences. Nonetheless, while one does not need to subscribe to the maxim to be sympathetic to Ramsey's account of reliabilism, someone who is sympathetic to the maxim might be motivated to subscribe to such an account (as I've just discussed). Is Ramsey sympathetic to or motivated by the maxim?

In "Truth and Probability," Ramsey does not appeal to the maxim explicitly. Like Peirce, he thinks that belief is intimately connected to desire. But he does not state any general claim about the meaning of concepts. In fact, he mentions pragmatism just once—when he holds that it "is a kind of pragmatism" that "we judge mental habits by whether they work" and then goes on to hold that adopting the habit of making inductive inferences is reasonable because the habit is "useful" (TP 93–94).

In "Facts and Propositions"—written one year after "Truth and Probability"—Ramsey mentions pragmatism twice. The first mention occurs when he gives his chicken and caterpillars example. But the focus is on the pragmatist view of belief, and Ramsey does not appeal to the pragmatic maxim. In his second mention of pragmatism, he writes:

> My pragmatism is derived from Mr Russell; and is, of course, very vague and undeveloped. The essence of pragmatism I take to be this, that the meaning of a sentence is to be defined by reference to the actions to which asserting it would lead, or, more vaguely still, by its possible causes and effects. (FP 51)

Here he mentions Russell instead of Peirce; moreover, understanding the meaning of a sentence in term of its causes and effects is not the same as understanding it in terms of its practical effects or consequences.

Though Ramsey might not have appealed to the pragmatic maxim explicitly

in "Truth and Probability," at least in the form stated by Peirce in *Chance*, might he nonetheless have appealed to it implicitly or have been motivated by it?

To answer this question, it'd be useful to follow Olshewsky (1983, 200) in distinguishing between the pragmatic maxim understood as a "theory of meaning" and as a "rule about meaning." According to Olshewsky (1983, 200), the maxim should be understood in the latter way. He maintains that the maxim is not meant to tell us how to understand the semantic meaning of a particular concept; instead it is meant to be a "tool for improving inquiry" and "a guide for how to make our ideas clear, for discriminating the significance of one conception from another." Likewise, Misak's (2013: 30) maintains that "even in 'How to Make our Ideas Clear,' it wasn't obvious that the principle Peirce was articulating was designed to be a semantic principle about the very meaning of our concepts". Instead, she thinks that Peirce "took the maxim to be about achieving clarity" (Misak 2013, 30). And there is evidence that insofar as Ramsey is sympathetic to the maxim, he is thinking about it along a similar line.

In "Philosophy," Ramsey writes:

> I do not think it is necessary to say with Moore that the definitions [of philosophical notions] explain what we have hitherto meant by our propositions, but rather that *they show how we intend to use them in future*. Moore would say they were the same, that philosophy does not change what anyone meant by 'This is a table'. It seems to me that it might... Also sometimes philosophy should clarify and distinguish notions previously vague and confused, and clearly this is meant to fix our future meaning only. (P 1; my emphasis)

The quote above suggests that Ramsey isn't interested merely in analyzing or defining current terms or concepts. Ramsey thinks that philosophy "must be of some use"—it "must clear our thoughts and so our actions" (P 1).[33] And it can do that

[33]Cf. Peirce, who writes that the "whole function of thought is to produce habits of action" (CLL 43).

by helping us clarify notions "previously vague and confused" (P 1). It should tell us how we may use a term in the future—never mind what the term currently means. The pragmatic maxim—in its incarnation as a rule of meaning—offers some guidance here: it tells us that we should understand a term or concept by reference to the relevant practical consequences (thereby helping to clear our thoughts and actions).

This approach to philosophy lines up with pragmatist tradition and with Peirce's own approach. In particular, Peirce and Ramsey are not opposed to being at least slightly revisionist about our ordinary terms and concepts. While illustrating the pragmatic maxim in "How to Make Our Ideas Clear," one of Peirce's examples is the notion of force, "developed in the early part of the seventeenth century from the rude idea of a cause, and constantly improved upon since" (CLL 48). How should we understand the notion? Peirce writes, "According to our rule [i.e., the pragmatic maxim], we must begin by asking what is the immediate use of thinking about force; and the answer is, that we thus account for changes of motion" (CLL 48). Peirce's discussion suggests that he isn't interested in the ordinary or conventional meaning of "force." The notion of force has been improved upon since the 17th century to fit the aims of scientists—and that's how it should be.[34]

Similarly, Ramsey would hold that when philosophers give a definition of "reasonable belief," their primary focus shouldn't be on its ordinary or conventional meaning. Instead, they should give a definition that serves the purposes of our philosophical projects. How should we understand the notion of reasonable belief? A Peircean would say that we must begin by asking: what's the use of thinking about reasonable belief? And Ramsey would answer: we want to know whether a belief is reasonable because we want to know whether it's likely to be true or whether the habit that produced it is truth conducive (for true beliefs and truth-conducive

[34]Elsewhere, in asking how one should define *sign*, Peirce writes:

> I do not ask how the word is ordinarily used. I want such a definition as a zoologist would give of a fish, or a chemist of a fatty body, or of an aromatic body. . . aiming. . . less at what the definitum conventionally does mean, than at what it were best, in reason, that it should mean. (EP 2.403)

habits are useful).

My suggestion above is bolstered by the fact that Ramsey adopts a similar approach to our notions of *judgement* and *belief* (and not just reasonable belief). In *On Truth*, he explicitly uses "judgement" as a term of art, going "considerably beyond the way in which it is used in ordinary language" (OT 46). In "Truth and Probability," he maintains that we cannot in general measure the degree of the strength of our belief in a proposition by introspecting the strength of our feeling of conviction or "belief-feeling" regarding the proposition (TP 65–67). But he's prepared to grant that he's "wrong about this and that we can decide by introspection the nature of belief, and measure its degree" (TP 65–67). Still, he says, "the kind of measurement of belief with which probability is concerned is not this kind but is a measurement of belief qua basis of action" (TP 65–67). Here Ramsey is suggesting that even if there's a notion of belief whose nature and strength we can discern by introspection, he's not interested in it; instead, he wants to focus on a notion that has to do with how we act. He thinks that "the quantitative aspects of beliefs as the basis of action are evidently more important than the intensities of belief-feelings" (TP 65–67). In "Truth and Probability," he's fixing the meaning of belief in a way that's useful for his philosophical purposes.

We've seen that Peirce's approach to getting clear on the notion of force is guided by the pragmatic maxim. We've also seen that in "Philosophy" and elsewhere, Ramsey approaches philosophical notions in a similar way. This provides some evidence that Peirce's pragmatic maxim—understood as a rule about meaning—did influence Ramsey or that he is at least sympathetic to it.

Granted, one may wish to fix the future meanings of our terms and notions without fixing them in terms of their practical bearings. But Ramsey thinks that they should be fixed in naturalistic terms. He maintains that his view that "goodness and beauty [are] definable in... natural terms" also applies to "rationality and truth: so that just as ethics and aesthetics are really branches of psychology, so also logic is part, not exactly of psychology, but of natural science in its widest sense"

(OT 4).[35] Further, he explicitly attributes such a naturalistic view of rationality and truth to pragmatists (OT 83). Ramsey does not explain why he makes such an attribution. But he might have thought that, in accordance to the pragmatic maxim, pragmatists will spell out such notions in terms of their practical bearings, which may in turn be understood in naturalistic terms. Ramsey might thus be sympathetic to the pragmatic maxim—in particular, a naturalistic-friendly version of it.

In any case, even if one rejects the preceding claim, our discussion of the pragmatic maxim makes it clear that Ramsey follows Peirce in holding that conventional meanings may diverge from definitions that serve our purposes.[36] Insofar as we go with definitions that serve our purposes instead of conventional meanings, we engage in some measure of revisionism. In fact, as Misak (2022) has recently argued, we may think of Peirce and Ramsey as early conceptual engineers.[37] The above discussion shows that, like contemporary conceptual engineers, Ramsey focuses on whether a concept does the work it's supposed to do, giving less weight to whether the concept is spelt out in a way that gels with our ordinary intuitions about it. Indeed, the argument for reliabilism discussed in section 3 does not primarily appeal to ordinary intuitions about reasonableness.

But might Ramsey be more revisionist than we have taken him to be? In "Reasonable Degrees of Belief," he holds that "'Would it be reasonable to think

[35] See footnote 31.

[36] Peirce's discussion of force suggests that he takes such a view to fall out of the pragmatic maxim.

[37] What I say above supplements Misak's arguments. Following Misak (2022), I appeal to Ramsey's "Philosophy" to make the case that Ramsey was an early conceptual engineer. As she points out, Ramsey holds that definitions "are to give at least our future meaning, and not merely to give any pretty way of obtaining a certain structure" (qtd. in Misak 2022, 13). But while Misak's other textual evidence comes mainly from Ramsey's account of Ramsey sentences and of conceptual change in "Theories," "General Propositions and Causality," and "Causal Qualities" (all of which can be found in *Philosophical Papers*), I focus on his remarks in "Truth and Probability" and *On Truth*. Note that in holding that Ramsey was an early conceptual engineer, I don't mean to suggest that his views on how we should define our terms and on future meaning are original to him; as noted above, he most certainly was influenced by Peirce. But as Misak (2022, 2) notes, on "the traditional story," the later Wittgenstein and Carnap are "considered the first conceptual engineers." So it is of historical interest to note that, even prior to them, there have been a number of philosophers, Ramsey included, engaged in what we now call conceptual engineering. Also, as we'll soon see, noting that Ramsey is happy to be at least somewhat revisionist about our ordinary terms and concepts helps shed light on his version of reliabilism.

$p$?' means simply 'Is $p$ what usually happens in such a case?' and is as vague as 'usually'" (RDB 100). A few paragraphs later, he claims that "to introduce the idea of 'reasonable' is really a mistake; it is better to say 'usually', which makes clear the vagueness of the range" (RDB 101).

Suppose that Ramsey ultimately stands by what he says above. Then he's going beyond what many conceptual engineers do. The latter propose that we define concepts to suit our purposes, but Ramsey seems to be suggesting that with respect to *reasonableness*, we set aside the concept altogether. If this is indeed his view, then Ramsey anticipates Alston on yet another point.

Late in his career, Alston (2005) argues for abandoning the project of analyzing *justification* or *justified belief*. He thinks that various philosophers mean different things by "justification," and that it's more philosophically fruitful to turn our attention to identifying various epistemic desiderata instead. Ultimately, though he proposes that we give up the project of spelling out what *justified belief* means, his position about epistemic desiderata remains similar to the reliabilist's. He holds, as reliabilists tend to hold, that truth is a fundamental (if not the most fundamental) epistemic value. So it's good on his view to have belief-forming processes that tend to yield true beliefs, never mind whether the resultant beliefs are to be described as justified.

Ramsey, on the current reading, holds a similar view. He still thinks that true beliefs are good and that we want useful habits. But instead of spelling out what *reasonable* means, he suggests that we focus on what we really want—habits that usually lead to truth. On this reading, he's not engaged in the reliabilist project of spelling out the notion of reasonable or justified belief in terms of reliability. Nonetheless, like typical reliabilists, he holds that truth is a (if not *the*) fundamental epistemic value—hence, it's epistemically good to have reliable belief-forming habits.

But while Ramsey might be sympathetic to the view just described, it's not clear that he ultimately endorses it. In *On Truth*, which he worked on from 1927

to 1929 (just before his death), he uses expressions such as the following: "justified confidence," "certainty which is justified," and "judgments [being] justified though false" (OT 58, 63, 64). He also talks about the "reasonableness of arguments or inferences" (OT 3). Further, he writes:

> That the value of truth is primary and of reasonableness secondary is a point on which we must insist; for it follows from the fact that the whole purpose of argument or inference is to arrive at true judgments, that the reasonableness of an argument must be connected with some tendency in it to lead to true conclusions... But the precise nature of the connection must be left to be determined later when we come to the actual analysis of the concept 'reasonable'. (OT 82)

The quote suggests that, while working on the manuscript, Ramsey hasn't abandoned the task of spelling out what "reasonable" means or should mean. He merely insists that truth is the more fundamental value.

To sum up, Ramsey's case for reliabilism doesn't focus on the ordinary meaning of "reasonable," and in "Truth and Probability," he doesn't focus on whether his account of reasonableness gels with ordinary intuitions. Instead, he wants to give an account of reasonable belief that serves our philosophical purposes and that's naturalistically respectable.

Nonetheless, Ramsey doesn't go against ordinary meaning wilfully. In talking about *knowledge*, *belief*, and *opinion*, he does pay some attention to how the terms are used in an "ordinary sense" (OT 43). He also talks about how *knowledge*, as "we ordinarily use the word," is not the same as apprehension (OT 58). This suggests that he would be willing to give some weight to ordinary intuitions when it comes to spelling out the notion of reasonable belief. It's just that if need be, he'll be happy to define the future meaning of "reasonable" in a way such that it diverges from present meaning.[38]

[38]Cf. Carnap (1950, 7), who thinks that the explication of a concept should not stray so far from the original concept that the subject matter is changed entirely. Nonetheless, insofar as the explication is fruitful, he's willing for it to differ significantly from the original concept.

## 5 Conclusion

It's often noted that Ramsey's reliabilism predates Goldman's. If I'm right, Ramsey also offers the first ever reliabilist account of reasonable degree of belief (from which an account of reasonable all-or-nothing belief may be derived).

Ramsey also offers an argument for his reliabilism. In exploring his argument, we've seen that he's more interested in spelling out "reasonable" in a way that helps "clear our thoughts and so our actions" rather than in a way that conforms to our conventional or ordinary understanding of the concept (P 1). Along the way, we've also seen how Ramsey's epistemology links up with various other issues in philosophy. There's a link to pragmatism via his argument for reliabilism. As discussed, this argument appeals to the pragmatist view of belief, according to which our beliefs and desires are intimately connected to our dispositions to act, and also to Ramsey's view that the value of belief lies in its usefulness. But since Ramsey's conception of pragmatism is one on which a functionalist or proto-functionalist picture of belief is true, the connection between his epistemology and his pragmatism also amounts to a connection between his epistemology and his philosophy of mind. Further, his views on degrees of belief, on how they relate to action, and on how they are connected to relative frequencies are related to issues in decision theory and the philosophy of probability. Last but not least, there's a link to philosophical methodology—Ramsey would not be opposed to some amount of conceptual engineering when it comes to defining *reasonableness*.

Ramsey's epistemology has more breadth and depth than often acknowledged. His version of reliabilism, as well as his argument for reliabilism, is worth attending to, not only for people interested in his thought, but also for those interested in the history of epistemology and reliabilism.

**Acknowledgements**

I am grateful to Vincere Lee and Jethro Peck for their helpful comments on this paper. Thanks also to two anonymous reviewers for this journal for their very useful feedback.

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