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Logical Normativity, the Laws of Thought, and Our Form of Life

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Logical Normativity, The Constitutive Laws of Thought, and Our Form of Life

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Philosophy

by

Taylor A. Dunn

Dissertation Committee:
Professor Annalisa Coliva, Chair
Professor Sven Bernecker
Professor Marco Panza

2024

DEDICATION

To Bruno, to my family

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ABSTRACT OF THE DISSERTATION

Logical Normativity, The Constitutive Laws of Thought, and Our Form of Life

By

Taylor A. Dunn

Doctor of Philosophy in Philosophy

University of California, Irvine, 2024

Professor Annalisa Coliva, Chair

Logic, it is said, is *normative*—logic tells us something about how we ought to think or reason. However, it's not clear *why* we should think logically, or *which* rules or *which* theory we are meant to follow. In the following chapters, I provide a novel view of logical normativity which aims to answer these vexing questions. I defend the view that logical normativity can be understood on the basis of a conception of logic according to which its laws are fundamentally descriptive, what I call the *laws of truth* conception of logic. But I also defend the view that logical normativity can be understood on the basis of a conception of logic according to which its laws are fundamentally prescriptive, what I call the *laws of thought* conception of logic. The resulting view is what I call *logical normativity dualism*, the idea that logic is normative in both of these distinct yet complementary ways.

In Chapter 1, I address some of the fundamental issues of logical normativity by uncovering the deep distinction between the laws of truth and laws of thought conceptions of logic. I employ the figure of the logical alien as it appears in the work of Gottlob Frege in order to draw out these alternative conceptions, showing that ultimately Frege's view presumes the laws of truth conception, but differently from Frege, Kant and the later Wittgenstein's conception of logic characterizes the logical laws as explicit prescriptions for how we ought to reason. I conclude that the contemporary literature on logical normativity has been shaped

primarily by Frege's laws of truth conception of logic, but that we should return to a Kantian view in order to get a complete picture of logical normativity.

In Chapter 2, I present *constitutive normativism*, an explication of the normativity of logic based in the laws of thought conception of logic, and I defend it against a number of pressing objections. Constitutive normativism posits the evaluative, wide scope 'in spirit' normative requirement on deductive propositional reasoning that it should avoid certain combinations of attitudes which violate modus ponens and universal instantiation. I also argue that Gilbert Harman's well-known objections to logical normativity about belief revision, excessive cognitive demands, and triviality, can be handled by constitutive normativism. I conclude by defending constitutive normativism against some objections to the general strategy of constitutivism as a way to explain the categorical authority of norms.

In the second half of my dissertation, I develop and employ the logical normativity dualism framework to address some standing problems in the philosophy of logic. One key upshot which I discuss in Chapter 3 is that constitutive normativism can help solve a recent problem for Quinean, anti-exceptionalist views of logic, what is called the Adoption Problem. I explain that the Adoption Problem poses a problem for the Quinean view because we aren't able to reason in accordance with our preferred theory without using modus ponens and universal instantiation, regardless of whether either inference rule is valid in our preferred theory. But by embracing a plurality of conceptions of logic—taking on both the laws of truth and laws of thought conceptions of logic—we can distinguish between kinds of logical rules which make inquiry possible and those which we inquire into, and thereby save the Quinean view.

In Chapter 4, I complete the picture of logical normativity dualism by developing and defending an evidentialist explication of logical normativity on the basis of the laws of truth conception of logic. I demonstrate that the two logical normativities, constitutive normativism and what I call *evidential reasons normativism*, complement each other rather than

conflict. I also draw on the developments of the previous chapters to demonstrate that the supposed incompatibility between logical pluralism and logical normativity doesn't carry over to my view.

Introduction

F. P. Ramsey once emphasized in conversation with me that logic was a 'normative science'. I do not know exactly what he had in mind...

–Ludwig Wittgenstein, *Philosophical Investigations*, §81

The idea that logic is normative, that logic tells us how to think or reason, is the kind of truism one might hear in an introductory logic course, or like in the quotation above, something a colleague might mention in critiquing your first book.[1] But like most truisms, though intuitive, it isn't very informative. It leaves us without clarity on what we could mean by 'logic', what makes logic normative, and which rules, or which theory, have normative bearing on thinking or reasoning. But also like most truisms, I think what we need is clarity and further explication of the intuitive idea, rather than a 'from scratch' defense. This is the task of the present body of work, to flesh out and clarify what exactly it is for logic to be normative.

In the following chapters, I provide a novel view of logical normativity. What makes the view novel is that I identify two independent paths towards an account of the normativity of logic, I develop new accounts along both paths, and then I bring them together under a unified view we can call *logical normativity dualism*. In a way that is roughly analogous to some accounts of rationality,[2] I will argue that logical normativity should be understood as both a 'structural' matter of how our propositional attitudes fit together, and a 'substantive' matter of how we respond to our logical evidence. By way of example, let me introduce you to the two ways I take logic to be normative.

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[1] At least, this is what Crispin Wright (2018: fn. 3) guesses Ramsey had in mind.

[2] Alex Worsnip (2021) has recently argued that coherence constraints on reasoning hold independently of any evidential constraints on reasoning as part of his dualism about rationality.

Consider Anne, who is told that way out west, where it's all desert, all the foxes are brown.[3] She's told that El Paso is way out west, and then she is asked, 'On the basis of what you've been told, what color are the foxes there?' Anne responds, 'Well, I've never been to El Paso, so how could I say?' Anne doesn't realize that it *just follows* from what she was told that the foxes in El Paso are brown. Instead, she gets caught up on her own beliefs—since she herself doesn't know about the foxes in question, she fails to draw the inference and consider what follows from the other things she has considered. One way of stating Anne's mistake is that she's missing a crucial piece of the puzzle, that things will not fit together correctly unless she considers the conclusion of the inference. And importantly, Anne's mistake doesn't hinge on what she believes—in fact, it is crucial that Anne set aside or 'bracket' her own beliefs in order to come to the logical conclusion. But I think we have the strong intuition that Anne *should* come to the logical conclusion, and this is the first sense in which logic is normative. The idea is that logic prohibits certain attitudinal combinations— like considering the premises but not the conclusion of certain inferences—just on the basis of the form of the propositions in question.

Now consider Lucas, who believes that his pet Fido is a dog, and he believes that all dogs are mammals. Lucas is also aware of the fact that, according to his rudimentary knowledge of logic, if it's true that Fido is a dog, and if it's true that all dogs are mammals, then it must be true that Fido is a mammal. But Lucas is not sure if he should believe that Fido is a mammal, and so he fails to believe it. In this case, Lucas makes the correct inference, but I think we have the strong intuition that he still made a mistake, that Lucas should form the belief that Fido is a mammal. Unlike Anne, it really does matter what Lucas believes in order to make sense of his mistake—it is exactly because Lucas believes it's true that Fido is a dog and that all dogs are mammals, and because he's aware of the conclusion of this inference, that he should believe it's true that Fido is a mammal. This is the second sense

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[3]This example is inspired by a real world case found in the deductive competence experiments of Alexander Luria, which are recounted in Catarina Dutilh Novaes (2021) in her discussion of 'belief bracketing', which she identifies as a central feature of deduction.

in which logic is normative. The idea is that the logical information in our possession—like knowing what follows from what—should matter to how we form or revise our beliefs.

I make space for these distinct logical normativities by first identifying two fundamentally different conceptions of logic and the way logic could have normative bearing on our thinking. One way of thinking about logic is that its laws are essentially *prescriptions* for how to think, and another way of thinking of logic is that its laws are essentially *descriptive*, but nonetheless logic has normative consequences for thinking. In Chapter 1, I explore the historical roots of these alternative conceptions of logic and relate them to existing views of logical normativity.

For the kind of logical normativity relevant to Anne's case, I develop a view on the basis of a fundamentally prescriptive conception of logic, what I call *constitutive normativism*. According to constitutive normativism, there are certain categorically authoritative logical norms that prohibit problematic combinations of propositional attitudes, and these norms bear on our thinking just in virtue of how the activity of deductive propositional reasoning is constituted. For the kind of logical normativity relevant to Lucas's case, I develop a view on the basis of a fundamentally descriptive conception of logic, what I call *evidential reasons normativism*. According to evidential reasons normativism, the logical theory one accepts has direct normative consequences for what to believe since logical theories are the source of a certain kind of evidence, and insofar as our evidence gives us evidential reasons to believe, disbelieve, or suspend judgment on propositions, then we ought to reason in accordance with our logical evidence.

In the process of developing and defending these individual accounts of logical normativity and marrying them within my broader logical normativity dualism, I also address and resolve some standing issues in the philosophy of logic, such as the problem of rationally adopting basic inference rules, and the apparent incompatibility with logical pluralism and the normativity of logic. Here is a preview of the contents of the dissertation.

In Chapter 1, I uncover the deep distinction between the laws of truth and laws of thought conceptions of logic. I argue that Gottlob Frege's conception of the logical laws is that they are fundamentally descriptive of what holds most generally, and differently from Frege, Kant and Wittgenstein's conception of logic characterizes the logical laws as explicit prescriptions for how we ought to reason. I conclude that the contemporary literature on logical normativity has been shaped primarily by Frege's laws of truth conception of logic, but that we should return to a Kantian view in order to get a complete picture of logical normativity. I suggest however that the right kind of Kantian view is one found in the later Wittgenstein, according to which basic inference rules are constitutive norms of thought.

In Chapter 2, I present constitutive normativism, an explication of the normativity of logic based in the laws of thought conception of logic, and I defend it against a number of pressing objections. Constitutive normativism posits the evaluative, wide scope 'in spirit' normative requirement on deductive propositional reasoning that it should avoid certain combinations of attitudes which violate modus ponens and universal instantiation. I also argue that Gilbert Harman's well-known objections to logical normativity about belief revision, excessive cognitive demands, and triviality, can be handled by constitutive normativism. I conclude by defending constitutive normativism against some objections to the general strategy of constitutivism as a way to explain the categorical authority of norms.

In the second half of my dissertation, I develop and employ the logical normativity dualism framework to address some standing problems in the philosophy of logic. One key upshot which I discuss in Chapter 3 is that constitutive normativism can help solve a substantial problem for Quinean, anti-exceptionalist views of logic, what is called the Adoption Problem. I explain that the Adoption Problem poses a problem for the Quinean view because we aren't able to reason in accordance with our preferred theory without using modus ponens and universal instantiation, regardless of whether either inference rule is valid in our preferred theory. But by embracing a plurality of conceptions of logic—taking on both

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the laws of truth and laws of thought conceptions of logic—we can distinguish between kinds of logical rules which make inquiry possible and those which we inquire into, and thereby save the Quinean view.

In Chapter 4, I complete the picture of logical normativity dualism by developing and defending an evidentialist explication of logical normativity on the basis of the laws of truth conception of logic. I demonstrate that the two logical normativities, constitutive normativism and evidential reasons normativism, complement each other rather than conflict. I also draw on the developments of the previous chapters to demonstrate that the supposed incompatibility between logical pluralism and logical normativity doesn't carry over to my view.

Chapter 1

What Is 'Logic' in 'The Normativity of Logic'? Logical Aliens, The Laws of Truth, and the Laws of Thought

1.1 Introduction

In order to make sense of the idea that logic is normative, we must first get clear on what we could mean by 'logic' when we say that it is normative. In this chapter, I will argue that we can identify at least two candidate conceptions of logic which can serve as the basis for logical normativity, what I will call the 'laws of truth' and 'laws of thought' conceptions of logic. Drawing the distinction between these two conceptions is not merely identifying answers to the question 'What is logic normative for?', or only regards what one takes to be the source of logical normativity, but instead it concerns whether logic is by its nature descriptive or prescriptive.[1] Distinguishing these two conceptions of logic has the crucial

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[1] The laws of truth and laws of thought conceptions of logic roughly correspond to what Florian Steinberger (2019a) briefly alludes to as the 'laws-of-being' and 'laws-of-thought' conceptions of logic, respectively, though

upshot of better organizing the field of candidate accounts of logical normativity. In the course of this dissertation, I develop accounts of logical normativity formed on the basis of both conceptions of logic, and I argue for accepting both under a unified logical normativity dualism view. But in order to get these two conceptions properly into view, I will begin with an historical digression into the idea of logical aliens and logically alien thought. The central aim of this chapter is to explicitly draw from recent insights in the history of philosophy in order to help make progress on the contemporary discussion of the normativity of logic.

The logical alien is meant to represent the logical 'other', a being whose thinking or reasoning is governed by logical laws that are different from our own. An investigation into logically alien thought is really to engage in a whole collection of related inquiries which span philosophical disciplines, but I want to engage in a more narrow investigation of the logical alien. I want to focus on why the alien is supposed to seem alien to us in the first place, and to determine the basis from which we are meant to identify and judge alien thought by focusing on particular features of how we can understand logic and its laws. Through identifying what makes logically alien thought something we can recognize or judge as alien, this investigation will reveal that some ideas about logic are more fundamental than others— holding fixed the laws of truth conception of logic, considerable changes can be made to one's philosophy of logic that nonetheless keeps the logical alien in view and allows us to judge them as alien. However, adopting the laws of thought conception of logic takes the logical alien totally out of view.[2]

A conservative discovery of this investigation is that how one makes sense of logically alien thought is really about how one characterizes logic. But the more substantial discovery

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important differences, particularly with the latter conception, will be made clear.

[2]My discussion of logical aliens naturally draws from well-known historical work such as James Conant (1991), the recent collection of essays in conversation with Conant, Miguens (2020), and much more centrally, from the insights of Tyke Nunez (2019, 2021) into Kant and Frege—particularly in the way that Nunez draws out the distinctions between Frege and Kant's conceptions of logic by way of the logical alien. However, although there is some historical discussion in the following, my central goal is not to provide exegesis— rather it is to clarify the two relevant conceptions of logic by relying on the excellent historical research on the relevant figures. Any exegetical missteps, however, belong to the author.

is that, if the laws of logic are taken to be laws of thought, rather than laws of truth, then we cannot even conceive of logically alien thought, let alone judge it as alien, but this doesn't result from a failure of imagination or a limit to our cognitive abilities. If logical aliens are to be the subject matter of some thought, then we are already operating within a framework that presupposes the logical laws we obey—even as we attempt to formulate a conception of the logical alien as unintelligible, we have done so only from within a framework where what counts as unintelligible is determined in part by our logical laws—our own framework is inescapable, even as we may recognize that it is not singular. By way of the logical alien, the distinction between the laws of truth and laws of thought conceptions can be best clarified, and we also find ourselves in a much better position to make sense of positive accounts of logical normativity.

I will begin by introducing the logical alien we originally encounter in the work of Frege, identifying what according to Frege makes them alien to us. This in turn will help to uncover the central idea behind Fregean and post-Fregean views of logic, namely that the laws of logic are laws of truth. I will then introduce the alternative laws of thought conception of logic and draw out the implications that result from this shift in view regarding logically alien thought. Finally, I will reflect on some of the crucial insights gathered along the way about how these alternative conceptions of logic shape the way we think of logical normativity.

1.2 Frege's stranger

The idea of logically alien thought comes to us, at least explicitly, for the first time in the preface to Gottlob Frege's *Grundgesetze der Arithmetik* (*GG*). In these famous passages, Frege presents a criticism of those who he calls 'psychological logicians', logicians who hold the view that the laws of logic are in some sense descriptive of our psychology or the conventions of the day. Frege's attack on the 'corrupting intrusion of psychology into logic' pushes

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back on the idea that the laws of logic are dependent on us—rather, we should instead think that the laws of logic hold completely independently of our psychology or conventions. He gets at his point first by drawing the distinction between 'holding as true', a human-dependent notion, and 'being true' a human-independent notion, but then he introduces a thought experiment for us to consider: the logical alien. The hypothetical logical alien is meant to elicit the intuition that the views of the psychological logician, that the logical laws just describe our psychological behavior, can't be right.

There are in fact two different types of alien that Frege asks us to imagine. Let's consider each of these aliens with an eye to the kinds of beings they are and how they are supposed to differ from us.

> But 'our thinking' can surely only mean the thinking of humanity up until now. Accordingly, the possibility remains open that human or other beings might be discovered who could execute judgments contradicting our logical laws. What if this were to happen? (*GG*: XVI)[3]

First, we are to imagine beings who make judgments that contradict our logical laws. Let's call this first type of alien *the foreigner*. As we will soon see, the foreigner isn't as alien as we might initially guess. Frege makes this clear when he explains how his and the psychological logician's responses to the foreigner differ:

> [The psychological logician] would say: so we see that those principles are not valid everywhere. Certainly! if they are to be psychological laws, they ought to be formulated in a way that makes explicit the genus of beings whose thinking

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[3]Some of the words and phrases Frege employs in the *GG* preface are difficult to non-controversially translate, and so where appropriate, I will footnote the original German. Trans. Ebert and Rossberg, *Basic Laws of Arithmetic* (2016). The original German reads: ''*Unser Denken' kann doch wohl nur heissen das Denken der bis jetzt bekannten Menschheit. Danach bliebe die Möglichkeit offen, dass Menschen oder sonstige Wesen entdeckt würden, die unsern logischen Gesetzen widersprechende Urtheile vollziehen könnten. Wenn das nun geschähe?*'

is empirically governed by them. I would say: there are therefore beings who do not recognise certain truths immediately in the manner we do but are reliant, perhaps, on the more protracted way of induction. (*GG*: XVI)

The foreigner executes judgments in contradiction to our laws, but not as a matter of principle—the foreigner is a being that can, by induction, come to make judgments which align with our logical laws. What distinguishes the foreigner is that they just don't recognize what we recognize immediately (holding off for now on clarifying what it is to recognize something immediately). We can imagine then that a society of foreigners may in practice look very much like ours, but just that, were we to ask them how they come to make certain similar judgments to ours, we would find that it is not in virtue of any truths they immediately recognize, but only those they have discovered through induction that they make those judgments.

Although the second type of alien will ultimately be of more interest, I find the foreigner to be a striking thought experiment primarily because, for a great number of philosophers after Frege, these beings aren't aliens at all—*we* are foreigners. This kind of view is led largely by the thought that we aren't in a position to 'immediately recognize' anything, including the laws of logic. Immediate recognition, at least for Frege, is a kind of *a priori* way of knowing; knowledge that comes to us intuitively or non-inferentially, requiring no empirical inquiry.[4] But, according to these post-Fregean philosophers, we don't seem to come equipped with an innate understanding of certain logical rules or a special ability to grasp them. Also, we're perfectly capable of making judgments that contradict all variety of logical laws. So one might argue that we don't in fact immediately recognize any logical laws. Alternatively, according to some of these philosophers, we can still discover the laws of logic, for instance by determining which logical theory proves to work best or exhibits the most theoretical virtues (power, simplicity, uniformity, etc.). Then we would find ourselves

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[4]That is not to say that for Frege all logical knowledge, including our knowledge of each logical law, comes to us via immediate recognition.

in exactly the position that Frege describes for the foreigner; beings who don't initially recognize certain truths, but come to them the long way round through (quasi-)empirical inquiry.[5]

Let's turn to the second and more radical alien that Frege asks us to consider:

> What, however, if beings were even found whose laws of thought directly contradicted ours, so that their application often led to opposite results? (*GG*: XVI)[6]

Let's call this type of alien *the stranger*. What distinguishes the stranger is that they do reason in contradiction to our laws as a matter of principle—they immediately recognize truths in the manner we do but which leads them to laws which directly contradict our own, and in applying these contrary laws, they are led to totally opposing results. Unlike with our ability to imagine the foreigner, if we try to consider what a society of strangers looks like, I think we begin to run into real difficulties of understanding. So too thinks Frege, who exclaims: '[H]ere we have a hitherto unknown kind of madness' (*GG*: XVI).

It is clear from Frege's response that the stranger is very different from the foreigner. The foreigner is supposed to be understandable; we can seem to understand what it might be like to fail to immediately recognize certain truths or judge in contradiction with certain laws, yet come to discoveries in logic through experimentation. However, the stranger is supposed to be totally mad. But what exactly about the stranger makes them a hitherto unknown kind of madness to us?

I want to focus on two elements of Frege's point of view regarding the stranger that will lead us to answer this question. First, remember that Frege, in contrast with the

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[5]According to those who endorse such a view, such as traditional empiricists like John Locke (1975), or contemporaries like Graham Priest (2016) and Timothy Williamson (2016), we come to recognize the laws of logic abductively by way of inference to the best explanation.

[6]In the original German, it reads: '*Wie aber, wenn sogar Wesen gefunden würden, deren Denkgesetze den unsern geradezu widersprächen und also auch in der Anwendung vielfach zu entgegengesetzten Ergebnissen führten?*'

psychological logician, is working with the idea that there are a set of logical laws, the laws of being true, that hold objectively and independently of human thought and what we take as true. So, one key assumption is that, while we have our laws and the stranger has theirs, we can always take a step back, as it were, and ask, 'Who is right? Whose laws of taking to be true are in accord with the laws of being true?' (*GG*: XVI). Let's call the underlying assumption that the laws of logic concern something objective and mind-independent *realism*.

Second, Frege also assumes that, by immediately recognizing certain truths, it is not even really possible to question our logical laws or doubt their correctness:

> [T]his impossibility, to which we are subject, of rejecting the law does not prevent us from supposing beings who do so; but it does prevent us from supposing that such beings do so rightly; and it prevents us, moreover, from doubting whether it is we or they who are right. (*GG*: XVII)

So, another crucial element of Frege's presentation of the stranger is the idea that our method for coming to know the logical laws—immediate recognition of certain truths—precludes the possibility of rejecting them. And given that it's impossible for us to reject our laws, we also can't doubt that our laws are in accord with the laws of being true. There is an important caveat however which Frege notes, namely that the inability to doubt our own laws does not prevent us from imagining other beings that reject them in favor of contrary laws. Let's call this kind of view about our special epistemic relationship to the logical laws *exceptionalism*.

Taking note of these assumptions has given us the levers we can pull to see how our view of the stranger may change. In particular, we'll see that the extent to which a view endorses or denies realism or exceptionalism will reduce the alienness of the stranger.

If we, like the psychological logician, deny realism and instead suppose that the logical laws we recognize only concern what we *hold as true*, then we are not in a position to ask

whether our laws are the correct ones, whether they align with the laws of *being true.* And so too for the laws of the stranger—the ability to step back and compare is only possible if we allow for an objective 'view from nowhere'. Otherwise, we are only ever in a position to say 'for them, those laws hold, for us these' (*GG*: XVI). To be clear, denying realism doesn't put us in a better position to render intelligible to us the laws or practices of the stranger, but it changes the conditions of correctness. The madness Frege ascribes to the stranger is not just a statement of difference, but a judgment of wrongness—part of what makes the stranger so alien is that we take our laws to be in accordance with the laws of being true, and so they aren't just wrong relative to us, but wrong objectively speaking.

If we deny exceptionalism and instead suppose that we do not immediately recognize any truths, then two things change. First, we aren't immediately predisposed to accept or reject any logical laws. Second, if we still assume realism, then our recognition of such objective and independent laws would occur only as a matter of investigation and discovery through methods such as induction, like the foreigner. The stranger seems all of a sudden less alien if their laws aren't immediately objectionable, and if we have to leave open the possibility that they might even be right about the logical laws depending on how our empirical investigation goes.

And if we deny both realism and exceptionalism, such that we neither immediately object to the laws of the stranger, nor do we take there to be a view from nowhere from which to evaluate anyone's logical laws, then seems like the fact that the stranger's practices run contrary to our own, a key feature that distinguishes the stranger from the foreigner, can no longer can be evaluated, and so it no longer has the same gravity. This is because there isn't any basis for objectively or subjectively evaluating the practices of the stranger.

But it is crucial to note that, in spite of the great variation that can exist among views based on how one lands with regard to Frege's realism and exceptionalism, the logical alien is always kept in view. That is, while it may be the case that without Frege's assumptions

one isn't in a position to judge the stranger as a hitherto unknown kind of madness, we can still recognize the stranger or imagine such a being. In fact, the stranger perhaps becomes even more easily understandable the further one departs from Frege's view. So while we should recognize how important realism and exceptionalism is for Frege's conceiving and judging the stranger as mad, accepting both does not prevent us from conceiving or judging the stranger at all.

The reason for this comes from a shared assumption across all the variations so far discussed. While there have been many alternative views developed in the wake of Frege's groundbreaking developments in logic, even the most radical departures still work within a more fundamental conception of logic. That is, Fregean and (most) post-Fregean views of logic all begin with the basic conception of logic that its laws are laws of truth. It is this basic feature of logic that has formed the backbone of the discussion so far, and I want to now consider it more closely, and what happens to logically alien thought when we adopt an alternative conception of logic.

1.3   Laws of truth, laws of thought

From the above discussion of logical aliens, it came out that in virtue of variations to some assumptions in one's philosophy of logic (e.g., realism, exceptionalism), one's perspective on logically alien thought will also vary. But there is one thing upon which these assumptions or their denial share, however, and that is what they take the laws of logic to be. A core idea from Frege is that logic concerns truth most generally, its laws the *laws of truth.* One contemporary formulation of this idea is that the logical laws describe or determine relations of truth preservation across truth-bearers (I will speak of propositions for simplicity's sake). I will bring out how this conception of logic remains fixed in spite of other differences in view before turning to the alternative conception, namely that the laws of logic are *laws of*

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thought.

According to the laws of truth conception, logic centrally concerns 'what holds with the utmost generality for all thinking, whatever its subject matter' (Frege, 1897: 128). That is, the laws of logic govern or describe properties and relations of truth preservation independently of the content or truth of any given proposition. The idea that logic concerns truth and relations of truth preservation has been the basis for a number of other characteristics often attributed to logic. For instance, logic is often described as 'maximally general', 'topic-neutral', or 'universally applicable'—since laws of logic preserve truth across propositions, the propositions may have any topic, belong to any given domain, or have any content, and truth would be preserved in any case; the topic, domain, or content of the propositions are a non-factor for preserving truth.

We can see how the laws of truth conception remains fixed no matter how one lands with respect to the key assumptions of Frege's view that helped us to understand his perspective on the logical alien. Recall that, according to realism, the logical laws hold in virtue of something mind-independent and objective—we can at best detect the 'true' or correct logical laws, but they hold independently of our activities. What those who deny realism are disputing is whether there exists anything objective and mind-independent for our laws of logic to correspond to. The psychological logician, for example, may agree with the realist about the set of logical laws and therefore what follows from what according to them—what they disagree about is whether those laws correspond to some objective set of laws, and therefore, whether the truth of logical statements like '*A* follows from *A and B*' is made true by something external to us, or rather by our psychology or conventions. Deniers of realism do not dispute whether the laws of logic determine relations of truth preservation across propositions.

And recall that according to exceptionalism, our knowledge of the logical laws is due to a special immediate recognition of certain truths—we don't need to employ inductive or

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abductive methods to discover the laws of logic. Those who deny exceptionalism instead claim that our knowledge of logic and its laws comes to us *a posteriori*, the same way as empirical knowledge, and in virtue of this, logic, like the rest of the sciences, must in principle remain open to revision and improvement. So, the issue between these two visions of the epistemology of logic is how we come to know which relations of validity and entailment are the correct ones (if any are indeed correct), not whether the laws of logic concern something other than truth.

The idea that the laws of logic are laws of truth is so fundamental and embedded in the work of contemporary logic that to speak of logic as being about anything else would seem to change the topic entirely. But there is at least one other way to conceive of logic, a view of logic that does not take the laws to be laws of truth. According to an alternative conception of logic, the logical laws don't describe relations of truth preservation for propositions like validity and entailment; they don't pertain to truth at all. Rather, the logical laws are very literally the laws of thought.

The laws of thought conception is an alternative to Frege's and post-Fregean views, but it will not sound new to those familiar with Kant's characterization of logic,[7] or those inspired by Kant.[8] I would suggest that another historical touchstone for the laws of thought conception is the later Wittgenstein, who, in his adamant rejection of Frege's realism, takes the logical laws to precede any notion of truth.[9] But we will see that, unlike the psychological logician's rejection of realism, the shift to the laws of thought conception of logic is a more fundamental change to how we think about the nature of the logical laws—it is not merely

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[7]That is, Kant's characterization of pure general logic, and particularly the view of pure general logic that comes to us from the *Jäsche Logic*, where he states: '[T]he necessary laws of the understanding and of reason in general, or which is the same, of the mere form of thinking, we call *logic*' (*JL*, 9: 11–12). And then later: '[I]n logic the question is only, *how will the understanding cognize itself?*' (*JL*, 9: 14).

[8]The views of Robert Hanna (2006) and Jessica Leech (2015) take explicit inspiration from Kant's view, for example.

[9]Wittgenstein writes: 'There is not any question at all here of some correspondence between what is said and reality; rather is logic *antecedent* to any such correspondence; in the same sense, that is, as that in which the establishment of a method of measurement is *antecedent* to the correctness or incorrectness of a statement of length' (*RFM* I: §156).

to equate the laws of logic with our psychological or conventional tendencies.

As recent scholars have pointed out, the view that logic centrally concerns what holds most generally was a shift in view that began with Frege and was not shared by Kant or other predecessors.[10] It is important to distinguish the laws of thought conception from another seemingly nearby idea from Frege, who in addition to calling the logical laws the laws of truth sometimes refers to the logical laws as 'laws of thought' (as we have seen in §1.2). However, Frege helps us better understand his view by clarifying what he means: 'Every law stating what is the case can be conceived as prescriptive, one should think in accordance with it, and in that sense it is accordingly a law of thought' (*GG*: XV). So, for Frege, the logical laws can be thought of as 'laws of thought' given that the logical laws are laws of truth, and thinking in accordance with truth is something we ought to do. What Frege is getting at then, is that insofar as we ought to think truly, then we ought to think in accordance with logic. This conditional, truth-based conception of the normative significance of logic is something we will draw out in the following section. But for now we can say that, for Frege, while the logical laws have direct normative *consequences* for thought, they aren't strictly speaking laws of thought.

This crucial difference is something Matthew Boyle alludes to in a footnote in his discussion of the difference between Kant and Frege's conceptions of logic:

> In fact, I think Kant *could not* explain the bearing of logic on thought in Frege's way by saying that logic is fundamentally concerned with laws of truth and that these imply prescriptions for thinking inasmuch as it aims at truth. For Kant holds that the very idea of truth is to be explained in terms of a certain conformity of thought to its own laws. (2020: fn. 13)

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[10]There are some nuances in scholarship here about the extent of the differences in conceptions of logic that exist between Frege and Kant, and I can't overstate the quickness with which I'm moving through these points. But for support on the line I'm taking here, see Tyke Nunez (2019) and (2021), Huaping Lu-Adler (2018), Matthew Boyle (2020), Barry Stroud (2020), and Jim Hutchinson (2020). For an opposing view, see for instance the very influential John MacFarlane (2002).

Because Boyle sees truth as appearing downstream from logic and its laws on Kant's view, then Frege must be understanding the logical laws in a fundamentally different way.[11]

A key point to make here is that there are two distinct ways to talk of 'laws', something which Frege flags in order to clarify his own view. Frege characterizes the laws of logic as laws in the same sense as laws of physics, that is, as general descriptions of regularities in the world, and he is explicit about this use of 'law'.[12] The laws of logic as laws of truth are essentially descriptive, describing what holds most generally. And Frege points out that any law which describes the way the world is worth thinking in accordance with insofar as we are interested in thinking accurately about the world. And since the logical laws describe the most general of things, then all thinking should be in accordance with the logical laws. But this is not what Kant had in mind with his use of 'law' in his discussions of the laws of logic. On a Kantian conception, the laws of thought are essentially prescriptions for thought,[13] the notion of 'law' in play therefore is the one we use in discussions of the moral—that is, law understood as a categorical and violable requirement.

It is this latter conception which we find in Kant and the later Wittgenstein—the idea that the laws of logic are explicit instructions or prescriptions for how we should think—that should inform our understanding of the laws of thought conception. It distinguishes itself from the view of the psychological logician because, while the psychological logician, like Frege, takes the laws of logic to be essentially descriptive—for the psychological logician,

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[11]This is also the reading Barry Stroud gives to these passages from Frege, from which he concludes: 'So what is special [for Frege] about laws of logic among all other laws that assert what is so is only that they "prescribe universally"; they are laws of truth or laws of thought that prescribe how one ought to think about any subject matter whatsoever[...] I don't think this supports the idea that the laws of logic are in any other sense "constitutive of the possibility of thought" '(2020: 174).

[12]Frege writes: 'The word "law" is used in two senses. When we speak of moral or civil law we mean prescriptions, which ought to be obeyed but with which actual occurrences are not always in conformity. Laws of nature are general features of what happens in nature, and occurrences in nature are always in accordance with them. It is rather in this sense that I speak of laws of truth', 'Thought', trans. Geach and Stoothoff, in *The Frege Reader* (1997): 325.

[13]Kant writes: 'In logic we do not want to know how the understanding is and does think and how it has previously proceeded in thought, but rather how it ought to proceed in thought. Logic is to teach us the correct use of the understanding' (*JL*: 14).

they are descriptive of our psychology or our conventions—according to the laws of thought conception, the laws of logic are essentially prescriptive.

There are some other nearby views which need to be distinguished from the laws of thought conception of logic I aim to identify. For instance, according to the Kant-inspired work of Robert Hanna (2006), the logical laws are built into our mental faculties like a universal grammar, and to think in accordance with the laws of logic is part of the proper or virtuous functioning of thought. In this way, the laws of logic are *constitutive* of thought, in the sense that the laws are constituent parts of the whole of our faculty of thought, what we might think of as *part-whole* constitutive. A 'laws of thought' conception of logic in these terms, however, does not, nor perhaps could not, make sense of the logical laws as essentially prescriptive.

Consider that, if the laws of logic are constitutive of thought in the part-whole sense, then logical errors do not seem possible—that is, if one fails to think in accordance with the logical laws, one is not thinking at all. Clinton Tolley (2006), for instance, articulates this idea in the context of interpreting Kant:

> Kantian logical rules construct a 'space' of possible activity which circumscribes a capacity for understanding *per se*, such that nothing which could not be construed as in accordance with these rules could be counted as an act of understanding. Any 'thing' which failed to meet up with these rules would, on this picture, fail to be an act of the understanding, but would have to be the product of some other force or capacity. Unlike norms, these laws do not institute a division *within* thinking, between, say, 'correct' and 'incorrect' thought, but rather one between thought and *non*-thought. (2006: 389)

On Tolley's interpretation, constitutive laws of thinking tell us what counts or fails to count as thinking—violations of the laws simply can't count as thinking, and so there are no logical

errors which are also thoughts. The inability to make logical errors seems to preclude the possibility for logic to be normative, since it is often thought that what it is for something to be a norm is that it is violable (Lavin, 2004).

The part-whole, no-error constitutivist 'laws of thought' conception of logic, however, is not the only way of making sense of the logical laws as laws of thought. Following Leech's (2015, 2017) discussion of constitutive laws in response to Tolley, it seems that another acceptable way to interpret Kant and explicate the idea that the laws of logic are laws of thought is that we are *evaluable* or *answerable* to the laws of logic insofar as we are thinking. As Leech describes, constitutive laws determine what counts as engaging in a practice, but there are a subset of constitutive laws wherein what is constitutive of the practice isn't the law itself but the condition of evaluability according to it. The idea is that some constitutive laws tell us the relevant standard of evaluation for actions done within a given practice. That is, if some norm N is constitutive of an act ϕ, then one ϕ's iff one is evaluable according to N. We can call those constitutive laws that are also normative principles *constitutive-normative laws*, and it is in this sense that I understand the laws of logic to be constitutive of thought. If what is constitutive of thought is the condition of being evaluable according to certain logical laws, then it is perfectly possible to make logical errors yet count at thinking.

With the above set of clarifications about the laws of thought conception of logic in place, it may seem like we have wandered very far afield from the laws of truth conception of logic we encountered in Frege— indeed, one might insist that the shift in conception from laws of truth to laws of thought is so dramatic that we have changed the subject altogether. That is, perhaps the laws of thought conception (as I've characterized it) is better understood as not really being about logic at all—the laws of thought, whatever they might be, have nothing to do with logic as it is (or should be) understood. However, such a conclusion fails to appreciate a number of issues in our historical understanding of logic as a discipline. What falls under the heading 'logic' has never been so clear as to exclude the laws

of thought conception. Logic is sometimes characterized as the study of logical inference, good reasoning, or argument. How the laws of truth conception fares according to these different characterizations will vary as much as it does for the laws of thought conception. While it may be that the label 'logic' is over-broad or too generously applied, getting more precise without begging the question against one conception or the other seems very difficult to do.

In a more Wittgensteinian spirit, I think we should instead see that 'logic' has been used in a number of distinct and equally legitimate ways. Leech, in her discussion of a laws of thought conception of logic, hints at drawing a distinction 'between a plurality of logics, which are formal mathematical systems worthy of study, and a single logic which tells us the logical rules for the reasoning of rational minds' (2015: 25). We may identify one conception of logic, the laws of truth, with the former plurality of mathematical systems, and another conception of logic, the laws of thought, with the latter rules for reasoning. Now, one might argue that both sets of laws are or should be identical, that our laws of thought are also the laws of truth. But one could also hold that there are laws of truth and no such laws of thought, or conversely that there are laws of thought and no such laws of truth. Although this requires argumentation going beyond the scope of the present discussion, perhaps the right way to interpret our various uses is that we should recognize a kind of logical pluralism, wherein one can accept any logical theory or theories, *qua* laws of truth, totally independently of the logical laws which are constitutive norms of thinking, *qua* laws of thought. These two conceptions of logic are able to coexist because the laws they describe range over independent phenomena, i.e., what holds most generally, and how human agents ought to think.

So far, we have taken into account two alternative conceptions of logic, one according to which the logical laws are fundamentally descriptive laws of what holds most generally, and another according to which the logical laws are fundamentally prescriptive rules of human thinking. But in order to see just how deep the difference is between these two conceptions

of logic, we should return to the logical alien and how our view of them changes on the laws of thought conception of logic.

1.4   The laws of alien thought?

According to the laws of thought conception of logic, what it is to think is constituted in part by the condition of being evaluable according to the logical laws. But could we have developed an alternative way of thinking that was constituted by altogether different logical laws? To reassert Frege's stranger, what if beings were found whose laws of thought directly contradicted our own and therefore frequently led to contrary results in their practices? This question gets at what I take to be the crux of the issue in trying to determine the extent to which we can imagine there to be alien laws of thought. How does the laws of truth conception make these beings conceivable to us, and how might the laws of thought conception alter our situation?

Frege claims that, 'this impossibility, to which we are subject, of rejecting the law does not prevent us from supposing beings who do so'—we can conceive of the stranger, no matter how off-the-wall their laws or practices may seem to us. But now we can see that this feature of Frege's characterization depends crucially on the laws of truth conception of logic. It is because logic is concerned with truth, its laws the laws of truth, that we can keep the stranger in view. For Frege, the laws of logic are essentially descriptive laws of nature, and as such, they enjoy a certain distance from our thinking. Recall that the whole purpose of Frege's discussion of the logical alien is to motivate the intuition that the laws of logic aren't just those laws we tend to think with, and to encourage us to see what's wrong with the view of the psychological logician. His point is not to use the logical alien to draw the limits around what is thinkable—it is crucial that we can imagine such beings in order to drive home the point that the logical laws are correct independently of what we judge or immediately

recognize.[14]

This is the fundamental difference we find with the laws of thought conception of logic. According to the laws of thought conception, all thinking is constitutively dependent on our being answerable to the logical laws. As a result, there's no way to count as thinking that isn't also evaluable according to that standard. There are two crucial consequences of the laws of thought conception for logically alien thought. The first is that we are misapplying the term 'thought' to the logical alien, logically alien thought being a kind of misnomer. That's not to say that we couldn't encounter alien beings who, as it turns out, think as well. It's just that the correct application of the term 'thought' is reserved for that activity that is constituted by the condition of evaluability according to the logical laws by which *we* abide, but since we are stipulating that the logical alien does not have our same laws of thought, the logical alien does not perform that activity, and so they don't think.

We might be tempted then to distinguish thought from something we might call 'thought*', that is, another activity that is like thinking in every respect except that it is guided by alternative laws which result in alternative practices. This temptation takes us to the second crucial consequence: However we conceive of an alternatively constituted 'thought*' with different laws that produce different practices, we are operating within a framework that has our laws of thought already in place. In virtue of this, what we can conceive about the logical alien is dictated by this framework—our laws of thought are *necessarily* involved in any thinking we do about alien 'thought*'.[15] This fact makes it such that we are not in a position to make sense of something akin to what we call thought that is subject to alternative laws. Tyke Nunez, in clarifying the consequences for logically alien thought on

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[14]Stroud draws a similar conclusion in noting what exactly Frege's dispute with the psychological logican consists in: 'Frege certainly opposes any such psychologistic conception of logic. But there is a question whether his opposition takes the form of an attempted demonstration of the impossibility of anyone's having thoughts that contradict our laws of logic. Frege makes it clear that the real focus of his dispute with psychologism is the proper understanding of the idea of truth' (2020: 175).

[15]This feature of necessity exists in virtue of the constitution relation between thought and the logical laws. That is not to say, however, that our laws of thought are necessary in the sense that they couldn't have been otherwise or that they had to exist. These further notions are considered below.

Kant's view of logic, expresses this idea nicely:

> Our only means of making sense of the possibility that the laws of logic could be otherwise is thus an activity that is itself bound by the laws of logic. We would have to *think* about a possible coherent thought that violates our laws of coherent thought, while this thinking of ours is itself bound by our laws of coherence. Thus we cannot make sense of the laws of logic being other than they are. (2019: 1169)

Whatever alternatives we may imagine are genuine alternatives to the laws of thought are all produced from within the context of *our* laws of thought, and so they are ultimately subject to assessment according to *our* laws.

Another nearby thought one might have is that, although it may be that the laws of logic are, in virtue of constituting thought, necessary for thought, and although *we* aren't able to conceive of alternative laws of thought, we still don't have reason to believe that thought was necessarily so constituted. As Barry Stroud asks in his discussion of logically alien thought, while it may be that there is a relation of necessity between thought and the logical laws, why should we think our logical laws are necessarily the laws of thought (2020: 179-180)? Is there anything about these laws that makes them the only laws of thought there could be? But we should see that this just is another way of trying to get at the idea that there could have been another thing called 'thought*' that has different laws—in both cases we are trying to imagine thought as being differently constituted. And again, we find that we are not in a position to make sense of alternative laws of thought given the framework from within which we operate with our laws already always in place.

But a further question may arise in light of this consequence. One might wonder if this suggests that our laws of thought impose constraints or limits on thought, and that there are things which lie beyond our grasp given the nature of thought. Peter Sullivan

(2020), for instance, suggests that an important distinction can be made between conceiving the inconceivable and conceiving *that* there is something inconceivable. While the former is absurd since the inconceivable is by definition something one cannot conceive, he claims that the latter is something we are able to do, and this is exactly what we do when we imagine logically alien thought (2020: 196). According to Sullivan, we can recognize *that* there is logically alien thought, without it being something we can conceive. This would help us make progress on Stroud's line of thinking about whether our laws of thought are 'necessarily necessary' or only 'contingently necessary'—if logically alien thought is something we can think about as an inconceivable thing, then we can at least make sense of there being other possible ways for things to be, even if we cannot 'penetrate' those possibilities with our own understanding.

To clarify this idea, let's imagine that thoughts are structured like archers aiming arrows at targets—my 'I think that' is aimed downrange at some proposition P, and I can be said to conceive of P when my arrow hits the target. Then perhaps in the case of logically alien thought, the target is something I can't hit by stipulation, but we can nonetheless acknowledge that there is such a target, something at which we can still aim. If this is right, I think Sullivan is correct to claim that we can conceive *that* there is logically alien thought. For this reason, we should also recognize from Stroud that we have no basis for believing our laws of thought are necessary in the sense that all thought must be so constituted. But even so, all this is a far way off from being able to conceive of alternative laws of thought.

Thinking poses a unique problem for the issue of conceivability. For instance, if we take another activity like chess, we can think about how it might have alternative constitutive rules than the ones it in fact has, and there doesn't seem to be any problem at all. Imagine for instance what chess would be like if each player was required to move twice on each turn instead of just once. One might say that this is no longer chess, but 'chess*', but whatever you want to call it, we can perfectly well imagine it. The difference is that we

don't necessarily use the constitutive rules of chess in order to imagine chess*—we imagine chess* with our imagination. The problem with thinking is that, in order to think about an alternative way to think, one's only means is by thinking.

As we have seen, the shift to the laws of thought conception of logic deeply alters the way we can think about logically alien thought. On the laws of truth conception, the logical laws are characterized as the laws which describe what holds most generally. And, just in the way that we can imagine what it might be like for us to accept different physical laws (indeed, the change from Newtonian physics to quantum physics and relativity provides us with a real world example), we can imagine what it might be like if we accepted other laws of truth. And so, in virtue of this conception, we can, like Frege, wonder about beings who recognize an alternative set of laws as the laws of truth, and use those laws in their practices, though we may judge them as mad.

But when we take on the laws of thought conception of the logical laws, all this changes. The laws of logic are characterized as the laws which necessarily feature as the standard of evaluation for all thought—thought constitutively depends on the condition of being evaluable according to these laws. In order to be called 'thinking' we must be assessable according to the logical laws. And so no thought can successfully think its way out of the laws it uses to govern itself. In virtue of this conception, we are not in a position to make sense of alternative laws of thought.

1.5   Insights into the normativity of logic

We have seen that, although there are many different ideas one might have about the nature of logic and its laws, attending to logically alien thought reveals a more fundamental distinction between conceptions of logic. With the laws of truth and laws of thought conceptions

clarified and in hand, we can make better sense of the different explications of the truism that logic is normative that have developed in recent discussions. This new perspective will also help us identify how certain problems arise for some views but not others.

One popular explication of the normativity of logic appears to rest on idea that we should believe the truth, or at least avoid false beliefs. If one successfully employs logic in one's reasoning, this serves the subject in getting more true beliefs, or at least minimizing their false beliefs, since the laws of logic ensure the preservation of truth. Accordingly, logic is normative for reasoning or rational belief since it serves us in the goal of getting to the truth—on this view, the normativity of logic follows from a truth norm for belief. We should see that this kind of view, what I will call *truth normativism*, finds its historical basis in the views of Frege, and it follows fundamentally from the laws of truth conception of logic.[16] For Frege, the laws of logic 'set the standards for our thinking if it wants to attain the truth' (*GG*: XVI). This is because the laws of logic describe what holds most generally, and as we seen from Frege above, 'every law stating what is the case can be conceived as prescriptive, one should think in accordance with it'. The idea is that we ought to think according to the logical laws insofar as we want to think truly since the laws describe what holds most generally.

There are a number of contemporary authors who have in some form or another endorsed truth normativism:[17]

> Formal argumentation—the controlled drawing of consequences from a set of
>
> premises—is a *tool*. We engage in it (and train our students to engage in it) not

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[16]It's worth pointing out however that it isn't the case that all truth normativists converge on Frege's logic or indeed any single set of logical laws.

[17]There is one alternative explication of the normativity of logic which can be distinguished from truth normativism that I have left to the side for the present discussion, one which we find for instance in Kouri Kissel & Shapiro (2020), but which is also consonant with some of the following quotations. According to this Rudolph Carnap-inspired view, our theoretical aims or interests give rise to logical normativity. Just as with truth normativism, this 'interest normativism' follows from a laws of truth conception of logic, but rather than taking the normativity of truth to be the thing which gives rise to logical normativity, it's our practical need for logic as a truth-preserving tool that gives logic its normative significance.

for its own sake, but because we think it is useful for telling us what we ought to believe. We infer *correctly* when we infer in a way that is conducive to this goal. (MacFarlane 2004: 5)

Having an awareness of these logical relations would appear conducive to the end of having true beliefs (and avoiding false ones) and so seems relevant to theoretical reasoning... If I believe truly, the truth of my belief will carry over to its logical consequences. (Steinberger, 2017a: 4)

Logic is an instrument to the good of truth. (Pedersen, 2020: 247)

We have seen that the role assigned to logic in knowledge is normative; hence logic is 'functionally' normative. And as pointed out by Frege (see above), truth in general is a source of normativity. (Sher, 2020: 349)

So, functionally or hypothetically, logic is normative—that is, insofar as we ought to believe the truth, or insofar as our thought ought to conform to the truth, then we ought to reason according to the laws of logic. The primary norm which guides us is a truth norm, and logical normativity can be derived from it. We can say, then, that on this conception, logic is normative only insofar as truth is normative.

We can see truth normativism most clearly formulated in contemporary discussions through Gilbert Harman's (1986) well-known challenges to logical normativity (which we will see in more detail in Chapter 2), and in those who have aimed to respond to Harman. Harman's core complaint is that, if logic is normative, then logic compels us to blindly add beliefs to our 'belief box', chasing after true beliefs no matter the cognitive demand, in a way that is ultimately irrational. Harman's challenges target a particular conception of what it would mean for logic to be normative, namely the idea that there is a requirement on rational

agents to adopt whatever is logically implied by one's other beliefs. The only clear explanation for why it is that logical normativity would amount to this idea is if the normativity of truth straightforwardly gave rise to logical normativity. Harman's challenges seem to 'draw blood' only for some logical normativists, namely those who, in rising to answer Harman's challenges, appear to mirror the endorsement of truth normativism. Responders to Harman's challenges have conceded that Harman has demonstrated that logic and reasoning are not obviously related, and that in order to reassert that logic is normative, we must formulate a principle that plausibly articulates the relation between logic and reasoning, what John MacFarlane (2004) calls a 'bridge' principle. Without such a bridge principle, logic would have no bearing on how we ought to reason—the concession is then that whatever epistemic norm(s) govern what we ought to believe, such as a truth norm, are not enough to derive the normativity of logic unless we can identify a compelling principle that connects logic to those epistemic norms.

But we get a totally different explication of logical normativity assuming the laws of thought conception of logic. Logic according to the laws of thought conception is normative not because we should believe the truth, but rather, just in virtue of what logic is, its laws prescribe how we ought to think. The idea is that logical laws are intrinsically and categorically prescriptive like moral laws. We have already encountered at least one logical normativist who assumes the laws of thought conception of logic, Leech (2015), who holds a view we can call *constitutive normativism*, and we have seen the historical basis for constitutive normativism in (some of the discussed interpretations of) Kant and the later Wittgenstein.

Since constitutive normativism can be formulated as a conditional—in order to think, one must be answerable to the laws of logic—we can see how it is open to well-known objections to constitutivism more generally, such as David Enoch's (2006) 'schmagency' objection, which challenges the idea that the norms in question are categorical after all. So, there are certain

challenges to constitutive normativism that do not obviously arise for truth normativism, and which will be discussed in more detail in the following chapter.

However, is not clear how Harman's challenges might target constitutive normativism, or at least, not in the way they've typically been presented and discussed. Harman casts doubt on the normativity of logic by attending to the tension between the consequences logic describes and our cognitive limitations. But on the laws of thought conception of logic, logic does not describe implications—instead, logic prescribes how one should think. Similarly, Harman's premise that logic and reasoning require a bridge principle is something that no proponent of constitutive normativism would be willing to accept. I think a better way to understand the kind of challenge Harman raises for logical normativity explicated as constitutive normativism is a kind of plausibility challenge about whether there could be any laws of thought, since any logical law or set of laws would give rise to similar problems of cognitive burden—the discussion would then shift from crafting a bridge principle plausibly connecting logic to reasoning to the separate project of identifying plausible laws of thought.[18]

In another vein, we can see the assumption of the laws of truth conception of logic and truth normativism in the contemporary discussion of the so-called 'Collapse Problem' for logical pluralism.[19] The Collapse Problem arises for certain kinds of pluralist accounts because it seems like, in virtue of accepting multiple logical theories as equally correct or legitimate, the pluralist introduces competing normative pressures from the differing theories. It looks like the pluralist will face an inevitable 'upward' collapse into a monism of their

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[18] Leech (2015) for instance presents the argument for her constitutive normativist view as an inference to the best explanation for why it is that certain inference rules, particularly rules like modus ponens and universal instantiation, cannot be non-circularly justified, doubted, or revised, drawing from insights from Bob Hale (2002) and Crispin Wright (1986). This kind of argument directly addresses the question of plausibility of there being certain laws of thought since, if the best explanation for the peculiar nature of these inference rules is indeed that they are constitutive norms of thinking, then we have good reason to believe that they are constitutive norms of thinking.

[19] The Collapse Problem was first discussed in terms of collapse in Colin Caret (2017) regarding JC Beall and Greg Restall's (2006) particular form of logical pluralism, following earlier discussions in Stephen Read (2000), Graham Priest (2001), and Rosanna Keefe (2014), and it is the central characterization in Erik Stei (2020), though Stei also presents the downward collapse alternative. An alternative 'normative conflict' characterization can be found in Nathan Kellen (2020).

strongest theory, since it is their strongest theory which will provide them all the normative guidance—the weaker theories will overall provide less normative guidance, and they will only ever provide normative guidance when the stronger theory also does so. But the very idea of logical theories providing competing normative pressures only makes sense if we assume that logical theories—theories of truth preservation across propositions—have any normative significance. We should think so only if we accept the laws of truth conception of logic and endorse truth normativism. On the laws of thought conception of logic, for instance, one could insist that logical theories are not normatively significant while maintaining that logic is normative in the sense that there are logical laws which are constitutive norms of thought. On such a view, logical pluralism would not entail competing normative pressures from the various theories the pluralist accepts. In Chapter 4, I will explore the possibility of logical pluralism in light of a constitutive normativist explication of logical normativity.

One final insight is that it seems perfectly possible in principle to endorse both truth normativism and constitutive normativism—that is, it is not necessarily the case that endorsing one conception of logic and the explication of logical normativity that follows excludes the possibility of endorsing the other. It's true that one may take there to be normative consequences for the logical theory one accepts on the basis of truth normativism but reject there being any essentially prescriptive logical laws of thought. Or one may take all logical theories to be normatively inert, but accept that there are essentially prescriptive logical laws of thought. One may nonetheless take their accepted logical theory to have normative consequences for rational belief given truth normativism, as well as recognize there to be constitutive logical norms of thought which hold irrespective of the logical theory one endorses. In practice, this final combination view may give rise to conflicting norms between one's accepted theory and the laws of thought, but it depends largely on which theory one endorses, or which logical laws one takes to be constitutive of thinking. This issue will be considered in greater detail in Chapter 4.

1.6 Conclusion

What I have aimed to show in this chapter is that there are two possible ways of conceiving of logic that help us to make sense of logical normativity, and that the core difference between them—logic as fundamentally descriptive or prescriptive—is a deep difference. The laws of thought conception of logic may be seen as a fundamental shift from what might be considered an orthodox view in the philosophy of logic and among logicians. That is, the shift away from the laws of truth conception goes far deeper than the differences in view one finds among those who dispute realism or exceptionalism. I demonstrated this by taking a close look at the logical alien we find in Frege's imagination, and considering why this alien is supposed to be so strange to us. The result of this investigation has offered a new way to understand the issues and ideas that have animated recent discussions about the normativity of logic, and hopefully, to provide a way to make progress on some of the challenges that have been raised. In the following chapter, I develop and defend an explication of logical normativity on the basis of the laws of thought conception of logic.

Chapter 2

The Laws of Thought and Constitutive Normativism

2.1 Introduction

In the previous chapter, we saw that there are at least two ways to conceive of logic in order to explicate the intuitive notion that logic is normative. According to the laws of truth conception of logic, logic is essentially *descriptive* but it has direct normative consequences for our thinking insofar as we ought to conform our thinking to the truth. According to the laws of thought conception of logic, logic is essentially *prescriptive* and therefore logic is normative by its nature.

I explained that the dominant conception of logic operative in contemporary philosophy is the laws of truth conception, and consequently, the kind of logical normativity that falls out of that conception, what I called *truth normativism*, is the most standard explication. However, we should see that there are a number of motivations to develop an explication of the normativity of logic on the basis of the laws of thought conception of logic. Let's

consider why we should want such an explication, an account of what I called *constitutive normativism.*

First, there is an historical basis for constitutive normativism. From Kant and others, we see that what it can mean for logic to be normative is that its laws are categorical rules for thinking. If we are interested in making sense of logical normativity, then we would do well to explore the possible ways to do so. Determining whether there is a compelling and plausible formulation of constitutive normativism is to partly answer the question whether logic is normative—that is, if one were to deny that logic is normative, it is not enough to simply refute truth normativism, since this would fail to speak to at least one other way in which logic might plausibly be normative.

Second, as Jessica Leech (2015) has argued, constitutive normativism might be the best explanation for a number of peculiar features of certain deductive inference rules, like that they cannot be non-circularly justified and that they are immune to doubt. The particular epistemic problems these inference rules pose and how constitutive normativism can help alleviate them is something I will explore in-depth in Chapter 3, but for now we can say that one motivation to develop an account of constitutive normativism is that, in doing so, we may be able to make progress on some longstanding issues in the philosophy of logic.

Finally, the alternative laws-of-truth-based explication of logical normativity, truth normativism, has a number of limitations in capturing our intuitions about the idea that logic is normative. One clear limitation is that the claim that logic is normative at least on the surface seems to be a claim about logic—truth normativism, however, puts the locus of the normativity in something other than logic, namely truth. We can best see this limitation through the fraught nature of the dialectic between proponents and critics of logical normativity in the recent literature. Those who have argued that logic *isn't* normative seem happy to admit that a truth norm for belief provides a reason to operate according to logical rules. Take for instance what Gillian Russell concludes from her argument against the notion that

logic is normative: '[L]ogic's apparent normative consequences are the result of widespread background norms between belief, reasoning, and truth, not logic's own normativity' (2020: 387). Again in another paper with Russell and her co-author Chris Blake-Turner (2021), the idea is articulated that any accurate descriptive theory will have normative consequences for what to believe (2021: S4868).

If those opposed to the normativity of logic essentially agree with proponents about the conditions which produce reasons for us to conform to the laws of logic, then it is hard to make sense of where exactly the disagreement lies between the two camps. But since constitutive normativism puts the locus of the normativity in logic, it can better make sense of the disagreement between proponents and critics. The dispute becomes about whether logic is the kind of thing that can be normative in itself—something the constitutive normativists argue in favor of and which the critics dispute.

Another intuition we seem to have about the normativity of logic is that logical requirements on thinking are not conditional on other norms, on our particular beliefs or considerations, or which logical theory we accept. But for truth normativism, logic is only normative insofar as we should have true beliefs, and it also seems that a logical theory has normative consequences for belief insofar as one accepts that theory as the correct account of 'what holds most generally for all thinking, whatever its subject matter' (Frege, 1897: 128)—otherwise a logical theory is normatively inert. But according to constitutive normativism, logical requirements on thinking hold categorically and independently of whatever a particular agent believes or which theory or theories they accept. While I don't think these limitations are sufficient for us to aim at 'replacing' truth normativism with constitutive normativism, they point to the need for developing an alternative account.

With these motivations in mind, I will propose and defend an account of constitutive normativism. My aim is to provide a unified and compelling picture of logical normativity on the basis of a laws of thought conception of logic, drawing from other views plausibly

described as constitutive normativist, that can adequately deal with standard issues for logical normativity as well as particular problems that arise for any constitutivist view. What I will demonstrate is that constitutive normativism is a plausible and compelling explication of the idea that logic is normative. The results of this chapter provide us with one crucial aspect of the pluralist thesis of this dissertation, namely that there are multiple legitimate and distinct conceptions of logic for which we can give an account of logical normativity, and that we should endorse each account in order to get a full picture of logical normativity. In Chapters 3 and 4, I will explore how the laws of thought conception of logic and constitutive normativism fits together with the laws of truth conception and truth normativism in order to round out this picture.

In §2.2, I provide the details of my positive account. Then, for the remainder of the chapter I will further develop and motivate my view in response to Harman's challenges to the normativity of logic, and the three central challenges to any constitutivist account.

2.2 Constitutive normativism

Now that we have clear motivation for an account of logical normativity formulated on the laws of thought conception of logic, I will clarify the key elements of the positive account.

The two central and driving ideas of constitutive normativism which follow from the laws of thought conception of logic is that logic by its nature concerns normative rules for thinking, and that these logical rules are in some sense constitutive of thinking. These ideas are well expressed by Kant and Wittgenstein, respectively:

> In logic we do not want to know how the understanding is and does think and
> how it has previously proceeded in thought, but rather how it ought to proceed
> in thought. (*JL*: 14)

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But the reason why [the inference rules] are not brought into question is not that they 'certainly correspond to the truth'—or something of the sort—no, it is just that this is called 'thinking', 'speaking', 'inferring', 'arguing'. (*RFM*: §155)

We can begin to make sense of these ideas by clarifying what we mean by thought. One natural way to understand thinking is that it is very broadly all our representational activity. But since we are considering deductive logical laws, the laws of thought would seem to be constitutive norms of a narrower activity, namely deductive propositional reasoning, which would include our doxastic attitudes (e.g., belief, disbelief, suspension of judgment) and non-doxastic propositional attitudes like preferring and desiring[1]—deductive and propositional because we are concerned with sets of propositions and their structural properties, and reasoning because we are concerned with structural relations among a number of one's attitudes. So, what should mean by 'thinking' is deductive propositional reasoning.

We can further clarify constitutive normativism by specifying the sense in which the logical rules are constitutive of thinking. We saw in the previous chapter that the idea that the laws of logic are constitutive of thought can be interpreted in several ways, one of which—the 'part-whole' sense—precluded the possibility of logical normativity. Instead, we opted for another interpretation according to which the laws of thought are a standard to which all thinking is answerable. That is, the laws of thought should be understood as what Leech (2015) calls *constitutive-normative laws*.

The nature of constitutive-normative laws can be explained by way of a familiar example. In soccer, touching the ball with your hands (anywhere from the fingertips to the shoulder) is an illegal maneuver unless you're the goalkeeper, and so it is penalized. We evaluate the maneuver of ball to hand as wrong or incorrect in light of the rule that states that the ball

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[1]There may very well be non-deductive constitutive laws of thought which govern other activities properly understood as thinking. We will however set these aside since they do not bear on the present discussion about deductive propositional reasoning.

cannot be touched by the hands of any player except the goalkeeper. So, the ball to hand rule of soccer gives us a standard by which to evaluate different maneuvers in the game—correct maneuvers are those that, among other things, accord with the ball to hand rule, and incorrect maneuvers violate this rule. That is, we use the ball to hand rule as a *normative rule*; the rule distinguishes the good moves from the bad moves in the game.

But what would soccer be if the ball to hand rule was removed? It seems that part of how we define soccer, as well as how we distinguish it from other similar games like rugby or American football, is the fact that ball to hand is an illegal maneuver. That is, what it is to play soccer just is to play the game where, among other things, you cannot touch the ball with your hands. We can say then that the ball to hand rule is also a *constitutive law* of soccer—without this rule in place, we would be playing an altogether different game. But notice that what is constitutive of soccer is not the rule itself, but the condition that we are evaluable according to the ball to hand rule. Violations are perfectly possible, one can fail to abide by the ball to hand rule, but what makes the game we're playing soccer is that certain maneuvers are deemed illegal in light of the ball to hand rule. That is, some constitutive laws tell us the relevant standard of evaluation for actions done within a given practice. That is, if some norm N is constitutive of an act ϕ, then one ϕ's iff one is evaluable according to N. In order to count as playing soccer, you must (among other things) be evaluable according to certain rules, including, among others, rules about touching the ball with your hands—those rules are what we can identify as constitutive-normative laws.[2]

We should also see that the sense in which thought is evaluable according to the logical laws is just that deductive propositional reasoning is 'value-apt'. This is just to say that there exists a standard against which our thinking can be measured, and that standard exists in virtue of the way thought is constituted. So, this doesn't require that any thought is in

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[2]These constitutive-normative laws stand in contrast with simply constitutive laws, which do not evaluate moves in the game, but rather, determine what counts as playing at all. Returning to the example of soccer, it is generally said that attempting to win the game is constitutive of playing—simply kicking the ball around aimlessly is not a bad or illegal maneuver, it is not even playing soccer at all.

fact evaluated by anyone, or that the thinker in question must have a recognition of the standards by which their thought is evaluable.

Another consideration for explicating the normativity of logic in this way is to clarify why it is that thought is so constituted. One might contend that the relation between thinking and our laws of thought is the result of facts about the constitution of our mental faculties, our evolutionary history, or the fundamental nature of reality, but we can make sense of constitutive normativism without committing to any particular explanation—a social- or cultural-historical explanation will do. This idea is expressed well by Wittgenstein:

> The laws of logic are indeed the expression of 'thinking habits' but also of the habit of *thinking*. That is to say they can be said to show: how human beings think, and also *what* human beings call 'thinking'. (*RFM*, §131)

> [T]his is simply what we *do*. This is use and custom among us, or a fact of our natural history. (*RFM* §63)

> [T]hinking and inferring (like counting) is of course bounded for us, not by an arbitrary definition, but by natural limits corresponding to the body of what can be called the role of thinking and inferring in our life. (*RFM* §116)

Following Wittgenstein's sentiment on the contingent way in which we have come to use the term 'thinking' to talk about a particular set of activities, it is not necessarily the case that our laws of thought came about through anything other than our own cultural history. We acquire the laws of thought through experience as we become enculturated into our form of life, in a similar process to literacy. We don't need have any reflective sense of this standard for our thinking, just as we may become competent readers of a language without reflectively understanding its grammar rules. And following Wittgenstein's characterization of the laws

of thought, our laws of thought do not exist in virtue of the particular constitution of our minds or the world, but just in light of contingent developments in our history.[3] So, while we have our laws of thought, it's not in virtue of anything particularly special or exceptional about them or our access to them—it is just a matter of how our practices turned out to be.

Finally, we can clarify the view by getting specific about exactly which logical rules are constitutive norms of thinking. There are some intuitive options to consider like the principles of classical logic, or the primitive inference rules in a natural deduction system like that of Gerhard Gentzen (1934) or Dag Prawitz (1965). Good theoretical reasons could certainly be given to take any of these to be fundamental rules or laws of a logical theory or formal system, but we are centrally interested in a plausible set of logical rules which are constitutive norms of thinking, and so those reasons do not obviously carry over. In a vein similar to Leech's (2015) abductive argument for the existence of certain constitutive-normative laws of thinking, I want to focus on two inference rules in particular, modus ponens (MP) and universal instantiation (UI), and consider reasons to think that the best explanation for the peculiar feature these rules display is that they are constitutive-normative laws. I will discuss the plausibility of MP and UI as constitutive-normative laws and give my abductive argument in §2.4.1 as part of my response to one of the problems of constitutivism. It is important to flag at this stage however that I leave open the possibility that there are other laws of thought, but that the discussion in §2.4.1 should provide sufficient reason to recognize at least MP and UI as laws of thought.

With all these aspects of constitutive normativism now clarified, I will give a more specific formulation of the way in which I take logic to be normative:

> **MP** For any thinker S, and for any propositions φ and ψ, S is illogical if all three
>
> of the following conditions hold: (1) S has propositional attitude of the form φ,

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[3]The contingency of our laws of thought makes it in some sense possible that we could have had alternative laws of thought, though it isn't clear how we would be able to make sense of such alternatives given the constitutive nature of our own laws of thought. This issue is discussed in Chapter 1.

(2) S has a propositional attitude of the form *if φ then ψ*, and (3) S fails to have a propositional attitude of the form ψ.

UI For any thinker S, and for any predicates F and G and a particular o, S is illogical if all three of the following conditions to hold: (1) S has a propositional attitude of the form *All Fs are G*, (2) S has a propositional attitude of the form *o is F*, and (3) S fails to have a propositional attitude of the form *o is G*.

The inference rules MP and UI, according to the above formulation, set constraints on combinations of propositional attitudes based on the structural features of the inference rules. Good, logical deductive propositional reasoning, then, is to avoid having some propositional attitude about the premises of either inference but failing to form a propositional attitude about the conclusion. Accordingly, one can conform to both logical norms in two ways: either by forming a propositional attitude about each of the premises and the conclusion, or by not forming a propositional attitude about one or more of the premises.

Let's briefly consider two examples of logical mistakes in order to help solidify the view.

UI Belief. Opal believes that all dogs are mammals, and that her pet Fido is a dog. However, for whatever reason Opal fails to believe or form any propositional attitude that Fido is a mammal.

For Opal, the problem is that she has propositional attitudes which have the form of the premises of UI—in this case a belief that all dogs are mammals and that her pet Fido is a dog—but she lacks a propositional attitude which has the form of the conclusion, namely that Fido is a mammal. Opal could rectify her mistake either by adding to her beliefs or other attitudes the proposition 'Fido is a mammal', or by dropping from her set of propositional attitudes one of the propositions (perhaps upon closer inspection, she begins to believe that Fido is a well-disguised machine). Let's look at the second example of a logical mistake:

MP Belief-Preference. Lars prefers that he stay dry on the walk to work. Lars also believes that, if he is to stay dry on the walk to work, then he should take an umbrella with him to work when it's raining. However, for whatever reason, Lars fails to believe or form any propositional attitude that he should take an umbrella with him to work when it's raining.

For Lars, the problem is that his beliefs and preferences fail to conform to the constraints set by MP since, although he prefers something of the form of one of the premises of MP and believes something of the form of the other premise of MP, he lacks a propositional attitude which has the form of the conclusion. Similarly to Opal, Lars should either add a propositional attitude to his set of attitudes which has the form of the conclusion of MP, or drop his belief or preference.

What is important to note about these evaluative norms and how they differ from prescriptive, action-guiding norms, is that they are essentially a standard of quality for a given set of propositional attitudes, rather than about what a thinker *ought* to infer given other things they think.[4] Also, according to the view, MP and UI are not valid inference rules, and it is not in virtue of the fact that truth is preserved from premises to conclusion that we should think according to MP and UI. Rather, MP and UI are explicit, categorically authoritative rules for thinking—the laws of thought, MP and UI, hold independently of whatever laws describe what holds most generally. Of course it is the case that when we get down to the business of theorizing about relations of truth preservation, we find that inferences of the form MP and UI can turn out to be valid inferences in one theory or another. But MP and UI as they appear in this or that theory are different in kind from the laws of thought.

In this respect, logical constitutivism takes inspiration from the view of Annalisa Coliva

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[4]An important point to make here is that it may be the case, in certain contexts or with respect to certain domains of inquiry, that given the evaluative norms MP and UI, there are further prescriptions that arise such that not only is it correct to form a propositional attitude about the conclusion of either inference, but that one also *ought to infer* it from the premises. However, I don't think it is necessarily the case that 'good implies ought', nor that either 'good implies can' or 'ought implies can'.

(2015) regarding the justification for basic logical laws. In her Wittgensteinian approach to perceptual justification, Coliva has discussed the constitutive role that basic logical laws and inference rules like MP play in our practice of deductive epistemic rationality, the driving idea there being that, although unjustifiable, our engagement in a practice which assumes rules like MP as a rational precondition manages to make MP epistemically rational. In this way, inference rules like MP work similarly to what Coliva is primarily interested in, namely those assumptions or 'hinges' which epistemic rationality mandates in order to make possible the practice of justifying ordinary empirical propositions. In more recent work, Coliva (2018) has articulated an even more fundamental vision for certain very general hinge propositions, stating that any representational activity at all is constitutively dependent on assuming things like 'There is an external world' (2018: 280). The idea here is that certain very general hinges aren't just constitutive of the epistemic practice of justifying empirical propositions, but they are also constitutive of the more fundamental practice of representing, which is to say, they are constitutive of the practice within which attributions of truth and falsity are made.[5]

Now that we have a good idea for why it is that we need a fleshed out formulation of constitutive normativism, and with certain key features of the account made clear, we can turn to the ways in which constitutive normativism is threatened by and can respond to key objections to the normativity of logic.

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[5]At least, if by true and false, we either mean a correspondentist notion, or an epistemically constrained notion. As Coliva (2018, 2021a) points out, we can still reserve a notion of truth for the hinge propositions themselves if we accept both alethic pluralism and that hinges are understood as minimally true, somewhat in line with Wright's (1992) notion, but with certain caveats that may bring it closer to Lynch's (2009) notion of 'plain truth'.

2.3 Harman's challenges

While the idea that logic is normative is generally presented as an orthodox position in the philosophy of logic, there are those who have called it into doubt. Gilbert Harman (1986) has been perhaps the most prominent 20th century critic of the normativity of logic, and it is his set of challenges that has provided the basis for the contemporary discussion of whether logic is indeed normative. However, what we saw in the discussion of this issue in Section 4 of Chapter 1 is that Harman's challenges, as they have been standardly presented, rely on a particular conception of logic, namely the laws of truth conception, and subsequently his understanding of logical normativity is grounded in a truth norm for belief. But since constitutive normativism is based in an alternative conception of logic, the laws of thought conception, then Harman's challenges fail to gain traction against constitutive normativism. However, we can take the spirit of Harman's challenges and consider the kinds of problems that constitutive normativism may nonetheless face. I will argue that a number of maneuvers are open to constitutive normativism which deflect these challenges.

Harman's objections to the normativity of logic work from the basic idea that, contrary to the truism that being rational requires us to be logical, conforming our beliefs to the deliverances of logic would actually make us highly *ir*rational, and so it can't be the case that logic has any bearing on how we should reason. Here are how Harman's challenges have standardly been broken down and explained:[6]

> **Belief Revision.** Sometimes it is rational to revise one of our beliefs rather than believe something which logically follows from our beliefs, either because one of our prior beliefs is not actually justified, or because we have overwhelming evidence against the entailed proposition.

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[6]I have borrowed the naming conventions for each objection from Steinberger (2017a) except for 'Illogical Beliefs', which, although discussed by Steinberger, it is discussed without a title.

Clutter Avoidance. There are many trivial things which logically follow from our beliefs which are completely inconsequential, and it would be implausible if we were rationally required believe each of them, using up precious finite mental resources.

Excessive Demands. There are many propositions which logically follow from our beliefs that it is completely beyond our mental capabilities to identify and believe, and so it would be implausible for rationality to demand us to do so.

Illogical Beliefs. Sometimes in order to be rational we must believe logical inconsistencies, such as in the Preface Paradox.[7]

Harman's objections seem to target the very particular idea that rationality requires we believe whatever logically follows from the other things we believe. This is best evidenced in the first three challenges; Belief Revision raises the issue that the seemingly rational thing to do when faced with the logical implications of one's beliefs is not to simply believe them, while Clutter Avoidance and Excessive Demands refer to cognitive and practical constraints that make believing the logical implications of one's other beliefs an implausible requirement in order to be rational. The nature of these challenges require we think of logical entailment as having direct normative consequences for what to believe.

The fourth challenge, Illogical Beliefs, takes a slightly different tact, posing the problem that rationality seems to require us to form beliefs that run contrary to the laws of logic, and in particular, the classical law of noncontradiction. But again, we should see that this requires we think of logical normativity as the idea that the laws of what one takes to be the correct logical theory set the standard for thinking if it wants to attain the truth—

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[7]In the Preface Paradox, one believes each member of a set of propositions individually but, given one's fallibility, one also believes the negation of the conjunction of the set of propositions, such as when a biologist believes each individual proposition of their most recent publication, yet they recognize that they could not have possibly gotten everything right.

the tension, for Harman, always seems to be between the demands of rationality and the strictness of logical implication.

But if our explication of logical normativity follows from a laws of thought conception of logic, it becomes less clear how Harman's challenges are supposed to work.

First, constitutive normativism concerns deductive propositional reasoning, which is an activity that includes but is in some ways broader than rational belief, since the relevant propositional attitudes that fall within the activity of deductive propositional reasoning include non-doxastic attitudes. A direct result of this is that the logical requirements detailed in §2.2 concern whether we have the relevant attitudes towards propositions which have the form of the premises and conclusion of MP or UI, not with rational belief adoption or revision. That is to say, there are other propositional attitudes within the practice of thinking that one can adopt towards a proposition or set of propositions that accords with the laws of thought that don't involve belief. The example of Lars, for instance, concerns both his preferences and his beliefs. It is not the case that in order succeed with respect to the laws of thought, one must necessarily clutter up one's mind with trivial beliefs.

Another feature of constitutive normativism as I have detailed it is that it is not a problem in principle to form contradictory propositional attitudes, and so the Preface Paradox is not a relevant counterexample for the view. It may very well be that it is irrational to believe contradictions, such that the Preface Paradox remains a problem for rational belief, but constitutive normativism doesn't in principle rule out forming a set of propositional attitudes which violate the law of noncontradiction.

In sum, Harman's challenges so understood target only one conception of what it would mean for logic to be normative, namely that there is a requirement on rational agents to adopt whatever is logically implied by one's other beliefs because logic is truth preserving, and we ought to believe the truth. But it is not as though Harman's critique of the normativity of

logic is misguided—if logic is normative in virtue of a truth norm for belief, as we saw for some prominent logical normativists, then the complaint that logic compels us to blindly add beliefs to our 'belief box', chasing after true beliefs no matter the demand or cost, seems well-placed. Truth normativists engage with Harman exactly because they take his challenges to pose real problems for their view.

We may however see the spirit of Harman's challenges and recognize the way in which they may raise problems for constitutive normativism. Belief Revision fundamentally speaks to the nature of reasoning, which is that it is often defeasible, and it must be possible for us to rationally revise our beliefs when we come across new information. It can't be the case that, simply there being some logical relation between a number of our beliefs, we therefore must form some other belief. So, constitutive normativism, however it bears on reasoning, must not impede defeasible reasoning and the rational revision of beliefs. With Clutter Avoidance and Excessive Demands, Harman's core concern is with our limits as non-ideal agents—simply put, logic is a bad guide to good reasoning, as it will lead us to ignore legitimate practical concerns for efficiency and human cognitive abilities. Constitutive normativism therefore better not guide reasoners into these dead ends. And finally, Harman raises the problem of Illogical Beliefs because he sees an incongruity between good reasoning and the laws of logic. So, constitutive normativism should be complementary to, rather than in tension with, good reasoning.

We should see that, just as with a truth normativist approach to logical normativity, the plausibility of constitutive normativism depends on how well it can handle these considerations.

Luckily, there are a couple of relatively straightforward solutions to some of Harman's challenges discussed on behalf of truth normativism that also work for constitutive normativism. For instance, from John MacFarlane's (2004) discussion of 'bridge' principles which connect logic to reasoning, and Steinberger's (2017a) careful expansion of this project to

directly respond to Harman, one simple move to make is to shift the scope of the deontic operator in play from narrow to wide scope for logical requirements on rational agents. While a narrow scope deontic operator would require the blind adoption of whatever propositions were entailed by prior beliefs, a wide scope operator makes room for the rational rejection or revision of prior beliefs.[8]

As we saw in §2.2, the logical norms of constitutive normativism are wide scope 'in spirit', since there are two ways to succeed with respect to the norms: either one can form a propositional attitude about each of the premises and the conclusion, or one can drop one's propositional attitude about one or more of the premises. So, constitutive normativism, given the way it formulates its norms, already anticipates and side-steps this problem—the core idea of Belief Revision, that logic shouldn't impede defeasible reasoning and the rational revision of beliefs, is accounted for.

Another move available is to introduce the distinction between norms for rational guidance and norms for rational evaluation.[9] While norms for rational guidance are meant to provide agents with first-personal rules for how to reason, norms for rational evaluation provide a reflective standard for appraising an agent's beliefs, relations of justification, and so on. If we take logical norms to be norms for evaluation, then logical norms are used reflectively to assess an agent's set of beliefs at a given time. And this is the exact sense in which constitutive normativism takes logic to be normative—for a given set of propositional attitudes of an agent, we can determine if they are illogical or not on the basis of whether

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[8]The operator with narrow scope ranges over the consequent ($P \supset O(Q)$), resulting in the bridge principle

If $P \models Q$, then if you believe P, you ought to believe Q

whereas the operator with wide scope ranges over the whole conditional ($O(P \supset Q)$), resulting in the alternative principle

If $P \models Q$, then you ought to see to it that if you believe P you believe Q

With the deontic operator at wide scope, one can fulfill their obligation either by believing Q or by suspending judgment on or rejecting P.

[9]MacFarlane and Steinberger (2019a) discuss this distinction with respect to logical normativity, though Steinberger (2017a) critiques the move in response to Harman's challenges, arguing that it fails to properly address Harman's focus on the occurrent reasoning of rational agents.

they have a certain combination of attitudes. The best or ideal combination of attitudes conforms with the laws of thought. And while an illogical combination may be a reason to adjust one's set of propositional attitudes—if we ought to approximate the ideal—this isn't necessarily the case.

So, since constitutive normativism presents a reflective standard of quality, it doesn't offer rational agents bad guidance. But we may still wonder if, in order to meet the standard set for thinking by the laws of thought, it would turn out to be practically impossible. On this point, I think we should concede that the standards set by the laws of thought may turn out to be impractical or not practically achievable while noticing that considerations about how ideal and non-ideal agents operate will inevitably indicate a gap. And in the particular case of constitutive normativism, to say that ideal deductive propositional reasoning is not practically achievable by non-ideal rational agents does not seem any more egregious than saying that perfect moral agency is not practically achievable by non-ideal moral agents.

The worry, then, shouldn't be whether constitutive normativism creates implausibly high standards for agents, but rather if the standards are complementary to or in tension with good reasoning. And this I think has a rather straightforward answer. According to constitutive normativism, good thinking (good deductive propositional reasoning) requires a certain kind of *coherence* among our propositional attitudes. While we can imagine many instances, just as Harman does, where practical considerations or cognitive limitations offer constraints on how often or well we can achieve this coherence, the reflective assessment of whether one's propositional attitudes cohere intuitively seems like something beneficial to rational belief. Some have even argued that the problem of incoherence among one's beliefs can ultimately be explained in terms of the kind of irrationality with which Harman is concerned, namely believing things for which we lack good reasons (Kiesewetter, 2017). On a view like this, checking for coherence could be seen as a direct pathway to rational belief revision. But even if we take a structural phenomenon like coherence to be independent from

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a substantive phenomenon like rational belief, coherence is a fundamental part of how we understand what it is to be rational. In an important way, the ideal standard set by the laws of thought help to capture this intuition.

As we have seen, Harman's challenges can still gain purchase for a constitutive normativist account of logical normativity if we extract the spirit of the challenges, the idea that reasoning logically puts us at odds with, rather in concert with, practices of good reasoning. But I have showed that the particular features of the present view—its wide-scope-in-spirit formulation of the norms, their status as norms for evaluation, and their role in achieving coherence—demonstrate that the laws of thought do not hinder, and in some ways help, us in being rational.

Now that we have seen how constitutive normativism avoids the central issues for any account of logical normativity, let's consider some of the specific problems that arise for constitutive normativism as a constitutivist account for grounding normativity.

2.4   The Problems of Constitutivism

Constitutivism in general is a particular strategy for explaining the source or ground of categorically authoritative norms—norms which hold independently of what an agent beliefs, prefers, or values—by establishing that *facts* about what kind of creatures we are, or what kinds of things we do, are constitutively dependent on those norms.[10] The constitutivist strategy attempts to create a kind of 'Third Way' between two problematic views about normativity: realist views of normativity which benefit from grounding normativity in robust and objectively existing normative facts but which suffer from difficult 'epistemic access' questions about how we come to know these facts, and anti-realist views of normativity which

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[10]For prominent constitutive accounts, see for instance Christine Korsgaard (1996) or David Velleman (2000).

benefit from an uncomplicated naturalistic epistemology but which suffer from deflating normativity to something unrecognizable. Constitutivism offers a way of saving genuine normativity while relying on a set of epistemically accessible facts.

Constitutive normativism, as an account of logical normativity, falls within this class, since one of the central claims of the view is that the source or ground of logical normativity can be explained by reference to facts about the way the activity of thinking, or more specifically deductive propositional reasoning, is constituted. That is, we can explain in virtue of what logic is normative through identifying what it is to think at all. While the constitutivist strategy is promising, especially in contrast to realist and anti-realist views of normativity, there are still a number of deep problems with the approach with which constitutive normativism is also faced. I will defend constitutive normativism against the three central challenges to constitutivism in general, what I will call the Substance, Schmagency, and Error Problems.

2.4.1 The Substance Problem

The Substance Problem presents constitutivist views with the obstacle of explaining how whatever is constitutive of the activity in question is able to provide an adequate basis for deriving substantive normative principles. The idea is that only substantive norms themselves, those norms that have content which can give a subject determinate success and failure conditions, can provide an adequate basis for deriving other substantive norms. Merely formal or structural norms on the other hand, those norms which provide the subject only with a schema or procedure, are not able to play this role. So, what the constitutivist claims is constitutive of the practice in question must itself be a substantive norm or set of norms, in order to succeed in providing an adequate basis for deriving all the non-constitutive norms of the practice.

The force of the Substance Problem is that, for the constitutivist, this is not an easy task. The constitutivist needs to provide a compelling and plausible account of what constitutes the practice in question, a practice which they also want to characterize as highly general and non-optional. If the norms the constitutivist identifies turn out to be too specific or robust, if they're too 'thick', they lose their plausibility as constitutive of the activity in question. So, the constitutivist's account is at its most plausible when it provides an account of the constitutive norms that are normatively 'thin'. This issue is sometimes posed as a dilemma for constitutivism:[11] Either the norms identified are thick and can provide an adequate basis for deriving substantive normative principles, but they are therefore highly implausible as constitutive norms, or the norms identified are thin and make for plausible constitutive norms, but they therefore cannot provide an adequate basis for deriving substantive normative principles.

We can understand this push and pull by way of an example. Consider for instance the activity of examination. What seems to me a highly plausible constitutive norm of examination is that there is some standard or criteria by which the examined is evaluated. That is, what examination is (at least in part) is just to be evaluated according to some standard or criteria. But, notice that this constitutive norm of examination cannot by itself tell us anything about any particular standards or criteria. So, although plausible, it is too thin to provide us with a basis for any further substantive norms. Alternatively, consider the claim that it is constitutive of examination that the examined must correctly answer a series of questions. This norm is far more thick—we can determine particular standards or criteria on its basis, for instance standards or criteria regarding the correct answering of questions. However, one might readily object that examination doesn't always involve answering questions, such as tests of ability or health. So, although able to act as a basis for deriving substantive norms, this constitutive norm is implausible.

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[11]I take this dilemmic framing from Evan Tiffany (2012).

What the above discussion should lead us to see regarding the Substance Problem is that what any constitutivism needs to provide is an account of what is constitutive of the activity in question which manages to be both *substantive* and *plausible*. The success of this balancing act depends largely on what counts as plausible. It is not always clear what falls within and outside the bounds of plausibility, but I think we can say at least that, in order to properly respond to the Substance Problem, constitutive norms should, in addition to being substantive, be operative for paradigmatic engagement in the activity in question, such that it is not obvious how one might succeed in engaging in the activity while also failing to act in accordance with the candidate constitutive norm(s)—call this a 'minimal plausibility' requirement.[12] For instance, returning to the examination example, we can dismiss the substantive norm that all examination is constituted by answering a series of questions, given that this norm excludes tests of ability or health, which we might say are among the paradigmatic engagements in the activity of examination.

I argue that the norms identified in §2.2 above, MP and UI, are both substantive and plausible constitutive norms—operating in accordance with them is a precondition for paradigmatic engagement in the activity of thinking, such that it is not obvious how we could succeed in thinking while fail to operate in accordance with the laws of thought.

Before we consider whether MP and UI are plausible constitutive norms, we first need to determine whether they are thick enough to provide a basis for deriving substantive norms. Recall that the central distinction between a substantive and a merely formal or structural norm is that the former has content which provides conditions of success and failure, whereas the latter lacks content and only provides the subject with a schema or

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[12]I think there are some deeper problems lurking regarding the way we might assess plausibility, but despite these issues, I think that the Substance Problem is still tracking a legitimate concern we should have for the nature of constitutive norms. It would be too hasty to dismiss the concern for plausibility as a too opaque measure of success. I think it is also important to leave open the possibility that success according to the way in which I have tried to explicate plausibility here may not guarantee complete success with regard to the Substance Problem—the constitutive logical norms of thought offered in this paper could, on an alternative explication of plausibility, fail to count as plausible substantive norms.

procedure they can apply or follow once content is supplied. The laws of thought do have content since they specify clear success and failure conditions: success achieving a certain combination of attitudes, and failure amounts to achieving an alternative combination of attitudes. For contrast, consider instead a nearby alternative constitutive norm, something like: In order to be a thought at all, one must be evaluable according to some logical standard or criteria. This alternative should remind us of the initial constitutive norm suggested for examination—its generality is a plus, but it doesn't seem very apt for providing any kind of basis for something more substantive, since from this norm alone, we aren't in a position to determine how we might succeed or fail. Until those rules are specified, all the subject has is a procedure for how to determine success and failure once content is supplied, rather than clear guidance from the norm itself.

We have established that the laws of thought are substantive, so now let's consider whether they are also plausible. As I have explicated, in order to be plausible, the candidate constitutive norm(s) must be operative for paradigmatic engagement in the activity in question, such that it is not obvious how one might succeed in engaging in the activity while also failing to act in accordance with the candidate constitutive norm. When we consider MP and UI in particular, these are not just any logical rules, but they are in fact the subject of much discussion as basic rules of inference, since they present us with a special problem regarding their use in reasoning. These problems have traditionally been discussed in terms of our justification for using these basic rules in reasoning (Boghossian, 2003; Wright, 2004)—the idea is that they cannot be non-circularly justified—but recent discussion has trended toward the issue of rational adoption and what has been called the Adoption Problem.[13]

If one were to imagine an attempt to rationally adopt MP or UI without any prior understanding of the inference rules, it would seem to go something like this: I want begin

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[13]Both discussions trace their roots back to Lewis Carroll's (1895) influential essay, but the literature on the Adoption Problem has been prominently shaped by Romina Padró's (2015) discussion of Saul Kripke's unpublished notes on rule-following.

to reason according to a new rule MP which states that, for any propositions φ and ψ, if I accept that φ, and also that *if φ then ψ*, then I may infer that ψ. But this step-by-step procedure itself requires reasoning with MP:

> If it is the case that I accept φ and *if φ then ψ*, then I may infer ψ.
>
> It is the case that I accept φ and *if φ then ψ*.
>
> _____
>
> So, I may infer ψ.[14]

Since competence with MP and UI and our taking them to be good rules for inferring is a precondition for adopting them, then it seems that we cannot in fact adopt either rule. And since we are competent with MP and UI and take them to be good rules for inferring, our use and understanding therefore cannot be explained by adoption.

Similarly, it turns out that trying to reason one's way through any deductive rule-following procedure will inevitably require making use of MP and UI. Let's say you take some rule R to be a good rule for inferring, and you want to use it in your reasoning. Imagine you are reflecting on a set of premises and a conclusion that exactly resemble in form R—let's call this set of propositions a. But in order for you to identify a as an instance of a good inference that you ought to make, and that you should accept a's conclusion *specifically in light of R*, you have to see that the particular inference is an instance of R. That, however, requires reasoning with UI, something like: 'All inferences of the form R are good inferences,

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[14]The same problem arises with UI, but in a slightly different way. I want to adopt a new rule UI that tells me that, for any predicates F and G and a particular o, If I accept the universal statement *all Fs are G* and the proposition *this o is F*, then I may infer *o is G*. But consider that, in order to make use of a particular statement u as a universal statement in my application of UI, I must already be able to properly apply UI to u. That is, in order to predicate of u that it implies each instance, which licenses the inference from *o is F* to *o is G*, I must establish that u implies each instance via the following inference:

> All universal statements imply each instance.
>
> u is a universal statement.
>
> _____
>
> So, u implies each instance.

It is only from this inference that I may apply UI in order to infer *o is G*, but of course the inference above is itself an instance of UI.

a is of the form *R*, so *a* is a good inference.' Additionally, in order to recognize that you should accept the conclusion of *a*, it seems you'd have to infer that, since *a* is of the form *R*, it would be the rational thing to accept the conclusion of *a*. But this is of course an instance of MP, something like: 'If *a* is of the form *R*, then I should accept the conclusion of *a*, *a* is of the form *R*, and so I should accept the conclusion of *a*.' The use of these inference rules in reasoning really seems like something from which we can't escape. And at least one good explanation for why MP and UI display these peculiar features, in a similar vein as Leech (2015) has argued, is that they are constitutive norms of what it is to think at all.

The problem of adopting or revising MP and UI in one's reasoning is something I give close attention in Chapter 3, but for now I hope to have established that the question of whether MP and UI are plausible constitutive norms can be answered by pointing to the inescapable nature of these inference rules in our thinking—it does not seem clear how we could engage in anything we could call deductive propositional reasoning that fails to require our use of these particular inference rules, and especially, our taking them to be good rules for inferring. The logical norms identified as constitutive of thinking, we should see, meet the minimal plausibility requirement.

I have so far established that constitutive normativism is able to adequately address the Substance Problem by demonstrating that the norms it identifies are both substantive and plausible as constitutive norms of our activity of thought. I will now turn to the next problem standardly posed for constitutivism, the Schmagency Problem.

2.4.2   The Schmagency Problem

The basic shape of the Schmagency Problem is a kind of skepticism about whether constitutive norms are the right kind of norms to generate *categorical* normative authority, rather than merely *hypothetical* authority. Recall that categorical norms hold independently of

what we prefer, believe, or value, whereas hypothetical norms only bear on agents given certain preferences, beliefs, or values. For instance, we might think that the moral imperative not to torture holds no matter what any individual believes, prefers, or values, but the imperative to obey the laws of traffic only holds conditionally on the preference to drive safely or legally. So, although the constitutivist *advertises* their view as a way to ground norms which hold unconditionally, the skeptic argues that they can only deliver hypothetical or conditional norms, thereby merely pushing the problem of grounding categorical normativity back one step—the constitutivist has demonstrated which norms hold only if one has some reason to engage in the activity for which those norms are constitutive, but they have not demonstrated that we have any reason to engage in that activity in the first place.

We can imagine a dialogue between a constitutivist and a skeptic taking the following form.[15] The skeptic asks why it is that they ought to try to conform to some norm N. The constitutivist replies that what it is to engage in a particular activity, what it is to ϕ, just is to try to conform to N. But then the skeptic asks, 'But why should I ϕ? Even if we agree that ϕ-ing just is to try to conform to N, you haven't given me any reason to ϕ. Without a reason to ϕ, N has no bearing on me. All you've shown is that, *insofar* as I should ϕ, then I should try to conform to N—but then N only has hypothetical, conditional authority.' The constitutivist may reply that ϕ-ing is an inescapable or non-optional activity—you can't but ϕ, and so, you can't but try to conform to N. The skeptic, however, is not convinced by this: 'I may be trapped in a situation where I can't but ϕ, but I still don't have a reason to try to conform to N—I can simply ignore N, always fail on purpose, or just go through the motions. The fact that ϕ-ing is inescapable still doesn't imbue N with any normative authority over me.'

We can translate this general problem to the case of thinking and the core claim of constitutive normativism, which we recall is the claim that, in order to count as thinking at

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[15]David Enoch's (2006) objection to constitutivism is often put this way—see for instance Luca Ferrero (2009), Amy Flowerree (2018).

all, one's activity must be evaluable according to MP and UI:

> **Schminking.** Why should I think? Even if I agree to the truth of constitutive normativism, then I am only subject to being evaluable according to MP and UI insofar as I think. But then why should I think, why not 'schmink' instead, which is just like thinking, except I am not evaluable according to MP and UI? You may argue that thinking is an inescapable activity, but I still have no reason to conform to MP and UI—why shouldn't I just ignore MP and UI, always try to fail with respect to them on purpose, or just go through the motions? The fact that thinking is inescapable doesn't give the laws of thought any categorical authority over me.

It seems that, without some further reason to appeal to for why we should think, the constitutive normativist cannot address these skeptical objections. However, once we take a closer look at exactly what the skeptic wants to deny, we find that it is difficult to make it a coherent objection. The reason for this will remind us of the Adoption Problem.

Consider again the skeptic's line of argumentation against the constitutive normativist:

(1) Without a reason to think, I have no reason to try to conform to MP and UI.

(2) I have no reason to think.

(3) So, I have no reason to try to conform to MP and UI.

But this reasoning is an instance of MP. And not only that, but an implicit feature of the above argument indicates that the skeptic would be convinced by the following argument, were they convinced of the truth of all the premises, and in particular, premise 5:

(4) If I ought to think, then I ought to try to conform to MP and UI.

(5) I ought to think.

(6) So, I ought to try to conform to MP and UI.

This argument is also a clear case of MP. What this shows is that raising a skeptical challenge to constitutive normativism requires reasoning in conformity with MP, one of the very norms the skeptic wants to call into question.

But not only that, *the skeptic expects that their interlocutor should conform to those very norms too.* We can see this by identifying why it is that the skeptic would expect their argument to convince anyone. A crucial feature of the skeptic delivering a deductive argument is that they take the formal relations between the premises and conclusion to pressure an interlocutor to accept the conclusion if they accept the premises, which is to say, they expect that their interlocutor should assent to the following:

(7) All conclusions of arguments with a valid form should be accepted if the premises are accepted.

(8) The skeptic's argument is valid.

(9) So, the conclusion of the skeptic's argument should be accepted if the premises are accepted.

But, perhaps unsurprisingly, this inference is of the form UI, and so again, the skeptic, in their attempt to provide a skeptical challenge, reaffirm the categorical authority of the constitutive norms of thinking.

The point is not merely that thought is a kind of inescapable practice, and that even when the skeptic formulates their objection they must engage in the activity they aim to doubt—although this is also the case. But more than that, the skeptic's challenge demonstrates that the skeptic is nonetheless trying to conform to the norms in question, and holds their interlocutor to the same standard. We can imagine, for instance, that if someone weren't convinced by the skeptic's conclusion, even if they were convinced of each premise—like, say,

a particularly difficult tortoise—the skeptic would rightfully be baffled.

So not only are the skeptic's doubts only possible from within the activity of thought and by adhering to its norms, but they also demonstrate the authority of the standard set by those norms and the expectation that others should aim to meet that standard too. To put the point a different way, it is not as though the skeptic thinks that the best way to change the mind of their interlocutor is by coercion or Pavlovian conditioning—rather, they mount a particular form of argument, and in so doing demonstrate what they take to be the relevant method for convincing their interlocutor.

2.4.3 The Error Problem

The Error Problem arises from the general intuition that norms are essentially action-guiding, and so in order for something to count as a norm, one must be in a position to be guided by the norm, and it must be possible to attempt and fail—it must be possible to characterize the activity as an error or mistake with respect to that norm (Lavin, 2004). This presents a problem for norms which are characterized as constitutive of an activity, whereby a failure to adhere to the norm is a failure to engage in the practice altogether. That is, if one fails to participate in the activity altogether, it doesn't seem that whatever one is doing is characterizable in light of the norms of that activity, either as a success or failure. So, the problem is that it doesn't seem possible to be in error with respect to constitutive norms, and so constitutive norms fail to qualify as norms at all. What constitutive normativism must clarify, therefore, is how it is possible to characterize failures or mistakes with respect to what is constitutive of the practice of thought.

From Chapter 1, we recall that a particular conception of the laws of thought produces what I called 'part-whole' constitutivism, and it is this conception that seems to preclude the possibility of error with respect to the constitutive laws of thought. On such a view,

anything less than perfect accordance with the laws of thought disqualifies a person from engaging in thinking altogether. And it would be the case on this view that the logical laws constitutive of thought are not truly normative—recall Clinton Tolley's (2006) interpretation of Kant's view of logic, which has it that if Kant's logical laws are constitutive of thought, they cannot be norms, and it is not possible to be in error. If constitutive normativism resembled the view of Tolley's Kant, there would indeed be no room for error.

However, recall that, according to the conception of the laws of thought established in the previous chapter, the laws of thought are taken to be *constitutive-normative laws*, and accordingly, what is constitutive of thinking isn't the law itself, but rather the condition of being answerable or evaluable according to it. So, for constitutive normativism, in order to count as thinking, what one is doing must be evaluable according to MP and UI. In this way, MP and UI *are* normative for thinking, since they set the standard for logical thinking, but they also distinguish thinking as an activity—thinking just is that activity where, among other things, one is answerable to MP and UI. This formulation allows for the possibility of logical error or mistakes in light whether one's set of propositional attitudes conforms to MP and UI. An appraisal of these mistakes or successes are possible given that we are answerable to MP and UI in our thinking.

However, one might wonder further whether it is possible to fail to think, that in order for constitutive norms to admit the possibility of error, it must be possible to fail to engage in the particular activity as well. In the previous section, it was clarified that thinking is a kind of inescapable activity, and so it is not clear in what sense someone might try and fail to think—in this respect, engaging in the activity of thinking is not open to the possibility of failure. But with regard to the constitutive norms in question, one can (and we often do) succeed at thinking while failing to conform to MP and UI.

2.5   Conclusion

With respect to Harman's challenges and the three of the central objections to constitutivism in general, I have provided responses on behalf of constitutive normativism, the view that the activity of thought is constituted by the condition of being answerable to MP and UI. In trying to understand the nature of logical normativity, we have at least one crucial part of the picture, namely a formulation of the normativity of logic that rests on the laws of thought conception of logic.

Chapter 3

A Constitutivist Solution to the Adoption Problem

3.1 Introduction

In the previous chapter, I defended an account of logical normativity, constitutive normativism, developed on the basis of the laws of thought conception of logic. In order to help us make sense of the intuitive idea that logic is normative, we saw that we needed such an account. But through making sense of logical normativity in part by way of constitutive normativism, we may see that a number of standing issues in the philosophy of logic can be addressed. One such issue, the possibility of logical pluralism, will be considered in Chapter 4. But in this chapter, I will show that constitutive normativism provides a compelling solution to the Adoption Problem, something that we first encountered in Section 3.1 of Chapter 2.

On a popular contemporary view about how we come to know and be justified in our use of logical laws, we evaluate logical theories on the basis of how well each theory accounts

for the data and exhibits theoretical virtues such as simplicity and unity, just as we do with any scientific, empirical pursuit. Through an inference to the best explanation, we determine which is the single best logical theory, and therefore which set of logical laws we take ourselves to be justified in accepting and using. Let's call this view *anti-exceptionalism*.[1,2] Anti-exceptionalism however seems to face a challenge with regard to a special few logical laws that don't seem adoptable or rejectable, what has been called the Adoption Problem.[3] The Adoption Problem seems to suggest that some laws of logic are exceptional and cannot be subject to *a posteriori* scrutiny. Some have argued that the Adoption Problem even stands as a refutation of anti-exceptionalism, requiring an alternative epistemology of logic that can make sense of our knowledge and use of these basic logical rules.[4] They go on to claim that the Adoption Problem indicates that we must have special *a priori* access to certain logical rules, and that our use of them can only be justified non-inferentially in virtue of our immediate recognition or understanding of the rules.[5]

Anti-exceptionalists have so far aimed to show that issues akin to the Adoption Problem are easily solvable, arguing that logical *theory* adoption is distinct from the adoption of particular rules, and that our use of logical rules in reasoning can be justified in virtue of

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[1]Recall from Chapter 1 the discussion of Frege's exceptionalist view of logic, according to which we have a special kind of epistemic access to the correct laws of logic—anti-exceptionalism, as I have characterized it here, is not simply a rejection of exceptionalism, but an alternative view of how we come to know and be justified in our use of logic, namely through an abductive inference to the best explanation. Hence, this view is also sometimes called 'logical abductivism'. Such a view of logic goes back to the modern empiricists, such as John Locke (1975). It was popularized in the mid 20th century by W.V.O. Quine (1951), and it is carried on by contemporaries such as Tim Williamson (2016, 2017, 2021) and Graham Priest (2006a, 2014, 2016, 2020).

[2]For now, I am setting to the side the view that logical pluralism, the idea that there are a number of tied-for-best logical theories, is a consequence of anti-exceptionalism, as it is argued for in Ole Hjortland (2017).

[3]A presentation of the kind of circularity which the Adoption Problem raises can be found in the classic Lewis Carroll (1895), but its explicit relevance to the contemporary discussion in the epistemology of logic (and its name) comes from the discussion of Saul Kripke's unpublished notes on the matter in Romina Padró (2015).

[4]See for instance Finn (2019).

[5]Paul Boghossian, for instance, has championed this view throughout his work (in light of considerations about the meaning-constitutive nature of basic inference rules, rather than the Adoption Problem explicitly), but it features most prominently in (2003), (2012), and in the many old and new contributions to Boghossian & Williamson (2020). See also Wright (2004) and (2018) for a discussion of related concerns about how we take ourselves to be justified in using certain basic laws.

the abductive method for adopting a theory. However, I don't think that the Adoption Problem is as easily dismissed as the anti-exceptionalists have made it out to be. The Adoption Problem should motivate us to ask how it is possible that we ever began to take certain inference rules to be compelling or correct rules for reasoning. That is, it is not so much that the Adoption Problem requires a *solution* as it provides us with data which requires *explanation*, and what must be explained is how we ever began to aim at reasoning according to the inference rules modus ponens (MP) and universal instantiation (UI), when competence with MP and UI, as well as their normative bearing, are necessarily presupposed in their adoption. These seemingly exceptional rules put pressure on the basis upon which anti-exceptionalism is built, namely the (quasi)-empiricist idea that we acquire all logical knowledge through the fallible procedures of evidence-gathering and theory-crafting. Critics of such a view consider the Adoption Problem to be good evidence in favor of *a priori* logical knowledge, perhaps as the product of some kind of logical intuition.[6] The Adoption Problem, as a result, is a deep problem for the more general quasi-empiricism that gives rise to anti-exceptionalism.

In addition to clarifying what I take to be the real crux of the Adoption Problem, what I propose in this paper is an explanation of the data the Adoption Problem presents. I argue that a plausible explanation for why MP and UI are unadoptable and unrejectable is that they are constitutive norms of thinking. Within the framework of constitutive normativism, MP and UI aren't part of the *substance* of our inquiry—instead, they are among the structural normative assumptions that makes inquiry possible.

I argue that constitutive normativism resolves the Adoption Problem in a two-pronged way. The first prong is the reframing of MP and UI as constitutive norms of thinking, which positions them outside of the scope of quasi-empirical inquiry, but not in virtue of anything special about our epistemic access to them, which is to say, not in virtue of anything that

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[6]Boghossian (2020)

would undermine the basic epistemological commitments of the anti-exceptionalist. The second prong is by drawing out further implications of that key distinction established in Chapter 1, namely the laws of truth and laws of thought conceptions of logic. I will finally make good on the promissory note in earlier chapters of defending a kind of pluralist view of logic, according to which both conceptions of logic fit together in a complementary way. Anti-exceptionalists (or their exceptionalist counterparts) may find the resulting pluralist view ultimately unsatisfying, as many 'Third Way' positions often seem to hardcore disciples from one side or the other. However, I argue that the anti-exceptionalist should tolerate MP and UI constitutive norms of thinking, since it maintains the quasi-empiricist spirit which underpins anti-exceptionalism, and it leaves the abductive method for determining the best logical theory untouched.

In §3.2, I reflect on popular formulations of anti-exceptionalism in order to identify their motivating quasi-empiricist assumptions. In §3.3, I present the Adoption Problem, and how I think it should be understood. I argue that, despite attempts to address it, the Adoption Problem remains unsolved for anti-exceptionalists. Then, in §3.4, I present the first prong of my solution by using constitutive normativism to explain the data presented in the Adoption Problem.. In §3.5, I offer the second prong of my solution by defending a pluralism about conceptions of logic. The results of this chapter serve as a crucial foundation for one of the main theses of this dissertation, namely that we should endorse a logical normativity dualism, since we should make sense of the normativity of logic in accordance with both the laws of truth and the laws of thought conceptions of logic (We will see the final picture fully emerge in Chapter 4).

3.2 Anti-exceptionalism and rational theory acceptance

The core idea of anti-exceptionalism, the view that we make an inference to the best explanation in order to know which logical theory to accept, is that theorizing about logic is no different from any other scientific pursuit. We collect evidence, craft theories which aim to fit the evidence, and take ourselves to be rational in endorsing the theory which best fits the evidence.[7] If there are multiple adequate theories with regard to the evidence, then we rely on other theoretical virtues such as simplicity and unity in order to determine which theory is best. Anti-exceptionalism, then, is a view about our epistemic relation to logic; the abductive inference to the best explanation (IBE) is how it is we explain our rational acceptance, revision, or rejection of a logical theory, and how we justify our use of a logical theory.[8]

Just as we have seen new scientific theories or new data unseat previously endorsed theories, according to anti-exceptionalism, so too are logical theories and their laws open to revision or rejection. W.V.O. Quine popularized this empiricist way of thinking about logic in the mid 20th century.[9] More recently, like-minded philosophers inspired by Quine like Graham Priest and Tim Williamson have championed the abductive methodology for logic.[10] Priest and Williamson take slightly different approaches to cashing out the anti-exceptionalist picture, and they also come to opposing conclusions about which logical theory

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[7]There is the question what should count as evidence when theorizing about logic, as it is not strictly speaking an empirical inquiry, but I don't think anything crucial hinges on this question for the present discussion. The relevant evidence is often said to be our pre-theoretical intuitions. For more on this issue, see for instance Imre Lakatos (1976), and more recently Ole Hjortland (2019) and Ulf Hlobil (2021).

[8]There is the further question of whether our IBE gets us to the truth, in the realist sense that there may be an objectively correct logical theory independently of whichever theory we infer is best, but anti-exceptionalism is silent on this issue, and is therefore compatible with both realist and anti-realist views of logic.

[9]Quine writes: '[B]y the same token, no statement is immune to revision. Revision even of the logical law of the excluded middle has been proposed as a means of simplifying quantum mechanics; and what difference is there in principle between such a shift and the shift whereby Kepler superseded Ptolemy, or Einstein Newton, or Darwin Aristotle?' (1951: 40).

[10]It is worth mentioning that contemporaries like Priest and Williamson do not share Quine's view that experience has primacy of place, and so while broadly a part of the empiricist tradition, anti-exceptionalism is perhaps better understood as a 'science-like' view of logic.

comes out best—Williamson argues that classical logic is best, while Priest argues that a paraconsistent logic like his Logic of Paradox is best. But we can see that, despite these differences, Priest and Williamson share the same fundamental basis from which to motivate the abductive methodology.

There are a number of key ideas that provide the basis for taking the abductive approach to accepting a logical theory. The first is that the adoption of a logical theory is the result of a fallible process, subject to future revisions:

> [T]he theory that is rationally preferable, according to this account, may change as things develop. This is for several reasons. The choice between theories is to be made from those currently on the table. It is quite possible that a new theory will come along, and that its emergence will change matters. (Priest 2016: 350)

> Of course, we rank only those potential explanations that have been thought of. Sometimes there is a better potential explanation that nobody has thought of. Sometimes it is the actual explanation. In such cases, inference to the best explanation may lead us astray. (Williamson 2016: 267)

The second idea is that logic should be understood as a theory in the scientific sense:

> To say that [logic] is a theory is to say two things. The first is that it provides an account of the behavior of certain notions (some of which are non-observational) and their interconnections[...] The second thing involved in calling something a theory is that its acceptability can be determined only by some sort of process involving evidence and argument. (Priest 2016: 353)

> [A]mongst the sciences, logic is no outlier; it differs from the rest only as much as they differ from each other. (Williamson 2021: 7)

These quotations should cue us to the idea that anti-exceptionalists take logical theories to be most fundamentally in the business of *describing*, and so, as we saw in Chapter 1, anti-exceptionalism (as with exceptionalism) presupposes the laws of truth conception of logic.[11] And we can see from the anti-exceptionalist approach that, just as with the other sciences, we weigh different logical theories based on how well they can describe what they aim to through a fallible process which involves evidence and argument, and which requires gathering new data and building on past developments. It is the kind of process that can only happen *a posteriori*.

In virtue of the fallible, science-like conception of logical theorizing is the idea that there is no privileged logic or laws prior to quasi-empirical inquiry. Anti-exceptionalism rests on the understanding of the human situation as being without special epistemic access to any truths or laws. In articulating anti-exceptionalism, reference is typically made to Otto Neurath's (1973) well-known anti-foundationalist metaphor of the sailors who must rebuild their ship while at sea.[12] The metaphor captures the idea that we do not start out from a neutral position and build out our epistemology from the bottom up, but rather we already find ourselves in the midst of a culture and its practices when we begin any inquiry. It also makes vivid the point that revisions can be made in principle anywhere, but it must happen piecemeal—some things have to remain fixed in order to revise or repair other parts of the boat if it is to stay afloat.

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[11]For Priest, logical theories are very robust and aim to describe truth and validity (2016: 353), while for Williamson, they are only 'austere structural theories' which aim to describe what the logical constants refer to (2016: 4).

[12]Quine writes: 'As scientists we accept provisionally our heritage from the dim past, with intermediate revisions by our more recent fore bears; and then we continue to warp and revise. As Neurath has said, we are in the position of a mariner who must rebuild his ship plank by plank while continuing to stay afloat on the open sea' (1953: 199).

Priest writes: '[A]ll knowledge[...] including our knowledge of logic, is *situated*. there is no privileged starting point from which we begin. Cognitive agents operate within the context of a structured set of beliefs determined by the agent's socio-historical context. The set is revised in the light of further developments. In terms of Neurath's famous metaphor, the corpus of knowledge is like a boat at sea. We can revise it, but this has to be done piecemeal. There is no way that we can take the boat into dry dock and rebuild it from the bottom up. Similarly, knowledge cannot be built on any kind of bedrock' (2016: 358).

These core features of anti-exceptionalism—its science-like fallibilism and anti-foundationalism—are the more fundamental theoretical basis for the abductive approach to accepting a logic. They explain why it is that our method for coming to rationally accept a logic or revise our current theory must be abductive—there is simply no better (or alternative) way open to us since nothing of logic comes to us prior to experience. All of this makes for a compelling picture of how it is we go about our logical theorizing and the way we come to accept and use a logic. Now we will turn to the main difficulty for anti-exceptionalism.

3.3 The Adoption Problem

It would be detrimental to anti-exceptionalism if it weren't the case that every logical law is adoptable or rejectable, either in principle or in practice. If not every law was vulnerable to the *a posteriori* process of weighing evidence and argument, it does not seem that the anti-exceptionalist could maintain their science-like fallibilism. And if a logical law were in some sense infallible, it would seem difficult to explain how we came to know it (or be justified in our use of it) without making an appeal to special access such as an *a priori* logical intuition. The existence of such logical laws would seem to undermine the quasi-empiricism that underpins anti-exceptionalism. Or so say the critics of anti-exceptionalism.

This general concern has been addressed in a number of different ways by defenders of anti-exceptionalism. For instance, Priest argues that individual logical laws do not stand or fall alone, but they are instead subject to scrutiny within the context of the whole theory of which they are a part—in no way does anti-exceptionalism entail that we take each logical law one by one to see if it should be adopted or if it should be rejected. So raising up an individual logical law as unadoptable or unrejectable is in some sense beside the point—the view has nothing to say about individual laws, only logical theories.

There is a slightly more nuanced way of formulating the general concern that may put pressure on the anti-exceptionalist. The idea is that there aren't just peculiar logical laws that evade the kind of scrutiny that anti-exceptionalism describes, but rather that, in the weighing of evidence and argument in favor of this or that theory in our abductive inquiry, we make use of certain deductive rules, ostensibly rules of a logical theory which we've antecedently endorsed, in order to run our IBE to determine the best theory. So, it appears that certain of our logical laws must be held fixed in order to rationally revise our current theory or to accept a new one. This circular feature of reasoning seems to undermine the idea that all logical laws are in principle revisable since we must use logic in our reasoning about logic.

This more subtle concern is also something Priest considers and addresses.[13,14] He points out that there doesn't seem to be anything in principle problematic with using the logic one current accepts in order to reason toward the acceptance of a new logic, just that one would need to go through the abductive inquiry again after accepting the new logic *using the new logic*. If by the lights of one's current logic a different logic comes out best, it seems perfectly rational to accept that new and better logic. But then we would need to run through our abductive inquiry again to ensure that, according to the new logic, it and not some other logic comes out best. This seems right, but problems may arise if, by reasoning according to the newly accepted logic, one finds that the newly accepted logic does not come out best.[15] In his response to this problem, Priest relies on applying a principle of conservativeness in

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[13]This discussion actually takes place in the context of discussing how we should weigh competing abductive theories, but Priest points to a parity between reasoning about competing abductive and deductive theories (2020: 3214).

[14]Williamson (2021) seems less concerned about the rational process of changing theories, but rather if theory change is psychologically possible at all, and so he does not explicitly consider this line of objection.

[15]Priest considers three outcomes that can result from the procedure of determining the best logical theory by employing different logical theories in reasoning. One is that we may find that reasoning by a logic L_1, L_1 is deemed best, and it is also deemed best when reasoning according to another logic L_2—both agree that L_1 is best. Another is that we may find that L_1 comes out best when reasoning by the lights of L_1, but L_2 comes out best when reasoning by its lights—in this case they prefer themselves. The final outcome is that L_2 comes out best when reasoning according to L_1, but L_1 comes out best when reasoning according to L_2—in this case they prefer their opposite.

cases where reasoning according to different logical theories in the abductive inquiry results in conflicting outcomes. Obeying a principle of conservativeness would have you stay with your original logical theory. But, though it is a plausible principle, conservativity is not itself justified by the abductive method, so something further is required to justify the move to stay with the originally accepted logic even though reasoning according to it recommends a different theory. Suspending judgment altogether intuitively seems more rational than staying with a theory that does not come out best by its own lights, but suspension of judgment is an option Priest himself suggests. If we grant that conservativity is a justified principle, or that one should simply suspend judgment, the anti-exceptionalist seems to have an answer for this admittedly rare chance for circularity in abductive reasoning.

However, the Adoption Problem, I argue, is not the same kind of problem so far discussed—it is not a problem of being unable to revise the laws that appear in one theory or another, nor is it a problem of circularity in our reasoning during the process of an abductive inquiry. The Adoption Problem first appears in Saul Kripke's unpublished writings and lectures, which are presented and discussed by Romina Padró (2015). The Adoption Problem shows that, in light of the particular kind of circularity that arises with the adoption of the inference rules MP and UI, adoption of these rules does not seem possible in the first instance. That is not to say that we don't in fact infer according to MP and UI—the fact of our inferring according to these rules is in part what gives rise to the problem. We infer according to MP and UI—or better, we find these inferences compelling—yet it could not have been in virtue of having rationally adopted these rules. The Adoption Problem should motivate us to ask the 'how-possible' question about deductive inference: How is it possible that we recognize that we should deductively infer according to MP and UI?

We encountered the Adoption Problem in the previous chapter, but for clarity, let's reflect again on how it arises. If one were to imagine an attempt to rationally adopt MP or UI without any prior understanding of the inference rules, it would seem to go something

like this: I want begin to reason according to a new rule MP which states that, for any propositions φ and ψ, if I accept that φ, and also that *if φ then ψ*, then I may infer that ψ.[16] But this step-by-step procedure itself requires reasoning with MP:

> If it is the case that I accept φ and *if φ then ψ*, then I may infer ψ.
>
> It is the case that I accept φ and *if φ then ψ*.
>
> ————————————————————————
>
> So, I may infer ψ.

What it takes to adopt MP is the proper application of MP itself. So it does not seem that I can adopt MP, since I would already need to be competent with MP and take it to be a good rule for inferring.

The same issue arises with UI, though it takes a slightly different shape. I want to adopt a new rule UI that tells me that, for any predicates F and G and a particular o, If I accept the universal statement *all Fs are G* and the proposition *this o is F*, then I may infer *o is G*. But consider that, in order to make use of a particular statement u as a universal statement in my application of UI, I must already be able to properly apply UI to u. That is, in order to predicate of u that it implies each instance, which licenses the inference from *o is F* to *o is G*, I must establish that u implies each instance via the following inference:

> All universal statements imply each instance.
>
> u is a universal statement.
>
> ————————————————————————
>
> So, I may infer u implies each instance.

It is only from this inference that I may apply UI in order to infer *o is G*, but of course the

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[16]I will speak for now of accepting propositions in the sense used in Stalnaker (1984), wherein to accept a proposition is to posit or suppose it for some purpose, in this case, for the purpose of considering what can be inferred from it. While Padró (2015) tends to avoid specifying the particular attitude in question when discussing the Adoption Problem, I think acceptance fits the spirit of her discussion.

inference above is itself an instance of UI.[17]

With the Adoption Problem so understood, it represents a particular problem for anti-exceptionalism that is unlike those so far considered. The circularity of MP and UI don't arise in the process of an abductive inquiry into the best logical theory, but rather, pose a problem for explaining how it is that we are competent with MP and UI and take them to be good rules for inferring.

3.3.1   Priest and Williamson's responses

Although Priest and Williamson do not consider the Adoption Problem in exactly the way I have presented it here, that is not to say that they don't each have something to say in response to this kind of concern. Priest and Williamson in similar ways aim to redirect our attention when something like the Adoption Problem is raised, pointing out that the anti-exceptionalist is not trying to justify the adoption of a deductive practice, but rather, the adoption of a *theory*. The idea is that the Adoption Problem doesn't relate to theory acceptance or adoption, but rather concerns the logical rules we *use* in our reasoning, or the logical rules we aim to use. This move appears to give the anti-exceptionalist a way to avoid concerns about the rational adoption of this or that logical rule, since logical theory adoption via abduction is rational, and the application of that theory in our reasoning is just a matter of training and can derive its rationality from the method of theory adoption.

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[17]How adopting UI requires already understanding UI may seem a little opaque, so we can consider the following example. Take the following propositions: 'All the actors are trained', 'Gary is an actor', and 'Gary is trained'. In order to infer 'Gary is trained' from 'All the actors are trained' and 'Gary is an actor', I must first recognize that 'All the actors are trained' is a universal statement, that is, it implies each of its instances, which requires I can make the following inference:

> All universal statements imply each instance.
> 'All the actors are trained' is a universal statement.
> _____
> So, I may infer 'All the actors are trained' implies each instance.

Understanding how to make the above inference, and seeing that I should make it, is a precondition on my being able to infer 'Gary is trained', from 'All the actors are trained', and 'Gary is an actor'.

When our logical theory changes, we can habituate ourselves to its rules in our practices and thereby change the rules by which we aim to reason.

Priest refers to a distinction between what has been called a *logica docens* and a *logica utens* in order to support this move (Priest 2014). A *logica docens* is our logical theory, the thing aimed at describing or modelling truth-preserving relations of validity and entailment. It is the *logica docens* that is relevant to the abductive method, and if we accept a new logic through the abductive method, it will replace our old *logica docens*. In addition to this, there is what Priest takes to be the "canonical application" of a logical theory, namely to evaluate or analyse our reasoning (2001:26). So, a *logica utens* is the logic we use in our reasoning, the canonical application of our *logica docens*. It is important to note, as Priest does, that a *logica utens* is not a description of how people actually reason, but rather, it is the set of logical rules one *aims* to follow; the *logica utens* is normative.[18] In this way, we can see Priest offering a similar account to the one we find in Frege or other laws-of-truth accounts of logical normativity—the laws of logic are essentially descriptive, but they nonetheless have direct consequences for how we should reason, for Priest because this is the canonical application of logic.

According to Priest, we don't adopt or revise our *logica utens* through reasoning—if ever we change it, it is simply by habituating oneself to work according to new rules. So, while the adoption of a *logica utens* is a kind of habituation, whatever rules we employ in our *logica utens* can be rationally justified if they align with the rules of what we take to be the best theory, our *logica docens*. Priest's invocation of this distinction, then, is meant to return our attention to logical theories and the abductive method we use in order to rationally accept or revise them. Rational change of one's logical theory through abduction 'trickles down' to our practices—we can explain how we are able to rationally add or drop rules like MP and UI from our use in reasoning, our *logica utens*, when we make a 'global' change to our logical

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[18]In explaining a *logica utens*, Priest remarks: "[L]ogica utens is not a *descriptive* notion; it is a *normative* one. A *logica utens* is constituted by the norms of an inferential practice" (2014: 219).

theory, our *logica docens.*

Similarly to Priest's *docens/utens* distinction, Williamson considers the difference be-
tween what he calls 'scientific logic' and 'folk logic'. One's accepted scientific logic, just like
the *logica docens*, is the result of reflective, theoretical considerations we have made about
logic. Folk logic, on the other hand, is the set of pre-theoretical rules we employ in our
reasoning prior to any kind of logical education, similar to what Priest calls our *logica utens.*
And just as Priest contends that a change to one's theory can trickle down to one's practices,
Williamson points out that 'the process of accepting a new theory in logic pertains to scien-
tific rather than folk logic, though once the new theory is accepted, thinking in accordance
with it may of course become habitual' (2021: 8). So, just as with Priest, Williamson wants
to avoid the Adoption Problem by providing a way for change to occur in our practices, the
adoption or rejection of rules like MP and UI, that does not depend on the explicit adoption
procedure that the Adoption Problem supposes is required.[19]

I think we can agree with Priest and Williamson that the Adoption Problem does not
pose a problem *directly* to the abductive method of the anti-exceptionalist and the adoption
of a *logica docens* or scientific logic. Rather, the Adoption Problem is a problem for what
goes on in what Priest calls our *logica utens*, or what Williamson calls our folk logic—the
Problem appears for how we come to *use* certain rules or take them to be a standard for
correct reasoning.

I argue that the general strategy employed by Priest and Williamson in response to the

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[19]It is worth noting, however, that unlike Priest, Williamson is not very interested in whether theory change
or a change in our practices is the product of a rational process, but rather if it is simply psychologically
possible. One of the cases he considers is someone who dogmatically stops reasoning in a certain way (they
decide against using the law of excluded middle in their reasoning based solely on a gut feeling), and then
they later discover intuitionistic logic and change their theory to *post-hoc* justify their practice. Anticipating
the concern that theory change or a change in practices should be rational, Williamson quips: 'Those who
demand much more for theory change to be rational may find that the history of science fails to meet their
requirements' (2021: 15). As a result, much of the following discussion may not target Williamson as well
as Priest, since Williamson to some extent is simply willing to concede that rational adoption or rejection
of MP and UI isn't possible.

Adoption Problem doesn't work. In order to show this, all we have to do is start pulling at the threads of their view about how global changes to our theory can trickle down to changes in our practices.

3.3.2   We cannot add MP or UI to a prior practice

How is a change to one's logical theory supposed to play out in one's practices? It is not the case that we begin as blank slates and start with an abductive inquiry into which logic we should accept, and then after that we habituate ourselves to aim to reason according to its rules. Just as with Neurath's ship, we find ourselves already at sea, already embedded within a deductive practice, equipped with rules taken as a standard for good inference. So, even taking on the relevant distinctions between one's theory and one's practice, our practices would seem to come prior to any theorizing—a point both Priest and Williamson themselves seem happy to make. We should see then that, in order for one to aim to use MP and UI in one's practice, it would have to be the case that either (i) although one lacked MP and UI in their initial repertoire of rules, in light of the rational acceptance of a logical theory according to which MP and UI are valid inferences, one would need to train oneself to see that one should infer according to MP and UI, or (ii) one's initial repertoire of rules for reasoning, one's initial reasoning practice, already features MP and UI.

But, with respect to (i), it is not so clear how one would be able to successfully habituate themselves to the transitions of MP and UI, especially in order to see that they *should* infer according to MP and UI, without some kind of adoption procedure described in the Adoption Problem. Consider the case of Eve, who isn't competent with MP and UI and hasn't previously taken them to be good inferences in her reasoning—they were not part of her initial repertoire of the rules she used in reasoning. But Eve discovers through an abductive inquiry that L_1 is the best theory, and according to it MP and UI are valid

inferences. So when she accepts L_1 as her new logical theory, she will have to train herself to aim to reason according to L_1's rules, including MP and UI, to conform to L_1 in her practices. But as the Adoption Problem describes, it does not seem possible that one can become competent with MP and UI—understanding when to apply them in future cases, understanding when one should have applied them when one failed to—without already being competent with MP and UI and feeling their pull. Eve may understand, given her IBE to accept L_1, that L_1's rules ought to be the ones according to which she should reason, and as a result she may understand that MP and UI specifically are rules by which she should reason, but Eve cannot take the next step to learn how.

So while it is still open whether, if one starts out with MP and UI in their reasoning practices they can later drop them (though we will circle back to this point in §3.3.3), it doesn't seem possible that one can add MP and UI if they initially lack them. In order to find oneself in the position of seeing that one should infer according to MP and UI, those rules must have been present in one's initial repertoire of rules, which pushes us to (ii). But if the anti-exceptionalist grants (ii), it would mean that, for any person who recognizes MP and UI as good inferences, those rules must already be present in their initial practice. It is in one way simply conceding that MP and UI are not rationally adoptable. But then our initial competence with MP and UI should not be so surprising—according to some, it may be that one couldn't even have an initial workable deductive practice without MP, and UI may even be a prerequisite for the processing of natural language (Cohnitz & Nicolai (forthcoming)).[20] But does granting (ii), that we must have initial competence with MP and

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[20]Two things are worth noting regarding Cohnitz & Nicolai's contribution to the Adoption Problem. The first is that they point out that not UI, but rather the weaker and more basic schematic substitution schema (SCS), is what is presupposed in the processing of any natural language: *For any formula ϕ, if $\Phi(\phi)$, then $\Phi(P/\phi)$, for some fixed argument pattern* Φ. The second is that they make these points regarding MP and UI in the context of defending Quine and a version of anti-exceptionalism. Their point is that the way MP and UI feature in any *logica utens*—they seem like preconditions for a deductive practice—makes them not really a 'logical' feature of our practice, and so they are not the relevant targets for concern about the rational acceptance of logic. However, I take the ensuing discussion and solution to the Adoption Problem proposed in §3.3 to support the idea that we should still regard MP and UI as logical—though not under the laws of truth conception of logic presupposed here—and so we should still regard the Adoption Problem as a problem for anti-exceptionalism.

UI, by itself threaten the anti-exceptionalist?

The Adoption Problem so far reveals that MP and UI are exceptional in the sense that anyone who understands or feels the force of MP and UI must have acquired them as part of their initial induction into a deductive practice—that is, MP and UI are not rationally adoptable. But we should see that this by itself does not threaten the anti-exceptionalist picture, since their being exceptional in this way doesn't necessitate that we have infallible *a priori* knowledge of MP and UI à la foundationalism. One's original induction into a deductive practice is something that would seem to happen through *experience*—Priest, for instance, refers to our induction into a *logica utens* in the logic classroom when we first begin to learn the basics. So, our induction into an initial deductive practice isn't necessarily something that requires an alternative epistemology. And as long as MP and UI are revisable, then things remain fallibilist. So, the pertinent question which was hinted at earlier is: What about the possibility of coming to change one's practice and *dropping* MP and UI—are MP and UI really open to this kind of revision?

3.3.3   We cannot drop MP or UI either

Again, we need only to pull at the threads in order to see why it is difficult to imagine that MP and UI are in fact rules we can drop from our deductive practice. It is important to recall that the rules of our practices are not the rules we in fact reason according to, but they are those by which we aim to reason or which set the standard for good reasoning—it is not simply a matter of not employing MP and UI in one's reasoning, but rather no longer taking them to be good rules for inferring.[21] Additionally, rational justification for our use of logic in our practices is derived from the logical theory we have rationally accepted, the theory

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[21]I stress this point here to contrast my conclusion with that of Cohnitz & Nicolai (forthcoming), who I think are only concerned with whether it is conceptually or psychologically possible to simply stop inferring according to MP and UI, not whether one is able to come to reject MP and UI as good rules for inferring, which, following Priest, I take our reasoning practices and the *logica utens* to really be about.

which came out best according to our IBE. So, dropping MP and UI from one's practice requires that we first rationally accept a logical theory according to which MP and UI are invalid.

So, let's imagine what this would look like again from the perspective of Eve, who we can imagine this time is competent with MP and UI, and she takes them to be good rules for inferring. Eve now is rationally compelled to drop MP and UI from her practices, since she has come to find through abductive inquiry that MP and UI are not valid in the best logical theory L_2. So, Eve rationally accepts L_2 as her new theory and resolves to train herself to aim to reason according to the rules of L_2, to become habituated to working according to its rules, so that the rules of L_2 become her standard for good reasoning. How might Eve go about seeing to it that the rules of L_2 are the ones she should follow?

Let's grant that Eve can simply memorize the rules of her new theory and will only take herself to have reasoned well when she follows those rules—that is, she doesn't need to reason deductively toward the end of habituating herself to the rules of her newly accepted theory. But nonetheless, the Adoption Problem arises yet again (this problem was hinted at in Chapter 2)—how is Eve meant to learn when to apply her new rules, or how to identify a *particular* inference in front of her as a good or bad one in light of the more general rules she has memorized from L_2, her new logical theory? Imagine that, according to L_2, inferring according to the rule R is valid. Now, Eve is reflecting on a set of premises and a conclusion that exactly resemble in form R—let's call this set of premises and conclusion a. But in order for Eve to see that a is an instance of a good inference that she ought to make, and that she should accept a's conclusion *specifically in light of R*, she has to see that the particular inference in front of her is an instance of R. That, however, seems to require that Eve make an inference with UI, something like: 'All inferences of the form R are good inferences, a is of the form R, so a is a good inference.' Additionally, in order to recognize that she should accept the conclusion of a, she has to infer that, since a is of the form R, it

would be the rational thing to accept the conclusion of a. But this is of course an instance of MP, something like: 'If a is of the form R, then I should accept the conclusion of a, a is of the form R, and so I should accept the conclusion of a.' So, in order for Eve to connect her reasoning to the rules of L_2, she has to employ both MP and UI. It's not just a matter of admitting some degree of irrationality while Eve trains to reason according to L_2—she'll have to make use of MP and UI every time she reflectively considers whether she is rational in her application of the rules she takes to be good for inferring.

There are two ways the anti-exceptionalist could respond to this situation, and neither seems promising. One might say in response that we can in fact drop MP and UI from our practice—we can cease to consider them good inferences—even if we can't help but infer according to them. But this would force us to accept that we're systematically irrational by our own lights. Our consistent and frequent employment of MP and UI in our reasoning, as well as in instances where we evaluate our own reasoning, or when we aim to adopt a new logical rules for reasoning (if the new theory lacks MP and UI), would be deemed bad reasoning—not at all a small bullet to bite. With such a systematic flaw in one's deductive reasoning, it is not clear how one could call their *logica utens* justified in virtue of the rational means by which they adopted their *logica docens*.

The second response is to restrict the possible logical theories one can adopt to only those which have MP and UI as valid inferences. That way, whatever logical theory one ends up accepting will not require dropping MP and UI from one's practice. But this places an undesirable restriction on the abductive method—we can't really go for the best logical theory all things considered, since we are forced to restrict our view to only those MP and UI-friendly theories. And since our prior logical practice would in part determine which theory we end up accepting, our use of MP and UI will not be justified—while it may be that we end up accepting a theory which vindicates our use of MP and UI, it is only because we placed an *ad hoc* restriction on which theories we could entertain such that it guaranteed

the vindication of our use of MP and UI.

3.3.4 Summary

So, not only does it turn out that MP and UI are exceptional in the sense that they aren't adoptable, they are also exceptional in that they cannot be revised or rejected (at least not without very undesirable costs). The Adoption Problem presents anti-exceptionalism with a challenge to the quasi-empiricist idea that every logical rule is adoptable, revisable, or rejectable, since at least two rules, MP and UI, do not appear scrutinizable in this way. This problem does not arise for the adoption of a theory according to which MP and UI are invalid, nor is is a problem for the abductive method itself. Rather, where the Adoption Problem arises is in the adoption of the logical rules we take ourselves to aim at in our reasoning. The anti-exceptionalist wants to maintain that nothing about logic is exceptional, and that just as with any scientific domain, everything in logic is fallible and open to revision. But the Adoption Problem points to something logical which is not fallible or open to revision— when it comes to employing logic in our reasoning practices, it does not seem that we can operate successfully, or that we can adopt or revise those practices, without MP and UI as immovable fixtures.

According to critics of anti-exceptionalism and the quasi-empiricism that gives rise to it, the only way to explain the Adoption Problem is by appealing to epistemological notions that would undermine anti-exceptionalism. Reflecting on Quinean quasi-empiricism in a Pittsburgh lecture in 1974, Kripke claims: "You cannot undermine intuitive reasoning in the case of logic and try to get everything on a much more rigorous basis. One has to just think not in terms of some formal set of postulates, but intuitively—one has to reason" (2015: 141). From this and other points, Padró suggests that Kripke's final assessment of the Adoption Problem is that "intuitions play a fundamental role by emphasizing either the need to *see*

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that a basic logical principle is self-evident, or to *see* that a particular conclusion follows" (2015: 131).[22] If there really is no alternative explanation for the fact of our competence with MP and UI, as well as our taking them to be good rules for inference, despite not being able to rationally adopt them, then it seems we must give up the idea that our method in theorizing about logic should be abductive.

3.4   A constitutivist solution to adoption

In the previous section, we saw that the Adoption Problem motivates us to ask how it is possible that we ever began to take MP and UI as compelling rules of inference. According to critics of anti-exceptionalism, the *only* way we can explain the fact of our competence with MP and UI, and as I have stressed, our taking these inferences to be good inferences, is by appealing to some kind of special *a priori* access to these rules. What is needed then is an alternative, plausible explanation that does not require such an appeal, thus providing a way for the anti-exceptionalist to make sense of the particular features of MP and UI which preserves their overall project. What I propose as a plausible alternative explanation is that MP and UI are constitutive of what it is to think at all. And I argue that properly categorizing MP and UI as constitutive norms of thinking serves as one crucial part of rescuing anti-exceptionalism from the Adoption Problem.

Recall that according to constitutive normativism, MP and UI are not valid inference rules, and it is not in virtue of the fact that truth is preserved from premises to conclusion that we should think according to MP and UI. Rather, MP and UI are explicit, categorically authoritative rules for how we should think—the laws of thought, MP and UI, hold independently from whatever laws there are that govern or describe truth and truth preservation.

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[22]Padró points out that there are a number of threads to Kripke's thoughts on this issue that appear in his unpublished writings and lectures over the years. However, according to Padró, the more 'Platonist' idea that intuitions and self-evidence are fundamental had "long won the battle" for Kripke (2015: 132).

What consitutive normativism provides, therefore, is a more basic level at which logic enters our practices. MP and UI *qua* the laws of thought, are normatively more basic than the logical rules we apply in reasoning that are derived from the logical theory we endorse, what Priest calls one's *logica utens* or what Williamson calls one's folk logic. The idea is that all our deductive propositional reasoning, including the procedure for adopting or revising the rules one uses in reasoning, occurs within a framework of which MP and UI are constitutive norms.

But it shouldn't be thought that the difference between the laws of thought and the logical rules of one's *logica utens* is a matter of degree of generality, or a shift from first-order to higher-order norms of reasoning. Rather, one's *logica utens* or folk logic is a reflection of one's theory in one's reasoning practices, and it can be the subject of scrutiny and revision insofar as one's theory can be scrutinized and revised. Additionally, their normative bearing (if they have any at all) is merely *hypothetical*—that is, only insofar as you endorse a particular theory should you take certain rules to have normative bearing on your reasoning. But the very activity of scrutinizing or revising one's practice presupposes the laws of thought. What we should see, therefore, is that the *logica utens* is the laws of truth put into practice, and are therefore different in kind from the laws of thought.

It is not the case according to constitutive normativism that MP and UI must be accessible *a priori*, that they hold necessarily or absolutely—the laws of thought conception of logic does not presuppose an exceptionalist view of logic. That is, constitutive normativism does not require us to appeal to anything that would undermine quasi-empiricism, and thereby anti-exceptionalism, in our explanation of the Adoption Problem. According to the particular Wittgensteinian brand of constitutive normativism I developed in the previous chapter, we acquire the laws of thought through experience as we become enculturated into our form of life, in a similar process to acquiring literacy. We find MP and UI to be compelling rules of inference, take ourselves to be thinking well when we think in accordance with them, and

find that we cannot revise or reject them, because what it is to think, at least for us, is just in part to be answerable to MP and UI. As such, we don't need to have any reflective sense of this standard for our thinking, just as we may become competent readers without reflectively understanding any grammar rules. And following Wittgenstein's characterization of the laws of thought, our laws of thought do not exist in virtue of the particular constitution of our minds or the world, but just in light of contingent developments in our history: 'This is simply what we *do*. This is use and custom among us, or a fact of our natural history' (*RFM* §63). So, while MP and UI are our laws of thought, it's not in virtue of anything particularly special or exceptional about them or our access to them—it is just a matter of how our practices turned out to be.

The crucial result of the reinterpretation of MP and UI as laws of thought is that the anti-exceptionalist does not have to give up their quasi-empiricism in order to admit that MP and UI aren't adoptable or revisable. This is because constitutive normativism reorganizes the field of inquiry by moving MP and UI outside of the realm of substantive inquiry and to their appropriate place in the structure that holds up inquiry and makes it possible—it is a category mistake to think of MP and UI *qua* laws of thought as either infallible or foundational since norms or imperatives simply just aren't the kinds of things that can be true or false or succeed or fail under scrutiny, nor are they the kinds of things that could serve as a basis for knowledge or justification.

3.5   A plurality of conceptions of logic

The Adoption Problem presents a particular challenge for anti-exceptionalism—it is neither the case that the abductive methodology is under fire, nor that the process of accepting a logical theory is problematically circular. What is at issue is that when we (if indeed we should) apply the rules of the logical theory we think is best in our reasoning, we find

that MP and UI must already be taken to be compelling rules of inference. One part of the rescue I proposed for anti-exceptionalism requires reinterpreting MP and UI as laws of thought. However, this move comes together with a broader shift in how we conceive of logic and the nature of its laws. In particular, I argue that we should embrace a plurality of conceptions of logic.

The idea is that, as I established in Chapter 1, insofar as we are concerned with logical normativity, there are two candidate conceptions of logic, the laws of truth and laws of thought conceptions. Both conceptions of logic have a legitimate claim to the title 'logic', but while some may take these two conceptions to be in competition for appropriately describing what logic is 'really' about, in a more Wittgensteinian spirit, I want to suggest that our use of 'logic' tracks both of these conceptions depending on what what's at issue, and that we can maintain a view according to which both conceptions are taken to be legitimate.

The kind of pluralism of conceptions I propose is in some ways similar to the plurality of conceptions anti-exceptionalists have already bought into between the reflective theorizing we do in logic and the way we apply logic in our reasoning. However, as we saw in the previous section, the laws of truth and laws of thought distinction doesn't quite map onto the distinction between a *logica docens* or scientific logic and a *logica utens* or folk logic. Recall that for Priest and Williamson, a *logica utens* or folk logic is the set of logical rules by which we aim to reason, but according to the anti-exceptionalist, we take ourselves to be appropriately subject to these logical rules in our reasoning only *insofar* as our *utens* resembles our *docens*, that is, only insofar as our logical theory is the correct theory of what holds most generally. One needs to derive both the rational justification as well as the normative bearing of one's *utens* from one's *docens*. A main result of this dependence relation is that if one's *logica docens* changes, one should likewise change their *logica utens* to match it. What we can determine then is that not only are the laws of one's *logica docens* laws of truth, but so are the laws of one's *logica utens*. While the *docens/utens* distinction

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tracks the distinction between the theory of logic and the application of that theory in our reasoning, both notions deploy the same 'laws of truth' conception of logic.

So, when what is at issue is the correct descriptive theory of what holds most generally, or how best to apply the laws of that theory in one's reasoning, the operative notion of 'logic' is the laws of truth conception. This set of issues is a crucial part of our understanding of the nature of logic, and so we should see that the laws of truth conception of logic belongs to any complete picture. Nonetheless, when what is at issue is the normative fundamentality of certain inference rules, like in what we see with the Adoption Problem, or when we are concerned with the impossibility of non-circular justification for basic logical laws, as Jessica Leech (2015) has pointed out, the operative notion of 'logic' is the laws of thought conception. These issues are also crucial to our understanding of logic, and so we should see that the laws of thought conception of logic also belongs to a complete picture about the nature of logic.

Let's clarify now what kind of view falls out of this pluralism. We recall that according to the anti-exceptionalist, logical theory acceptance is the result of a fallible, science-like process of weighing argument and evidence on behalf of different theories, all of which aim to describe relations of truth preservation such as validity and entailment. The logic we accept through abductive inquiry is the theory we take to be a correct model of truth preserving relations of validity and entailment. We then have a rational justification and normative ground to aim to use the rules of the best theory in our reasoning—we take good reasoning to be that which, perhaps among other things, is done in accordance with those rules. But in the adoption of logical rules for reasoning, or for any later revision to those rules, we find that another set of logical rules, MP and UI, are already always normative for our thinking, the laws constitutive of thought.

With both prongs deployed, we can make room for MP and UI beyond the scope of inquiry, yet keep any quasi-empirical logical theorizing intact. The anti-exceptionalist should

tolerate MP and UI as contingently arising constitutive norms of thinking, since it keeps with the quasi-empiricist spirit which underpins anti-exceptionalism—we can explain why MP and UI exhibit their peculiar features without appealing to any special epistemic modes of access. And by taking on a plurality of conceptions of logic, the anti-exceptionalist can maintain the core idea that, in theorizing about logic we aim to *describe*, and just as with any scientific pursuit, we weigh theories against one another according to how well they describe their data, and in virtue of other theoretical virtues they display.

3.6   Conclusion: Conflicting logical normativities?

There is a loose end in need of tying up given the way I have attempted to relieve the pressure of the Adoption Problem for anti-exceptionalism. Despite the reinterpretation of MP and UI as laws of thought and taking on a plurality of conceptions of logic, it seems that MP and UI may constrain which logical theory, which laws of truth, we can accept, thus putting an undesirable restriction on our abductive inquiry. Imagine that, in light of our abductive inquiry, it turns out that according to the best logical theory, either MP or UI isn't valid. Now, nothing about constitutive normativism precludes the possibility of accepting this logical theory. But, for the anti-exceptionalist, our best theory should also be employed in our reasoning, since our folk logic or *logica utens* should reflect our scientific logic or *logica docens*. But this seems to inevitably lead to a kind of normative conflict—my logical theory tells me that either MP or UI isn't valid, which might indicate that I *shouldn't* reason according to it, but the standard for any deductive propositional reasoning I do requires that I *do* reason according to it. It seems like I shouldn't do what is good for me to do—a counter-intuitive result.

One answer to this problem is to take a revisionary approach to thinking about the relation between our best logical theory and our reasoning practices. Against the truth

normativist view we've been working with that we should reason in accordance with the laws of the logical theory which turned out best from our abductive inquiry, perhaps we should reject this assumption. Instead we should think that the laws of logical theories—understood as laws of truth—have *no normative bearing at all on our reasoning.* Some philosophers have argued that, indeed, if logic is essentially descriptive, granting Hume's Law that we can't get an 'ought' from an 'is', logic can't be normative—or at least, the laws of logic wouldn't be any more normative for us than, say, the laws of physics.[23]

However, this revisionary approach does not really succeed at disabusing the laws of truth of its normative consequences for reasoning. For one, truth normativists fundamentally agree with the revisionists about what makes logic normative, namely that any accurate descriptive theory is something we should conform our thinking insofar as we should believe truly. Revisionists who claim that 'logic's apparent normative consequences are the result of widespread background norms between belief, reasoning, and truth, not logic's own normativity' (Russell, 2020: 387) are not refuting the truth normativist position, they are simply restating it.

But one might worry that I'm missing the point—perhaps what the revisionist is trying to show is that any view that admits that logic is essentially descriptive—any view formed on the basis of the laws of truth conception—cannot provide a *genuine* account of the normativity of logic. That is, unless we want to prove Hume's Law wrong, truth normativism is not really a view about logical normativity (Blake-Turner & Russell, 2021: S4870). However, I think this pushes the point too far. It would require excluding on this basis one of the most influential accounts of logical normativity, namely Frege's view which we encountered in Chapter 1. If truth normativism or any similar view formulated on the basis of the laws of truth conception of logic is excluded as a genuine account of logical normativity, then Frege's must also be excluded. It seems clear that what counts as an account of the normativity

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[23]See for instance Russell (2020) and Blake-Turner & Russell (2021).

of logic should not just be limited to those views which follow from the laws of thought conception of logic. A further point to make is that, if the dispute here is merely verbal, i.e., what is the right term to characterize truth normativism, then much more must be demonstrated to show that views like Frege's fall outside of bounds. Or, if the revisionists think that there is something defective with the way philosophers have so far discussed logical normativity, then an argument must be made for that, as well as for why we should re-engineer our notion of logical normativity to exclude the many accounts developed in light of Frege's insights.

No, I think the possible normative conflict between the logical normativity that falls out of the laws of truth conception of logic and constitutive normativism must be met head-on. It is to this issue, as well as the possibility of logical pluralism, that I now turn to in Chapter 4.

Chapter 4

Evidential Reasons Normativism, Logical Normativity Dualism, and the Possibility of Logical Pluralism

4.1   Introduction

One of the results of the previous chapter is the possibility for what seems like a conflict between the logical normativity that arises in virtue of how thinking is constituted, and the logical normativity that is a consequence of the logical theory one accepts. We saw that, since the laws of thought compose part of the framework of normative assumptions that makes substantive inquiry into the best logical theory possible, they aren't themselves responsive to any substantive inquiry—they hold fast for us. But, in order to engage in substantive inquiry into the best logical theory without ad hoc constraints, I argued that it must be in principle possible for one to accept a logical theory the laws of which do not necessarily conform with the laws constitutive of thinking. In particular, while the inference

rules modus ponens (MP) and universal instantiation (UI) are fixed constitutive norms of thinking, it should be open for one to accept a logical theory for which MP or UI aren't valid inference rules.[1] But endorsing a logical theory that differs in its laws from the laws of thought seems to straightforwardly result in *normative conflict*. The idea is that the logical theory we accept may not recommend reasoning in accordance with the laws of thought.

But maybe it isn't so straightforward how endorsing a logical theory gives rise to any norms at all. As we saw at the end of the previous chapter, one tempting way to characterize logical theories is that they do not have any normative significance at all. That is, endorsing a logical theory simply entails that one takes that theory to be the best account of what holds most generally, and it has nothing at all to do with how we should reason. But as we have seen, this kind of revisionary strategy does not hold up to scrutiny—although the laws of truth may not be normative themselves, they still have direct normative consequences in virtue of plausible epistemic norms, such as the aim of truth.

What we need instead is a clearer idea of exactly the way in which the laws of truth are normative for thinking or reasoning, and to see how an explication of logical normativity along this line interacts with constitutive normativism. There are two central aims of this chapter. First, I will formulate a novel account of logical normativity on the basis of the laws of truth conception of logic that is independently plausible. According to the view I call *evidential reasons normativism*, the essentially descriptive logical theories we accept have normative consequences for rational belief because the logical information in our possession functions just like any other kind of evidence we encounter for or against propositions, and insofar as one should proportion one's beliefs to one's total body of evidence in order to be rational, then one should respond to one's logical evidence in order to be rational.

Second, I will demonstrate that evidential reasons normativism and constitutive nor-

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[1]This is in stark contrast to similar proposals like those of Robert Hanna (2006), Jessica Leech (2015), or Suki Finn (2021), which take it to be a requirement of this kind of proposal that any logical theory one accepts must be compatible with the laws constitutive of thinking.

mativism are compatible and complementary logical normativities that are both necessary for a complete picture of logical normativity, what I call logical normativity dualism. The central idea is that thinking in accordance with the laws of thought is a precondition for the normative guidance provided by the laws of truth. When one successfully structures one's propositional attitudes in conformity with MP and UI *qua* laws of thought, one has fulfilled one of the necessary conditions for logical evidence to have normative bearing on what one believes.

The discussion of this chapter has another important upshot: Working out a plausible view of how logical theories exert normative force on our reasoning has the additional result of clearing a path for logical pluralism. According to a burgeoning literature, particular forms of logical pluralism appear to be incompatible with the view that logic is normative.[2] The idea is that, by accepting multiple logical theories, the pluralist will in practice only reason in accordance with their strongest accepted logical theory, resulting in what is sometimes called the 'Collapse Problem' for logical pluralism. But I show that the basis for the proposed collapse of pluralism into logical monism rests on a too-vague notion of the normativity of logical theories. By sharpening the most plausible account of how logical theories come to bear on our reasoning, I demonstrate that logical normativity is compatible with logical pluralism.

In §4.2, I argue that the appropriate way to characterize the relationship between one's accepted logical theory (or theories) and rational belief is that logical entailment functions as evidence for an agent, and therefore, just like perceptual evidence, the logical theory one accepts provides evidential reasons to believe, disbelieve, or suspend judgment. In §4.3, I consider Harman's challenges as they apply to evidential reasons normativism to establish the view's plausibility. In §4.4, I then identify crucial differences in the kinds of logical normativity that arise from the laws of thought and the laws of truth in order

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[2]See for instance Keefe (2014), Caret (2017), Stei (2020), and Kellen (2020).

to demonstrate that normative conflict, were it possible, would only come in the form of competing normative requirements rather than contradictory requirements. In §4.4, I clarify exactly which kinds of logical theories raise concerns of normative conflict, and how these theories, if accepted, provide agents with evidential reasons to believe. I then argue that, so understood, accepted logical theories do not provide agents with any normative guidance which could compete with the normative requirements that arise from the laws of thought, and in fact, conformity with the laws of thought is a necessary step in receiving normative guidance from one's accepted theory. Finally, I clarify the way logical pluralism fits within logical normativity dualism, and I resolve the Collapse Problem for logical pluralism.

4.2 What are the normative consequences of accepting a logical theory?

As I have argued in previous chapters, the inference rules MP and UI, understood as constitutive norms of thinking, provide an evaluative standard for how our propositional attitudes should fit together. Constitutive normativism is an account of logical normativity developed on the basis of the law of thought conception of logic, according to which the laws of logic are categorically normative for us. But as we have seen, this does not capture the entirety of logical normativity—to accept a logical theory either tacitly or explicitly is to endorse what Graham Priest calls an 'account of correct reasoning', a theory we should aim to use in reasoning, or as we saw in Frege, the laws of logic 'set the standards for our thinking if it wants to attain the truth' (*GG*: XVI). Let us clarify exactly what logical normativity comes to when it is formulated on the basis of the laws of truth conception of logic.

There are a few possible ways we might try to characterize the connection between the laws of truth and reasoning. First, we might think that the logical theory we accept provides

us with a strict necessary and sufficient condition on our reasoning—something like, a subject S ought to believe a proposition Q iff Q is logically entailed by P according to logical theory T, and S believes P. According to such a condition, we would turn out to be irrational if we formed any of our beliefs independently of the deliverances of our preferred logical theory. But this condition is obviously too strong. Among other problems, it requires us to ignore any evidence independent of the deliverances of logic, requiring us to believe only those propositions which logically follow from other propositions we already believe. Insofar as we think we can and should come to rationally believe propositions for reasons related to the truth of a proposition or our evidence for it, any normative requirement from logic on rational belief must be able to coexist with these others.

Another way more plausible way to characterize the relation between logic and reasoning is by positing only a necessary condition on our reasoning, something like this: If S's beliefs logically entail Q according to T, then S ought to believe Q. This condition seems more plausible, although this kind of flatfooted requirement on reasoning also has problems. The main issue is that, so formulated with a narrow scope deontic operator—the 'ought' appears inside the conditional—it requires us to straightforwardly believe what logically follows from our other beliefs, even though it will be rational in some cases to change some of our other beliefs. We recall from Chapter 2 that this issue, among others, forms the basis for Gilbert Harman's (1986) challenges to the normativity of logic. Harman objects to the implausibly cognitively demanding, belief-cluttering requirements logic would put on non-ideal reasoners if we supposed that logic is normative, at least as it is characterized by the necessary condition given above. We should see from Harman's objections that the challenge for articulating the way in which logic is normative is a matter of formulating an alternative, more plausible set of conditions for when some fact of logic has normative bearing on our reasoning, what some have called a 'bridge principle' which connects logic to reasoning.[3]

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[3]The term was put into use regarding the normativity of logic in the well-known unpublished manuscript of John MacFarlane (2004).

I will argue that we should characterize the relation between logic and reasoning in the following way: the deliverances of logic give us *evidential reasons* to believe, disbelieve, or suspend judgment on a proposition. While there are a variety of views about the normativity of evidence, at least one way to characterize the idea is that evidence (which may be understood as facts, belief(s), or propositions) speaks to the truth of a proposition, and possession of evidence provides reason to believe the proposition on which the evidence bears.[4] Following Ram Neta (2008), I also take it that evidence is in one's possession just in case one has the ability to regulate one's rational attitudes with respect to that evidence. When one comes into the possession of sufficient evidence in favour of a proposition, one acquires sufficient evidential reasons to believe that proposition, but given one's total body of evidence, sufficient evidence for belief may be defeated by other evidence in one's possession.

In line with the laws of truth conception of logic, I take it that when one accepts a logical theory, one accepts a theory that describes patterns of truth preservation, i.e., logical entailments. And so for any set of propositions, if they are true, then according to one's preferred theory, so are any propositions they entail. Learning that a particular logical entailment holds for given logical theory provides sufficient evidence for believing that there is such an entailment according to the theory. But depending on one's attitudes towards and evidence for a set of propositions, coming to believe or know the fact of some entailment changes one's evidential situation further: if I have a rational belief in some proposition P and I learn that P entails Q according to the theory I accept, not only should I believe that P entails Q according to the theory, but I also have evidence available to me in support of Q—the evidential support for my belief that P plus the entailment provides me with evidence for the truth of Q, since, given the entailment, the truth of P guarantees the truth of Q. So, as long as the logical entailment enters into my body of evidence—if I consider the logical entailment—I get evidential reasons to believe the entailed proposition.

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[4]See Neta (2008) for a discussion of some of the most notable views about what evidence might be and how it can be said to come into our possession, such as Lewis (1996), Davidson (2001), and Williamson (2000).

In particular, I take something like the following bridge principle to hold:

If a subject S believes a proposition P, P entails Q according to a logical theory T, S accepts T, and S attends to the fact that P entails Q according to T, then S has evidential reasons to believe Q.[5]

We should see that logical evidence doesn't *directly* bear on the truth of the entailed proposition. If P entails Q, then it is a fact that *if* P is true, then Q must be true too—this is so just in virtue of the nature of logical entailment. But the fact that P entails Q does not by itself speak to whether Q (or P) is true. Instead, logical evidence has the distinct feature that it bears on what I call *truth-relatedness* for sets of propositions: Logical evidence is conclusive evidence of truth-relatedness for sets of propositions. 'Truth-relatedness' is just that property possessed by a set of propositions and any proposition the set entails in virtue of the logical entailment. The idea is that logical evidence has both a first-order effect on one's evidential situation—the fact that, for a given theory, P entails Q is sufficient evidence for belief that P entails Q—and it has a kind of conditional, second-order effect on one's evidential situation. Since the logical evidence is evidence of the truth-relatedness for a set of propositions and the propositions the set entails, then depending on the beliefs of the subject, this evidence will also bear on the truth of the propositions entailed by the set.

Logical evidence so understood has *indirect* bearing on the truth of the entailed propo-

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[5]Without explicitly characterizing it as such, Florian Steinberger (2017a) has also articulated the relation between logic and reasoning in terms of reasons in order to meet Harman's objections:

If according to S's best estimation at the time, S takes it to be the case that $A_1, \ldots, A_n \models C$ and S has reasons to consider or considers C, then S has reasons to (believe C, if S believes all of the A_i). (2017a:20)

Additions like the 'best estimation at the time' caveat restricts how logic exerts normative force on our reasoning to prevent belief clutter and excessive demands. But most notably, the deontic operator which appears in Steinberger's final bridge principle has wide scope and is not strict. Rather, the logical entailment provides S with *reasons to believe* some proposition. Although Steinberger does not discuss the nature of the reasons explicitly, given that the reasons relevant to rational belief are standardly taken to be evidential reasons, I think the most plausible way to characterize the reasons in Steinberger's principle are that they are evidential reasons.

sition. If I have no prior evidence which speaks against Q, and I formed my belief that P on the basis of sufficient evidential reasons, then the fact that P entails Q, if I attend to this fact, gives me a sufficient evidential reason to believe Q. This is because the logical evidence of the truth-relatedness of P and Q, together with my rational belief that P is true, speaks to the truth of Q. In this case, what we might think of as a paradigmatic case of reasoning in accordance with the deliverances of logic, a rational belief together with a logical entailment can succeed at providing sufficient reason to believe the entailed proposition.

So understood, we should see that the evidential reasons that arise from our logical evidence is entirely conditional on both the extent of the evidential support we have for prior beliefs and whether we have gathered the relevant logical evidence. Coming to know that a particular entailment holds among a set of propositions has no bearing by itself on what one should believe other than the belief that such an entailment holds. If for instance one comes to find out that an entailment holds for a set of propositions all of which are obviously false, one does not thereby get any reasons to believe any of the propositions in the set. And, while there may be other non-evidential, practical reasons for exactly *which* entailments are worthy of our attention, evidential reasons normativism is only concerned with those entailments which in fact enter into our body of evidence. One cannot possess evidential reasons to believe something for which one does not possess the relevant evidence.[6]

Importantly, the evidential support that logical evidence provides for the entailed proposition is defeasible: If in some instances, such as when one has prior overwhelming evidence against the entailed proposition, then the entailment may instead give one sufficient evidential reason to revise a prior belief or suspend judgment. Conclusive evidence of the truth-relatedness between a highly unlikely proposition and one of my beliefs might be enough to prompt a revision of my belief, especially if my prior belief was not formed on the basis of

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[6]Although my account follows the orthodoxy among evidentialists on this issue, it is worth noting that one of the reoccurring complaints with evidentialist views is about the plausibility of epistemic norms that shape how we gather evidence and which evidence we ought to have. See for instance Goldberg (2017) or Flores & Woodard (2023).

sufficient evidential reasons in the first place. Just as with any other belief, according to evidential reasons normativism, one should take into account one's total body of evidence in order to be rational.

Before moving forward, I want to consider a possible immediate concern for an evidential reasons view like the one I have proposed. It may be natural to think that the kind of normative bearing logical theories have on reasoning is *structural*, rather than a *substantive* matter of evidence and the evidential reasons that follow.[7] The key difference between structural and substantive requirements is the role of *reasons*—substantive rationality concerns responding to the reasons that an agent has, in the epistemic case for what to believe, or in the practical case for what to do, whereas structural rationality instead solely concerns problematic combinations of attitudes. The idea is that certain combinations of beliefs are (not) permitted simply as a matter of the structural relations between these propositions— we should think that it is simply incoherent, for instance, to have a belief that P, to believe that P entails Q, but fail to believe Q. So perhaps we should instead understand logical normativity in terms of providing reasoners with prohibitions on certain combinations of attitudes, not in terms of evidence and evidential reasons. Indeed, even the way that I characterize the evidence we get from our preferred logical theory is as a kind of indirect evidence of a *relation* among propositions. In other words, logical theories, much more like the characterization I have given for the laws of thought MP and UI, provide reasoners with prohibitions on certain combinations of attitudes. However, I maintain that logical theories provide substantive evidential reasons for belief to agents.

The distinction between structural and substantive normative requirements is something I will address more thoroughly in §4.3.1, but at this stage it's important to see that logical theories, understood as descriptive theories of patterns of truth-preservation, could only pro-

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[7]For a recent overview of structural rationality, see Kiesewetter and Worsnip (2023), for a reductive account of structural rationality, see Kiesewetter (2017), and for a non-reductive account, see Worsnip (2021).

duce structural normative requirements in virtue of some underlying substantive requirement. That is, even if we grant that a logical theory provides agents with structural requirements on reasoning, those are ultimately *explained by* something to do with evidence and the evidential reasons that follow. Why it is that a logical theory would prohibit an agent from certain combinations of beliefs is exactly because of the reasons that arise from the evidence they get from their theory. It's only in virtue of finding out that the truth of P entails the truth of Q according to one's preferred theory that one should avoid having certain beliefs with respect to P and Q—what is doing the work is the fact of the entailment, something the theory describes, and what follows from coming to know this fact, namely a reason to avoid that combination. The result of learning this logical information is ultimately a change to one's evidential situation, something that can give one reasons to add to or revise one's beliefs accordingly. This is not to say that there are no (irreducible) structural requirements on rationality—indeed, constitutive normativism seems to provide one such view—only that such requirements are not the normative consequences of accepting a logical theory.

There is at least one further concern for my view. I have posed the normative consequences of accepting a logical theory in terms of getting evidential reasons to believe some proposition in part by getting evidence from the logical theory. In particular, S's belief that Q can be rational if S believes P with sufficient reason, and if S possesses the evidence that P entails Q according to the logical theory that S accepts. But this would seem to assume a kind of closure principle, that whatever epistemic goods one has for the premises of a valid argument (e.g., warrant, justification, knowledge, etc) carry over to the conclusion without exception. Indeed, it does not seem that one could acquire sufficient evidential reasons to believe Q just from a rational belief that P and the logical evidence unless the extent to which one is rational in believing P carried over to Q *in virtue of* the logical entailment. Otherwise, there would be no second-order effect on one's evidential situation in coming to possess the evidence that P entails Q according to your theory, and so the logical evidence could not speak at all in favor of Q.

The problem with this feature of my account is that there is very good reason for thinking that closure fails in particular cases. As Annalisa Coliva (2015) details, we see a particular kind of transmission failure—when the premises fail to provide warrant for the conclusion— when the very conclusion of a valid argument is a necessary assumption for a rational belief in either of the premises. These admittedly rare cases of transmission failure appear when the conclusions are among what Fred Dretske (2005) calls the 'heavyweight' implications like 'There is an external world'. This kind of transmission failure undermines closure since it is not the case that the epistemic goods carry over from the premises to the conclusion.

There are different responses to the problem of transmission and closure failure, but Coliva argues that it's a mistake to see propositions like 'There is an external world' as of the kind which can receive evidential support or have a truth-value, since assuming these propositions is a condition for the possibility of rational empirical beliefs, or for us to have a concept of truth. As a result, it is not the case that on the basis of an inference, regardless of its validity, one could come to acquire reasons to believe them. So, it seems that there is a subset of propositions that we aren't in a position to gather evidence about or which could serve as evidence for anything, since they are part of the normative assumptions which makes such evidential practices possible. What we should see, then, is that some propositions, despite their appearance, are actually different in kind from ordinary propositions. Some propositions *qua* framework normative assumptions, cannot play the role of providing evidential support, nor can they receive evidential support.

It shouldn't be surprise to see that the way in which Coliva characterizes these 'hinge' propositions is very similar to the way in which I characterize the laws of thought, since we saw in Chapter 1 that Coliva's framework hinge account is a key source of inspiration for constitutive normativism. And following Coliva's characterization of our ordinary epistemic practices of gathering evidence and acquiring evidential support for ordinary empirical beliefs as occurring within a framework of normative assumptions which are constitutive of those

practices, we should see that evidential reasons normativism can be characterized similarly.

What our account of the normativity of logical theories needs, therefore, is the caveat that an entailed proposition Q must be a proposition which is 'fit' for rational belief. That is, S gets evidential reasons to believe Q on the basis of believing that P and possessing the evidence that P entails Q only if Q is the kind of proposition which can be either true or false, receive evidential support, and so on. This restriction or condition on the bridge principle is thereby an acknowledgment of closure failure. But evidential reasons normativism still has a lot of mileage, since in everyday cases, we aren't dealing with heavyweight propositions. It is therefore possible to make sense of evidential reasons normativism from within a non-evidentialist picture, so long as we reject closure and take this distinction about kinds of propositions into consideration. We need only to acknowledge that the epistemic practices involved in gathering logical evidence, weighing that evidence with one's total body of evidence, and forming or revising one's beliefs on the basis of the evidential reasons that follow, all takes place within a framework of normative assumptions that makes those practices possible.

4.3   Is evidential reasons normativism plausible?

Now that we have evidential reasons normativism on the table, we can determine whether it is independently plausible as an account of logical normativity. In order to do so, we can can see how the view measures up against Gilbert Harman's well-known challenges to the normativity of logic, which we saw in Chapter 1 are the relevant problems for any laws-of-truth-based conception of logical normativity, and which we saw in detail in Chapter 2. If evidential reasons normativism can handle Harman's challenges, we have good independent reason to accept this approach, irrespective of the work it might do for the problem of normative conflict with constitutive normativism.

Recall that Harman's challenges to the normativity of logic work from the basic idea that, contrary to the truism that being rational requires us to be logical, conforming our beliefs to the deliverances of logic would actually make us irrational. Let's consider how evidential reasons normativism handles each challenge in turn.

Belief Revision. Harman objects to the implausible idea that, simply in virtue of some proposition Q being entailed by one of our beliefs P, we must therefore believe Q— surely, Harman points out, it must be rational to sometimes revise our belief P instead. For a flat-footed necessary condition like the one we rejected early on in §4.2, this complaint might hold true. But evidential reasons normativism leaves room for belief revision, as the evidential reasons for a belief that Q that we get from the logical entailment is defeasible and must be weighed against any evidential reasons against Q that we have independently of the logical entailment. We succeed in reasoning in accordance with the logical theory we accept by responding adequately to the evidence it delivers, not by straightforwardly believing everything entailed by our other beliefs.

But there are also two nearby worries related to Belief Revision worth noting here. The first is that it seems like, just on the basis of the logical evidence of a particular entailment, we have reasons to believe a proposition, regardless of the truth of the propositions in question. For instance, it seems that if one were to be certain of the falsity of a particular proposition, yet come to find out that the false proposition entails another proposition, one would nonetheless get reasons to believe the entailed proposition. But we should see that without a belief in the prior entailing proposition, one does not get a reason to believe the entailed proposition. Since one is certain of the entailing proposition's falsity, one wouldn't believe it, and so although the logical evidence indicates the way the two propositions in question are truth-related, it has no bearing on what one ought to believe.

The second worry is something raised by Broome (2000), a kind of 'boot-strapping' problem. The idea is that, given that any proposition entails itself, then a belief that P,

together with the fact that P entails P, means we ought to believe P. That is, the fact that P entails itself can on its own provide an agent with a sufficient reason to believe P, and this seems wrong. An inverse to the boot-strapping problem also seems to be of concern: If one has strong reasons to doubt P, the fact that P entails itself would seem to give us sufficient reason to doubt P. However, given the nature of logical evidence according to evidential reasons normativism, that it is evidence of truth-relatedness, it cannot by itself provide an agent with sufficient reason to believe or disbelieve some proposition. If one already has sufficient reason to believe P, then the fact of the entailment—knowing that P is true iff P is true—can't also speak to the truth of P on pain of double counting evidence. And if one lacks sufficient reason for believing P, the fact that P entails itself can't by itself give us sufficient reason to believe P. Logical evidence is not independent, corroborative evidence for the truth of the entailed proposition, and therefore it is not something we can add together with the evidence we have for or against a proposition.

Clutter Avoidance. Harman also objects to the fact that any proposition trivially entails a huge number of totally irrelevant propositions—my belief that 'chickens lay eggs' entails that 'chickens lay eggs or there is a goat on the moon', for instance—that surely we shouldn't be required to believe in order to be rational. On the present view, we are only rationally required to proportion our beliefs to the evidence we in fact have. While it's true that we may turn out to have evidential reasons to believe something totally inconsequential like the disjunction above, in order for the logical evidence to bear on our beliefs, we must first avail ourselves of it by attending to the logical relation and the entailed proposition. And, even if I do attend to some trivial entailment, say as the result of some kind of compulsion to consider every disjunction introduction from my belief that chickens lay eggs, I need not believe the entailed proposition if I lack sufficient evidential reasons given the total state of my evidence—the entailment would provide me with evidential reasons to believe, but it does not by itself give us *sufficient* reason to believe, such that I *must* believe the entailed proposition in order to be rational. And as we saw in §4.2 regarding whether there are practical reasons

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to attend to certain bits of logical evidence but not others, I may be a better or worse inquirer, overlooking crucial pieces of logical evidence or meticulously collecting irrelevant logical evidence, but as far as evidential reasons normativism is concerned, these concerns are extra-epistemic and therefore irrelevant to the question whether I am epistemically rational.

A further point to make is that the kind of clutter problem that may persist for my view, if for instance one often thinks about pointless logical entailments and thereby has reasons to believe all sorts of trivial propositions, is something with which any evidentialist view contends. This feature of evidential reasons is a feature of *all* evidential reasons, and not unique to the evidential deliverances of logical theories: we must avail ourselves of the evidence available in order for this evidence to bear on our beliefs. For instance, an evidentialist view doesn't require that, in order for me to be rational, I should form a belief about how many blades of grass are in my garden, even though there is possible evidence available to me on this matter, and it is surely something I could try to do—I would just have to go outside and count. And if I had some kind of compulsion to go and count the blades of grass, something that seems intuitively irrational (and practically speaking, almost certainly so), I nonetheless now have evidence that should bear on what I believe. So, while my view may be unpalatable for those already unsympathetic to evidentialism in general, it shouldn't deter anyone on the basis of something that uniquely follows from my view.

Excessive Demands. Harman objects to the potentially excessive demands of seemingly being required to seek out and add to one's beliefs every proposition entailed by one's other beliefs. The idea is that since logic permits a potentially infinite number of logical entailments, rationally would require that we form a belief about each proposition. But since we are only rationally required to proportion our beliefs to the evidence we in fact have, evidential reasons normativism doesn't require that we must believe every entailed proposition in order to be rational. Just as we saw with Clutter Avoidance, an evidentialist approach does not, simply as a matter of what logic permits, place a requirement on us to

form beliefs about everything permitted by logic.

Illogical Beliefs. Finally, Harman points out that there are some instances where it seems perfectly rational to have logically inconsistent beliefs—such as in the Preface Paradox scenario—and so rational belief can't be constrained by the deliverances of logic. To illustrate the Preface Paradox, imagine you have just completed a lengthy piece of empirical research. You stand by each claim made in the manuscript, but you mention in the preface of your book that, since you couldn't have possibly gotten everything right, you admit there must be at least one factual error. This seems to require believing the set of all the propositions in the manuscript, but also believing the negation of the conjunction of all the propositions in the set. By believing all the $A_1,...,A_i$ and believing $\neg(A_1\wedge...A_i)$, your beliefs are inconsistent, but Harman thinks that your beliefs have to be this way in order for you to be rational. It should be noted that Harman's concern requires we assume that all logical inconsistencies are ruled out by logic, and that Preface-like cases demonstrate that rationality requires, or at least permits, us to believe inconsistencies. I think we can grant that for the vast majority of cases, even if one accepts a theory which lacks the law of non-contradiction (LNC) and thereby tolerates logical contradictions in principle, logic does in general rule out inconsistencies in practice. But why should we grant that someone can turn out to be rational if they believe a logically inconsistent set of propositions?

There has been some discussion among evidentialists about whether the same body of evidence can support more than one unique attitude for a given proposition, what has been called *permissivism*.[8] If evidentialism entails permissivism, then it seems that for some body of evidence, one agent can come away with a rational belief that P, while another comes away with a rational belief that not-P. This would seem to open the door to the problem Harman raises.[9] However, so far this doesn't make a problem for an evidentialist account—the fact

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[8]For a defense of permissivism see for instance Kelly (2013) and Schoenfield (2014), and for criticism of permissivism see for instance Christensen (2007) and Horowitz (2014).

[9]Shoaibi (2023) criticizes an evidentialist account of logical normativity on exactly this basis, that if evidentialism entails permissivism, a kind of epistemic dilemma arises, where your evidence rationally permits

that P and not-P are truth-related on the basis of logical entailment in that the truth of P excludes the truth of not-P (at least for theories which have LNC as a law) isn't by itself evidence that tells against either proposition, it's just (conclusive) evidence that they can't *both* be true. If all the evidence can rationally support either a belief that P or a belief that not-P, the logical evidence doesn't prevent one from going one way or the other—but what it does prevent is a single individual from believing both P and not-P.

So the problem Harman raises only arises if we grant that, for an *individual* agent, a particular body of evidence can give sufficient evidential reasons to believe an inconsistent set, such that the agent is rational to believe all the propositions in the set. But an evidentialist view prevents this possibility, and so it isn't something we should grant wholesale. Conclusive evidence that the truth of P excludes the truth of not-P is not compatible with believing both P and not-P, and so it isn't a live option to have as part of one's body of evidence this logical evidence while also believing both propositions. When one has sufficient evidence for believing an inconsistent set of propositions, that evidence must be proportioned with the logical evidence, if one possesses it, that not all the members of the set can be true together. One's total body of evidence, if it includes this logical evidence, could never speak in favor of belief in *all* the propositions in an inconsistent set, even if we grant the permissivist claim that a body of evidence can permit more than one unique attitude for a given proposition. While two distinct individuals may come to have incompatible yet rational beliefs given the same body of evidence which includes the logical evidence, the presence of the logical evidence excludes the possibility that a single individual could come to have inconsistent beliefs and yet remain rational.

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inconsistent beliefs, but your logical theory prohibits this. But as I argue below, this requires granting something we shouldn't, namely the jump from permissivism among different individuals to the conclusion that a single individual could come to have a rational belief in an inconsistent set of propositions while also having the logical evidence that not all the propositions in the set can be true together.

4.3.1 Summary

Evidential reasons normativism holds up to scrutiny. When faced with Harman's challenges, we should see that the view is able to provide an account that does not commit us to thinking that reasoning in accordance with logic will make us irrational—since logical evidence works the same way as any other evidence in our possession, the story we can tell about reasoning with logic mirrors the story we tell about perceptual experiences or other information that comes our way. With a plausible and compelling explication of logical normativity made on the basis of the laws of truth conception of logic, we can turn to the way the two logical normativities developed so far in this dissertation relate.

4.4 Spotting the differences

Evidential reasons normativism is able to avoid Harman's objections, and I think this makes it independently plausible. But an important upshot is that it reinforces the framework I have developed in making sense of the constitutive laws of thought and how they differ from the laws that feature in any given logical theory.

Recall that constitutive normativism doesn't propose that the laws of thought normatively bear on our thinking in terms of evidential reasons, or indeed as any kind of reason—instead, the way in which the laws of thought normatively bear on our thinking is as an evaluative, structural requirement: MP and UI provide an evaluative standard for thinking which requires avoiding the combination of attitudes where one has some propositional attitude to the premises of either inference but lacks an attitude toward the conclusion.

With the normativity of the laws of truth now clarified in contrast to the normativity of the laws of thought, I want to draw out three crucial distinctions between how these different sets of laws bear on our reasoning (some which have come up at different stages):

(i) substance and structure, (ii) normative guidance and normative evaluation, and (iii) conditional and unconditional normativity. By drawing out these distinctions, we can better understand exactly how logical theories exert normative force on agents, as well as get a sense of under what circumstances and in what way normative conflict could arise.

4.4.1   Substance versus structure

As I have discussed in Chapter 3, the laws that feature in logical theories are substantive in the sense that they are the kinds of laws that we can scrutinize, revise, and reject—they are the substance of our logical theorizing. But as we have seen in this chapter, the laws of logical theories are also substantive in the sense that they determine a relation, entailment, that gives us evidential reasons. Evidence bears on the *content* of an agent's beliefs—it depends on what an agent believes in order for a logical theory to exert normative force. However, the laws constitutive of thought bear on the *structure* of an agent's beliefs (or other attitudes)—irrespective of the content of the agent's beliefs, certain combinations of attitudes which have a certain form are to be avoided. We should see that the laws constitutive of thought are distinct from the laws that feature in logical theories not only because they fail to be substantive in the sense that they are part of the framework of norms which makes substantive logical inquiry possible, but also because the laws constitutive of thought are structurally normative and concern formal combinations of attitudes, totally irrespective of the content.

Additionally, the deliverances of logical theories bear on what we should *believe*. Understanding the normative bearing of logical theories in evidential terms relegates them strictly to the realm of the epistemic—what one's logical theory delivers has no direct bearing on what one should prefer, hope for, or consider. However, the laws of constitutive of thought have normative bearing on all the propositional attitudes that feature in deductive propo-

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sitional reasoning, not only belief. Just as the content of the attitude is irrelevant to a structural requirement, so too is the kind of attitude in question.

4.4.2 Guidance versus evaluation

The second crucial distinction is that the normativity of a logical theory provides normative *guidance* by supplying an agent with reasons. Reasons are the things we consider during the temporal procedure of deliberation, and they are the things that move us to either act or believe. When we accept a logical theory and we consider its deliverances, that evidence provides us with reasons that should move us in the course of our deliberation over what to believe. However, the laws constitutive of thought provide an agent with a reflective normative *evaluation* on sets of attitudes. Normative evaluations tell us whether something fails or succeeds with respect to a certain standard, not necessarily what one ought or ought not do. While it may be that a certain evaluation should feature in one's deliberation as a reason—we might think that, since a certain combinations of attitudes fails to meet the standard, this should count as a reason to avoid that set of attitudes—this doesn't directly follow from the evaluation itself. The way that MP and UI normatively bear on thinking is by providing an evaluation on sets of attitudes, and in particular, the laws of thought tell us that it is illogical to have a set of attitudes which fails to conform to the structure of MP or UI. A failure to conform to the laws of thought doesn't by itself tell us anything about what we ought to do—these rules don't provide us with any normative guidance outright.

Another way to see the difference is that normative guidance is a kind of first-personal ruling on what to do, whereas normative evaluations are a kind of third-personal ruling on how things ought to be. So it is possible to be under the force of both a guiding norm and an evaluating norm simultaneously, but they are operating at two different levels.

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4.4.3 Conditional versus unconditional

Third, a logical theory only exerts normative force on reasoning *conditionally.* A logical theory is only conditionally normative because one must accept the theory for it to have any normative bearing. Unless this condition is met, a logical theory is normatively inert. And, it is only insofar as we ought to respond to evidential reasons that the deliverances of a logical theory have any normative bearing. Something further is needed to ground the normativity of evidential reasons in order for the normativity of a logical theory to be properly grounded. In sharp contrast, the laws constitutive of thought are *unconditionally* normative. Independently of what one accepts, or one's goals or aims, the logical norms that are constitutive of thinking exert normative force. All deductive propositional reasoning is evaluable according to the laws of thought just in virtue of how thought is constituted, while a given theory is only normative for those who accept it.

Another sense in which logical theories are only conditionally normative is that an agent has reasons to believe a proposition Q on the basis of the logical theory they accept only if the following conditions hold: (i) the agent has availed themselves of the evidence that Q is entailed by P, and (ii) the agent believes P. However, the laws constitutive of thought don't apply only once certain conditions are met. Irrespective of the propositions an agent considers or what they have reason to consider, what they believe, their evidence, or what is the case according to their best estimation, certain combinations of attitudes are always prohibited.

4.4.4 In sum: competing, not contradictory, requirements

So, while the normativity of the laws of truth is substantive, functions as a kind of guidance, and is conditional, the normativity of the laws of thought is structural, functions as an evaluative standard, and is unconditional. As such, these two sets of logical laws bear on

reasoning in very different ways. What we should see then is that there is no possibility of directly contradictory normative requirements of the very same kind. Rather, if any normative conflict comes from the laws of thought and the logical theory we accept, it is that of *competing* normative requirements. When one has competing normative requirements, the norms in question put requirements on reasoners such that they should both perform some act ϕ and another act ψ, but it turns out that to ϕ precludes the possibility of ψ-ing, or vice versa. So while this kind of conflict is distinct from directly contradictory normative requirements—such as the requirement to both ϕ and not-ϕ—it is still the case that, as it turns out, one cannot fulfill both requirements. Our laws of thought prohibit certain combinations of attitudes as a matter of unconditional, structural evaluation. And our preferred logical theory gives us reasons to consider certain propositions as a matter of conditional, substantive guidance. These requirements exert force on us at different levels, and on the basis of very different considerations.

The kind of conflict we should envision is one in which, in order to avoid an illogical combination of attitudes, we must ignore the evidential reasons provided by our preferred logical theory, or instead to adequately respond to the evidence from our preferred logical theory, we must take on an illogical set of attitudes. That is, for normative conflict to arise between the laws of truth and the laws of thought, it must sometimes be the case that either (i) one's set of propositional attitudes conforms to MP or UI *qua* laws of thought, but this thereby prevents one from responding adequately to one's logical evidence, or (ii) one responds adequately to one's logical evidence, but this thereby puts one's set of propositional attitudes in disconformity with MP and UI *qua* laws of thought.

With a clear sense of the kind of conflict we should be looking for, let's now turn to the specific logical theories one might accept to see if (i) or (ii) is ever a live option.

4.5 Sub-classical logical theories and conflict dissolved

We have seen in exactly what way the laws of truth have normative consequences for reasoning—by providing us with evidential reasons—and we have drawn out some key differences between the two kinds of logical normativity. It is important now to have before us the set of logical theories which could provide the possibility for normative conflict. Not every logical theory one might accept opens the door to such conflict. For instance, any logical theory according to which MP and UI are unrestrictedly valid inferences, like classical logic, will not provide an agent with a competing ruling for a given proposition. This is because, if ever one were to form a belief on the basis of the logical evidence that comes from such a theory, that evidence would never point to a belief that violates MP or UI. So we need to turn our attention to only those theories for which MP and UI are *not* unrestrictedly valid.

In classical logic, MP and UI are unrestrictedly valid. There are two ways to make variations to classical logic, what are sometimes called *extensions* and what are sometimes called *deviants*. Extensions include but go beyond the laws of classical logic, such as modal logic, while deviants do not share all the same laws with classical logic. As a result, any theory according to which either or both MP and UI fail to be valid are ultimately what are called *sub-classical* deviant logical theories because every entailment in the theory is also an entailment in classical logic, but not every entailment in classical logic is an entailment in the theory. This is because whatever variations that exist for such theories weaken the scope of the logical entailment rather than strengthen the scope relative to classical logic. The result is that there is no logical theory according to which either MP and UI are only restrictedly valid but which describes an entailment which is otherwise 'stronger' than classical logic, in the sense that the theory outstrips classical logic in the number of entailments.

Let's consider some of these sub-classical deviant logical theories. Logical theories according to which MP or UI have restricted validity include relevance logics, where additional

requirements like shared variables between premises and conclusions must be met in order for any inference to be valid. Similarly, in free logics, UI is not unrestrictedly valid because, unlike classical logic, singular terms—like the one that appears in the premise of UI *o is an F*—don't necessarily denote objects. Theories like relevance logics and free logics instead offer weaker, restricted versions of MP and UI. So it is not as though inferences of the form MP or UI are never valid in such theories, but rather their validity is not directly entailed by the laws of the logical theory—other conditions must also be met.

But while MP and UI are only restrictedly valid in sub-classical deviant logical theories, we should see that these logical theories provide no *positive* rational requirement on what one ought to believe in cases of invalid inference—if a particular inference isn't (unrestrictedly) valid, we simply get no evidence about what to believe in that case. In short, absence of evidence for a particular proposition does not by itself give us evidential reasons to disbelieve the proposition. Recall that we should envision two ways the normative requirements from one's accepted logical theory and the laws of thought could compete. In (i), in order to fulfill the logical requirement on thought to avoid a certain illogical combination of attitudes, one must irrationally ignore evidential reasons one gathers from one's accepted logical theory. In (ii), in order to rationally respond to the evidential reasons one gathers from one's accepted logical theory, on must enter into an illogical combination of attitudes. But can either of these cases of conflict genuinely arise?

Consider a case where someone, Meg, believes 'All dogs are mammals', and that 'Fido is a dog'. Let's consider (i), the idea that Meg's propositional attitudes, in order to conform to the laws of thought, preclude her from responding adequately to her logical evidence. Meg accepts a sub-classical deviant logic according to which MP or UI are only restrictedly valid. Meg consults the evidence from her theory about the proposition in question, but nothing logically follows from them, and so her theory neither tells in favor or against the conclusion of the inference, 'Fido is a mammal'. In virtue of this, Meg gets no evidential reasons to

believe 'Fido is a mammal' from her theory. It is still open that Meg may come to believe 'Fido is a mammal' due to evidential reasons wholly independent of the logical theory she accepts—perhaps on the basis of the testimony of a veterinarian. The fact that 'Fido is a mammal' is not logically entailed by 'All dogs are mammals' and 'Fido is a dog' according to the logical theory Meg accepts doesn't prevent her from believing 'Fido is a mammal', it only means that Meg shouldn't believe 'Fido is a mammal' on the basis of the evidence she gathers from her accepted logical theory. So, if Meg ends up forming a propositional attitude the content of which is 'Fido is a mammal', and thereby conforms her thinking to the laws of thought, she doesn't as a result ignore the evidence of her preferred logical theory. In this case, even though Meg accepts a theory which does not agree with the laws of thought, she still can both reason in accordance with her evidence and yet conform to the laws of thought.

Let's turn to (ii) and whether it is necessary that for Meg to adequately respond to her logical evidence, it must put her set of propositional attitudes in disconformity with the laws of thought. The only circumstance in which Meg would get a positive reason to believe, disbelieve, or suspend judgment with respect to the proposition 'Fido is a mammal' on the basis of her logical theory is if Meg accepts a theory according to which UI is unrestrictedly valid. If Meg comes to know that, according to her theory, it follows that 'Fido is a mammal', then Meg will have evidential reasons to believe 'Fido is a mammal'. But as we have already established, if it turns out that Meg should form this belief on the basis of her evidence, it will not be in disconformity with the laws of thought since they require conformity with UI—barring any other discrepancies in her set of propositional attitudes, Meg's attitudes will be in conformity with the laws of thought. So, either Meg accepts a theory that will offer no competing normative guidance in this case, or she accepts a theory that will only offer complementary normative guidance in this case. In either case, Meg's theory and the laws of thought fail to produce competing normative guidance.

But now, we have exhausted all the possible situations in which Meg might find herself—either she accepts a logical theory according to which MP or UI are unrestrictedly valid, or she doesn't. In either situation, Meg is able to fulfill all the normative requirements placed on her. In no situation is Meg forced to be illogical in order to be rational, or vice versa. So, we should see that endorsing a sub-classical deviant theory like a relevance or free logic doesn't provide any opportunities for normative conflict. The fact that these theories offer restricted versions of the inference rules that feature as constitutive laws of thinking only make it the case that sometimes, in order for us to think logically, we'll need to conform our thinking to MP or UI without complementary logical evidence from our accepted theory. But it's also worth mentioning that since we can conform our thinking to MP and UI by forming propositional attitudes other than belief toward the relevant propositions—one could simply entertain a proposition or suppose it.

We should see that for genuine normative conflict to occur between one's accepted theory and the laws of thought, the proposed laws of thought would have to be different, and in particular, they would have to be weaker than the ones for which I have argued. Imagine I claimed that, instead of MP, one of the laws of thought is the relevantly restricted MPr. According to MPr, a proposition Q follows from P and *If P then Q* in a particular situation a iff for all the situations b in which P and *If P then Q* hold, the information in a and b licenses the inference that Q holds. On such a view, having a belief that Q would not be in conformity with the laws of thought if the other conditions regarding situation and information were not met. But if my accepted logic was classical logic for instance, my logical evidence may sometimes point sufficiently in favor of believing Q. But since MP is unrestrictedly valid according to my theory, those information and situation conditions may not be met. In such a case, I would be rationally required by my evidence to believe Q, but as a result, my set of propositional attitudes would fail to conform to the laws of thought. But since I have argued for laws of thought which feature as unrestrictedly valid inference rules in the strongest possible logical theory, namely classical logic, a case like this can never

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arise—one's accepted theory will only ever complement or be outstripped by the laws of thought.

4.5.1   Complementary logical normativities

We have seen that the normativity of the laws of truth does not create normative conflict with the normativity of the laws of thought. But we should also see that our conformity with the laws of thought is a precondition for getting normative guidance from the laws of truth—not only are the two logical normativities non-competing, but they are in fact complementary.

Recall that in order for some logical evidence to have normative bearing on what one believes, one must avail themselves of the evidence. That is, the fact of some entailment becomes normatively significant only when a reasoner, in addition to accepting the theory according to which the entailment holds, becomes aware of this fact. And this requires a kind of deductive competence which involves considering how one's beliefs and other propositions logically relate. So for instance, in the case of Meg above, Meg believes that her pet Fido is a dog, and she believes that all dogs are mammals. In order for Meg to have a reason to believe that Fido is a mammal from the fact that this logically follows from her other beliefs, Meg has to come to know this fact of logic. Meg has to first attend to the logical relations between her beliefs and this further proposition.

But then Meg would need to form some propositional attitude in her deductive propositional reasoning toward the conclusion of this inference—she can't attend to the entailment if she hasn't yet considered the entailed proposition. In virtue of this, Meg would necessarily succeed with respect to the laws of thought, UI in this case. Although it isn't the only way to conform to UI *qua* law of thought—Meg could instead drop from her set of propositional attitudes one of her other beliefs which form the premises of the inference—it is the neces-

sary path to acquiring the logical evidence. There's no other way for Meg to have the logical entailment feature as evidence in forming the belief that Fido is a mammal. If Meg never considers the concluding proposition, and thereby never identifies the entailment from her prior beliefs to this further proposition, Meg will not get normative guidance from her logical theory. So, a condition for receiving normative guidance from one's accepted logical theory is conformity with the laws of thought.

4.6   The possibility of logical pluralism

So far, I have argued that the way in which an accepted logical theory exerts normative force on our reasoning is that we get evidential reasons to believe, disbelieve, or suspend judgment on propositions which are logically entailed by other propositions we believe. I then clarified how, no matter what kind of logical theory one accepts, there is no possibility for genuine normative conflict between the laws of thought and the laws of truth. When one accepts a logical theory for which MP and UI are unrestrictedly valid, one's theory will always provide logical evidence which complements the normative requirements of the laws of thought. On the other hand, if one accepts a logical theory for which MP or UI *aren't* unrestrictedly valid inferences, the theory either remains silent or also provides complementary logical evidence. So, since there is no possibility of normative conflict, we should see that constitutive normativism leaves open the possibility of accepting any logical theory through an abductive inference to the best explanation without any *ad hoc* constraints.

An important upshot of resolving this conflict is that logical normativity dualism also leaves the door open for logical pluralism, the idea that there are multiple tied-for-best logical theories. That at least constitutive normativism is compatible with logical pluralism isn't completely unusual—there are other nearby views like Hanna's (2006) or Leech's (2015) according to which a version of logical pluralism is compatible. However, it is typically

argued that the range of possible logical theories one can endorse is constrained by a fixed minimal set of logical rules, the idea being that those unmovable logical rules, the laws of thought, must feature in any logical theory one accepts. This 'constrained' logical pluralism may be described in two distinct ways. One might say, following Hanna, that every logical theory conceivable necessarily features the same fixed minimal set of logical rules in virtue of those rules being the 'progenitor' laws of all logical theories, or one might say, along a line similar to Leech's or Finn's (2021) that, from the set of all possible logical theories, any laws of thought view are only compatible with a subset of those theories, namely those that feature the laws identified as constitutive of thought.

However, logical normativity dualism doesn't conceive of the relation between the laws of thought and the laws of truth in either way—as progenitor laws or as higher-order restrictions on first-order laws. As we have seen, I take the laws of thought and the laws of truth to be fundamentally distinct conceptions of logic that hold independently of each other. So we should see that, just as constitutive normativism doesn't place any restrictions on which logical theory one might accept, there aren't any restrictions on accepting a plurality of tied-for-best logical theories. The only further question is whether, given that each logical theory one might accept as a logical pluralist is normative for reasoning, there is the possibility of normative conflict *among the accepted logical theories of the logical pluralist*. We can turn now to this final problem.

4.7   Preventing the collapse of logical pluralism

According to a developing literature, if we assume that logic is normative, particular brands of logical pluralism—logical pluralism that is not context-sensitive or domain-relative—will simply 'collapse' into logical monism (Read, 2006; Priest, 2001; Keefe, 2014; Caret, 2017; Steinberger, 2019b; Stei, 2020; Kellen, 2020). The idea is that, if each logical theory the

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pluralist accepts is normative, then they will be faced with competing normative pressures from their accepted theories, which ultimately forces the pluralist to be a logical monist in practice. The conclusion seems to be that logical pluralism is not in fact compatible with the view that logic is normative.

The Collapse Problem, as it is sometimes called, has been directed primarily at the particular pluralist view of JC Beall and Greg Restall (2006), according to which the term 'valid' is semantically indeterminate and permits of multiple correct precisifications. According to such a view, it is not as though there are multiple correct theories because different contexts or domains require or specify different but equally legitimate sets of logical laws. Rather, Beall and Restall's version of logical pluralism is characterized as there being multiple correct entailment relations even within the same formal language, holding fixed the context or domain, as well as the meanings of the logical connectives. However, we can imagine that any logical pluralist who takes there to be multiple correct logical theories within the same context or domain may be subject to collapse when we see how it is usually presented. Whereas a contextualist view would seem to have the resources to restrict the normative bearing of a given logical theory to the domain or context for which that theory is operative, unconstrained pluralist accounts rather face something like the following:

> Consider a logical entailment that holds for classical logic T_C but doesn't hold for intuitionistic logic T_I, such as $\neg\neg A \models A$. If a subject S believes $\neg\neg A$, and they accept T_C as one of the correct logical theories, then S ought to believe A on the basis of T_C. But, if S also accepts T_I, then it is not the case that S should believe A on the basis of T_I. So, since S should believe A on the basis of T_C, S's acceptance of T_I does not have normative bearing on S's reasoning. In light of this situation, logical pluralism collapses into monism since the normative requirements of the stronger logical theory T_C will override the requirements prescribed by the weaker logical theory T_I, resulting in an 'upward' collapse into

a logical monism of the strongest logic accepted by the pluralist.

There are a few things to note about the Collapse Problem. First, it is often taken for granted or glossed over exactly how a logical theory has normative significance for reasoning. We should see however that all this discussion of theory acceptance and the normative consequences of logical entailment for belief assumes the laws of truth conception of logic and some account of logical normativity formed on that basis. With evidential reasons normativism in hand, we can get specific about the exact way collapse is supposed to go.

Second, while the Collapse Problem is standardly presented as a problem of upward collapse into the strongest logical theory of the pluralist, there are two apparent ways to characterize the collapse—upward collapse and downward collapse—and one way to characterize the problem in terms of normative conflict.[10] With the clarity of the previous section about exactly how logical theories exert normative force on reasoning, I will argue that collapse or conflict is not an inevitable result for Beall and Restall's logical pluralism if we characterize the normativity of logical theories in evidential terms. We will make our way through the three different proposed ways logical pluralism is said to be incompatible with logical normativity.

Let's start with the standard characterization of upward collapse into the strongest accepted theory. For critics of logical pluralism due to upward collapse like Stei and Steinberger,[11] the apparent inevitability that the pluralist will always reason in accordance with their strongest theory makes the pluralist a monist in practice. The point seems to be that

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[10]The Collapse Problem was first discussed as such in terms of upward collapse in Caret (2017), following earlier discussions in Read, Priest, and Keefe, and it is the central characterization in Stei (2020) and Steinberger (2019b), though Stei also presents the downward collapse alternative. The more recent normative conflict characterization can be found in Kellen (2020).

[11]It's worth noting that, although Steinberger (2017a) offers a similar reasons-based account of logical normativity, he (2019b) maintains that logical normativity is incompatible with logical pluralism in light of upward collapse. Rather than conceiving of each logical theory accepted by the pluralist as a channel of evidence, Steinberger argues instead that each theory bridges independently to reasoning on the basis of the kind of principle he offers, leaving open the possibility for competing principles and the inevitable domination of the strongest principle connecting the strongest logical theory to reasoning.

it isn't clear in what sense the pluralist takes their weaker logical theories to be normatively significant if they rely solely on their strongest theory for normative guidance. In another paper, Stei (2019) applies more pressure to the specific view that logic is normative in virtue of more familiar epistemic norms like those related to truth and evidence, arguing that collapse is still inevitable on such a view. The analogy from testimony he offers there provides a neat explication of how he understands collapse:

> Imagine two perfectly reliable informants that never give you any false information. In a particular situation, one informant does not give you any information, but the other gives you the information that ψ. Based only on this testimony, when presented with the options to either accept ψ or suspend judgement, I take it that accepting ψ is clearly the most plausible option. (2019: 10)

For Stei, since the weaker logical theories accepted by the pluralist turn out to provide normative guidance only when the stronger theory does, and since they don't provide normative guidance when the stronger theory does, there is no clear way to characterize the weaker logical theories as providing any normative guidance.

But I think the problem of upward collapse, even in Stei's targeting of views like the one presented here, is not inevitable. We can see this by developing the analogy from testimony further. What we should first determine is whether a weaker theory is an 'independent testifier', or if it is much more like a recording of the testimony of the stronger theory. A reason to think that the testimony of the weaker theory is like a recording of the stronger theory's testimony is that any testimony it will provide is in virtue of its laws, all of which overlap with the laws of the stronger theory. It would not even be a perfect recording of the testimony of the stronger theory, since there is a greater body of evidence available on the testimony of the stronger theory given that its stronger entailment relation describes overall more entailments than the weaker theory. If the weaker theory is more like a recording,

then the agent does not get any evidential reasons to believe on the basis of any entailment it describes, since this would involved double counting evidence, just like, as Wittgenstein points out, reading multiple copies of the same newspaper cannot give you more assurance of the truth of its contents (*PI*: 265).

But if the weaker theory is an independent testifier, then for a set of propositions some proposition is entailed both by a weak logic and a stronger one, the agent gets evidential reasons to believe on the basis of two distinct entailment relations. And I think it should be clear that a pluralist's weaker theories are independent testifiers rather than bad recordings. Each logical theory describes its own relations of truth preservation, and the extra conditions for validity and entailment that appear in weaker theories makes the logical evidence they deliver different evidence. Indeed, we should see that the kinds of restrictions that make logical theories weaker than classical logic provides distinct, additional evidence to what one would acquire from classical logic alone. One way of thinking about the strength of classical entailment is that it provides evidence of truth-relatedness for the greatest number of propositions. In contrast, the relevance conditions for a relevance logic, for example, restrict logical entailment to situations or contexts which are individuated by sets of information, and meeting these additional conditions raises the threshold for logical entailment. As a result, this narrows down the number of propositions for which there is evidence of truth-relatedness since they must also be relevantly related. But it also means that the evidence of truth-relatedness gathered from a relevance logic is thereby distinct from evidence from classical logic, since it is packaged with additional information about the content of the propositions. A relevant logical entailment provides evidence of truth-relatedness *and* evidence of relevance, and so it seems right to think that if a proposition is both classically and relevantly entailed by an agent's beliefs, the agent has a different body of evidence than if the proposition was only classically entailed.

Now that we have established that weaker theories are independent testifiers, we should

also see that it would never be epistemically rational to ignore one's evidence, even if two pieces of evidence agree. It is not as though one testifier overrides the other if they are both perfectly reliable and agree in their reports. It's true that stronger logical theories will provide evidence more frequently than weaker logical theories. So, while it's true that a pluralist will in practice receive more evidence from the deliverances of the strongest logical theory they accept, that doesn't mean that they only should reason in accordance with their strongest theory. The pluralist, in order to be rational, should also respond to the evidential reasons that arise from the evidence gathered from the other logical theories they accept. Although we see, as in Stei's analogy, that one informant may sometimes remain silent while the other speaks, it is not as though an agent is thereby rational to ignore the informant when they *do* speak just in virtue of the fact that they do not always speak—in fact, it is quite the opposite. Consider that we often get sufficient evidential reasons to believe some proposition without any logical evidence from one's strongest logical theory—in this case, one's *strongest* theory is silent. Its silence in such cases does not justify ignoring one's logical evidence from the theory altogether. What we should see is that the number of entailments for a given logical theory is not a determinant for whether it is a live channel of evidence for one who accepts that theory.

Perhaps as a matter of practicality or efficiency, one might argue that the logical pluralist should 'streamline' their channels of evidence to only attend to the deliverances of their strongest logical theory, since that theory will provide the greatest frequency of evidence, and in any case where other theories provide evidence, the strongest will too. However, this kind of consideration is ultimately extra-epistemic, since we have shifted our concerns to what is practically rational.

With upward collapse prevented, let's turn to downward collapse. According to Stei (2020), the possibility of downward collapse results from an attempt to *avoid* upward collapse: If the pluralist instead opts to reason only according to their weakest logical theory,

they would always reason according to the deliverances of the logic that agrees with all the logical theories they accept, and they would thereby avoid the overriding power of the strongest theory. But the result is again a kind of logical monism in practice, since the pluralist is not reasoning with the other theories they accept. However, according to evidential reasons normativism, insofar as the pluralist accepts any logical theory, it will provide them with evidence—unless there's some principled way to ignore the evidence of stronger logical theories one accepts, it seems that one would be irrational to only respond to the evidence of one's weakest preferred logic. Insofar as the logical pluralist is really committed to the idea that logic is normative, this strategy and the potential for downward collapse aren't really on the table.

Finally, let's consider the idea that logical pluralism simply results in insoluble normative conflict. Nathan Kellen (2020) provides the clearest formulation of the view that logical pluralism results in normative conflict, given the thesis that logical theories are normative. The idea is that by endorsing a logical theory, we are held to a strict requirement to form our beliefs according to its deliverances, and failing to do so renders us irrational. Kellen seems to have trapped Beall and Restall in a problem of their own making in virtue of the way they themselves characterize logical normativity: 'In an important sense, if an argument is valid, then you somehow go wrong if you accept the premises but reject the conclusion.' (2006: 16). Kellen argues that, so understood, the pluralist is committed to the following set of inconsistent normative evaluations, if for instance they were to get normative evaluations from both classical (CN) and intuitionistic (IN) logic, like in the example above:

CN: I do something wrong by disbelieving A.

IN: It is not the case that I do something wrong by disbelieving A. (2020: 268)

The two logical theories we accept provide competing and contradictory evaluations on our disbelieving A. For Kellen, this straightforward inconsistency can only be resolved either

by abandoning logical pluralism, or by rejecting the orthodoxy that logical theories are normative.

However, the evidential reasons normativism helps us explicate the sense in which one might 'do something wrong' by failing to believe or disbelieving a proposition which is entailed by a logical theory we accept. According to the view, a logical theory provides us with evidential reasons to believe on the basis of its deliverances. With the above case in mind, S is irrational only if they fail to respond to sufficient evidential reasons to believe A on the basis of T_C, or if they disbelieve A against sufficient evidence for belief in A—that is the specific sense in which S has done something wrong. In the case above, we actually do not know if S has sufficient evidential reason to believe A—a logical theory only provides evidential reasons, which also must be weighed against the other evidence and beliefs of the agent. Recall that the evidentialist approach leaves room for agents to revise some of their other beliefs if that's how what the evidence bears out. It is implausible to claim that, simply by failing to believe A on the basis of T_C, or by disbelieving A despite T_C, one necessarily did something wrong or is irrational. Such a flatfooted rational requirement from logic, we have seen, is not tenable. We can also see from Beall and Restall's own discussion of the nature of logical normativity that they have in mind something which is defeasible, much like evidential reasons. They claim that 'preservation of entitlement is not guaranteed by logical consequence' (2006: 96)—that is, the strength of the evidential support for a set of propositions doesn't categorically transmit to a proposition entailed by the set. As we saw before in §1, in some instances, such as when we have prior overwhelming evidence against the entailed proposition, we may instead have sufficient evidential reason to revise our belief in one of the other propositions in the set.

But even if we imagine in this case that one in fact has sufficient evidential reasons to believe A, which includes the logical evidence from T_C, there is no conflicting set of normative evaluations from T_C and T_I. This is because it is not the case that we can

derive a normative evaluation from any particular logical theory accepted by the pluralist. According to evidential reasons normativism, normative evaluations do not come separately on the basis of each logic accepted by the pluralist, but rather a normative evaluation is made on the basis of the agent's beliefs *given their total body of evidence*, which includes the evidence they receive from each theory they accept. We can only ask whether, given the agent's total body of evidence, they are irrational in disbelieving A. Although one of the theories accepted by the pluralist, T_I, does not provide evidence of truth-relatedness for A and $\neg\neg A$, the absence of evidence doesn't by itself give the agent any reason to believe or disbelieve A, and thereby is not relevant to the rational evaluation of the agent. So, logical pluralism doesn't directly result in normative conflict if logical normativity is understood in evidential terms.

But if we reinterpret Kellen's normative conflict formulation in the following way, perhaps a version of this problem remains open. Couldn't we see that, since A does not follow from $\neg\neg A$ according to T_I, then T_I actually recommends against reasoning to A from $\neg\neg A$? That is, finding out that some inference isn't valid according to a particular theory should be understood as positive evidence against the conclusion. But this is to misunderstand the kind of evidence we gather from logical theories, and how that evidence bears on our reasoning. Recall that, when one identifies that, according to a particular theory, some proposition Q is entailed by another proposition P, we get conclusive evidence for the truth-relatedness of P and Q, which is to say that the truth of P guarantees the truth of Q. But if one finds out, according to another theory, that P and Q aren't so related, that it just to discover that one should not believe Q solely on the basis of the theory in question (if one rationally believes P), since the theory provides no evidence for this. But the lack of evidence according to that theory does not tell against believing the proposition for other reasons, namely evidential reasons one might acquire from the theory according to which it is the case that Q logically follows from P.

4.8 Conclusion

I've argued that, despite appearances, constitutive normativism is perfectly compatible with an anti-exceptionalist view of logic, the view that we should accept the logical theory that comes out on top through an inference to the best explanation. This is because the normative consequences that come from accepting a logical theory doesn't leave us open to normative conflict. The evidential reasons we acquire from the deliverances of our preferred logical theory or theories don't clash with the laws of thought. We can conform our thinking to the laws of thought and remain perfectly rational, and we can reason in accordance with our preferred theory and remain perfectly logical.

I have also demonstrated that the particular account of the normativity of logical theories for which I have argued opens the door for logical pluralism, as well as provides a compelling solution to the widely discussed collapse of logical pluralism into logical monism. Constitutive normativism, in the form I have presented and defended, provides a framework and explanation for how it is that we can engage in substantive inquiry into logical theorizing. It also enriches our understanding of the relation between those logical laws which are constitutive of thinking and those logical laws which are open to scrutiny, revision, and acceptance, the laws of truth. In this way, the results of Chapters 3 and 4 not only uncover key upshots of this novel account of logical normativity, but they also further our understanding of the many ways in which logic and reasoning are connected. We should see that in order to get a complete picture of the 'logic-reasoning connection', we need logical normativity dualism. In my development of this view, I have provided two distinct formulations of logical normativity, constitutive normativism and evidential reasons normativism, and I have demonstrated that they fit together and complement each other.

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