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# Three ways in which logic might be normative

Florian Steinberger  
Birkbeck College & MCMP

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**Abstract:** Logic, the tradition has it, is normative for reasoning. Famously, the tradition was challenged by Gilbert Harman who argued that there is no straightforward connection between logical consequence and norms of reasoning. A number of authors (including John MacFarlane and Hartry Field) have sought to rehabilitate the traditional view of the normative status of logic against Harman. In this paper, I argue that the debate as a whole is marred by a failure of the disputing parties to distinguish three different types of normative assessment, and hence three distinct ways in which the question of the normativity of logic might be understood. Logical principles might be thought to provide the reasoning agent first-personal directives, they might be thought to serve as third-personal evaluative standards, or they might underwrite our third-personal appraisals of others whereby we attribute praise and blame. I characterize the three normative functions in general terms. I then show how a failure to appreciate this threefold distinction has impeded progress by leading the disputants to talk past one another. Moreover, I show how the distinction paves the way for a more fruitful engagement with and, ultimately, resolution of the question.

## 1 Introduction

Logic, the tradition has it, is normative. As Frege put it, logic ‘prescribe[s] universally how one ought to think if one is to think at all’ (Frege 1893/1903/2009, p. xv). At least on the face of it, our intuitions accord with the tradition. It’s a bad thing, we tend to think, to be inconsistent. Similarly, we criticize people for failing to appreciate at least the more obvious logical consequences of their beliefs when these are in question. Logic might thus be thought to have a normative role to play in reasoning—i.e. in the ways we go about forming and revising our doxastic attitudes—and in our evaluations of the reasoning of others. Call the thesis that logic has such a role to play the *Normativity Thesis* (NT).<sup>1</sup>

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<sup>1</sup>I here focus on the question of the normativity of logic *for reasoning*. This is in line with much of the literature. However, some authors take the primary target activity of logic’s normativity not to be ‘internal’ reasoning processes, but rather the ‘public’ manifestations thereof in the form of assertion or particular forms of dialogue or debate. See e.g. (Dogramaci 2015), (Dutilh Novaes 2015), (MacKenzie 1989) and, to some extent, (Milne 2009). Others (Sher 2011) have emphasized the normative constraints logic imposes on our scientific theorizing and the products thereof. The point merits further elaboration,

NT has come under heavy fire. Gilbert Harman, in a number of influential writings, has questioned the notion that there really is an interesting connection between logic and norms of reasoning.<sup>2</sup> In recent years, others<sup>3</sup> have sought to defend NT against Harman's skeptical challenge.<sup>4</sup> I ultimately side with NT's defenders. However, I believe that before we can hope to make any significant headway on the question of NT's tenability, we must get clearer on what it is exactly that we are after when we pose the question of logic's normativity. This paper attempts to undertake this clarificatory task. Its central claim is that there are in fact three importantly different ways in which logic might be thought to be normative. To wit,

- logical norms might provide first-personal *directives* that guide the reasoner;
- logical norms might serve to make third-personal *evaluations*, setting standards or ideals by which to assess an agent's doxastic state for its logical cogency; or, finally,
- logical norms might play the role of third-personal *appraisals* by which we criticize, blame or otherwise hold accountable an agent for her doxastic conduct.

Instead of the one question concerning NT's status, on my picture we have three questions on our hands. This, I submit, is progress. It allows us to replace the original, insufficiently discriminate question with three well-defined and, as I will go on to show, more tractable questions:

- Is logic normative in the sense of providing directives?
- Is logic normative in the sense of providing evaluations?
- Is logic normative in the sense of providing appraisals?

The benefits of disentangling the above three questions are twofold. For one, it allows us to pinpoint the cause for the debate's state of relative paralysis. It is their failure to appreciate the proposed three-way distinction, that has led the contributors to talk past each other, thereby impeding progress. Second, it prepares the ground for new positive contributions. This point requires some elaboration. The desiderata commonly appealed to in evaluating existing defenses of NT are inconsistent. Consequently, authors have

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but I am inclined to think that much of the following discussion equally applies to their views. I will return to the last point in §6.

<sup>2</sup>Harman's criticisms are central to Harman's work in epistemology. They go back at least as far as his (Harman 1973) (see also (Harman 1984, 1986, 2002, 2009, 2010; Harman and Kulkarni 2007) among others). See also (Goldman 1986).

<sup>3</sup>Field (2009a, 2015), MacFarlane (2004), Milne (2009), Streumer (2007).

<sup>4</sup>Strictly speaking one can find two separate strands of argument in Harman's work. The first is the aforementioned skepticism with respect to the idea that there is an informative normative link between logic and reasoning. The second is that there is nothing distinctive about the normative impact of logic on reasoning, that would set it apart from other sciences (See e.g., (Harman 1986, Ch. 2) and (Harman 2009)), even if logic and norms of reasoning are linked. Like the aforementioned authors, my concern is the first of these issues.

tended to discount one or more of the adequacy criteria so as to arrive at a consistent subset validating their favored principles. The trouble is they have done so in *ad hoc* ways, thus rendering their accounts vulnerable to criticism. I offer an explanation that reveals the source of the inconsistency and thereby points to a philosophically principled way of avoiding it. In short, our criteria are inconsistent because our underlying views regarding the normative role of logic are. And our views are inconsistent because we roll into one what are in fact three importantly distinct normative functions. Once we take my tripartite distinction on board, we are able to resolve the puzzle: We find that each of the three normative roles determines its own consistent subset of criteria. In this way each of the three questions can in principle be settled by advancing an account that meets the associated criteria. This, I submit, is progress.

I proceed as follows. §2 summarizes Harman’s challenge to NT. In §3, I identify four key objections against NT. The objections, it turns out, do double duty, later serving as desiderata against which the viability of positive accounts of NT may be tested. §4 introduces the notion of a *bridge principle*. Bridge principles are general principles that articulate the ways in which a valid argument (or our attitudes towards such an argument) normatively constrains doxastic attitudes towards the relevant propositions. I expound and further develop John MacFarlane’s (2004) helpful taxonomy of bridge principles. §5 then introduces the three aforementioned normative roles in general terms, while §6 explains how they can be brought to bear on the present question. In §7, I explore the consequences of the proposed analysis. I show that key contributions to the debate—contributions by Harman, MacFarlane and Hartry Field—in fact fail to address the same questions as a result of their insufficient appreciation of the distinction. Finally, I explain how the three-way distinction impacts the way we interpret and evaluate bridge principles and how this constitutes significant progress in our grappling with the question of the normativity of logic.

## 2 Harman’s skeptical challenge

At the core of Harman’s skeptical challenge to NT is the observation that deductive logic and a ‘theory of reasoning’ are two fundamentally different theoretical enterprises with fundamentally different subject matters. Logics are concerned with certain properties of and relations between truth-bearers. Theories of reasoning are concerned with how ordinary agents should go about managing (forming, reinstating, revising) their beliefs. The reason so many of us espouse NT, according to Harman, is because we make the mistake of conflating these two importantly different endeavors. Once disabused of this confusion, we recognize there to be ‘a gap’ (Harman 1986, p. 6) separating logic and reasoning. Harman is skeptical as to whether there exists a systematic and interesting normative relation capable of bridging the gap. Responding to ‘Harman’s skeptical challenge’, as I call it, consists in identifying such a relation.

Whatever the connection between logic and norms of reasoning might amount to, it is reasonable to assume that the central notion of logic—the notion of logical consequence—will be at its heart. After all, if I believe truly, the truth of my beliefs carries over to

their logical consequences. Conversely, if my beliefs entail a falsehood, they cannot all be true. Whence our initial NT-favoring intuitions. But how to formulate a general principle that adequately captures these intuitions? Here is a first, albeit hopelessly flatfooted attempt:

- Logical implication principle (IMP): If  $S$ 's beliefs logically entail  $A$ , then  $S$  ought to believe that  $A$ .

Here  $S$  is an agent and  $A$  a proposition. IMP simply says that one's beliefs ought to be closed under logical consequence. Under certain assumptions IMP implies another *prima facie* plausible principle:

- Logical consistency principle (CON):  $S$  ought to avoid having logically inconsistent beliefs.

IMP and CON are distinct. IMP, in and of itself, does not prohibit inconsistent beliefs. CON, on the other hand, does not require that my beliefs be closed under entailment, it merely demands that the set of propositions I believe be consistent. However, against the background of classical logic, IMP entails CON provided we assume (i) that one ought not both simultaneously believe and disbelieve one and the same proposition; *and* (ii) that disbelieving a proposition is tantamount to believing its negation.<sup>5</sup> With these assumptions in place, the entailment is trivial. For let  $S$  be an agent with an inconsistent belief set  $\{A_1, \dots, A_n\}$ . By classical logic,  $A_1, \dots, A_{n-1} \models \neg A_n$ . Since  $S$ 's beliefs are closed under logical consequence,  $S$  believes  $\neg A_n$  and hence, by (ii), disbelieves  $A_n$ . So,  $S$  both believes and disbelieves  $A_n$ , contravening (i).

My focus here is on how logical consequence constrains doxastic attitudes. To fix ideas, I assume throughout that the consequence relation in question is that of first-order predicate logic with identity. The reader might have legitimate 'ought'-implies-'can'-shaped concerns about an undecidable logic setting forth norms of reasoning. I address these concerns in §6. Nothing much hangs on the choice of logic. Plug in your preferred consequence relation, if you like. I will assume, however, that the notion of logical consequence is settled independently of the normative function it might perform. Moreover, I set aside the question of logical pluralism, which merits separate treatment. For present purposes I take there to be at most one normatively significant logical consequence relation.

Of course, these are not the only foundational questions in the philosophy of logic that have some bearing on NT. Take the question of the source logic's normative force. Presumably, to answer that question, we first need to know what logic is a theory of. To get a sense of these issues and their relevance, let us distinguish two broad conceptions

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<sup>5</sup>Both assumptions can be challenged. On coarse-grained conceptions of propositions we face Fregean puzzles. For instance, the propositions expressed by 'Superman can fly' and 'Clark Kent can fly' might be taken to be one and the same. Yet, Lois Lane does not appear to be irrational when she believes the former but disbelieves the latter. The second assumption is rejected by advocates of paraconsistent logics. See e.g. (Priest 2006, Ch. 6) for discussion.

of logic. The first view has it that logic, much like mathematics, is ‘about the world.’ It provides an account of the most general features of reality.<sup>6</sup> Call this the *laws-of-being* conception of logic. Advocates of the opposing view maintain that logic is not primarily concerned with the world, but with our systems of conceptual or linguistic representation thereof. Logical properties and relations are viewed as broadly metalinguistic. Call this the *laws-of-thought* conception of logic.<sup>7</sup>

We cannot hope to settle this question within the scope of this paper. It is noteworthy, though, that both conceptions are compatible with NT. On the former view, the normativity of logic can be seen to be grounded in logic’s descriptive adequacy. Insofar as I aim to have accurate representations of those aspects of reality with which logic is concerned, I ought to align my thinking with the deliverances of logic. Of course, much the same can be said with respect to *any* science. As Frege put it, ‘any law asserting what is, can be conceived as prescribing that one ought to think in conformity with it, and is thus in that sense a law of thought. This holds for laws of geometry and physics no less than for laws of logic (Frege 1893/1903/2009, p. xii). Must we then abandon the notion that there is something distinctive about the normative force of logic on this view? Not necessarily. Gila Sher (2011, 2013) has argued that logic distinguishes itself by its ‘broader scope’ and by dint of being grounded not merely in truth, but *formal* (subject-independent) truth through which logic acquires a special modal force (Sher 2013, p. 192). On the laws-of-thought conception the link may be thought to be more direct still. Logic, on this view, is concerned with certain features of (sets of) truth-bearers. Seeing that truth-bearers are identical to (or at least intimately related to) the contents of mental states (beliefs, suppositions, etc.) which, in turn, are central to reasoning, logic’s potential normative relevance is immediate (at least in principle).

Our concern here is with how logic constrains belief and what norms (if any) it gives rise to. It thus suffices for us to note that both conceptions of logic are compatible with NT. As for the questions of the source and nature of logic’s normativity, I content myself here to refer the reader to the works cited above.

### 3 The objections

IMP, plainly, is unsatisfactory. This is evident from its vulnerability to the following four objections (most of which can be extracted from Harman’s writings). It is worth spelling out the objections in some detail as they will later serve us as criteria of adequacy for future attempts at improving upon IMP.

(1) Suppose I believe both  $p$  and  $p \supset q$  (as well as Modus Ponens). The mere fact that I have these beliefs and that I recognize them to jointly entail  $q$  does not normatively compel any particular attitude towards  $q$  on my part. In particular, it is not generally the case that I ought to believe  $q$ . After all,  $q$  may be at odds with my evidence, and so it would be unreasonable of me to follow Modus Ponens slavishly by, as it were, ‘adding

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<sup>6</sup>For two recent accounts of this type, see (Sher 2011, 2013) and (Williamson Forthcomingb).

<sup>7</sup>(Hanna 2006) and (Priest 2006) two (albeit rather different) examples.

$q$  to my belief box'. The rational course of 'action', rather, when  $q$  is untenable, is for me to relinquish my belief in at least one of my antecedent beliefs  $p$  and  $p \supset q$  on account of their unpalatable implications. Let us therefore call this the *Objection from Belief Revision*.

(2) IMP places excessive demands on agents whose resources of time, computational power, stamina and so on, are limited. For instance, according to IMP anyone who believes the axioms of Peano arithmetic ought to believe every last one of its theorems, even if a theorem's shortest proof has more steps than there are protons in the visible universe. But if the logical *ought* implies *can* (in the sense of what agents even remotely like us *can* do), IMP is incorrect. Call this the *Objection From Excessive Demands*.

(3) A related worry is this. Any of the propositions I believe entails an infinite number of propositions that are of no significance to me whatsoever. Not only do I not care about, say, the disjunction 'I am wearing blue socks or Elvis Presley was an alien' entailed by my belief that I am wearing blue socks, it would be positively irrational for me to squander my meagre cognitive resources on inferring trivial implications of my beliefs that are of no relevance to my goals. Following Harman's apt label, let us call the corresponding objection the *Objection From Clutter Avoidance*.

(4) There are various types of epistemic situations in which it is arguably not merely excusable for the agent not to align her beliefs with IMP on account of her 'finitary predicament' (Cherniak 1986), but where having incoherent beliefs may be permissible or even rationally mandated. The Preface Paradox arguably dramatizes such a situation.<sup>8</sup> In Preface scenarios the agent appears to be within her rational rights despite disbelieving a straightforward logical consequence of her beliefs.

On the basis of these considerations, some have concluded that nothing informative can be said about the normative relation between principles of deductive logic and reasoning. However, this, as we will see, is too quick.

## 4 Bridge principles

The objections convincingly demonstrate that IMP, in its current formulation, is inadequate. Is there a viable replacement for IMP to be had—one that does reveal a normative link between logic and reasoning, while being invulnerable to the objections of the previous section? To speak with MacFarlane (2004), we are asking whether a tenable *bridge principle* can be found. 'Bridge principle' here designates a general principle that articulates a substantive relation between, on the one hand, 'facts about logical consequence' (or, as we will see, our attitudes towards such facts) and, on the other hand, norms governing the agent's doxastic attitudes vis-à-vis the propositions standing in these logical relations.

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<sup>8</sup>See (Makinson 1965).

In order properly to assess the pessimistic claim that no viable bridge principle is to be had, we need a way of overseeing the range of possible candidate bridge principles. But how? Thankfully, a good deal of the work of mapping out the logical space of bridge principles has been undertaken by MacFarlane (2004), who provides a useful classification of bridge principles. Here, in brief summary, is a generalized version of MacFarlane’s taxonomy.<sup>9</sup> It will procure us some of the tools necessary to evaluate Harman’s skeptical claim in a systematic fashion.

A bridge principle is a material conditional of the form:

- ( $\star$ ) If  $A_1, \dots, A_n \models_{\mathcal{L}} C$ , then  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

The conditional’s antecedent is a claim about entailment in a given logic. Alternatively, in the case of what we might call *attitudinal* principles, it is a claim about the agent’s factive or non-factive attitudes (knowledge, belief, etc.) towards such entailment facts:

- ( $\star\gamma$ ) If  $\gamma(A_1, \dots, A_n \models_{\mathcal{L}} C)$ , then  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

Where  $\gamma$  designates the attitude in question. A bridge principle’s consequent makes a normative claim concerning the agent’s doxastic attitudes towards the relevant propositions.

Bridge principles may differ along the following dimensions:

1. Doxastic attitude: Does the principle feature full belief and disbelief or degree of belief.<sup>10</sup>
2. Deontic operator: What operator is deployed in the consequent? *Ought*, *permitted* or *has defeasible reasons*?
3. Scope of the operator: What scope does the operator take in the consequent (which typically itself takes the form of a conditional)? Does it take narrow scope over the consequent or wide scope over the entire conditional? Or does it attach to both antecedent and consequent of the embedded conditional?
4. Polarity: Does the norm make a *positive* demand that the agent have a particular attitude or a *negative* demand that the agent not have a particular attitude?
5. Restricted antecedent: Is the principle attitudinal or unrestricted?

To illustrate, our principle IMP above is a principle that constrains full belief, features *ought*, takes narrow scope over the consequent of the embedded conditional, is of positive polarity, and is unrestricted. We might reformulate it as:

- If  $A_1, A_2, \dots, A_n \models C$ , then  $S$  *ought* to believe  $C$ , if  $S$  believes each of the  $A_i$ .

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<sup>9</sup>See MacFarlane (2004) and Steinberger (2017) for a fuller exposition and discussion.

<sup>10</sup>I will set suspension of belief aside for present purposes.



The framework provides a wide array of candidate principles. But how are we to assess our candidates? MacFarlane proposes we score each principle based on its performance as judged against a set of adequacy criteria. The winner (or set of winning principles), if any, takes the prize. What are the criteria? It is here that the four objections we encountered in §3 make their second appearance: Our bridge principles must be immune to them. In addition, MacFarlane advances the following two desiderata:

- **The Strictness Test:** At least when it comes to ordinary, readily recognizable logical implications leading to conclusions that the agent has reason to consider (i.e. that do not constitute clutter), the logical obligation should be *strict*. That is to say, *prima facie* there is something amiss about an agent who firmly endorses the premises but disbelieves the conclusion on account of countervailing reasons (MacFarlane 2004, p. 12). (MacFarlane takes inspiration from (Broome 2000, p. 85).) Note that the Strictness Test tells against defeasible principles featuring the *reason* operator such as, e.g.:

If  $A_1, \dots, A_n \models C$ , then  $S$  has reasons to believe  $C$ , if  $S$  believes each of the  $A_i$ .

- **The Priority Question:** The attitudinal variants have a distinctive advantage when it comes to dealing with Excessive Demands worries. But relativizing one's logical obligations to one's attitudes invites problems of its own, according to MacFarlane. The problem, he claims, is that 'we seek logical knowledge so that we will know how we ought to revise our beliefs; not just how we will be obligated to revise them once we acquire this logical knowledge, but how we are obligated to revise them even now, in our current state of ignorance' (MacFarlane 2004, p. 12).<sup>11</sup>

These, then, are the criteria. My aim here is not to take issue with the specific conclusions MacFarlane and others have reached on their basis. My aim is more general. I believe the very question concerning the normativity of logic stands in need of clarification. In particular, I believe that there are three distinct normative functions logic might be thought to play and that the fact we routinely conflate them frustrates our quest for a defensible bridge principle. It is to this three-fold distinction that I now turn.

## 5 Directives, evaluations and appraisals

To make things concrete, let us consider the example of the following no-frills act-utilitarian principle:<sup>12</sup>

- (AU) If  $\Phi$ ing is the action (among the actions available to  $S$ ) that maximizes net happiness, then  $S$  ought to  $\Phi$ .

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<sup>11</sup>MacFarlane (2004, p. 12) introduces a further criterion he dubs *Logical Obtuseness*, which tells against bridge principles of negative polarity. For my purposes it is of negligible importance, which is why I put it to one side here.

<sup>12</sup>(Goldman 1980) and (Srinivasan 2015) use a similar principle to illustrate related issues.

Consider now the following two misgivings one might have about (AU). First, the principle is *unhelpful*. It is unhelpful because it fails to *guide* the agent in most situations. After all, I often have no way of knowing which of the actions available to me most effectively promote net happiness. (AU) provides no recipe the agent could use in deciding what to do.<sup>13</sup>

Second, the principle is *unfair*. It is unfair because it would be inappropriate to blame me if, out of sheer bad luck and despite my best efforts to comply with it, I flout the principle.<sup>14</sup>

A response to both of these worries is to recognize that (AU) plays a normative role other than the ones the objections turn on. Its role is *not* that of a decision procedure, *nor* that of a standard of blameworthiness. Rather, its role is that of a *criterion of correctness*. As such, it specifies the conditions under which an act is right or wrong. Viewed in this way, the two criticisms appear misguided, stemming from a misconstrual of (AU)’s proper normative role. That is not say, of course, that the normative functions underwriting these criticisms—that of providing action-guiding instruction or that of standards for the attribution of praise and blame—are themselves illegitimate. They are not, and should be accounted for in a complete moral theory. My point is simply that confusion ensues if these normative roles are not clearly distinguished.

Let’s remind ourselves of the terminology I introduced earlier. I call norms such as (AU) *evaluations*. I call norms that serve the purpose of guiding the agent *directives*. And I call norms that lay the basis of our attributions of praise and blame *appraisals*. To gain a fuller understanding of these three normative roles and of their interaction, it is useful to highlight some of their characteristic features. To this end, consider the following norm schema:<sup>15</sup>

If  $C$ , then  $S$  ought to/may/has reason to  $\Phi$ .<sup>16</sup>

Here  $\Phi$  is a basic action.<sup>17</sup>  $C$  is the norm’s triggering condition. (AU) is an example of a norm that comes with a triggering condition the obtaining of which is not usually within our ken. The truth norm for belief is a further case in point. More generally, it is distinctive of evaluative norms that their triggering conditions tend not to be *transparent* to the agent; the agent will not always be in a position to recognize whether  $C$  obtains. On account of this potential complete divorce between the conditions under which the norm applies and the agent’s recognitional abilities, evaluations need not be ‘followable’.

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<sup>13</sup>See (Srinivasan 2015, p. 292, fn. 25) for extensive references to authors who have argued in favor of action-guiding norms in different normative domains.

<sup>14</sup>I assume, for the sake of the example, that (AU) is correct. Notice that (AU) may also be unfair in the opposite sense: It may classify acts as correct even though the agent acted negligibly and therefore reprehensibly, but simply got lucky. Here and in the following, I am setting aside cases in which an agent is thought to be ‘off the hook’ on account of being in coerced, under duress or incapacitated, e.g. by being bonked over the head, mental illness, etc. The example should make it clear enough that I am after blamelessness resulting from non-culpable ignorance.

<sup>15</sup>Cf. Srinivasan (2015).

<sup>16</sup>Many norms will take the form of biconditionals. For present purposes, we may focus on norms in conditional form.

<sup>17</sup>‘Basic action’ is to be understood broadly enough to include doxastic states.

Not so in the case of directives or appraisals. For a norm to be serviceable as a directive, it should, in the main, be followable. If it is not, it cannot fulfil its guiding role. Appraisals differ from directives in that they are external assessments of the agent. Yet they too must be sensitive to the appraisee's perspective. Often, an agent who, out of non-culpable ignorance, violates a norm, is not liable to criticism. Hence, norms performing this function should also be equipped with triggering conditions the obtaining of which is recognizable by the appraisee (or at least such that the appraisee can reasonably be expected to recognize them).

It is for this reason that (AU) would indeed be unhelpful if construed as a directive, and unfair if construed as an appraisal. Let me briefly recapitulate, foregrounding our three normative roles' distinctive features.

1. *Directives* are first-personal and guide a subject in what to do, choose or believe.
2. *Evaluations* are third-personal and set standards or ideals against which to assess acts or states as good or bad, correct or incorrect, etc.
3. *Appraisals* are third-personal and lay the basis of our attributions of praise or blame to agents.

Before putting these distinctions to good use, a few more comments regarding the three roles are in order. When it comes to directives, some authors argue that *absolute* followability is impossible. Srinivasan (2015), drawing on Williamson (2000) as well as on empirical findings, mounts a strong argument against what she calls 'Cartesianism': The position that some triggering conditions are unfailingly transparent. According to this view, even 'internalizing' a norm's triggering condition by tying it to the agent's internal states<sup>18</sup>, cannot secure transparency, since the agent need not be capable of determining whether she is in the mental state in question. I, for one, am skeptical about their conclusions. But there is no need to pronounce on the viability of Cartesianism here. Transparency need not be presupposed in the notion of a directive. Williamson and other externalists make ample use of directives. Simply, they reject the inseparability of violating a directive and blameworthiness.

While the distinction between directives and evaluations has been recognized in a number of different normative fields,<sup>19</sup> appraisals may be less familiar and so merit elaboration. Appraisals are central to our normative practices. As normatively regulating and regulated beings, we constantly hold each other to account for what we do, intend or believe. In particular, we appraise our epistemic peers in order to assess their character as inquirers. A conscientious reasoner is generally a trustworthy source of testimony. In arriving at such assessments, we frequently care about more than merely an evaluation of their beliefs' correctness. After all, knowing that my peer arrived at a mistaken belief not out of irresponsible doxastic conduct, but out of sheer bad luck and despite having discharged her epistemic obligations, is valuable information in forming an opinion about her epistemic character.

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<sup>18</sup>See the references in (Srinivasan 2015, fn. 24).

<sup>19</sup>See Bermudez (2009), Goldman (1980), Jackson (1991), and Pryor (2001) to name but a few.

Within this practice, our standard for attributing blame may vary. At times they will be minimally demanding. That is, we appraise solely on the basis of what the appraisee in fact *takes* to be the case (or what she can be interpreted as taking to be the case). According to this standard, the appraisee is not to be faulted, so long as she conducts herself in such a way that, were her beliefs pertaining to the situation true, she would be evaluated positively. However, other situations may call for more stringent standards; doing what *by her lights* she ought to do may not be sufficient to ensure blamelessness. In such cases our attributions of blame track not the agent's actual (relevant) beliefs, but the beliefs an agent can reasonably be expected to have. It may be, for instance, that our agent sincerely believed her act to be happiness-maximizing, and yet she may be culpable because her beliefs are unreasonable.<sup>20</sup>

How demanding may such a standard be? Presumably there are no hard and fast rules here. I, as a layman, could not be faulted for failing to see mathematical relationships that a working mathematician may rightly be expected to recognize effortlessly. I may, however, be held responsible for failing to appreciate elementary arithmetical truths, which I did not appreciate at the time I acted, but whose truth I could have come to see had I paid the matter more thought. In these, as in other cases, the context dictates the appropriate standard.

So much for the individual features of our normative roles. What can be said about their interrelations? There is much to be explored here. Different theories across different normative domains are bound to conceive of these relations differently. My aim here is not to chart all possible or actual positions, nor to defend any particular position. Instead, I offer a few examples to give the reader a sense of how such a story might go. Let us begin with another example. Suppose my friend's car broke down. I help her out by lending her my bicycle to get to work. She cycles off gratefully but soon thereafter is killed in a tragic accident. Our utilitarian treats (AU) as an evaluative standard. The disastrous consequences of my act of bike lending render it wrong on her view.<sup>21</sup> My honorable intentions and the fact that the consequences of my act were not foreseeable, are irrelevant. These circumstances *do* however factor into their normative assessment of me, the agent. The evaluative status of the *act* is thus sharply distinguished from the appraisal of the *agent*. While my act is negatively evaluated, I am not to be faulted for it. Evaluation and appraisal thus come apart. How, now, do directives enter into the picture? One view is that directives are to be designed to guide us so as to promote the evaluative standard. Moreover, as we noted, directives are often taken to be intimately linked to appraisals. Some have maintained that compliance with the right kind of directive secures blamelessness.<sup>22</sup> But directives and appraisals need not necessarily march in lockstep. One example of such a view is given by the externalist anti-Cartesianism discussed above. Anti-Cartesianism maintain that absolute followability

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<sup>20</sup>See (Rosen 2003, p. 63) for fuller discussion.

<sup>21</sup>The utilitarian in question would be an adherent to 'actual consequentialism' in Sinnott-Armstrong's terminology (Sinnott-Armstrong 2015).

<sup>22</sup>See (Ross 1939). For an application to internalism about epistemic justification, see (Steup 1999). For a lucid critical discussion, see (Srinivasan 2015).

in directives is an illusion and that, therefore, directives may be non-culpably violated.<sup>23</sup>

## 6 Bridge principles and the three normative roles

Our task now is to show how this normative trinity can be brought to bear on bridge principles. First note that bridge principles neatly fit our norm schema: They comprise a triggering condition (given by the antecedent) as well as a properly normative consequent. As with other types of norms, a bridge principle's triggering condition will typically predispose it to play one or another normative role. Take an unrestricted principle of the form 'if  $A_1, \dots, A_n \models C$ , then  $\Phi$ '. Ordinary agents are no more capable, in general, of determining whether a complex logical entailment obtains, than they are of determining which of a number of acts maximizes happiness, thus indicating that principles of this form are ill-suited to the role of directive or appraisal. Some may object that the two cases are importantly different: The first is an instance of *factual* ignorance, they will say, whereas the second is one of *logical* ignorance. Standard models of rationality (epistemic logic, Bayesian approaches, AGM belief revision theory, ranking theory) allow for factual ignorance, but presuppose a priori omniscience. While an a priori omniscient agent may be oblivious to any number of empirical facts, her powers of processing the information available to her is unhindered by cognitive limitations of computational power, time, concentration, and so on. I have no objection to such idealizations; they give rise to valuable formal tools. However, my aim here is to provide a more general account of logic's normative force, one that also tells us how it affects the less fortunate, imperfectly rational among us. All the same, my picture leaves room for idealized agents, which register as a special case. With this clarification in place, let us now take a closer look at what types of bridge principles lend themselves to playing which normative roles.

Begin with directives. As we have seen, ordinary agents are not apprised of all the entailment facts adverted to in the principle's antecedent and so are in no position always to follow the principle. A more suitable bridge principle must therefore instruct agents like me how, given my limited state of information about the logical facts, I ought/may/have reason to manage my beliefs. I will make no attempt here to determine the exact form a guiding bridge principle should take. The following remarks aim to give the reader a sense of the challenge.

A natural first move might be to subjectivize the triggering conditions, restricting the principle to *believed* entailments—i.e. 'if  $S$  believes  $A_1, \dots, A_n \models C$ , then  $\Phi$ '. This proposal provokes the following worry. Restricted principles of this type invite the agent to look 'inward' toward her own mental states. However, the aim is to align our beliefs with the logical facts, it is to *these* the agent should be 'looking'.<sup>24</sup> There is a sense in which this is true. It is important, though, to be mindful of the distinct perspectives that are at play here. The principle articulates, from a third-person point of view, how the agent ought to conduct herself in light of what she believes to be the case. From

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<sup>23</sup>See (Littlejohn Forthcoming) and (Williamson Forthcominga).

<sup>24</sup>Cf. (Foley 1993).

the agent’s own perspective the directive reads differently since the question ‘What do I believe with respect to the logical facts?’ gives way to the question ‘Which logical facts obtain?’ That said, the notion that the agent should be concerned with what is the case, while being limited to her current state of information may be better captured by the following:

(D) If in  $S$ ’s best estimation  $A_1, \dots, A_n \models C$ , then  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

What is more, (D) avoids the implausible intellectualism belief-based principles seem committed to.  $p$ ’s being the case in  $S$ ’s best estimation does not presuppose  $S$ ’s explicit belief in  $p$ , nor need it presuppose the believer’s having the ingredient concepts. Moreover, the schema should not be understood in such a way as to presuppose that  $S$  must deliberately apply the norm. Normative guidance plausibly most often occurs beneath the surface of conscious experience. Hence, directives can guide our action without needing to be explicitly believed or deliberately applied in the course of conscious deliberation. The schema is intended to avoid such overly intellectualistic understandings of normative guidance.<sup>25</sup>

Turn now to evaluations. Evaluations, we said, classify acts or states into those that do and those that do not fall short of the normative ideal. Therefore, an evaluative bridge principle will typically be characterized by the fact that its antecedent is wholly unrestricted. It simply states which patterns of doxastic states the agent ought/may/has reason to have or to avoid, in light of the logical relations between the states’ contents. It will thus simply take the form:

(E) If  $A_1, \dots, A_n \models C$ , then  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

An upshot of these considerations is that the ‘ought’ figuring in evaluative bridge principles, as opposed to those featured in directives and less idealized appraisals, is of the non-‘can’-implying variety.<sup>26</sup> A non-decidable logic may thus give rise to standards that ordinary folks like us can at best approximate. This of course raises the important question of the purpose of such a standard and how approximating it may be of value. If approximating an unattainable ideal may be of value, this is presumably because we can make useful comparative judgments about the degrees of coherence of belief states.<sup>27</sup> A full response takes us well beyond the scope of this paper. It would require a worked out view of how our three normative roles interrelate and of the status of evaluations in particular.

Finally, what do appraisals come to in the context of bridge principles? An appraising bridge principle is one that grounds one’s assessment of how well an agent responds to the normative demands of logic. Generally, an agent cannot be faulted for responding to

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<sup>25</sup>See (Railton 2006) for an insightful discussion of normative guidance that emphasizes the fact that our norm-governed selves are usually sensitive to norms that we would often be incapable of articulating explicitly even if we paused to think about them.

<sup>26</sup>The ‘ought’, therefore, is not a *practical* or *deliberative* ‘ought’, but an *evaluative* one. See e.g. (Schroeder 2011).

<sup>27</sup>Zynda (1996) provides a compelling and rigorous account of how to make sense of varying degrees of probabilistic coherence.

logical entailments beyond her cognitive reach. Consequently, we said, appraising bridge principles will be relativized to the appraisee’s situation.<sup>28</sup> As we also noted, however, our criticisms need not be based on which entailment facts the agent *actually* takes to be the case (as best as we can tell). They may be based in which entailment facts she can reasonably be *expected* to take to obtain. Appraisals may thus come in varying degrees of idealization, depending on how much logical acumen is deemed exigible from our agent. At one extreme—degree zero of idealization, if you like—an appraising principle is relativized simply to the agent’s actual logical beliefs:

- If  $S$  believes that  $A_1, \dots, A_n \models C$ , then  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

In this case, the agent’s logical obligations extend no further than her logical beliefs. At the other extreme—the maximal degree of idealization—the agent is expected to recognize every logical entailment. At degree zero, appraising principles mimic, from a third-personal point of view, the corresponding directives; at the maximal level of idealization, appraising principles converge with the corresponding evaluative principles (one is, at it were, appraising a potentially logically perfect agent). Typically, appraising principles operate at intermediary degrees of idealization. For instance, even when we are assessing an agent by her own ‘logical lights’, we may abstract away from whimsical logical beliefs that the agent would readily revise with the right amount of prompting. Legal contexts are an example of when we might be interested in what logical consequences an agent may reasonably be expected to take into account, even though the agent may have neglected to do so. The logic class is another such example: We may assess a beginning logic student on how well they make do with the still modest logical resources available to them: ‘Here you failed to derive this formula even though you already have the tools to do so’; ‘You couldn’t have been expected to solve the last exercise, which draws on concepts that you are not yet familiar with’, and so on. How much idealization is permissible, then? For instance, might we even correct for systematic errors in logical reasoning like those frequently documented in the findings of cognitive psychologists? Again, there are presumably no firm rules here. Everything depends on what degree of idealization is appropriate for the context in question, and on the way in which appraisals are thought to interact with the other normative roles.

## 7 Applications

The time has come to reap the fruits of our labor. The most obvious upshot is that we are now indeed in a position to replace our nebulous initial question concerning the status of NT, by the three more precise questions mentioned in the introduction. This, as we noted, has the following two important consequences. First, it allows us to see how a failure to distinguish between these questions has caused leading participants to talk past one another. Second, our distinction reconfigures the process by which we assess bridge principles, thereby paving the way for a resolution of the problem. I begin by

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<sup>28</sup>If that again smacks of too much intellectualism, our principles can be relativized to the agent’s capacity to determine what follows from what.

sketching the ramifications of the distinction in general terms, before turning to each of the consequences in turn.

Let us remind ourselves of the initial dialectical situation. Harman’s skeptical challenge amounts to the question as to whether there exists a philosophically viable bridge principle. In light of our distinction, we are now faced not with one, but with three separate versions of Harman’s challenge: We must supply an adequate principle for each of the normative roles. And to test the adequacy of a given principle we engage in the score-keeping exercise described in §4: We assess the candidate principles against our criteria so as to determine which principle (or group of principles) fares best (if any).

But here is the crucial insight. *Different normative roles invite different criteria of adequacy.* One set of criteria may be appropriate for assessing bridge principles playing one kind of normative role, but unsuitable for assessing another. Hence, in assessing a principle, we must appeal to different sets of criteria depending on its normative function.

Some examples may be helpful here: The Objection from Excessive Demands appears to rule out certain bridge principles on account of the unrealistic demands placed on our ability to recognize logical implications. As such the criterion is aptly applied to bridge principles assessed as directives or as (weakly idealized) appraisals since both are sensitive to the agent’s recognitional abilities. By contrast, Excessive Demands ought to have no purchase on principles assessed *qua* evaluations, which are (typically) insensitive to the agent’s viewpoint.

Conversely, the Priority Question has bite when it comes to evaluations, but is inapplicable in the case of directives and (weakly idealized) appraisals. Evaluations are concerned with the standards to which we hold ourselves, not with what the agent takes those standards to be. Directives, on the other hand, can only go on the logical entailments, we, in our best estimation, take to obtain. Similarly, we frequently hold appraisees accountable only to the extent that they are in a position to recognize the entailments in question.

Hence, bridge principles will be responsible to different criteria depending on the kind of normative role we are assessing them for.<sup>29</sup> The functional relation between the normative roles we are assessing a principle for and the applicability of our criteria can be tabulated as follows:

|                                | Directives | Evaluations | Appraisals |
|--------------------------------|------------|-------------|------------|
| Objection from Belief Revision | ✓          | ✓           | ✓          |
| Clutter Avoidance              | ✓          |             | ✓*         |
| Excessive Demands              | ✓          |             | ✓*         |
| Priority Question              |            | ✓           | ✓*         |
| Preface Paradox                | ✓!         |             | ✓!*        |
| Strictness Test                | ✓!         | ✓           | ✓!*        |

<sup>29</sup>Oftentimes, as in our examples, once the normative role is specified, it is an all-or-nothing matter whether a given desideratum is in force. But it need not be. In the case of appraisals, as we will see, Excessive Demands applies more or less stringently depending on the degree of idealization. I return to this below.



The occurrence (absence) of a checkmark indicates that the desideratum in question is relevant (irrelevant) to assessing bridge principles playing the normative role in question. For instance, a check in the cell at the intersection of the ‘Belief Revision’ row and the ‘Directives’ column means that principles assessed *qua* directives must satisfy Belief Revision. Checkmarks followed by asterisks indicate that the principle is to be applied more or less robustly depending on the degree of idealization involved in the appraisal. I discuss these cases, along with cells containing exclamation marks, further below.

Here is how the table comes to be. We have already addressed the cases of Excessive Demands and Priority Question. Belief Revision would seem to apply across the board to all normative roles. The objection is most naturally seen as targeting principles understood diachronically, but it equally applies on a synchronic reading. The most promising response, it would seem, is to opt for a wide-scope principle. That is, a principle that proscribes certain combinations of attitudes, as opposed to a narrow scope one that prescribes particular attitudes.

Clutter avoidance is appropriately applied in the case of normative roles sensitive to the agent’s cognitive limitations (i.e. directives and appraisals). However, evaluations, as ideals of logical coherence, may abstract away from considerations of Clutter Avoidance.

Let us turn now to the interesting cases. The Preface Paradox and the Strictness Test are one manifestation of the aforementioned inconsistency among our criteria. The Preface Paradox arguably shows that our logical obligations cannot be strict: In Preface cases it seems appropriate to believe each of a (large) number of propositions and simultaneously to disbelieve consequences they jointly entail. One reaction, of course, might be to try to talk oneself out of one or both of the intuitions undergirding the criteria. However, both have initial appeal. We do well not to jettison either hastily. Instead, let us consider each normative role separately.

Begin with directives. From the perspective of the believer, the Preface Paradox has a strong intuitive pull. This is because, in forming her beliefs, the believer appeals (perhaps tacitly) to guiding epistemic norms. Any norm that provides guidance in most contexts is bound not to be factive, i.e. compliance with it will not guarantee the truth of the proposition believed. And this is all it takes for the Preface Paradox to get off the ground: I might comply with the norm with respect to each of the propositions and yet it may be rational for me to believe that at least one of my beliefs is erroneous.

One way around this is to adopt a bridge principle that constrains degree of belief rather than full belief (cf. Field (2009a, 2015)). Such principles exploit the well-known fact that my rational credence in the conclusion may be low even if my credence in each of the premises may be high. However, bridge principles that require awareness of the precise numerical values of one’s credences as well as cognitively demanding calculations can hardly serve as directives, at least if directives should, at least in principle, be susceptible of being consciously followed.

A more promising route is to retreat to a bridge principle featuring the weaker *reasons* operator: My believing each of the propositions comprising my book provides me with a defeasible reason to believe their conjunction. However, my (logic-based) reasons for believing the conjunction may be overridden by the weightier epistemic considerations

such as the demand for epistemic humility.

The apparent cost of this strategy is abandoning Strictness. Strictness, recall, states that at least when it comes to obvious logical entailments, an agent who endorses the premises but fails to believe the conclusion is liable to criticism. The flexibility that accounts for the *reasons* operator's ability to parry Preface Paradox-like challenges now appears to be a strike against it. Is there a way of reconciling our Preface- with our Strictness-supporting intuitions?

Here is a simple idea. Let us assume we have partial orderings over our doxastic norms according to relative priority. Different contexts could call for different priority orderings. Norm  $N_1$  may take precedence over  $N_2$  in one context, but  $N_2$  may have a higher priority than  $N_1$  in another. For example, the norm of being polite may be judged to be more important than that of being honest in some situations (when you're being asked your opinion about your friend's baby's cuteness level, say). Yet, there are many contexts in which we do well to strongly prioritize honesty over politeness.

The relevance of these considerations is this. Our intuitions regarding Strictness are at their most forceful in *ordinary* contexts—contexts in which the agent is concerned with a very limited number of beliefs. By contrast, in such contexts our Preface intuitions have no purchase on us. Think of a 'Preface case' involving three propositions. Our Preface intuitions get a foothold only once a sufficiently large body of propositions is at issue. Conversely, it is precisely in these Preface contexts that our Strictness intuitions lose their grip on us: It may be rationally required, or at least excusable, to violate Strictness.<sup>30</sup>

What we are after, then, is a principle that is sensitive to whether the agent's situation is 'ordinary' or 'Preface-like'. More precisely, we would like instructions telling us how to understand the *reasons*-operator in:

(D\*) If in  $S$ 's best estimation  $A_1, \dots, A_n \models C$ , then  $S$  has reasons to  $N(\alpha(A_1), \dots, \alpha(A_n), \beta(C))$ .

How heavily should the reasons for respecting logical coherence be weighted relative to the reasons favoring competing considerations of epistemic humility? It depends on the context. In ordinary contexts our reasons for taking into account the logical consequences of our beliefs take precedence. Within such contexts, our *reasons* operator mimics the corresponding *ought*, thus preserving our Strictness-supporting intuitions. It is only in Preface-like contexts that the *pro tanto* nature of the deontic operator makes itself felt. For it is in these situations that our Preface intuitions supersede our Strictness intuitions. The operator, as we might put it, behaves *quasi-strictly*. Of course there are no sharp boundaries demarcating ordinary from Preface-like contexts. But the resulting vagueness in our account need not deter us. It is simply a reflection of the vagueness of the phenomenon we are giving an account of.<sup>31</sup>

This explains the 'Directives'-column in our table above: Preface Paradox and Strictness receive an exclamation mark to indicate their context dependence.

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<sup>30</sup>Cf. (Cherniak 1986, p. 51).

<sup>31</sup>The account I describe can be thought of as a qualitative version of the well-known probabilistic proposals for dealing with Preface cases.

Turn now to evaluations. Strictness would seem to be part and parcel of the very idea of an evaluative standard and therefore is non-negotiable. From our strict evaluative point of view an agent who professes to believe a number of premises while at the same time disbelieving a logical consequence thereof is plainly logically defective. It is, in Harman's words, 'contrary to the way we normally think' (Harman 1986, p. 23).<sup>32</sup> After all, it is *because* we recognize the evaluative standard imposed by logic that we recognize Preface cases to be (arguably) paradoxical. However, the conflict between local non-factive doxastic norms and global norms of logical coherence does not arise if we extend the evaluative standpoint to our local norms of belief. The standard individual belief aspires to, presumably, is truth or knowledge. But this means that the evaluative norms are factive and therefore do not give rise to the Preface Paradox.

While our discussion has been primarily concerned with logical norms of reasoning as they affect individual reasoners, it is worth noting that evaluative standards are equally applicable when it comes to scientific inquiry and the products thereof. Clearly, we demand logical coherence when it comes to scientific theories. Equally clearly, however, the normative grip of logic on theories is not subject to Clutter Avoidance, Excessive Demands, or the Preface Paradox in the way it is for directives and appraisals that individuals are subject to.

Finally, let us turn to appraisals and the meaning of the asterisks. Much like Strictness and the Preface, Excessive Demands and Clutter Avoidance, on the one hand, and Priority Question on the other, pull in opposite directions—the former penalize principles that impose unrealistic cognitive demands; the latter penalizes subjectivized principles. Once we distinguish directives and evaluations and restrict the set of applicable criteria appropriately, the tension between them is dissolved: Directives are not subject to Priority Question; evaluations are not subject to Excessive Demands and Clutter Avoidance. But what about appraisals? At first blush it looks as if the entire inconsistent triad is part of the set of criteria we use to assess appraisals. Not so. The set of criteria associated with appraisals varies depending on the degree of idealization. Appraisals, at a low level of idealization, behave similarly to directives, while, at a higher level of idealization, they behave similarly to evaluations. Therefore, at a low level of idealization Clutter Avoidance and Excessive Demands apply strictly, and Priority Question may be discounted, whereas at higher levels of idealization the converse holds. As Excessive Demands is phased out, Priority Question is phased in (we gradually relax the restriction on principles from 'if *S* believes...' to 'if *S* ought to believe...' for an increasingly demanding 'ought' and so on). At no point, then, are we appealing to an inconsistent set of criteria in assessing the principle. That is the meaning of the asterisks.

Now that we have a better appreciation of the ramifications of our distinction, let us see how it sheds light on the current debate. I focus on three central actors: Harman, MacFarlane and Field. To begin, let us take a second look at Harman's challenge to NT. Which of the three normative questions does he target? The question Harman asks (and to which he offers a skeptical response), as we have seen, is whether a systematic and interesting normative connection can be said to obtain between principles of deductive

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<sup>32</sup>See also MacFarlane (2004) and Milne (2009) for relevant discussion.

logic and a ‘theory of reasoning’. As we have noted in §2, a theory of reasoning, for Harman, is a normative account instructing the reasoner how to go about managing her beliefs. His conception of the shape a theory of reasoning should take is central to Harman’s general outlook on the nature and aims of epistemology. We might characterise it as a form of ‘first person’ (Stevenson 1999), ‘regulative’ (Goldman 1980) or ‘procedural’ (Pollock and Cruz 1999) epistemology. That is to say, according to Harman, epistemology’s aim is to provide a first-personal account of proper doxastic conduct. Whereas third-personal accounts might propose ‘external’ conditions under which an agent’s belief is justified, qualifies as knowledge, etc., first-personal accounts seek to articulate principles and maxims that guide the agent in regulating her doxastic conduct.<sup>33</sup> Harman’s approach to NT is of a kind. The question of the normativity of logic, for Harman, is the question as to whether logic can be seen to provide normative guidance to the epistemic agent.<sup>34</sup> His concern, therefore—and the target of his skepticism—is *the question whether a viable bridge principle fit to play the role of a directive is to be had*.

Let us turn now to the two defenses of NT mounted by MacFarlane (2004) and Field (2009a, 2015). Spoiler alert: MacFarlane’s and Field’s proposals—for all their considerable merit—do not ultimately provide solutions to the question *as Harman understands it*. Their alternative interpretations of NT lead them to wrestle with what are in effect distinct problems. Let us consider each in turn.

MacFarlane wavers between two non-guiding types of normative assessments, though it is not entirely clear which. His insistence on the question of the agent’s responsibility—as manifested by the weight he gives to the Excessive Demands and the Clutter Avoidance considerations (idem, p. 13)—suggests that he conceives of bridge principles as performing an appraising role. The fact that he assumes there to be a close connection between bridge principles, their violation and the agent’s liability to criticism points in the same direction. In contrast, the importance he accords to the Priority Question—that we are normatively bound by logic even when we are wholly unaware of the logical connections between our belief contents shows that the type of normative assessment he has in mind is largely independent of the agent’s perspective. This suggests that he is thinking of bridge principles as playing an evaluative or at least an idealized appraising function. Regardless of where MacFarlane himself ultimately comes down, it is clear is that bridge principles for MacFarlane are not to play the role of directives as they indisputably do for Harman.

Field, on the other hand, is clear that his proposed bridge principle fulfils an evaluative role. At least, he is explicit about this in the latest version of his account. He therein notes ‘that we recognize multiple constraints on belief, which operate on different levels and may be impossible to simultaneously satisfy’ (p. 13). Among these he targets the ‘non-subjective sense of “should”’, which can be seen to correspond to our evaluative role.<sup>35</sup>

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<sup>33</sup>See (Harman 2010) for a helpful summary of his conception of epistemology.

<sup>34</sup>This is also evidenced by the fact that the potential candidate bridge principles he considers would have all the hall marks of a directive (Harman 2009, p. 333).

<sup>35</sup>It is noteworthy, however, that in earlier incarnations of his account (Field 2009a,b), Field seems to have taken a different view. Indeed in his (Field 2009a, p. 252), he explicitly takes himself to be

This establishes my claim that Harman and his opponents are not addressing the same question; all three authors understand NT in subtly but importantly different ways. The distinction between directives, evaluations and appraisals allows us to diagnose how their views diverge. This does not, *per se*, tell against any of the three accounts, of course. What it does show is that MacFarlane’s and Field’s accounts, presented (in part) as responses to Harman’s challenge, are not in fact in direct competition with Harman’s position at all. It is conceivable, for example, that Harman is right to think that no bridge principle is capable of offering the right kind of normative guidance, while Field is right about logic’s evaluative role. We would then have to conclude that Harman’s skepticism is partially justified in the sense that there is no guiding bridge principle that fits the bill and hence that logical consequence does not directly enter into first-person doxastic deliberation in ways we might have expected. Yet, it would still be true that logic *does* have a broadly normative role to play—to wit, an *evaluative* one.

Let us now turn to the second benefit of my account. I have claimed that it not only dispels the confusion bedevelling the debate surrounding NT, it also gives us reason to be optimistic that our suitably reformulated questions concerning the status of NT admit of answers. Here, finally, is how. As a further result of our illicitly running together directives, evaluations and appraisals, we were led to develop an incoherent conception of what an adequate answer to our question would look like: the set of criteria against which our bridge principles were to be evaluated formed an inconsistent bunch. We simply lumped together the criteria, which, as we now recognize, are associated with distinct normative roles. It is no surprise, then, that no one principle could possibly satisfy all our desiderata simultaneously. To advance a positive account, authors were thus forced to downplay some of the criteria so as to arrive at a consistent subset of criteria vindicating their favored principle. The problem is that they lacked any convincing grounds for discounting the desiderata in question; their choice therefore seemed unmotivated.

The tripartite distinction not only gives us an explanation as to why we ended up in this muddle, it also shows us a way out. For it provides us with precisely the principled grounds we previously lacked. Each normative role—directive, evaluation and appraisal—comes with its proprietary set of adequacy criteria. And while the union of these sets of criteria is inconsistent, the individual sets associated with each normative role are not. This is reflected in our table above. What this shows is that it is (at least) possible that each of our three normative questions admits of a solution. Thanks to our distinction we are thus in a position to meaningfully ask and to systematically examine whether each of the resulting questions does or does not admit of an answer. It is in this sense that our distinction clears the way for the resolution of the problem of the normative status of logic.

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‘concerned with Harman’s obstacles to’ the connection between logic and rationality. He is, in this earlier work, clearly troubled by the Excessive Demands and Clutter Avoidance Objections and flirts with various attitudinal principles to cope with them, which suggests that, at this stage, he took bridge principles to have a guiding role.

## 8 Conclusion

Let us take stock. My point of departure was NT: the thesis that logic is normative for reasoning. I reviewed Harman’s influential skeptical challenge to NT. I also presented MacFarlane’s classification of bridge principles and explained how his project can be thought of as a systematic attempt at a response to Harman’s objections. However, I then went on to argue that before we can hope to make any progress on the question of the normativity of logic, we will need to disentangle it. I undertook this clarificatory task by showing that there are in fact three distinct broadly normative roles logic might be thought to occupy and hence three senses in which logic might be taken to be normative: It might be thought of as a purveyor of directives, of evaluations or of appraisals. Having characterized the three normative roles, I explained the benefits of introducing the distinction. I began by showing that the distinction forces us to assess bridge principles relative to the normative role they are taken to perform. I then demonstrated how the failure to appreciate the distinction between the three normative functions on the part of the main actors in the contemporary debate leads them to talk past one another. Finally, I explained how this renders our three questions concerning the normativity of logic more tractable. In short, I hope to have shown in this essay, why the contemporary debate failed to make significant progress and also to have offered a road map for tackling the question of logic’s normative status going forward.

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