

## The Merits of Incoherence

jim.pryor@nyu.edu

November 2013 — Cornell

### 1. Introductions to Logic Textbooks

#### BAD

Logic is defined as the study of the principles of reasoning.

(Hedman, *A First Course in Logic*, 2004, xiii)

One of the popular definitions of logic is that it is the analysis of methods of reasoning...

(Mendelson, *Intro to Mathematical Logic*, 4th ed, 1997, 1)

[W]e can say that mathematical logic is the branch of mathematics that studies the logic and the methods of deduction used in mathematics... [T]here is something circular, perhaps even paradoxical, in the nature of this field. For its subject matter is mathematical reasoning, but since it is a branch of mathematics its method of inquiry must also consist of mathematical reasoning.

(Robert Wolf, *A Tour through Mathematical Logic*, 2005, vii)

#### GOOD

This book...presents the basic concepts and results of logic: the topics are proofs, [semantic notions like] truth, and computability...

We have given some hints as to what we intend to do in this book. We should also correct some possible misimpressions by saying what we are not going to do. This book does not propose to teach the reader how to think...

(Enderton, *A Mathematical Introduction to Logic*, 2nd ed, 2001, xi--xii)

### 2. Deliberating vs Concluding vs Entailing

Deliberating or Reasoning: often exploratory; can be merely hypothetical; having a "good nose" and "thinking outside the box" help; fumbling around in mental darkness in ways that are productive

Concluding or Making a Doxastic Transition: includes coming to some *settled* view (all-out belief, all-out withholding of belief), as well as *adjusting your confidence* in response to some evidence

Logical Entailment: mathematics of some kinds of structurally-imposed commitments

### 3. Taking Logical Opacity Epistemically Seriously

A (the claim that some axiomatization of graph theory implies theorem such-and-such about graphs) and O (the claim that the group axioms imply theorem so-and-so about groups) are non-obviously logically equivalent.

\* **Adam** starts out reasonably confident in A; but (intuitively) sees no special reason to believe O. By studying the connections between graph theory and group theory he then comes to see that A iff O; and so comes to believe / raise his confidence in O.

\* **Barry** has had the same mathematical insights that Adam *began* with, no more and no less. However, all along he's had the same degree of confidence that Adam *ends* with in both A and O.

\* **Clarice** starts with the same insights *and attitudes* that Adam began with, but then spontaneously raises her confidence in O to Adam's end state — not in response to any new insights or successful reasoning.

We can agree that Adam's, Betty's, and Clarice's ending attitudes are more *accurate*; but are they equally justified? We can agree that Clarice may have *arrived at* these attitudes in an objectionable way; but has she ended up in as *statically* justified a position as Adam occupies?

Intuitively: though Barry and Clarice have the correct attitudes, they are *less* justified in doing so than Adam is. Epistemologists almost always ignore epistemic differences of this sort. Let's not.

### 4. Epistemic Closure Principles

(a) Doxastic justification (Hawthorne-style)

If you JB(A), and “competently deduce” O from A (this includes at least that A entails O and you “simultaneously recognize” this) while retaining your JB(A), then your belief in O is justified.

(b)  $\exists$  all-things-considered prospective justification

If you have all-things-considered justification *to* B(A), and you “simultaneously recognize” that A entails O, then  $\exists$  all-things-considered justification for you to B(O). [This allows for “transmission failure.” Does the Hawthorne principle?]

(c)  $\exists$  prima facie prospective justification

(d) Closure norm

If you [justifiably?] B(A) and you “simultaneously recognize” that A entails O, then: B(O)!

- Must input attitudes be justified? (Normative impact of mere attitudes? for example, if you have some evidence for H but merely believe you don't)
- What is the output? **(d1)** a mere recommendation ( $\approx$  **c**); **(d2)** a pro tanto *must*, which may be dilemmatic; **(d3)** an “exhaustive” *must*

I have no complaints against (c)/(d1).  
(d2) is messy in ways that will emerge.

I assume **vulnerability to “undermining” defeat is ubiquitous**. Our lack of introspective/logical/epistemological omniscience exposes us to many invitations to be reasonably uncertain of things entailed by things we’re reasonably more certain of.

- Have philosophical or testimonial evidence that *A doesn’t entail O*
- Have evidence that you’re inferring *incompetently*, or that no one is at all *proficient in getting questions like those right*.
- Have unspecific evidence that *you have no adequate grounds for O*

Ubiquitous vulnerability to undermining speaks against (d3), (b), and (a).

\* To Adam, Barry, and Clarice, add **Darla**: She starts out as Adam did, then has the same insights about graph theory and group theory that Adam does, and comes to have the same ending attitudes that Adam did. However, she does so *in spite of* having some “deduction-threatening” evidence. Isn’t she *less* justified in her confidence in O than Adam was, who lacked that defeating evidence?

Upshots:

- The input justification and “recognized” entailment described in our Closure principles is not enough; whether you have the output justification is also hostage to *the absence of any* (undefeated) deduction-threatening evidence.
- In the presence of the deductive-threatening evidence, a reasonable pattern of attitudes for Darla to have may be one that is “recognizably” incoherent / inconsistent. For example: High confidence(A) and Lower confidence(O), despite A’s entailing O and her *recognizing* that it does so — albeit not in a way that entitles her to reasonably ignore evidence that it doesn’t.

*Opponents: We should resist the idea that deduction-threatening evidence can be effective at the first-order.*

Reply: I’m not relying on any principle like:

$$J(H) \rightarrow J(J(H))$$

$$J(H) \rightarrow J(\sim J(\sim H))$$

$$J(J(H)) \rightarrow J(H)$$

$$J(\sim J(H)) \rightarrow \sim J(H)$$

Not clear I need to be relying on *any* general principle of this sort, but if I am, it’d be of the form:

$$J(\sim J(H)) \rightarrow \text{some less } J(H)$$

That is, such-and-such pieces of evidence for the (false) claim that your other evidence doesn’t first-order justify belief in H has *some* first-order defeating effect towards H.

*Opponents: Is having deduction-threatening evidence compatible with your still “inferring competently,” and “simultaneously recognizing” that A does entail O?*

- (a) “Externalist”: If you in fact grasp A’s entailment of O, then you’re immune to any first-order defeating effect from deduction-threatening evidence?  
(Perhaps your grasp of the entailment gives you some leverage for *rejecting* the putative defeating evidence.)
- (b) The required statuses are exceptionally brittle?
- (c) The required statuses have some slack; they’re compatible with your having some deduction-threatening evidence, to whose first-order effect you’re *not* epistemically immune

*Opponents: when we subscribe to Closure principles, we are making epistemic idealizations.*

- Idealizations on which Barry's, Clarice's, and Darla's attitudes are normatively appropriate needn't *dominate* other idealizations, which require them to be more sensitive to their lack of evidence or their defeating evidence.
- We can suppose Darla *does in fact* respond ideally to her first-order evidence; must she also ideally be in a position *to be rationally certain* that she's doing so? If not, then shouldn't she pay attention to evidence that she isn't?
- Agents who *are* ideal in certain ways might necessarily be in a position to *justifiably believe there are* such agents; but *we* shouldn't end up being in a position to justifiably believe any ideal agents exist. The natural way to avoid that is for the ideal agents to work from the evidence that *we* not *they* would possess. So even if *there are* ideal epistemic positions occupancy of which would immunize Darla to the kind of defeating evidence we're discussing, it's not clear why the epistemic recommendations that *real* Darla ends up receiving should ignore such evidence.

## 5. Immediate Justification and Undermining

Anti-Closure is important to learning how to live in face of skepticism, but not via the traditional route.

Immediate justification: justification to  $\Phi$  that's not even in part constituted by your having justification to  $\Psi$

- I assume the relation of being some justification that partly constitutes some other justification is acyclic.
- I focus on *having some quantity* of justification, rather than on *having enough* for settling on some attitude
- Won't fuss about which attitudes we're talking about: believing, suspending judgment, having some high/low confidence, ...
- I focus on prospective or ex ante or “propositional” justification; will also discuss “doxastic” justification
- I begin with prima facie rather than pro tanto or “all-things-considered” justification

I assume **some of our justification is immediate**. (Plausible examples: That is experienced, I am aware of something,  $2 > 0$ , There is light ahead.)

As I said before, I assume **vulnerability to “undermining” defeat is ubiquitous.**

Having justification to believe *A* is partly constituted by your having justification to (dis)believe *U*. Versus: *is enabled by...?*

- I assume the relation of being some justification that *enables you to have* some other justification is also acyclic.
- I assume that some chains of justificatory constitution and enabling are finite.
- So at some point: **though *U* is a potential defeater for your justification to believe *A*, you nonetheless can have justification to believe *A* which isn't constituted or enabled by your having justification to disbelieve *U*.**
- So either: (i) **you can have justification to believe *A* without needing to have justification to disbelieve *U***; or (ii) justification to believe *A* and to disbelieve *U* there come as a package, neither constituting nor enabling the other.
- I set (ii) aside, we'll be exploring path (i).

If you're not justified in disbelieving *U*, perhaps you're justified in having some *other* doxastic attitude towards *U*, such as suspending judgment or refraining from believing it...? For any question you understand, or any question you're now considering, must there always be some doxastic attitude (or restricted range of attitudes) you're justified in having?

(e) So: we seem to be immediately justified in believing *A*.

(f) If we had justification to disbelieve *U* (that is, justification to rule out the defeater), that would be great, but we don't necessarily have that.

- “*U* seems a priori unlikely, so we may have justification to disbelieve it by default.” Then re-run the story talking about our justification to disbelieve *U*, and potential underminers of it.

(g) If we had justification to *believe* the defeater *U*, that would be bad: it would undermine the justification we have to believe *A*.

(h) Perhaps we have justification to suspend judgment about *U*; but wouldn't suspending judgment about *U* *also* tend to undermine our justification to believe *A* to some extent?

Wright 2004: “I cannot *rationally* form the belief that it is currently blowing a gale and snowing outside on the basis of my present visual and auditory experience while simultaneously agnostic, let alone skeptical, about the credentials of that experience.”

Upshot: We can be in (e) without also being in (f); but if we're in (g) or (h), wouldn't (e) be inert?

“Suppose you do JB(*A*). Then there's a coherence constraint on you to disbelieve *U* if you have any attitude towards it. So any other attitude towards *U* must *not* be justified; and some attitude has to be justified. Hence, having JB(*A*) must have justification to disbelieve(*U*) as *at least* a necessary condition.”

Principle I'll be rejecting: If your evidence supports some attitudes  $\beta$  and actually having  $\beta$  would be [impermissibly] incoherent with attitude  $\delta$ , then your evidence can not also support  $\delta$ .

Solutions I favor:

- Your epistemic position recommends believing A, and no attitude (not even suspending judgment) is recommended towards U; or
- **Your epistemic position recommends/mandates believing A, *and* recommends refraining from any belief about U; it may or may not also recommend not doing both jointly.**

## 6. Rationally Permissible Incoherence and Rational Dilemmas

Rationally permissible incoherence, as in Preface scenarios

- $B(A_1)! \dots B(A_n)! \text{ Suspend/Disbelieve}(A_1 \wedge \dots \wedge A_n)!$
- $B(A)! B(\sim A)!$
- $B(A)! \text{ Suspend/Refrain-from-B}(O)! \text{ [even when "recognizing" that A entails O, as in Darla's case]}$

Here it is *possible to jointly comply* with the recommendations, though you may be able to recognize that the attitudes so held can't jointly be true.

If there's a general norm *not* to have such attitudes, then there *is no* rationally permissible incoherence (only dilemmas, see below).

But I think these patterns of attitudes *can* sometimes be reasonable — at least, can be among the *least unreasonable* patterns for subjects in certain epistemic positions to have.

Rational dilemmas

- $B(A)! \text{ Suspend/Refrain-from-B}(A)!$
- $B(A)! \text{ If } B(A) \text{ then } B(H)! \text{ If } B(A) \text{ then Suspend}(H)!$
- $B(A)! \text{ Suspend}(U)! \text{ Don't both } B(A) \text{ and Suspend}(U)! \text{ [}\S 1\text{]}$

Underlined recommendations aren't recommended attitudes.

In 2<sup>nd</sup>/3<sup>rd</sup> examples, no specific doxastic choice is in itself doomed to be illegal.

Here it is *recognizably impossible to jointly comply* with all the recommendations.

Is one always justified in doing the least unreasonable thing? Impossible for everything to be forbidden? Then there are no dilemmas, only at worst ties.

Or: the *best* thing for you to do is ..., but you're not thereby off the hook for ...

I'm happy with both. I need at least one of those.

One interesting kind of dilemma is when you have attitudes that are statically bad (so: Have such-and-such other beliefs!) but you don't have any good basis for moving to the statically better doxastic stance (Don't change your belief except on good grounds! Don't ignore "information" when choosing grounds!) Compare Clarice; also Buridan's Ass. There may also be recommendations to *think harder* and the like, following which might *change* your epistemic position to one where you can better see defects in your current

beliefs, and so you'll have gained a good basis for moving. But I'm discussing your epistemic position before such changes.

## 7. Where we are

(e) We seem to be immediately justified in believing A.

(g) If we had justification to *believe* the defeater U, that would undermine the justification we have to believe A.

(h) Let's suppose we have justification to suspend judgment about U.

**Perhaps** B(A) and Suspend(U) is a rationally permissible incoherence? Comparable to having High(A) and Lower(O), as Darla does, in the face of (false) evidence that A doesn't entail O.

Or **perhaps** there is always a further recommendation, not to jointly B(A) and Suspend(U). In that case this scenario is dilemmatic, and subjects are doomed to be doing something wrong. [Closure norm (d2): perhaps failing to believe "recognized" consequences of things you believe is something you can't get off the hook for, even if it is part of your least unjustified total response.]

**But subjects *aren't* doomed to be doing something wrong wrt A.** Perhaps subjects can fail to have *any* attitude towards U, even the attitude of refraining. Might that be a (precarious) way for them to avoid violating any of the norms that apply to them? Alternatively, they could disbelieve U unjustifiably. This clearly would violate *some* norm that applies to them. But it wouldn't be a norm about what attitude to take towards A.

Like most epistemologists, I don't think unjustified beliefs about reliability (disbelief in U) can *justify* other beliefs that *epistemically depend on the assumption of reliability*. But A doesn't so depend. I don't see why subjects who have wrong attitudes towards U shouldn't be free to exercise the pro tanto, albeit dilemmatic, justification they have to believe A. That belief needn't share in the wrongness of their attitudes towards U.