

# On Contradictory Christology: A Reply to Cotnoir's 'On the Role of Logic'

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## 1. Introduction

A. J. Cotnoir's paper aims to challenge Contradictory Christology, not by challenging its truth or even its theological or philosophical viability; rather, he aims to challenge the conception of logic that underwrites it. In particular, Cotnoir aims to challenge my claim that the role of logic in true theology (i.e., the true theory of theological reality) is the role of logic in any other true theory, namely, the basement-level consequence (closure) relation governing the logical vocabulary – the sparse bag of vocabulary common to all true and complete-as-possible theories.

Cotnoir's paper is a valuable contribution to the development of any contradictory theology, and a valuable contribution to this symposium in particular. While his principal challenge, as I argue below, fails to show a defect in my account – or, for that matter, show even a genuinely rival account – Cotnoir's paper raises a rich variety of questions. Answering Cotnoir's various questions helps to illuminate the wider conception of logic and its place in the contradictory theology that I am advancing.

My chief aim in this paper is to first explain why Cotnoir's principal challenge fails; that aim is pursued in §2. In turn, §3 and its subsections take up my second but equally important aim: namely, marching through the variety of questions that Cotnoir's paper raises, directly or indirectly, about my relevant views on logic and its role in theology.

## 2. Cotnoir's principal 'disagreement'

In 'Christ – A Contradiction' I claim that the role of logic (-al consequence) in theology is its role in all truth-seeking disciplines: namely, to serve as the foundational or basement-level closure relation at the bottom of all true theories (specifically, at the bottom of the theories' closure relations). This claim, about logic and its role, is the chief target of Cotnoir's criticism:

I want to challenge the idea that the role of logic in theology is as Beall suggests. Theologians should, I argue, think of logical methods as a set of *tools* for constructing (closed) theories, and not think of logic as a universal *foundation* for all possible theories. (509, emphasis Cotnoir's)

Unfortunately – or, perhaps better, fortunately – the apparent disagreement here is only apparent.

Assume, as I've claimed, that logical consequence is the consequence (closure) relation at the bottom of each true theory's own consequence relation; it's the one that governs the logical vocabulary, which is the vocabulary common to the languages of all of our true and complete-as-possible theories. In a picture, think of all true theories lined up in a row, each paired with their respective consequence relation (the closure relation under which the theories are closed or 'completed'):

$$\langle T_1, \vdash_{T_1} \rangle, \langle T_2, \vdash_{T_2} \rangle, \dots, \langle T_n, \vdash_{T_n} \rangle$$

Each such consequence relation  $\vdash_{T_i}$  is a theory-specific entailment relation which governs the language of the given true theory  $T_i$ . The question is: where is *logic* in all this? Where, in other words, is *logical consequence* in this parade of theory-specific consequence relations? The answer that I've given – which, perhaps I should note, is entirely traditional and in no way nonstandard or radical in the context of the question at hand – is that logical consequence (logic, for short) is in each and every such  $\vdash_{T_i}$ :<sup>1</sup> logic is at the bottom of each theory's consequence relation, governing the logical vocabulary (and only the logical vocabulary). Logic, in this way, is 'universal' and 'topic-neutral', involved in the consequence relation of every true (and complete-as-possible) theory. The sense in which logic is involved is so-called extension:<sup>2</sup> that if  $X \vdash A$  is logically valid (i.e., if the sentences in  $X$  jointly entail sentence  $A$  according to logic) then  $X \vdash A$  is  $T_i$ -valid too (i.e., then  $X$  entails  $A$  according to  $\vdash_{T_i}$  too).

Now to Cotnoir's claim: 'theologians should think of logical methods as a set of tools for constructing closed theories, and not as a universal foundation for all possible theories' (509). I agree with this as a statement about *logical methods*, and indeed as a statement about the vast multitude of consequence relations (qua closure relations) defined over the many languages of many theories. I have no disagreement whatsoever with Cotnoir's claim, so given. But the issue to which my discussion of logic's role is directed in 'Christ – A Contradiction' is not an issue concerning the role of *logical methods*; the issue concerns the role of 'universal closure' or basement-level consequence (entailment, closure) in all of our true theories.

There is a multitude of consequence relations on any given language – at least any given natural language. In the field of logic, any relation that remotely looks like a consequence relation – or that can be modeled in a way that remotely resembles a consequence relation – is called 'a logic'.<sup>3</sup> This terminology is good in many contexts but not so good in others. One context in which the usage is regrettable concerns debates over whether logic is subclassical (or nonclassical in some other fashion),

<sup>1</sup> Unless otherwise stated, it should be plain that when I'm talking about logic I'm talking about logical consequence – not the field of logic, not 'logical methods' (a bit more on which below), or etc. The whole discussion in the target symposium paper makes clear that it's the role of logic (-al consequence) in all true theories that's under discussion.

<sup>2</sup> For more on this see the section entitled 'Contraposition of consequence' in my reply to Timothy Pawl's paper (457-462).

<sup>3</sup> For a sense of the 5-fold field of contemporary logic see Beall and Burgess 2017.

debates that are directly relevant to issues in this JAT symposium. Here, the debate is not whether there are logical methods that result in interesting and fruitful accounts of subclassical entailment relations. (Of course there are – many many times over.) Moreover, the debate is not whether such subclassical ‘logics’ can be used to do interesting modeling work in various theoretical pursuits. (Again, of course they can because they are so used – many many times over.) Accordingly, the debate over whether logic is subclassical is something else.

One might think that debates about whether logic is subclassical (versus classical) are about ‘good reasoning’ or rational acceptance-rejection behavior in our search for true theories. But this is not correct, at least for current debates over subclassical logic. Any account of the structure of rational acceptance-rejection behavior – any account of ‘good reasoning’ that is involved in our search for true theories – must reflect the sort of take-back (technically, non-monotonic) feature which is salient in the given structure. For example, our true theory of ‘good reasoning’ in our search for true theories may be such that all claims in set  $X$  jointly count as ‘good reason’ to accept the truth of  $A$ , but if you add some particular  $B$  to  $X$  the result of this union, namely,  $X \cup \{B\}$ , fails to count as a good reason for  $A$ ; indeed,  $X \cup \{B\}$  might well count as a good reason to reject  $A$ , and not merely fail to be good reason to accept  $A$ . The relation governing our rational pursuit of true theories is not itself a so-called monotonic one, and is thereby not an entailment or consequence relation at all. But current debates over whether logic is subclassical are debates over entailment relations – all of the leading candidates lack the sort of take-back, non-monotonic structure.

As I have said elsewhere (Beall 2015; 2018), though perhaps not explicitly (enough?) in ‘Christ – A Contradiction’, I accept what I take to be largely uncontroversial in contemporary philosophy of logic, namely, the distinction between an account of logic (qua consequence or entailment relation) and an account of ‘good reasoning’ or rational acceptance-rejection behavior. This distinction is not new or even recent but it was made very explicit in the work of Gilbert Harman (1973; 1986), work with which I’m largely in agreement (not about the details of the true account of logic but on the given distinctions). For present purposes, it is worth being even more explicit that the debate over whether logic is subclassical is not a debate over the very important but equally messy phenomenon of rational acceptance-rejection behavior. Of course, like just about any sufficiently fundamental issues, the true account of one of the given phenomena (e.g., logic) bears in many ways on the true account of the other (e.g., rational acceptance-rejection behavior); but such is our messy epistemic situation, regardless of the phenomena of which we are trying to give true accounts.

Debates about whether logic is subclassical (versus classical) are important and pressing debates. I’ve briefly indicated (above) what those debates are not about. The question remains: what, then, is being debated when we debate whether logic is subclassical? The answer to which I’ve pointed is as above: the debate is over which candidate consequence relation (viz., some given subclassical relation or the mainstream so-called classical candidate) plays the role of ‘universal closure’ or ‘universal consequence’ in all of our true theories – which of the candidates is the one on top of which our many theory-specific consequence relations are built? If the

answer is the mainstream (i.e., classical) candidate, then any contradictory theory (a fortiori, any contradictory theology) is the trivial one, since each theory's consequence relation obeys logic (since each theory has logic at the foundation of its own closure relation), and the mainstream candidate has it that any arbitrary contradiction logically entails any arbitrary sentence in the language of the theory.<sup>4</sup> On the other hand, if, as I hold, the answer is a suitable subclassical candidate where arbitrary  $\vdash A$  fails to entail arbitrary  $B$  then not all contradictory theories need be trivial theories.

Cotnoir's principal challenge to the foregoing (and, again, very standard, traditional) characterization of the role of logic (-al consequence) in all true theories is in fact not a challenge to the given characterization. There might be a challenge to my characterization were Cotnoir to argue that the role of universal closure on all true theories is played by not one consequence relation but rather many, whatever that might come to. I am not sure what such a position would involve unless it were some crude sort of relativism – some crude sort of anything-goes-ism – about the entailments of our true and complete-as-possible theories; but Cotnoir seems to explicitly reject such a relativism (see his §4.2, 522).

By way of summary let me be crystal clear in my reply to Cotnoir's would-be challenge: Cotnoir's principal challenge is a challenge that doesn't apply to my position; it's a challenge, if I understand it correctly, to the view that logical methods are not to be seen as useful theoretical tools. I stand with Cotnoir in firmly – firmly, firmly, firmly – holding that the techniques, methods and tools of logic (qua field of study) are extraordinarily useful modeling ingredients applicable to all disciplines, from theology to biology and everywhere in between. While it's unlikely that one particular tool or method or technique will be of equal value in its modeling work across all disciplines, it is equally unlikely that no such tool or method or technique will be any value. On this Cotnoir and I – and, I strongly suspect, just about all researchers in and around logic (qua field) – agree. This is an important point for analytic theology (and any other truth-seeking discipline); but it does not in any way challenge my account of the role of logic (-al consequence) in true theories – including the true theology.

### 3. Various questions about logic and theology

Cotnoir's principal challenge, while demanding clarification of my target conception of logic (-al consequence), does not affect the position I've advanced in 'Christ – A Contradiction'. But Cotnoir's paper does not end at his principal challenge. Cotnoir's discussion is highly valuable for the variety of questions that it raises about logic and its role in the theological enterprise. My aim, in the remainder of this paper, is to march through various issues/questions that Cotnoir, in an effort to fill in the broader

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<sup>4</sup> As a reminder on terminology: the trivial theory in a language  $L$  is the theory containing all sentences of  $L$ . A contradiction in  $L$  is any sentence in  $L$  of the form  $\vdash A \wedge \neg A$  or, logically equivalently,  $A \wedge \neg A$  (sometimes abbreviated  $\vdash A$ ) where  $\vdash$  is logic's (logically redundant) truth connective (viz., 'it is true that ...') and  $\neg$  is logic's falsity connective (viz., 'it is false that ...', also called *logical negation*).

project of Contradictory Christology (and a contradictory theology in general), invites me to answer.

In what follows I simply paraphrase what I take to be some of the questions that Cotnoir raises, and I briefly respond to each one.

### **3.1. Are you an exceptionalist or anti-exceptionalist?**

The debate over exceptionalism versus anti-exceptionalism seems to be an epistemological one. The question is whether we have some sort of special insight into the true theory of logic (-al consequence) that we don't have for most (if not all) other true theories. With Quine (1970) and other pragmatists, my response to this epistemological question has always been the same: namely, no – not that I can tell. Yes, there are differences in the way we come to know the true theory of logical consequence from the way we come to know the true theory of trees; but however the given differences are to be characterized, we have no more privileged insight into the truth about logic than that of biological phenomena. The same goes for the epistemology of true mathematical theories, true theological theories, true theories of tractors, and more. We come to know the true theories of such phenomena in slightly different ways (as the history of epistemology loudly proclaims); but that there's some phenomenon (e.g., logical consequence) to which we have some special and infallible access is something that I reject, and despite the recent murmurs around 'exceptionalism vs anti-exceptionalism' I think that most active researchers in logical studies reject as much too.

But let me make something as plain as I can: namely, that just because logic isn't epistemologically exceptional does not in any fashion imply that logic plays no exceptional role in our true theories. By my lights, we may well be as wrong about the true theory of logic (-al consequence) as we once were about the true theory of the sun's 'rising', but such an error is completely compatible with logic's exceptional role across true theories – namely, as the universal consequence relation involved in all such theories. One way of having an erroneous theory of logic is having a wrong account of which entailment relation (over the logical vocabulary) plays the given role in all true theories.

In short, we have no special infallibility with respect to the true theory of logic; but the true theory of logic characterizes a relation that plays an exceptional role in true theories – namely, universal closure. For present purposes, I leave the matter at that.<sup>5</sup>

### **3.2. Should theologians be anti-exceptionalist about logic?**

Yes because it's the truth. But, again, being an anti-exceptionalist, at least inasmuch as I understand the term, is simply an epistemic matter, one that, if I'm right about epistemology more broadly (viz., what we take to be the true theories mightn't be

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<sup>5</sup> I also discuss these issues elsewhere (Beall 2019a).

true, that our views as such are defeasible), falls out of a broader fallibilist or ‘defeasibilist’ account of our epistemic situation.

What theologians (and everybody else) should also understand is that being a so-called anti-exceptionalist about logic (understood as an epistemic label) is completely compatible with the view that logic (-al consequence) plays an exceptional role in our true theories – in particular, in the consequence relations of our true theories. The exceptional role mightn’t be wildly interesting (I don’t think that it is); but it’s a role played by no other consequence relation. Could I be wrong about whether the relation that plays the given role is subclassical? Yes, of course. Do I think that I’m wrong? No, of course not. Is there anything peculiar about theology that makes any of these questions more pressing or difficult? Nothing that I can see – but I take up a question in this vicinity in §3.7.

### 3.3. How is logic viewed in analytic theology?

I defer to historians on this question, though I should also say that Cotnoir’s brief characterization, for as far as it goes, strikes me as not inaccurate. I leave that matter at that.

On a different note, by way of clarifying my own view, a few remarks in response to Cotnoir’s quoted passages may be useful. For example, Cotnoir points to what he calls a *substantive conception of the role of logic*:

According to the substantive conception of the role of logic, theological inquiry is subject to the norms and constraints of logic; any perceived conflicts with principles of logic must be resolved or dissolved. (512)

This ‘substantive conception’ may well be an accurate characterization of Oliver Crisp’s views; I take no stand on that question.<sup>6</sup> I’d like to simply clarify my own view versus this ‘substantive conception’ (as portrayed just so). In particular, I do accept that if ‘perceived conflicts with logic’ involve failures to validate what logic validates, then such perceived conflicts with logic must be resolved (or, if only apparent, dissolved) in any true theory; however, this is just to accept that true (and complete-as-possible) theories are closed under logic; and I see nothing terribly ‘substantive’ about thinking as much.

In contrast to what he calls the substantive conception of logic is what Cotnoir calls the *instrumentalist* conception:

[T]his way of carving up the issue mirrors the dispute within philosophy over the role of logic. The instrumentalist conception reflects a broadly anti-exceptionalist outlook: logic is subject to scrutiny if in conflict with theological theorizing. The substantive conception reflects a broadly exceptionalist outlook: logic is the

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<sup>6</sup> In the context, Crisp is talking about reason and reasoning, which (as in §2 above) is non-monotonic, and so not about logical consequence itself.

bedrock of all rational theorizing, and any theory which attempts logical revision is strictly incoherent. (512)

Cotnoir, of course, isn't attempting to do an exhaustive and fine-grained carving of the scene; he is attempting just to convey a big-picture distinction. But I should still clarify my own views against this rough division. As above, on my view our theory of logic (-al consequence) is subject to scrutiny as much as any other theory we have. If this makes my view 'instrumentalist', then so it is. What of the substantive conception as tied to an 'exceptionalist' epistemology (as the quote immediately above makes plain)? Frankly, I do not understand the view. Sure, logic is the bedrock of true theories' consequence relations; but why think that different theories of that bedrock – that is, theories of different candidate relations for that universal, bedrock role – are incoherent (or, if it's worse, 'strictly incoherent')? I see no reason whatsoever to think as much. So, again, at least on Cotnoir's carving, I am not a substantivist about (the epistemology of) logic; but I do think that it's an important – maybe substantive – point that logic plays an exceptional role in all true theories.

### 3.4. Which comes first: logic or consequence?

Cotnoir raises another epistemological question which is based on his characterization of my view. In characterizing my view of logic (-al consequence) Cotnoir puts matters thus:

[A]ccording to Beall . . . logic [-al consequence] is common to all theory-relative entailment relations. That is, *an argument is logically valid if and only if the premises entail the conclusion according to every (true, theory-relative) consequence relation*. This last biconditional invites the following question: which determines which? What is the order of explanation? Is universal logic [I take it he means *logic*] primary, and so determines the space of possible consequence relations? Or are theory-relative consequence relations primary, and logic is determined simply by looking at their intersection? (515)

I have three comments by way of reply.

*First comment.* While the left-right direction of Cotnoir's biconditional is (in effect) true by definition of 'logic' (qua the consequence relation involved in those of all true theories) the converse (viz., right-left) direction is dubious unless it's supposed to be (for lack of a better term) 'true by redundancy'. The right-left direction says that if all claims in  $X$  jointly entail  $A$  according to every theory-specific consequence relation  $\vdash_T$  in every true theory  $T$ , then all claims in  $X$  jointly entail  $A$  according to logic. In notation, where  $\vdash$  (unsubscripted) is logical consequence and  $\vdash_T$  the consequence (closure) relation for true theory  $T$ :

LT: If  $X \vdash_T A$  for every true theory  $T$ , then  $X \vdash A$ .

(LT) is true if logic is among the  $\vdash_T$  relations in the antecedent of (LT); but if logic itself is not among the consequence relations talked about by (LT)'s antecedent then I do not see reason to accept (LT). (There could be something very strange like a piece of vocabulary – maybe some identity relation – that happens to show up in all true theories but is not part of logical vocabulary, and so is not something on which logic itself makes a claim.) But now the issue: if Cotnoir's biconditional is true then its truth falls out of either redundancy (in the right-left direction) or, in effect, definition (in the left-right direction).

*Second comment.* Why think that there's an interesting order-of-explanation question if the biconditional is as above, namely, either true by redundancy or true by definition? I don't see it.

*Third comment.* Cotnoir's order-of-explanation question concerns the space of logic's possibilities versus that of narrower spaces invoked by many of our true theories (e.g., when they rule out glutty logical possibilities or gappy logical possibilities as theoretical impossibilities or just run-of-the-mill possibilities that are beyond what the theory recognizes as possible for its target phenomenon). In 'Christ – A Contradiction', among other places, I claim that logical space (the space of logic's possibilities) is the broadest space, and our true theories narrow the space of logic's possibilities to zero in on their respective spaces of theory-specific possibilities. But Cotnoir's question is epistemological (versus, say, ontological): which do we know first? On this question I have no useful answer. Like most epistemological questions, we remain at sea rebuilding our raft (to use a worn-out but still accurate metaphor). We do the best we can in pursuing the truth of things. If pressed, I don't think I could confidently even venture a guess. As far as I know, the search for true theories might fix a candidate for logical consequence while it pursues candidates for its target phenomenon (say, biology, or maths, or theology), only to sink and then surface again to hold fixed the candidate for theology (or maths, biology or whatever) while searching for the true theory of logic. Biological life for each of us seems to have an order from beginning to end, with roughly predictable stages in between those points; but the progression towards the discovery of true theories – true theories of anything, let alone everything – is anything but so ordered. If we knew in advance that we had the truth about logic's possibilities, we'd have a much easier epistemological life than we do. But we don't. Of course, on my view, if we know that we have the true theory about some phenomenon then we thereby know that we have at least a partial description of the true account of logic's possibilities. But as a general rule, judging between the epistemic chicken and the epistemic egg is not very fruitful. There is absolutely a truth of the matter; but I've no idea what it is, and I'm not sure that it matters a great deal to whether logic plays the role in theology (and other truth-seeking disciplines) that I say it does.

### 3.5. What of the many 'logics' out there?

This is a question that Cotnoir raises that turns on some technical vocabulary and literature in logic. By way of getting to my reply let me wave at the technical issue and then put my reply as nontechnically as possible.



*Waving at the issue.* Cotnoir rightly points out that by focusing on the role of universal closure relation in our true theories – and demanding, as I do, that such a relation have its standard so-called closure properties (which, to use very technical terminology, are properties induced by standard so-called structural features of consequence relations) – my account of logical consequence, while perfectly standard and very traditional (in associating with said role), is at odds with many, many other nonclassical accounts of what logic validates. In particular, Cotnoir argues, my account is in direct tension with so-called substructural accounts, where the (so-called structural) features of the given ‘validity relation’ fail to induce a closure operator for our theories (with standard features of closure operators). From here, Cotnoir turns a dialectical screw:

I don’t think we can, in good faith, rule out all such approaches [to would-be validity relations] a priori; these are genuine theoretical options that should be decided on by the usual criteria for theory choice. Of course, it may well be true that such consequence relations are false representations of entailment for the target phenomena, but it’s too strong to claim in advance that they are outside the bounds of any coherent system. (517)

And so Cotnoir’s question is: what of all of these other accounts of validity?

*My answer.* To begin, I nowhere say that such relations are ‘outside the bounds of any coherent system’. I’m not even sure what that would mean, since each of the given relations is very precisely defined in the work that Cotnoir cites. The question isn’t whether the relations so defined are coherent (they are, one and all); the question is whether those relations play the role of universal closure. They don’t, since they don’t have the right properties to play that role. (In many ways, this is just terminological.) But what do I say about such accounts? What are they accounts of if not of logical consequence? The details will matter. In some of the cases that Cotnoir cites there may be a conflation of ‘good reasoning’ and entailment; and the accounts might well be trying to model some account of ‘good reasoning’ in some areas of theoretical inquiry. In others, where the phenomenon being modeled is some sort of entailment relation, I’d simply say that they’re modeling one of many entailment relations – not logical entailment, on my view, but various entailment relations nonetheless.

It may be easier to think about the case of non-monotonic relations (see brief discussion above in §2). A true theory of rational acceptance-rejection behavior for ‘good reasoning towards true theories’ will be one according to which the good-reasoning relation, at least over time (and going over time, at least for us, is inevitable in the pursuit of true theories), is non-monotonic:  $X$  gives good reason to accept  $A$  but, when  $B$  is accepted and unionized with  $X$  the result  $X \cup \{B\}$  may be good reason to reject  $A$ . And so on. Now, if our aim is to model this phenomenon – the relation of provides-good-reason-for in target pursuits – then the true account had better describe a non-monotonic relation. There’s nothing ‘incoherent’ about such a relation; it’s an important phenomenon. Is it logic? No. Is logic involved in our true theory of the given phenomenon? Yes; logic is involved in (the consequence relation

of) every true theory. And I'd say the same of many of the relations to which Cotnoir points. Depending on the phenomenon in question (i.e., whatever such-n-so we're trying to give a true theory of), the structure of *good reasoning about such-n-so* may well be non-transitive; or it may fail to 'contract' (to use a technical term relevant to some so-called substructural logics); or it may well even be irreflexive or something altogether different. Not only are such approaches to different phenomena not incoherent; they are very important, and possibly even true.

My answer to Cotnoir's given question is just this: the other accounts are accounts of important phenomena; they're just not accounts of the universal consequence relation involved in all of our true theories. From my view, I don't believe that those accounts are genuine competitors; I think that they are candidates for the true theories of very important relations – just not candidates for the true theory of logical consequence.

### 3.6. Gaps and gluts and Contradictory Christology

There is a point in his paper at which Cotnoir directs a challenge specifically towards my answer to the question of which candidate relation plays the role of logic – plays the role of universal consequence (closure) in all true theories. The answer I give is FDE, as discussed in 'Christ – A Contradiction'.

In his §3.2 Cotnoir argues that if I'm right about the true account of logic (viz., FDE) then I'm wrong about the true account of Christology (and theology more generally). The argument points to the following claims:

C1: It is both true and false that Christ is immutable.

C2: It is neither true nor false that Christ is immutable.

My account of Christology is committed to (C1). Cotnoir points out that in light of containing (C1) the true Christology, one would expect, should not contain (C2). But – and here's Cotnoir's given challenge – an FDE-sourced account of the vocabulary in (C1) and (C2) results in their (logical) equivalence. Let me briefly explain.

An FDE-sourced account of (C1) and (C2) treats the phrases 'both true and false' and 'neither true nor false' as involving logical vocabulary – namely, logic's truth connective (viz.,  $\dagger$ ), logic's falsity connective (viz.,  $\neg$ ), logic's conjunction connective (viz.,  $\wedge$ ) and logic's disjunction connective (viz.,  $\vee$ ). In particular, where we can let  $C$  be 'Christ is immutable', an FDE-sourced account of (C1)'s so-called form is

$$\dagger C \wedge \neg C$$

while an FDE-sourced account of (C2)'s form is

$$\neg(\dagger C \vee \neg C)$$

Since logic's truth operator is (logically) redundant, the given forms for (C1) and (C2) are equivalent to

$$C \wedge \neg C$$

and, respectively,

$$\neg(C \vee \neg C)$$

And now Cotnoir's challenge comes to its point: according to FDE the given forms are equivalent! Hence, argues Cotnoir, since (C1) is in the given christology so too is (C2); but, Cotnoir suggests, (C2) should not be in any christology that contains (C1); and hence we should reject the account of logic underwriting the given christology.

This is an important issue but my reply is fairly straightforward. To begin, if – as Cotnoir suggests – we expect to reject (C2) in the face of accepting (C1) then our expectation belies an FDE-sourced reading of (C1) and (C2). Logical vocabulary is not in the business of making robust or substantive semantic claims; its vocabulary is topic-neutral, and in many ways non-explanatory.<sup>7</sup> But as Cotnoir's expressed expectation reveals, the idea of a sentence being both true and false – if important or explanatory – is not equivalent to a sentence being neither true nor false. What, then, is the non-FDE-sourced form of (C1) and (C2)? The answer involves an explanatory notion of gluts and gaps; and my own view is that such notions are to be expressed using theory-specific vocabulary; such notions do not – as the given expectations reveal – reduce to (non-explanatory) logical ingredients.

Details of the given theory-specific glut/gap predicates are important, but not for present purposes. For present purposes what's important is to see that Cotnoir's argument against an FDE-based contradictory Christology fails: its premise that the forms of (C1) and (C2) are simply FDE-sourced clashes with the expectations imposed on (C1) and (C2).

### 3.7. True theology 'versus' other true theories?

Cotnoir's §3.3 suggests that God's transcendence puts the true theology in a different category from other true theories – a difference in kind, not just status. I don't see this at all.

Cotnoir mixes two different lines of argument to suggest that the true theology is different in kind from other true theories. *The first line* points to a human-divine difference:

Recall that logic is primarily delineated by a set of expressions — 'and', 'or', 'not', etc. — the logical vocabulary. But these expressions are directly tied to human natural language. '[T]he target always remains on 'real logical consequence' for our 'real language' ' [Beall, 'Christ – A Contradiction']. Logic is, for Beall, fundamentally human. (519)

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<sup>7</sup> My own view of logic's truth and falsity operators is that they are the source of so-called deflationary views of corresponding truth and falsity predicates, which are not explanatory in any interesting ways (see Beall 2019b).

This is ambiguous. Logic, *as a human activity*, is human. That's true. But logic, *as an activity* (e.g., coming up with an account of logical consequence), is not necessarily a human activity; any entity capable of theorizing about logical consequence can engage in the activity. But set the *activity* of logic (of theorizing about logical consequence) aside. The more important disambiguation of Cotnoir's claim concerns logic *qua relation on all true theories*. There's nothing 'fundamentally human' about that relation. Sure, we, as humans, have used our language(s) to express what we take to be the true theory of logical consequence; but that makes logical consequence no more a fundamentally human relation than our true theory of arithmetic makes the number 2 or the successor function fundamentally human objects.

Disambiguated, Cotnoir is right that when we are doing logic – coming up with what we take to be the true account of logical consequence – we are humans who are engaged in a human activity (though the activity is not necessarily restricted to humans); however, Cotnoir is wrong to suggest that there's something 'fundamentally human' about the object of our true theory of logical consequence. The fact that logical consequence governs our many human languages, and governs the fragments that serve as languages of our many true theories, does not make logical consequence somehow relative to those languages. The language of the true logic (i.e., true theory of logical consequence) expresses the truth about logical consequence; but similarly the language of true biology expresses the truth about salamanders – and we shouldn't conclude that salamanders are fundamentally human.

Cotnoir's *first line of argument* for the view that true theology is importantly different from other true theories turns on a fallacious step from theology's expression in a human language to the objects of the theology being tied to the human mind or language or theory. This, I've argued above, is insufficient to show an important difference between theological theories and non-theological theories.

Cotnoir's *second line of argument* points not to the medium in which the theory is expressed but at the target phenomenon of the theory. In particular, Cotnoir argues that the transcendence of God (a feature of God which, I note, we can truly express just so) places theological theories in a different kind of category from non-theological ones. Cotnoir writes:

There's a fundamental disanalogy...between theology and other human theorizing. When we seek out an appropriate consequence relation for other target phenomena, we don't antecedently assume that the object of that inquiry transcends our conceptual scheme in important ways. Nor do we have to grapple with the possibility that the target's perfectly accurate self-understanding may be at odds with our own best theory. (520)

Cotnoir is herein talking about theorizing – as an activity – and not obviously theories. I have no disagreement with the view that theological theorizing is different from other sorts of truth-seeking theorizing inasmuch as God (viz., the object of the theorizing) is supposed to be beyond a complete description in our finite theories. This puts the theorizer in a different place from other phenomena which may turn out to defy complete descriptions but are generally not themselves the creator of such

limits. So, of course, there are these epistemological and in some ways psychological differences between theological theorizing and theorizing about other things. True, but how does that result in an important difference in kind from the resulting theories? I don't see it.

Where Cotnoir's argument is supposed to reach is that the role of logic in theology is different from the role of logic in other theories; and so there's a resulting difference (in kind) between the given sorts of theories. But nothing that Cotnoir has argued supports as much. Any argument from

- the object of our theory — namely, God — is fundamentally supposed to be (i.e., axiomatized to be) transcendent

to

- the role of logic in the theory is (thereby) different from all other theories

is fallacious. After all, we still do our best to give as complete and true a theory of said object as possible — unless, of course, the true theory is that there can be no true theory of said object, which, I take it, is no part whatsoever of what the given little argument is supposed to entail (and no part whatsoever of what Cotnoir himself aims to advance).<sup>8</sup>

In the end, there are differences between theological theorizing and non-theological theorizing; but Cotnoir has not provided good reason to think that the true theology is different in kind from other true theories, and in particular different in the role that logic plays in such theories.

### 3.8. Does Cotnoir's logic-as-modeling view rival yours?

Cotnoir advances what he calls the (or a) logic-as-modeling view of logic, recommending it as the right view for theologians (and possibly beyond). The question is whether the given view is a genuine rival to what I've claimed about logic.

The answer depends on whether Cotnoir's given view is supposed to be incompatible with the view that there's a basement-level closure (consequence) relation involved in all of our true theories. If his view is incompatible with that, then his view is a rival to mine – and, I'd say, to just about any view in the history of philosophy that saw logic as universal across all true theories. (Again, I've said enough above to make clear that when I talk about the universality of logic I'm not talking about epistemology.)

But I don't believe that Cotnoir's view is a genuine rival. How, in a thumbnail, does Cotnoir characterize the logic-as-modeling view? Just so:

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<sup>8</sup> Even those like Dawn Eschenauer Chow (2018), who think that our true theories of God are at best analogically true, will reject that there's no true theory of a transcendent God.

This picture is that consequence relations are tools for modeling. . . . Formal systems are modeling constraints placed on a particular theology. Those constraints are defeasible, revisable, and subject to typical criteria for theory choice. (520)

Of course, as indicated above (see §2), I completely agree with this. Consequence relations are, among other things, tools for modeling, just as the ingredients that define them (e.g., sets, functions, other relations, etc.) are tools for modeling. When these are used to model theological phenomena then the models serve to constrain a theory of the given phenomena; and when they're used to model temporal or physical phenomena, the models impose constraints on the given theories of those phenomena. This is all very true and very important and very good. Moreover, as Cotnoir says, the constraints imposed by the models are defeasible, revisable and so on in light of data that suggests to us that the models aren't quite getting things right – leaving out too many theoretically important (logical) possibilities, or letting in too many, or some such problem. Again, this is all very true, important and good – and, I should hope, largely uncontroversial.

A rival view of logical consequence would hold either that there is no relation of logical consequence or that there are many and that not one of the many is universal across all true theories. But unless I missed the argument, nothing Cotnoir has said suggests as much; and, for what it's worth, I suspect that Cotnoir doesn't believe as much. What he may hold is that we don't know which consequence relation plays the universal role in our true theories; but that is compatible with there being one (and with its being FDE).

#### 4. Concluding remarks

I've argued that A. J. Cotnoir's discussion fails to undermine either my proposed Contradictory Christology or my account of logic's role in theological theories. What Cotnoir's paper has done is force critical clarifications of my views, both on the role of logic and even some features of Contradictory Christology (e.g., how not to unpack the notion of *gluts* and/or *gaps*). What should also be plain is the valuable contribution of Cotnoir's discussion to the larger symposium, and in particular his rehearsal of various issues in the broader area of philosophy of logic.<sup>9</sup>

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<sup>9</sup> Acknowledgement: I am grateful to Dr. Cotnoir for engaging with my work. He has long been a source for philosophical and theological discussion for me; and were it not for his interaction with my ideas, it's very likely that I wouldn't've pursued this project, let alone the bigger monograph project underway. (So, he's either to blame or to thank.) I would also like to thank Joseph Lurie for comments on an earlier draft.

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