# On Contradictory Christology: A Reply to Uckelman's 'Contradictions, Impossibility, and Triviality'

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### **1. Introduction**

In addition to general issues concerning my views on logic and its role in theology (and beyond), Sara L. Uckelman's paper advances a dilemma for Contradictory Christology. My principal aim in this discussion is to respond to Uckelman's dilemma (see §4); but the structure of my discussion mirrors the structure of Uckelman's paper: I first respond, in §2, to her comments on my view of logic, followed in §3 by her comments on the notion of contradiction vis-à-vis my usage of 'contradiction', followed in §4 by my reply to Uckelman's key dialectical argument (a dilemma), followed last in §5 by my response to Uckelman's very encouraging brief discussion of historical precedents of a contradictory approach to theology.

Uckelman's paper is a valuable contribution to any would-be contradictory theology, and while, as I'll argue, her key dilemma against my own account is at best only an apparent dilemma, her discussion is highly valuable for my larger project – and, I expect, for related projects in the field.

## 2. On logic and my views thereof

Uckelman focuses the second section of her paper on my account of logic and its role in true theories. Uckelman advances various remarks on my account, some explicitly critical. While I believe that my characterization and presentation in 'Christ – A Contradiction' could've been better, I also believe that, despite Uckelman's reservations, my discussion sufficiently served its role: namely, to fix my target usage of 'logic' (in the context) and advance what I take to be the correct view of logic (i.e., the correct view of the relation that plays the role of logical consequence as I characterize it). Still, I am grateful to Uckelman for inviting clarification on the issues she raises. In what follows, I simply flag some of the issues that Uckelman raises about my account of logic and its role in true theories, raising them only enough to briefly address them. (I do not think that Uckelman intends any of the flagged issues to be major objections, and so I attempt to only briefly address the various flags.)

#### 2.1. Backwards presentation

Uckelman introduces the topic by talking about the 'appropriate logic for reasoning about theological paradoxes' (545). This is a common way of talking, but as I have indicated elsewhere – including, among other places Beall 2015, and in my replies to Cotnoir and McCall – I find it more fruitful to talk about the appropriate consequence relation or entailment relation under which the true theology is to be closed. 'Good reasoning', to briefly repeat my discussion from elsewhere (see above), is an important phenomenon that has long fallen under the tag 'logic', but as Harman (1973; 1986) makes abundantly clear, the relation of provides-good-reason-toaccept (similarly, -to-reject) is a messy one that is almost certainly non-monotonic (has a 'take-back' pattern) whereas logical entailment, whatever it may be, along with any other entailment relation, is monotonic (among other things). Of course, the term 'logic' has long been used (regrettably so, in my view) for 'study of good reasoning' or the like; and I see no fruit (or even vegetables) in 'debating' terminology. I flag this issue only because it is important to be clear that, at least in my discussion of subclassical logic and my discussion of Contradictory Christology (or contradictory theories generally), I sharply distinguish logic, qua a particular consequence (entailment) relation that plays a particular role in true theories, from 'reasoning' (good or bad).

But set the issue of 'reasoning' aside. Uckelman's first flag – a critical comment, it appears – is that my presentation of logic and its role gets things backwards. Uckelman writes:

Beall says something about what logic is and what role it is supposed to play (both in general and in theology). In his paper, Beall tackles these problems in reverse: first he outlines what he sees to be the role of logic, and then he goes on to say what logic in fact is. If this seems a bit backwards to the present reader, they should know that they are not alone; for in general we seek to identify what things are before we determine what their use or purpose is. (545)

On the general order of things: I'm sure that sometimes we figure out the nature of a thing (e.g., a tree, or its leaves) and then figure out what role the given thing plays in a particular context (e.g., the life of the tree, or the life cycle of organisms beneath the tree, or the broader forest, or the earth itself, or in the mind of poets, or whathaveyou). But sometimes, as David Lewis made plain (1970; 1980), when we are confronted with the problem of defining a theoretical term or, for that matter, we speak a language in which the same term seems to be used for wildly different things, it is often useful – and certainly not uncommon (in any way) in philosophy – to first specify the *role* that one's target entity is to play in a particular context (or system or whathaveyou). To be clear, I am in no way suggesting that my account of logic, given in 'Christ – A Contradiction' and elsewhere, is yet another instance of the Lewisian approach to theoretical terms; and I'm in no way suggesting that I'm trying to give a so-called functional account of logic – or anything like this. My point in waving at the popular find-the-role-first strategy is simply to suggest that perhaps there is no

dominant 'right order' to follow; perhaps we get all the nature of a thing that we need once we've defined its role and specify the realizer of that role.

But such bigger issues, for present purposes, should be left aside. Uckelman's charge is really that I've done things backwards by not specifying the 'nature' of logic first and then asking after its role in (my target context:) true theories. If Uckelman is right, I plead guilt by ignorance: I think that at this point in history there is little hope in having a fruitful debate about the nature of logic (unless, of course, one's use of 'logic' only picks out the discipline of logic, in which case, its 'nature', if it has one, is probably not wildly different from that of philosophy, theology, mathematics or the like). As Uckelman probably agrees, the term 'logic' is used in so many wildly different ways that whatever is left of a common 'nature' is likely to be of little significance.<sup>1</sup>

It is in the light of the wildly diverse usage of the term 'logic' – in philosophy, in theology, in mathematics, in computer science, in legal studies, in just about any sphere of serious truth-driven theorizing – that any serious debate about whether, for example, logic is subclassical or whether logic plays a role in true theories (or whether logic *this* or whether logic *that* or so on and so on) demands that one fix, from the get-go, one's usage of 'logic'. For my part, my 'Christ – A Contradiction' made it clear, from the get-go (see §2 of that paper where the discussion of logic starts), that I was using 'logic' in the sense of *logical consequence*; but even the term 'logical consequence' is used in many different ways, and so my discussion in the paper immediately narrowed the field to fix on the intended relation: namely, the one that plays such-n-so role in our true theories.

I am not convinced that Uckelman's charge of backwardness is accurate; but if it is, and if going backwards is a bad thing, my explanation – and in this case I believe that the explanation is an excuse – is as above: ignorance of any other fruitful option. My aim in that paper – and this symposium – is to discuss Contradictory Christology; and unless we are crystal clear about logic and its role, at least in the context of the larger discussion, the discussion will be without value. Since, as above, I see no fruitful debate to be achieved on the issue of the one true nature of logic (whatever that issue might be), I tried, in the given paper, simply to narrow things down so as to fix terminology and proceed to what I take to be the bigger issues.

#### 2.2. Logic and its role

On what notion does the discussion in 'Christ – A Contradiction' fix the term 'logic'? The answer: logic (-al consequence) is the basement-level consequence (closure) relation at the foundation of all of our true theories; it is part of the consequence (closure) relation of each such theory.

Uckelman comments on my given account of logic as follows:

<sup>&</sup>lt;sup>1</sup> One very gentle glimpse of the wildly diverse fivefold field of logic is available in Beall and Burgess 2017. (Please note that we are only trying in that brief essay to give a flavor of the fivefold field of contemporary logic, and we do so not by giving our own philosophical views but simply by gesturing in the direction of some (not even close to all) representative work.)

[Beall's] account of the role of logic in theory generation and maintenance provides him with a rather narrow space into which he can define logic so that it can fulfill that role. The purpose of logic according to Beall is to identify what truths 'follow from' other truths, given an explication of 'follows from' via the notion of a consequence relation, which leaves very little space for what logic can be, if this is the role it is to play. (545)

Putting aside some (very minor) qualms about her exact wording, my reply to Uckelman's comment above is straightforward: yes, the aim is to fix the usage of 'logic' so that fruitful discussion of logic, so understood, and its role, so understood, in the true theology can transpire. I am not clear on whether Uckelman's comment above – that the account of logic 'leaves very little space for what logic can be ... [given] the role it is to play' – is a critical (negative) comment; I do not think that it's intended to be as much. From my perspective, the comment is an acknowledgement that my aim in fixing the use of 'logic', for purposes of the given discussion, is achieved in the given paper.

Uckelman offers a twofold 'aside' (as she explicitly calls it) on my account of logic and its role in true theories:

First, while it is undeniably true that consequence relations are an important part of logic, it doesn't follow that this is the *only* thing logic is/does. (546)

Reply: Uckelman is talking about the field of logic when she says that 'consequence relations are an important part of logic', and not talking about logic (-al consequence) qua universal closure relation involved in true theories. What she says about the field of logic is correct. (Again, for a very light glimpse at the field of logic, see Beall and Burgess 2017.)

Uckelman's second point in her twofold aside on my account of logic and its role responds directly to my claim, which she quotes, that without logic (or consequence qua closure relations generally) 'our theories remain inadequate; they fail to contain truths that are entailed by the given set of truths' (from the penultimate paragraph of §2.1 of 'Christ – A Contradiction'). On this claim Uckelman comments:

It is also important to note that this [viz., having a less than completeas-possible true theory in the absence of a consequence relation] *need not be* the case; for one could simply adopt a theory that contained every truth, relieving it of any need for an entailment or consequence relation, since every truth entailed by some truth in the set would already be in the set. [Uckelman proceeds to point out what we might call management problems with such a theory.] (546)

I take Uckelman's point, which is that a truth-seeking theorist might (by luck or by grace or by some process that would strike most of us as miraculous) simply happen

upon the set of all true claims (if there is such a set);<sup>2</sup> and, as Uckelman says, one then would not need to close the set under a consequence relation because it's already complete with respect to all truths – and accordingly, the idea goes, there's nothing left for a consequence relation to do. That's true, though, as Uckelman notes, not directly relevant to (so to speak) real-world theorizing or even the general dialectic of my 'Christ – A Contradiction' (which is why Uckelman flags the point as an *aside*).<sup>3</sup>

### 2.3. A very peculiar account of logic?

One of Uckelman's most direct objections to my account of logic in 'Christ – A Contradiction' is as follows (quoting at length):

As a logician myself, I found Beall's description of 'logic' rather peculiar, for it does not resemble any definition of 'logic' that I would provide (although what he defines as 'logic' is certainly a *component* of what I take logic to be, I do not want to deny that). There are a few things that should be noted about defining logic in this way. First, as noted above, if the role in a given theory is to explicate what are the non-theory-specific consequence of the initial truths of the theory, then there is little else that logic could be other than the explication of a consequence relation: Make the purpose or use of logic narrow, then logic itself will have to be narrow enough to fit that purpose. (546)

By way of reply, I should note that my aim was not to describe the *field* of logic; I've given a partial description of that elsewhere (Beall and Burgess 2017). And, as above, given the wildly broad diversity of activities and relations (and perhaps more) that fall under the tag 'logic', I see little value in attempting to give one definitive account of *what logic is* for *all* uses – or even, for that matter, for all fairly traditional and runof-the-mill uses – of the term. So, to be clear, my reply to Uckelman's first sentence (in the quotation immediately above) is that I join her in not wanting to advance my account of logic (qua universal consequence relation) as anything remotely capturing whatever (if anything) might unify the field of logic or its many activities. My discussion of logic in 'Christ – A Contradiction', once again, aims to fix terminology for discussion of the given theological theory; and in that way, the aim succeeds only if the oodles of candidates that bear the name 'logic' (or, indeed, 'logical consequence') are narrowed to a single one, the merits of which can be (and have been, and continue to be) debated elsewhere. In the end, defining one's use of 'logic' is indeed making the *given* 'purpose or use' narrow – indeed, 'narrow enough to fit that purpose.' But I do

<sup>&</sup>lt;sup>2</sup> So-called cardinality worries can arise for the idea of a set of all truths, as Patrick Grim discusses at length in Grim 1991. (I am not hereby endorsing those worries. Moreover, one can side-step some of those issues by restricting to the truths of a particular domain, etc.)

<sup>&</sup>lt;sup>3</sup> I also want to note that, of course, it's not as if Uckelman's example is one in which the theory isn't closed under at least logic or some important extra-logical closure relation (it is); it's just that, as Uckelman notes, the lucky theorist wouldn't need to rely on the consequence relation to do its closing work.

not see anything objectionable about this unless readers took me to be giving an account of the field of logic in general, or making some claim to the effect that the only sensible purpose of a candidate for logical consequence is its role in true theories. I intended to make no such claim; and if my intentions were thwarted in 'Christ – A Contradiction', I hereby hope to have set the record straight.

#### 2.4. Upshot: a strawman?

Uckelman's follow-up objection to my discussion invokes the specter of a strawman:

The upshot [from the discussion of the allegedly peculiar account of the field of logic, discussed in the quotation in §2.3 above] is that Beall's presentation of 'logic' sets up something of a strawman: What he describes as 'logic' is in fact an idiosyncratic version of 'propositional logic'. (546)

By way of reply to this first comment (I continue Uckelman's given objection below), I am not sure in what sense Uckelman is calling the given account (viz., propositional FDE, which is all that I present in 'Christ – A Contradiction') 'idiosyncratic'. Since the model-theoretic work of Tarski (at least), presenting a so-called semantic or modeltheoretic account of a consequence relation for the standard logical vocabulary (whether only the propositional fragment of the vocabulary or the full stock of standard first-order expressions) is completely standard; and my presentation of the given (FDE) relation is just more of the same. In particular, one gives truth-/falsityin-a-model conditions for atomic sentences (and this is standardly done in terms of denotations of singular terms, extensions and antiextensions, just as one finds in 'Christ – A Contradiction'), extends to all (so-called complex or molecular) sentences in the language, and then defines consequence in the usual absence-ofcounterexample fashion. All of this is perfectly standard. What Uckelman may be calling 'idiosyncratic' is the FDE relation itself. The relation is certainly (properly) weaker than the mainstream, dominant account called 'classical logic' (whether it be classical propositional or classical first-order); and my discussion has highlighted the virtues of its being so-called subclassical in just that sense (viz., properly weaker than the so-called classical candidate). But I am not sure whether Uckelman's aim in using the term 'idiosyncratic' is to point to something other than its difference from the mainstream account. If so, I am not sure what the allegedly idiosyncratic features are supposed to be.

Uckelman's given objection continues (same paragraph from above):

This [viz., Beall's account of logic] reflects a specific view about the *ontological status* of logic. Beall clearly thinks of logic as an *object* of study, whereas a more fruitful way to think about logic is as a *field* of study. The definition that Beall gives is something that very few logicians would assent to, and requires a narrow, monist view of logic – and even logical monists don't think that propositional logic is the

epitome of logic. This narrow definition of logic falls out of a narrow definition of its role or use. A broader account of the purpose of logic will allow us to give an alternative, broader account of what logic is. (546)

By way of reply, I agree, once again, that very few logicians (including myself) or philosophers (including myself) would assent to my given account of logic as an account of the field of logic itself. Agreed. Unanimously so. But that's not what my account of logic aims to do: my account, as above, simply aims to fix the otherwise wildly loose use of 'logic' to the one that is directly involved in my discussion of (true) contradictory theories, and in particular my discussion of Contradictory Christology. I agree with Uckelman that the field of logic is very broad, and that many topics in the field relate, if at all, only in very distant ways to consequence relations. I agree – completely. And I also completely agree that for any given topic in the field of logic there are many different roles that the objects under the topic may play, depending on the context. Logic is a field of many, many flowers (and sticks, and stones, and broken tractors, and more, to carry on the metaphor). So, in the end, I do not think that Uckelman and I disagree; but I equally think that her objections do not apply to my account of logic (-al consequence), as defined in 'Christ – A Contradiction'.

Before turning to Uckelman's discussion of another issue (viz., my usage of 'contradiction') I should briefly reply to her other comment given above, namely:

The definition that Beall gives ... requires a narrow, monist view of logic – and even logical monists don't think that propositional logic is the epitome of logic. (546)

By way of reply, I should flag that 'monist' and even 'logical monist' are not much better than 'logic' when it comes to a wild diversity of uses in philosophy (and even in just philosophy of logic). For what it is worth, I am, together with my collaborator Greg Restall, a logical pluralist in what may be a light sense: namely, that given a natural language, and fixing the logical vocabulary as I have (viz., the standard firstorder vocabulary or even just the propositional fragment), there's a clear sense in which there are many, many relations of *logical consequence* on the given language – a sense spelled out in Beall and Restall 2005. Now, in a field of so many candidates that claim to be (and, at least on one sensible definition, just are) relations of logical consequence on the very same language, it is irresponsible or at least unhelpful to not fix some particular *role* that the candidate must play if we are to have sensible debates about whether, for example, logic (-al consequence) is subclassical, classical, whathaveyou. As Cotnoir's symposium paper notes, I remain a 'pluralist' about the many consequence relations on a language; but when it comes to my claim that the correct account of logic (-al consequence) is such-n-so (viz., FDE), I'm therein talking about the relation that plays the particular role that I've highlighted – a traditionally important role of logic (-al consequence) at that. Accordingly, Uckelman is right that once we have defined the role of logic in the given discussion – and indeed, defined the role to be the universal closure relation in all true theories – we wind up with a monism (about which relation plays the given role). But this doesn't strike me as an objectionable outcome.

Finally, I am not clear on the target of Uckelman's comment about 'propositional logic [as] the epitome of logic'. Nowhere in 'Christ – A Contradiction' do I suggest that propositional logic is the epitome of anything. Indeed, in the target paper I am explicit that the full stock of (the sparse set of) logical vocabulary goes beyond the propositional fragment on which I explicitly focus. (See, in particular, the second full paragraph of §2.2 including footnotes, and the first full paragraph of §3.1 including footnotes.) My aim in focusing on just the propositional fragment is that the main philosophical (and, in turn, theologically relevant) issues can be seen at the propositional level; and so simplicity of presentation, together with a familiar maxim of relevance, motivated a restriction to the propositional level – the boolean quartet. Again, I do not see this as a genuinely objectionable feature of my presentation.

# 3. On my usage of 'contradiction'

Uckelman charges that I've left the term 'contradictory' undefined:

Beall never gives an explicit definition of what he means by 'contradictory'. (551)

Uckelman, strictly speaking, is correct. In the first section of 'Christ – A Contradiction' (3rd full paragraph, 402) I define a *logical contradiction* – what I've called 'formal contradiction' in the 'Preliminaries' piece (436) – as follows:

[Logical contradictions are] sentences of the form *it is true that p and it is false that p* (402)

where, in the context of the paper, it is clear that the given truth and falsity connectives (e.g., 'it is true that...' and 'it is false that...' are logic's unary sentential connectives) and similarly the conjunction connective is logical conjunction. (Also, immediately following the quoted definition above, I give a footnote to flag that the term 'sentences' can be replaced by one's favorite equivalent term (e.g., proposition, statement, claim, etc.).) As Uckelman rightly notes, this defines my usage of 'logical contradiction' but leaves related notions without explicit definition, including 'contradiction' (simpliciter) and the key notion of a *contradictory theory* or set of contradictory claims.

Uckelman's flag on this point is helpful. In the target paper my aim was always on the big ideas, giving just enough to convey the ideas without getting bogged down in details. What Uckelman's discussion shows is that even charitable interpretation is insufficient to get the definitions that I had (alas) left as implicit. Some of my replies to other papers, together with the 'Preliminaries' piece at the front of this symposium (434-439), remedy some of the unclarity; but it's useful to simply lay things out explicitly here.

#### 3.1. On my usage of 'contradictions', in general

As Uckelman discusses, my use of 'contradiction' is exactly per the definition of 'logical contradiction' (defined in the quotation above). While I had left details of the general usage of 'contradiction' to be implicit, Uckelman's discussion makes plain that doing so was not in the service of clarity.

On my usage, and now to rely on notation used throughout the current symposium, a *logical contradiction* (or, per 'Prelimaries', a *formal contradiction*) is a sentence (or whatever) of the form

 $\dagger A \wedge \neg A$ 

or, because logic's truth operator (viz., †) is logically redundant,

 $A \wedge \neg A$ 

which, as throughout this symposium, I abbreviate by '!*A*' for both convenience and ease on the eyes.

So goes a logical (or, again, formal) contradiction. What is a *contradiction* (versus logical contradiction) on this usage? I took the answer to be implicit but Uckelman's discussion very helpfully shows that doing as much was ill-advised. The explicit answer is this: A sentence is a *contradiction* if and only if it's of the given form, namely, !*A*.

Alas, in various places – perhaps in the larger symposium, perhaps in other work – I sometimes call a sentence 'a contradiction' even though it is not of the form !*A*. Uckelman's discussion makes plain that this is unhelpful. And I agree. But lest I repeat the slip let me flag the intended usage: namely, when saying (slipping) that *A* is a contradiction even though *A* is not of the form !*A*, I am saying that *A* is a *contradictory sentence*. But now what is that?

### 3.2. On my usage of 'contradictory sentences'

A sentence *A* is *contradictory* just if *A*, together with (possibly no) other true sentences, entails !*A*.<sup>4</sup> To be abundantly clear: this definition of 'contradictory sentence' is offered to fix usage for purposes of fruitfully discussing Contradictory Christology and/or contradictory theories generally (more on which below). In no way am I engaged in a debate about the ultimate meaning of 'contradictory sentence' – a 'debate' that would likely be unfruitful. (To be clear, Uckelman's discussion nowhere suggests that such a debate about ultimate meaning of target terms would be fruitful.)

<sup>&</sup>lt;sup>4</sup> Some might call this 'self-contradictory' but I'm not sure that that distinction is fruitful. (If one wants it, just say that a sentence is self-contradictory iff it entails !*A*.)

Consider an example of a (candidate) contradictory sentence:<sup>5</sup>

 $\checkmark$  The ticked sentence is false.

The ticked sentence is not (officially) a *contradiction* because not of the form !*A*, but it is a contradiction in the sense of being a contradictory sentence, since it, together with its true so-called T-biconditional (viz., that the ticked sentence is true iff the ticked sentence is false), entails the contradiction

It's true that the ticked sentence is false and it's false that the ticked sentence is false.

Of course, what the truth about this contradictory sentence might be is a difficult matter; but it serves as an example of a contradiction – qua contradictory sentence – in the given sense.<sup>6</sup>

#### 3.3. On contradictory theories

I've advanced Contradictory Christology as a contradictory theory of Christ – a contradictory theology, more generally. As Uckelman's discussion makes plain, I left the notion of a contradictory theory to be implicit – gesturing, in the same implicit manner, at contradictory theories being 'negation-inconsistent' theories. While I think that the implicit understanding was conveyed clearly enough in 'Christ – A Contradiction' the opportunity to make the notion explicit is welcome.

Fixing the usage of a *contradictory theory*: a theory (i.e., a set of claims closed under a consequence relation) is contradictory if and only if it contains a contradiction.

Similarly (in fact, in the context, equivalently), a *negation-inconsistent theory* is a theory that contains some sentence (or its logical nullation, i.e., logic's truth operator applied to the sentence) and also contains its logical negation. Provided that the only theories we are talking about are closed under logical conjunction (so that *A* and *B* are individually in a theory just if their logical conjunction  $A \land B$  is in the theory too) the corresponding notion of a *negation-inconsistent theory*, at least in the context of this discussion, is equivalent to the notion of a contradictory theory.

As Uckelman notes, the mainstream account of logic, according to which contradictions are explosive (according to logic), treat any contradictory – equivalently, negation-inconsistent – theory as the trivial theory (of the language in question). On my view, the mainstream account of logic (-al consequence) goes too

<sup>&</sup>lt;sup>5</sup> Please note that I give the following example in as simple a way as I can, invoking T-biconditionals and the like; however, the presentation does not reflect my official view of why exactly this sentence is in fact contradictory (on the given usage) – or, indeed, why (a big further step) this sentence is itself a true contradiction (a glut, for short). But my aim is only to answer Uckelman's very good questions about terminology, not to wade through the truth about the following example.

<sup>&</sup>lt;sup>6</sup> Some discussion of the chief responses to the given (liar-paradoxical) contradiction are available in Beall et al. 2018.

far there; and while some true theories are such that they're explosive with respect to contradictions (i.e., a little negation-inconsistency explodes into the trivial theory) not all are – including, as I've argued, the true theology.

### 3.4. On a 'semantic conception' of contradictoriness

I note that in various key parts of her discussion Uckelman discusses what she calls a 'semantic conception' of contradictions, which is to be distinguished from the formal or 'syntactic' account I've given above (see §§3.1–3.2ff.). Of course, throughout 'Christ – A Contradiction' and my discussion throughout this symposium, I rely on a standard (Tarski-inspired) 'semantic' account of both logical consequence (viz., absence of counterexample, etc.) and the truth/falsity conditions for logical vocabulary. But Uckelman's target semantic notion of 'contradiction' (similarly, contradictory sentence, theory, etc.), which she traces at least to (one reading of) Aristotle, ratchets up what's involved in a semantic approach to contradiction. In particular – and here, for clarity, I use 's-contradiction' for Uckelman's target notion – a sentence A is an *s*-contradiction just if A is 'never true':

If we retain the semantic conception of contradiction [viz., Uckelman's target s-contradiction], then *by definition* there is no such thing as a true contradiction: A contradiction is defined to be that which is never true. (554)

Uckelman's notion of an s-contradiction, turning on the 'never true' feature, might usefully be called a *super-explosive sentence*, which, as I explain below, may be defined by reference to explosive sentences (discussed in the 'Preliminaries' piece and elsewhere in this symposium).<sup>7</sup>

A sentence is *explosive with respect to a consequence (entailment) relation* if and only if the sentence entails all sentences in the given language according to the given entailment relation. In notation: *A* is *explosive with respect to*  $\vdash_T$  iff  $A \vdash_T B$  for all *B* in the language of theory T.

Now, assuming that Uckelman's use of 'never true' (in the quotation above) is adequately modeled by 'true in no (non-trivial) models of any true theory', Uckelman's s-contradictions are *super-explosive sentences*, that is, explosive with respect to every entailment relation in any true theory. Explicitly fixed:

• Super-explosive sentence: *A* is a *super-explosive sentence* if and only if for any language *L* of any true theory T, if *A* is a sentence in *L* then *A* is explosive with respect to *T*'s consequence relation  $\vdash_T$ .

On my view (formal, logical) contradictions – that is, sentences of the form !A – are not super-explosive; they're not explosive according to logical consequence, even

<sup>&</sup>lt;sup>7</sup> The 'super' prefix gives a nod to Bas van Fraassen's fruitful notion of so-called supervaluations (1966), now a common tool in philosophy.

though some (maybe many) such contradictions are explosive according to some true theories. Uckelman's s-contradictions are different.

That Uckelman's s-contradictions are super-explosive is clear: she defines them, if I understand correctly, to be untrue in all (non-trivial) models of all true theories.<sup>8</sup> Towards showing that they are super-explosive, suppose that *E* is a sentence which is true in no (non-trivial) model of any true theory, and let *A* be an arbitrary sentence in the same language(s) in which *E* occurs. Since a counterexample to  $E \therefore A$  requires a model in which *E* is true but *A* untrue, there's no counterexample to  $E \therefore A$  according to any of the given entailment relations; hence, for arbitrary *A*, we have that  $E \vdash_T A$  for all such consequence relations  $\vdash_T$ . Conversely, suppose that  $E \vdash_T A$  for arbitrary *A* (in language of *T*), in which case there's no counterexample to  $E \therefore A$ , and hence there's no (non-trivial) model in which *E* is true but *A* untrue. Since *A* is arbitrary, there are models in which *A* is untrue; hence, *E* can be true in no (nontrivial) models. Hence, Uckelman's s-contradictions are super-explosive sentences, so understood.

### 3.5. A note on other notions of contradictions

Before turning to Uckelman's dilemma I pause to flag that, as is plain from Uckelman's discussion, usage of both 'contradiction' and 'logic' varies widely. My usage of 'contradiction', as Uckelman's discussion also makes plain (particularly some of her discussion of 'syntactic' accounts of contradiction), is in keeping with large swaths of tradition, as far as I can tell, and at the very least in keeping with contemporary debates about 'true contradictions', glut theories, gap theories, and nonclassical logic(s) generally. I note that beyond Uckelman's useful discussion are other discussions of the many uses of 'contradiction', including that by Patrick Grim (2004) and other papers in *The Law of Non-Contradiction* (Priest, et al. 2004).

# 4. On Uckelman's dilemma

Uckelman introduces both her dilemma and her extended discussion of notions of *contradiction* with the following comment:

In the early parts of Beall's paper [viz., 'Christ – A Contradiction'], 'logically contradictory' is used in the way it is ordinarily used by logicians when they use it without further specification – logically contradictory according to the rules of classic logic. However, after FDE has been introduced, it is no longer clear what counts as 'logically contradictory' *according to FDE*. (549)

<sup>&</sup>lt;sup>8</sup> Recall that the trivial model of any theory is the one in which all sentences in the language of the theory are true. Hence, the trivial model cannot be a counterexample to any sentence-sentence pair or, generally, set-sentence pair (where the set contains only sentences).

The last sentence of the above quotation gestures towards Uckelman's dilemma (more on which below); Uckelman's last sentence is asking whether, according to the FDE account of logic, there are any super-explosive sentences in the language of logic (i.e., using only logical vocabulary), where 'super-explosive' is defined per §3.4. I turn directly to Uckelman's dilemma in §4.2, but a brief comment about her first claim – namely, the early-paper use of 'logically contradictory' – may be useful.

### 4.1. Brief record-keeping note: logically contradictory

In 'Christ – A Contradiction' the first occurrence of 'logical contradictions' (402, third full paragraph of the first section) is immediately followed by the definition per §3.1 above. A few sentences forward in the paragraph comes the first occurrence of 'logically contradictory', which is followed a paragraph-jump below by a sentence that attempts (though I concede only unsuccessfully attempts) to make plain that the 'ordinary', without-qualification use of 'logically contradictory' in logic (qua field dominated by the mainstream view of logical consequence) is to be rejected. The context in which 'logically contradictory' initially occurs is this:

Rejecting all logical contradictions (i.e., sentences of the form *it is true that p and it is false that p*)... and a fortiori any contradiction in our theology, requires a rejection of (1) or (2) or the step to (3). But there is another way, namely, to accept (3) – that it's true that Christ is mutable and it's false that Christ is mutable. What immediately removes this option from the theological table is the view that *logic itself* rules out the possibility of such true but logically contradictory claims....

The barriers in the way of accepting a logically contradictory Christology are built on an incorrect view of logic itself. Accordingly, a large amount of space in this paper is spent on logic itself. (402)

And the given 'large amount of space' in the given paper goes on to make plain that logic (-al consequence), on what I take to be the correct view of that relation, does not sanction the mainstream practice of treating all logically contradictory theories as trivial theories. Accordingly, the early parts of that paper were not intended to use 'logically contradictory' in a way that collapses contradictory theories and trivial theories; however, Uckelman's remarks make plain that the paper was insufficiently clear on that point.

### 4.2. Uckelman's dilemma and my reply

The key dialectical core of Uckelman's paper is an alleged dilemma:

*[E]ither* Christology is not genuinely contradictory on the account of logical consequence that Beall advocates [viz., FDE] *or* if it is then

switching to FDE doesn't help solve anything. (555, emphasis Uckelman's)

Uckelman's dilemma is clearly stated, and clearly a problem if a genuine dilemma. But the dilemma is only apparent, as I explain below.

In the background, Uckelman assumes that either the true christology is not contradictory – or *genuinely contradictory* (more on which below) – or it's false that the true christology is contradictory. I grant this particular (excluded-middle-ish) assumption, though I note that, on my view, logic itself doesn't demand it.

Before explicitly taking each horn in turn, Uckelman's key notion of *genuinely contradictory* should be defined. As I understand her position, a sentence A, in the language of theory T, is *genuinely contradictory* iff A is explosive according to T. In general, a genuinely contradictory sentence, on Uckelman's target usage, is either a theory-specific explosive sentence (i.e., a sentence in some true theory T which explodes according to T's consequence relation) or is a super-explosive sentence (per §3.4). Generalizing to theories, a *theory* is *genuinely contradictory*, on Uckelman's target usage, just if it contains a genuinely contradictory sentence – and, hence, only if it's the given trivial theory.

#### 4.2.1. Uckelman's first horn

Uckelman's first horn is that the true christology is not genuinely contradictory according to its consequence relation. The problem, if I understand it correctly, is supposed to be that Contradictory Christology is *rightly* so called only if the advanced Christology is genuinely contradictory – in Uckelman's sense.

*My reply to the first horn:* I reject that Uckelman's sense of 'genuinely contradictory' is the only sense of the term that warrants the tag 'Contradictory Christology'. After all, there is a clear and well-established sense in which a theory is genuinely contradictory if it contains a contradiction; and containing a sentence of the form *it is true that p and it's false that p* is certainly a well-established way to contain a contradiction. True, such contradictions do not explode according to logic (i.e., according to what I take to be the true account of logical consequence); but they remain true and false, and that's a well-worn way of being a contradictory – since being as such is sufficient for the truth of the corresponding contradiction !*A*. (Stretching out the point: if you're true, then so too is an application of logic's truth operator to you; but if you're false, then an application of the dual of logic's truth operator – namely, its falsity operator (viz., logical negation) – is true; and, finally, the logical conjunction of those two truths is thereby true too. But since the given true conjunction has false conjuncts, the conjunction itself is false too. (And all of that appears to be contradictory – genuinely so – on very well-worn uses of the term.))

On my account of logic (-al consequence), *no* sentence is 'genuinely contradictory' in Uckelman's sense, given that there's no sentence that is explosive according to logic itself. By my lights, this is in fact a virtue of the account of logic (-al consequence); it reflects a purity of topic-neutrality in the sense that, on the given account, logic takes no stand on the truth of elementary truth/falsity attributions –

no stand on the status of  $\dagger p$  or  $\neg p$  for arbitrary (logically atomic) p in any possibility recognized by logic (i.e., any logical possibility, the ones over which logical consequence is defined). But putting the account of logic (and its virtues) aside, Uckelman's first horn fails to have its intended point: it is not a bad result that the true christology isn't 'genuinely contradictory' in Uckelman's sense (and I suspect that she fully agrees!); but since my proposed Contradictory Christology remains contradictory in other clear senses the tag 'Contradictory Christology' remains warranted.

\*\* Parenthetical remark. Perhaps worth flagging is that in the end I don't terribly much care about the terminology, and so if Uckelman's s-contradictions – or individually theory-specific explosive sentences – are the only 'genuine contradictions', fine; I'm not then advancing a genuinely contradictory theory. But as far as I can see, the wider debates around glut theory and would-be true negation-inconsistent theories favor (or at least clearly ground) the usage I've employed in 'Christ – A Contradiction' and beyond. *End remark.* \*\*

#### 4.2.2. Uckelman's second horn

Uckelman's second horn is that my account of logic (viz., FDE) does nothing to save a genuinely contradictory theory – *in Uckelman's sense* – from absurdity.

*My reply to the second horn:* Uckelman is right. If the true theology – or any true theory – were to be 'genuinely contradictory' in Uckelman's sense then some trivial theory would be true; and we all recognize that 'possibility' as the mark of absurdity, and one against which we all rationally run. But, again, the sharpness of this horn in the would-be dilemma is little (to nil); there is no suggestion that Contradictory Christology contains explosive sentences. And, again, that it must contain them on pain of being badly named (or worse) is a claim the force of which I do not see.

## **5. On medieval precedents**

Uckelman's final section – entitled 'Where to go from here' – begins where her (alleged) dilemma leaves off:

I don't want to end on such a negative note [i.e., Uckelman's dilemma for Contradictory Christology]... because I think that the kernel of what Beall is trying to do in his paper is correct, even though it doesn't quite work. (555)

As is clear from my reply in §4, I reject that Uckelman's dilemma is a dilemma (or any other problem) for Contradictory Christology; but I am also particularly encouraged by Uckelman's view that 'the kernel' of my proposed solution to the fundamental 'problem' of Christology is correct.

Uckelman's final contribution to the symposium is a valuable thumbnail sketch of salient medieval precedents to the idea that some entailment relations are not explosive in the face of apparently impossible claims. Uckelman's discussion is only a sketch; but it's a highly valuable and timely reminder that, in one sense, few ideas are new under the sun. And the kernel of my advanced christology – and theology generally – is no different. I take this as a welcome reminder, and in many ways encouraging.

By way of clarification, I note that my own view of the space of possibilities is per the target paper 'Christ – A Contradiction', according to which logic (-al consequence) is defined over the widest space (because its vocabulary is the sparsest, and its demands are few); and many, many, many of those (logical) possibilities are, of course, theoretically impossible according to many, many, many of our true theories. (Witness: breaking physical laws, recorded in the true physics, is impossible according to said theory; but, of course, breaking physical laws happens all the time in many points in the vast space of logical possibilities. Etc.) Whether a fish can possibly be removed from a region of water without anything 'assuming' its place (an example discussed by one of the thinkers Uckelman cites) is a matter for debate only after the target notion of possibility – the target region, so to speak – is specified. On my view, there are oodles of logical possibilities in which such a scenario happens; however, I know of no physically possible scenario in which such an event transpires.

Whether an impossibility entails triviality depends on the space of possibility over which the entailment relation is defined. On this, Uckelman and I sit in agreement, as far as I can see. And, if I've understood Uckelman's thumbnail sketch correctly, we also sit in agreement with at least some medieval thinkers. And this is a not unhappy result.

\* Parenthetical remark. I want to flag an important issue that Uckelman's historical remarks raise for analytic theology and philosophical theology in general. (I'm grateful to Mike Rea for highlighting this point in a seminar on this paper at Notre Dame's Center for Philosophy of Religion.) Analytic theology is often accused of being too remote from the history of theology. I do not want to weigh in on that debate. What I want to highlight is that if Uckelman's sketch of the history of some of these ideas is accurate then few if any theologians had any clear conception of consequence relations (even if, as seems clear, they were aware of entailment relations, even if they weren't precise about them.) Why does this matter? For those like Timothy Pawl, whose position is in large part tied not only to the words of conciliar fathers but to their practice – including, as his contribution to this symposium makes clear, their socalled inferential practice - the absence of an account of logical or theological consequence should give pause. Were their arguments merely 'materially valid' in the sense that those instances were taken to be entailments even if the general 'form' is invalid (e.g., has instances where the entailment fails)? If so, how does this affect what 'conciliar christians', attempting to be in step with the conciliar fathers, should believe? Moreover, does a would-be absence of anything like an account of consequence in Chalcedon (or other important councils) make it plain that we should ignore consequence relations in theology? Does it rather make plain that we should, as I've advocated, adopt what we take to be the true account of logical consequence and apply it as we do across all true theories? Such questions only arise after Uckelman's historical remarks are given; and the issues are as fascinating as they are difficult. I hope that further work on both the history of consequence relations (and entailment generally) in theology is done, and that further debate transpires on the bearing of such history on true theology. *End remark.* \*

# 6. Concluding remarks

I've argued that Sara L. Uckelman's discussion fails to undermine my proposed Contradictory Christology, and similarly fails to undermine my account of logic's role in true theories (including its role in true theology). The dialectic aside, Uckelman's paper has forced a clarification of central notions, including the notions of *contradiction, contradictory theories,* and related notions. In addition, Uckelman's paper has served to highlight precedent for the sort of Contradictory Christology – and theology generally – that I am advancing.<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> I am very, very grateful to Dr. Uckelman for her engagement with my work. As may be evident, I know very little about medieval logic; and to have an expert engage in a positive way with my current project is humbling. To Sara: thank you. Thank you, too, to Joseph Lurie for comments on an earlier draft.

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