

Christ – A Contradiction: A Defense of Contradictory Christology

Jc Beall
University of Connecticut

Abstract: The fundamental problem of Christology (as Richard Cross famously coined it) is the apparent contradiction of Christ as recorded at Chalcedon. Christ is human (with everything entailed thereby) and Christ is divine (with everything entailed thereby). Being divine entails (among many other of God's properties) being immutable. Being human entails (among many other of our essential properties) being mutable. Were Christ two different persons (viz., a human person, a divine person) there'd be no apparent contradiction. But Chalcedon rules as much out. Were Christ only partly human or only partly divine there'd be no apparent contradiction. But Chalcedon rules as much out. Were the very meaning of 'mutable' and/or 'immutable' (or other such predicates) other than what they are, there'd be no apparent contradiction. But the meaning is what it is, and changing the meaning of our terms to avoid the apparent contradiction of Christ is an apparent flight from reality.

What, in the end, is the explanation of the apparent contradiction of Christ? Theologians and philosophers have long advanced many consistency-seeking answers, all of which increase the metaphysical or semantical complexity of the otherwise strikingly simple but radical core of Christianity's GodMan. In this paper, I put the simplest explanation on the theological table: namely, Christ appears to be contradictory because Christ is contradictory (i.e., some predicate is both true and false of Christ, and hence some logical contradiction is true of Christ). This explanation may sound complicated to the many who are steeped in the mainstream account of logic according to which logic precludes the possibility of true contradictions. But the mainstream account of logic can and should be rejected. Ridding theology of the dogma of mainstream logic illuminates the simple though striking explanation of the apparent contradiction of Christ — namely, that Christ is a contradictory being. Just as the simplest explanation to the apparent roundness of the earth has earned due acceptance, so too should the simplest explanation of the apparent contradiction of Christ.

The doctrine of the Incarnation has long perplexed believers and non-believers alike. What is perplexing is the paradoxical appearance of an Incarnate God, who is supposed to be omnipotent. Christ is supposed to be God, and yet also is supposed to have a finite corporeal body, feel pain, and have other properties of creatures, whereas God is supposed to be none of these things.

—Allan Bäck (1982)

[T]here is a point at which the student of Christology becomes a student of Logic; ... a point at which [the student] has to make use of the concept of incompatibility and entailment; a point at which [the student] has to answer a charge of self-contradiction.

—C. J. F. Williams (1968)

This paper aims to do two things. First, the paper aims to illuminate the role that logic itself plays in theology (and any other discipline), and also to review a particular account of logic itself. Given the breadth of these topics my discussion aims only to convey a basic sketch of logic and its role, leaving a fuller discussion for elsewhere. The second aim of the paper is to defend the viability of ‘Contradictory Christology’ whereby the right response to the fundamental problem of Christology (viz., Christ’s having apparently complementary – contradiction-entailing – natures) is to accept the familiar contradictions.

1. The fundamental problem of Christology

The fundamental problem of Christology is the apparent contradiction of Christ’s having two apparently complementary – contradiction-entailing – natures, the divine and the human (see Cross 2011). This problem may be sharpest for Conciliar Christology, as in Timothy Pawl’s work (2014; 2016); however, the *prima facie* problem is clear for any orthodox or traditional Christianity according to which Christ has two apparently complementary natures.

Here is one way to see the fundamental problem:

1. Christ is immutable (in virtue of Christ’s divine nature).
2. Christ is mutable (in virtue of Christ’s human nature).
3. Therefore, Christ is both mutable and not mutable (via logic).

This argument relies not only on the familiar (but suppressed) entailment from *x is immutable* to *x is not mutable*, but also on the familiar ‘transference principle’ (in effect, a generalized ‘*communicatio idiomatum*’ doctrine) that

- P0. Something that has (or exemplifies) a nature N has whatever properties are entailed by having nature N.

The argument also assumes the orthodox view (from conciliar texts) that

- P1. Christ has a divine nature (entailing immutability) and *independently and without diminishment* also has a human nature (entailing mutability).¹

The history of Christian theology, and in particular that of Christology, is peppered with sophisticated ways to modify (P0) or (P1) in response to the apparent contradiction of Christ.² (P0) is a default metaphysical (i.e., extra-theological) principle about the relation between natures and entities that have them. Overturning (P0) requires good reason, and theologians have pointed to the fundamental problem (above) – the glaring contradiction in (3) – as a good reason to overturn the principle. Similarly, the distinctly theological principle (P1) has been rejected or modified or non-standardly interpreted in ways that aim to avoid the fundamental problem – to avoid the apparent contradiction of Christ. Against these traditions that are fueled by a rejection of (3) I shall assume both the (orthodox) principle (P1) together with the flat-footed metaphysical principle (P0). In what follows (P1) and (P0) are held fixed.³

Rejecting all logical contradictions (i.e., sentences of the form *it is true that p and it is false that p*),⁴ 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.

I am not in position to argue that the true Christology is logically contradictory. But that such a view is both viable and motivated is what I aim to defend. Once the view is allowed a place at the table debate can move forward on whether it is the most natural and indeed true Christology.

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. I begin in §2 with a sketch of the role of logic in our theories – and in theology in particular. After specifying the role of logic I give an account of logic itself, an account of which entailment relation is logical entailment (see §3). The given account of logic differs from the standard (so-called classical-

¹ I believe that 'independently and without diminishment' is redundant but I use it to emphasize the orthodox view in juxtaposition with the many other views whereby some hybrid or conflated nature, or something other than the having of two target natures, is involved. (The words are ultimately redundant because having a nature N is *having that nature*. And while having two complementary natures, N1 and N2, is strikingly rare it is nonetheless a case of having N1 and also having N2 – having (exemplifying) each of them.)

² See, for example, Adams 2006; Crisp 2007; 2009; and Cross 2005; 2011.

³ I also hold fixed the familiar entailment from *x is immutable* to *x is not mutable* (and likewise for other familiar 'negative' predicates and logical negation). This has recently been questioned by Timothy Pawl (2015), but, except for some discussion in §5, I simply assume this standard entailment. (I plan to provide a fuller discussion of Pawl's given work in a larger project of which this paper is a part.)

⁴ If one wishes, one may replace my use of 'sentences' (by which I mean declarative sentences, ones that declare something about the world) with 'propositions'.

logic) account; but the given account is both well-known and well-motivated in the philosophy of logic. My aim in this paper is not to rehearse the wide-ranging debates that motivate the target account of logic; my aim is to put the account on the theological table as a viable account, leaving fuller debate to cited sources. After putting the role and specific account of logic on the table I turn to a defense of Contradictory Christology, first advancing the basic position (see §4) and then defending it against various objections (see §5). The paper closes in §6 with remarks towards future (analytic) theology.

2. The role of logic in general and in theology

Logic is the common foundation of all (so-called closed) theories; it's part of the (extra-logical, stronger) 'consequence' or 'entailment' relation for our true theories. These ideas can be spelled out with reference to logic's role in theology.

2.1. Theology and consequence

Christian theology is a theory of God, just as macro physics is a theory of the macro-physical world and just as mathematical theories are theories of their respective mathematical phenomena (numbers, categories, sets, whathaveyou). When we construct our theology (our theory of God) we begin by adding truths of God, including (for example) that God is triune, that Christ has two (complementary) natures, that God is omniscient, and so on for whatever we, as theologians (as theorists of God), take to be true of God – including, of course, truths about what God is not, what is false of God (e.g., that it is false that God is limited, false that God is evil, etc.).⁵

When theorists aim to construct a true theory, they aim to construct as complete a theory as possible. In particular, the resulting theory should not only contain the initial thrown-in truths (e.g., that God is triune, that Christ has two natures, etc.); the theory should also contain *whatever follows from the truths in the theory*; it should contain all of the *consequences* of the theory's claims. The question is: what is meant by 'follows from' and 'consequences' in this context?

This is where consequence relations enter. A consequence relation for a set of claims is an entailment relation.⁶ In particular, a consequence relation tells you *what claims follow*, according to that relation, from your given set of claims, where 'follows from' is understood as entailment – as necessary truth preservation over some target space of possibilities.

⁵ The *source* of our knowledge of theological truth is an issue for epistemology; my topic in this paper concerns only the record – the theory – of our true theology, not its source.

⁶ In more detail: I assume that target consequence relations are what are classified as 'closure relations' along the lines initially explored by Tarski 1956. This imposes certain technical constraints on what counts as a consequence relation, but for my purposes I leave the details aside. (Everything I say is compatible with the requisite conditions on closure relations.)

Example: consider the theory of knowledge. That theory contains the following truth:

4. It is known that $1+1=2$.

And there are many other thrown-in truths of that form: *it is known that p*, where *p* is some known truth. But there are many ‘it is known that . . .’-free claims in our true theory of knowledge too. An example:

5. $1+1=2$.

Why is (5) in our true – and as-complete-as-possible – theory of knowledge? Answer: because (5) is a *consequence* of (4), and (4) is in our theory of knowledge. Our best theory of knowledge has a consequence relation according to which, for any sentence *p* in the language, *p* follows from – is entailed by, is a consequence of – the claim *it is known that p*.

There is nothing special about the theory of knowledge. The construction of true theories involves the construction of consequence (closure) relations for those theories – an entailment relation that serves to ‘complete’ the theory (as far as possible) by churning out all of the truths that follow from (that are entailed by) the claims in the theory. Our true theory of (for example) temporal phenomena has it that *it is false that p* follows from *it is always true that it is false that p*; our true theory of (for example) metaphysical possibility has it that *it is metaphysically possible that p* follows from *it is true that p*.

Such theory-specific consequence relations are just that: theory-specific. The consequence relation governing knowledge claims (i.e., claims of the form *it is known that . . .*) is not involved in the consequence relation governing the theory of arithmetic (unless the theory is also in part about explicit knowledge of arithmetic). The theorist’s task is to construct a set of truths about a target phenomenon and close that set of truths under the consequence relation that, by the theorist’s lights, is the right relation to ‘complete’ the true theory of the given phenomenon.

And theology is no different. Theologians must not only add various basic truths about God but also ‘complete’ (as far as possible) the theory via a consequence relation. According to the consequence relation of true Christian theology, *that it is false that p* follows from any sentence *p* that claims the existence of a rival god or, for that matter, any sentence *p* that limits God’s powers or authority. While theologians have not always been explicit about their target consequence relation they have nonetheless assumed one in their systematic pursuit of the ‘complete’ (as possible) truth of God – the true theology.

Without a consequence (closure) relation our theories remain inadequate; they fail to contain truths that are entailed by the given set of truths. Inasmuch as theorists, and theologians in particular, aim to give as complete a theory of the target phenomenon as possible, the reliance on a consequence relation for our theory is required.

But what have such theory-specific consequence relations to do with logic’s role in theories?

2.2. Consequence and (formal) logical consequence

Logic is a very special consequence (entailment, closure) relation. Logic is the common core of all (closed) theories;⁷ it is at the bottom of all of the (extra-logical, theory-specific) consequence relations of our true theories. While the theory-specific consequence relation for our theory of knowledge is different from the consequence relation for our theory of arithmetic (or necessity, or God) the two consequence relations share a common elementary core: namely, logic. Logic itself does not say anything peculiar about knowledge claims, arithmetical claims, modal claims or theological claims; logic ignores the specific subject matter of those sorts of claims (be it knowledge, arithmetic, modality or God) and treats them as it treats claims about any subject matter whatsoever. In this way, logic is said to be ‘universal’ and ‘topic-neutral’.

Logic’s universality and foundational role in all of our true (closed) theories is achieved by logic’s narrow focus: it focuses only on so-called logical vocabulary. Chief examples of logical vocabulary (and, for purposes of this paper, the only canvassed examples) are the so-called boolean quartet:⁸

- Truth (or null) operator: *it is true that ...*
- Falsity (or negation) operator: *it is false that ...*
- Conjunction: *...and ...*
- Disjunction: *either ...or ... (or both)*

Logical consequence – logical entailment – is a so-called formal relation: it looks only at certain ‘forms’ of sentences, namely, the ones individuated in terms of the logical vocabulary. In particular, logic recognizes only a limited list of sentence forms:

- Atomic sentences: any sentence which is *free* of logical vocabulary.⁹
- ‘Nullations’ (truth claims): any sentence of the form *it is true that ...*¹⁰
- Negations (falsity claims): any sentence of the form *it is false that ...*
- Conjunctions: any sentence of the given (logical-conjunction) form, namely, *... and ...* where ‘and’ is logical conjunction.
- Disjunctions: any sentence of the given (logical-disjunction) form, namely, *... or ...* where ‘or’ is logical disjunction.

⁷ For present purposes (skipping technical details), think of a closed theory as a set of claims closed under a consequence relation such that (among other things) if a sentence is a consequence of something in the theory then that sentence is in the theory.

⁸ This is an incomplete list of logical vocabulary. The logical vocabulary extends beyond the list below to the standard first-order vocabulary involving logical quantifiers (though not, on my view, an identity predicate). Again, for present purposes it suffices to focus on the following basic vocabulary.

⁹ Throughout, ‘sentence’ shall be used to pick out *declarative* sentences – sentences that declare something about reality.

¹⁰ This category is often ignored, since logic treats its truth operator as (logically) redundant. In much of what follows I follow suit by ignoring, for the most part, the truth operator.

Logic recognizes only the foregoing kinds (forms) of sentences, and it classifies entailments only in terms of the limited list of forms. Important to note is that logic treats all atomic claims on par: logic itself sees no difference *in logically relevant content* between ‘God is good’ and ‘Hogwarts is fictional’; such a difference – and the resulting difference in entailments – arises only in extra-logical, theory-specific consequence relations.

Examples of common logical entailments are the following, where $\wedge$ is logical conjunction, $\vee$ logical disjunction, $\neg$ the falsity (or negation) operator, $\dagger$ the truth (or null) operator, and p and q are any (declarative) sentences:

- p logically entails $p \vee q$.
- $p \wedge q$ logically entails q (and also p).
- $\neg p \wedge \neg q$ is a logical consequence of $\neg(p \vee q)$ (and vice versa).
- $\neg p \vee \neg q$ is a logical consequence of $\neg(p \wedge q)$ (and vice versa).
- p logically entails $\dagger p$ (and vice versa).
- $\neg\neg p$ logically entails $\dagger p$ (and vice versa).

Logic is formal in that its consequence relation holds only in virtue of the given logical forms. For example, anything of the form $\neg p \wedge \neg q$ logically entails anything of the form $\neg(p \vee q)$. And logic says nothing about any ‘forms’ that go beyond its recognized list.

Logical entailment, like any entailment relation, is a relation of necessary truth preservation over relevant possibilities – in this case, the so-called logical possibilities (i.e., the possibilities recognized by logic). The recipe for logical entailment is absence of counterexample:

Let X be a set of sentences, and p any sentence. Then X logically entails p (i.e., p is a logical consequence of X) if and only if there is no possibility in which everything in X is true but p is untrue. (A counterexample is a possibility in which everything in X is true but p untrue.)

Here, ‘possibility’ picks out whatever logic recognizes as possible. While there is ongoing debate about which possibilities are logical possibilities (i.e., recognized by logic’s entailment relation) one matter is settled: logic plays its universal, foundational role in our theories by recognizing the widest space of possibilities. In physical theory, the space of possibilities is restricted to those (logical) possibilities that obey physical laws. In arithmetic the space of possibilities is restricted to those (logical) possibilities that obey the laws of arithmetic. In theology the space of possibilities is restricted to those (logical) possibilities that obey the truths about God.

Logic is the common core of all theory-specific consequence relations in virtue of logic’s recognizing the widest space of possibilities. The possibilities in terms of which a theory-specific entailment relation is defined (i.e., in terms of which the theory’s class of would-be counterexamples is defined) are one and all logical

possibilities. The theory-specific consequence relations restrict the space of logical possibilities in order to focus on target, phenomenon-specific entailments (i.e., entailments that aren't recognized by all consequence relations for true theories); but they do not reject or otherwise transgress logical entailments.

In the end, logic's role in theology is its role in all of our true and 'complete' (as possible) theories: namely, to deliver the logical consequences of the claims in our theories. Logic is involved in all consequence relations for our true theories, including our theory of God (i.e., our theology). Logic achieves this universal role – the foundation of all entailment (or closure) relations on our true theories – in virtue of recognizing the widest space of possibilities. It's not that 'anything goes' by logic's lights; but a vast array of otherwise very strange possibilities is recognized by logic.

2.3. Logic and standard logic

Since Aquinas, whose work reflected (one reading of) Aristotle, the range of logical possibilities has standardly been thought to be narrower than I, along with other so-called subclassical-logic theorists, take it to be. The standard class of possibilities is modeled by so-called classical-logic models. The term 'classical' does not denote Aristotle's logic, since Aristotle's logic was both impoverished (lacking, e.g., adequate quantificational resources and much else) and also arguably at odds with so-called classical logic. In fact, what is today called 'classical logic' is a fairly recent construction ushered in largely by philosophers Boole, Peirce, Ladd-Franklin, Frege, Russell and Whitehead.

This paper is not the place to rehearse the history of logic or the many debates on whether the standard account of logic gets things right. By my lights, for reasons argued elsewhere,¹¹ the correct account of logic is in fact weaker than the standard one: the space of logical possibilities is much wider than the standard account takes it to be. For present purposes my aim is only to present the weaker account (one that I believe to be the right account), leaving debate for other venues.

Nothing in orthodox Christianity demands the standard (twentieth-century) account of logic. Responsible theorizing calls for an exploration of alternative options. My chief aim is to advance what I take to be a viable Christology opened up by an alternative (though nonetheless mainstream) account of logic. By my lights, theology benefits from an informed view of logic; and ignoring the subclassical account(s) is not only unmotivated; it may in fact preclude the true Christology.

3. Logic: subclassical

The aim of this section (and its subsections) is to present, as concisely as possible (without obliterating user-friendliness), the target account of logic: namely, what is called 'first-degree entailment' (FDE), most famously explored by Anderson, Belnap

¹¹ See for example, Beall 2009; Belnap 1977; Dunn 1966; 1976; Priest 1987; 2004; Routley 1979; and Routley and Meyer 1976.

and Dunn,¹² but applied on a wide range of philosophical fronts by many philosophers. I believe but, for present purposes, shall only assume that FDE is the correct account of logic (qua universal consequence relation in the sense given above).¹³ While arguing for the truth of this assumption is too much for the present paper, I shall defend the claim in some of the objections and replies (see §5).

3.1. Formal language

As above (see §2.2), logical consequence is a *formal* entailment relation; it holds in virtue of ‘logical form’. The target forms are specified by logical vocabulary. Because the main action of the present paper can be seen at the so-called propositional (or sentential) level, we restrict the following to just that level – indeed, restricting to just the so-called monadic predicates for simplicity.¹⁴

Following standard practice we use models – and an artificial, formal ‘model language’ – to specify the target entailment relation. Entailment, as above, is necessary truth-preservation over a space of relevant possibilities. In logic these possibilities are modeled by some sort of mathematical structure (sets, functions, relations); and the idea of a sentence’s being true (false) at a possibility is modeled by relations that are defined on the given structures. Despite the level of mathematical abstraction the target remains always on ‘real logical consequence’ for our ‘real language’. The ‘logically valid forms’ that are generated by the mathematical account are advanced as the ‘real’ logically valid forms.

In what follows the syntax (grammar, vocabulary, and definition of sentences) is presented first, followed by the semantics (model of truth and falsity conditions for the sentences), followed by the central target: namely, the logical consequence relation (logic).

3.1.1. Syntax

The basic vocabulary (building blocks) of the language are as follows.

1. Vocabulary:
 - a. Logical Expressions:
 - i. Unary connectives: $\dagger$ and $\neg$
 - ii. Binary connectives: $\wedge$ and $\vee$
 - b. Extralogical expressions:
 - i. Unary predicates: ‘ P ’, ‘ Q ’, ‘ R ’ with or without numerical subscripts (unary: they take one name to make a sentence)

¹² Anderson and Belnap 1975; Anderson, Belnap, and Dunn 1992; Dunn 1966; 1976.

¹³ For arguments towards this conclusion see Beall 2017.

¹⁴ A generalization to the full stock of (standard) first-order vocabulary is not difficult but, again, is not necessary for purposes of this paper. (The presentation here involves monadic predicates – versus the even simpler ‘sentential variables’ – to give at least some sense of how atomic sentences are modeled as both true and false.)

- ii. Names: lowercase letters of English, with or without numerical subscripts
- c. Logical expressions:
 - i. Punctuation: right and left parentheses (viz., ‘)’ and ‘(’).

The syntax, while on its own (apart from a semantics) meaningless, is motivated by our target logic. In particular, the unary connectives (‘unary’ because they take exactly one sentence to make a sentence) will be treated in the semantics as logic’s truth and falsity operators, and the binary connectives will be treated as the logical conjunction and disjunction operators.

Worth noting is that the predicates and names in the class of extralogical expressions are not necessary for specifying the logic; they are in there to add (I hope) some illumination on how atomic sentences are formally interpreted (see semantics below). One can simplify the syntax by ignoring any structure in atomic sentences and simply having standard ‘propositional letters’ as atomic sentences.

The *sentences* of the language are defined as follows.

- 2. Sentences of the language:
 - a. Atomics: let G be a predicate and η a name. Then G followed by η (viz., ‘ $G\eta$ ’) is an atomic (sentence).
 - b. Molecular (Compound): If A and B are sentences of the language, then so too are $\uparrow A$, $\neg A$, $(A \wedge B)$ and $(A \vee B)$.
 - c. Nothing else is a sentence of the language (except what follows from the first two clauses).

Examples of atomic sentences are Pa , Rb_{22} , and Qd . (See the list of predicates and the list of names under vocabulary, and then consult the definition of atomics above.) Examples of molecular sentences (i.e., sentences that contain at least one logical expression) are $\uparrow Pa$, $(\neg Rb_{22} \vee (Qd \wedge Pa))$, and $(Qd \vee Pa)$.¹⁵

3.1.2. Semantics: towards truth and falsity conditions

The aim, again, is to precisely specify the logical consequence relation, which is an entailment relation, which is a truth-preserving relation over relevant possibilities. To specify the target truth-preserving relation for our model language we need to have an account of truth and falsity conditions for the sentences of the language.

As in standard accounts of logic a sentence’s having a truth value (or, generally, ‘semantic status’) boils down to what’s happening at the atomic level. In other words, our logical connectives are all ‘truth-functional’ in a familiar way: the semantic value

¹⁵ To see that these are in fact official sentences, consult the definition of sentences above and simply let A be Pa , B be Qd , in which case, for example, $(Qd \wedge Pa)$ counts as a sentence; and now let A be Rb_{22} , in which case, $\neg Rb_{22}$ counts as a sentence; and now let A be $\neg Rb_{22}$ and B be $(Qd \wedge Pa)$, in which case $(\neg Rb_{22} \vee (Qd \wedge Pa))$ counts as a sentence.

of a sentence is a function of the semantic values of the atomic sentences. In this way, the semantic action takes place at the atomic level.

Atomic sentences get to have a semantic value (be it truth, falsity or something else) in a familiar way. Examples: if the subject term of the sentence picks out (denotes) an object of which the predicate term is true, then the given sentence is (at least) true; if the subject term of the sentence picks out an object of which the predicate term is false, then the given atomic sentence is (at least) false.¹⁶ So, atomic sentences get their values in terms of what their parts (in our simple language, a unary predicate and a name) denote.

In general, we think of the ‘possibilities’ involved in logic as modeled by certain mathematical models. For our purposes, models contain both a denotation function δ , which supplies a semantic value to predicates and names, and a domain D of objects – namely, all of the objects that exist according to the model.

3.1.3. Atomic sentences

A predicate G ’s semantic value is modeled as a pair $\langle G^+, G^- \rangle$, where G^+ (the so-called extension) contains all of the objects of which the predicate G is true, and G^- (the so-called antiextension) contains all of the objects of which G is false. Where δ is a denotation function for a model, the predicate G is given the semantic value $\delta(G) = \langle G^+, G^- \rangle$ in a model, while each name η is given a denotation $\delta(\eta)$ from the set D of objects in the model. These resources are then used to provide a semantic status for atomic sentences.

Truth and falsity conditions for atomic sentences as follows, where δ is the ‘denotation function’ of a given model:

- *Truth in a model:* Atomic $G\eta$ is true-in-a-model iff $\delta(\eta)$ is in G^+ .
- *Falsity in a model:* Atomic $G\eta$ is false-in-a-model iff $\delta(\eta)$ is in G^- .

Of paramount importance is the question of what constraints logic imposes on the interpretation of predicates (i.e., on the denotation of predicates).

The issue may be seen by considering two salient constraints.

- *Exhaustion:* every model is ‘exhaustive’ with respect to every predicate in the sense that *every object in the domain* is either in G^+ or in G^- .¹⁷
- *Exclusion:* every model is ‘exclusive’ with respect to every predicate in the sense that *no object in the domain* is in both G^+ and G^- .¹⁸

On the so-called classical account, logic imposes both exhaustion and exclusion. Logic, on that account, is exhaustive: it recognizes no possibility in which an object fails to

¹⁶ The ‘at least’ is redundant in standard (so-called classical) accounts of logic; but it is not redundant in the account advanced here, namely, FDE. This will be clear below.

¹⁷ In set-theoretic notation: $G^+ \cup G^- = D$, where D is the domain of the model.

¹⁸ In set-theoretic notation: $G^+ \cap G^- = \emptyset$, where $\emptyset$ is the empty set.

be in either the extension or antiextension of a predicate – no possibility in which a predicate fails to be either at least true of the object or at least false of the object. (This rules out the logical possibility of ‘truth-value gaps’, where a sentence is neither true nor false for some reason – a sort of indeterminacy of semantic value.) Moreover, logic, on the ‘classical’ account, is exclusive: it recognizes no possibility in which an object falls into both the extension and antiextension of a predicate – no possibility in which a predicate is both true and false of an object. (This rules out the logical possibility of ‘truth-value gluts’, where a sentence is both true and false for some reason – a sort of overdeterminacy of semantic value.)

These constraints are overly strict from an alternative (viz., FDE) account of logic. The issue is too complex to argue here, but at least one consideration can be advanced. In particular, the classical-logic constraints (above) are very, very well-motivated when one focuses one’s attention on a standard diet of examples from sciences like mathematics – the very diet to which the classical-logic account was historically directed. But reality is more than just mathematics. Reality appears to contain some surprising (however rare) phenomena that don’t naturally fit into the confines of a classical-logic assumptions. Language’s strange phenomena (e.g., vagueness, paradoxical phenomena, and more) don’t obviously fall into the confines of (classical-logic-governed) mathematics. Moreover, and most pressing for present purposes, reality involves a theological realm and its complex phenomena – including, from orthodox Christian theology, the fundamental problem of Christology. It may well be that all such extra-mathematical phenomena are truly described by a classical-logic-like consequence relation; but there is no obvious reason to think that logic itself demands as much.

Logic, on the FDE account, imposes *neither* exhaustion nor exclusion on its predicates. A model – representing one of the possibilities that logic recognizes – *may* treat a predicate as exclusive; it may treat it as exhaustive; it may treat it as both. But on the FDE account there are also models in which a predicate may be neither true nor false of an object – the resulting atomic sentence ‘gappy’ in the model – and there are models in which a predicate may be both true and false (a ‘glutty’ model).

What the FDE account does *not* do is reject any classical-logic models. The account accepts all classical-logic models as genuine models (as representations of possibilities that logic recognizes); the account simply *expands* the space of models to recognize ones that go beyond the narrow confines of the classical-logic space. What this means is that if there is a classical-logic counterexample to an argument, then there is an FDE counterexample too – since FDE’s spaces of models includes the narrower classical-logic ones. But the converse fails: FDE recognizes more possibilities (more genuine models) than the classical-logic perspective allows, and so recognizes more candidate counterexamples than classical logic recognizes.

3.1.4. Semantic values for molecular sentences

Atomic sentences achieve their semantic values – or semantic statuses – as above (see §3.1.3). Models are likewise as above, with no constraint that requires exhaustion or exclusion on predicates. This gives four possibilities for an atomic sentence:

- Just true: the denoted subject (i.e., denotation of the name) is in the extension of the given predicate but not in the antiextension.
- Just false: the denoted subject is in the antiextension of the given predicate but not in the extension.
- Gap (gappy): the denoted subject is in neither the extension nor the antiextension.
- Glut (glutty): the denoted subject is in both the extension and the antiextension.

Following terminology from Belnap 1977 we shall say that an atomic sentence is *at least true (false)* iff the denoted subject is at least in the extension (at least in the antiextension) of the given predicate. Then truth and falsity conditions for molecular sentences may be given as follows, where A and B are any sentences of the language:

- Nullations: $\dagger A$ is at least true in model m iff A is at least true in model m .
- Nullations: $\dagger A$ is at least false in model m iff A is at least false in model m .¹⁹
- Negations: $\neg A$ is at least true in model m iff A is at least false in model m .
- Negations: $\neg A$ is at least false in model m iff A is at least true in model m .
- Disjunctions: $A \vee B$ is at least true in model m iff either A is at least true in m or B is at least true in m .
- Disjunctions: $A \vee B$ is at least false in model m iff both A is at least false in m and B is at least false in m .
- Conjunctions: $A \wedge B$ is at least true in model m iff both A is at least true in m and B is at least true in m .
- Conjunctions: $A \wedge B$ is at least false in model m iff either A is at least false in m or B is at least false in m .

What is important to emphasize, as discussed again below, is that these truth and falsity conditions *are precisely the same conditions* used in the standard classical-logic account. The difference, of course, is that the classical-logic account ignores the logical possibilities of ‘gaps’ and ‘gluts’, and so both the ‘at least’ phrase and the falsity conditions are redundant in the classical-logic picture. But, again, if one’s aim is to accommodate the full space of logical possibilities – and not just those that are relevant to (for example) standard mathematics (governed by classical logic) – then the fuller account of truth and falsity conditions is required.

¹⁹ Nullations are included here for completeness (and the symmetry of the boolean quartet) but shall be ignored – because redundant – in what follows.

3.2. Logic: the target consequence relation

Finally, the target relation – namely, logical consequence – may be specified in terms of the given FDE models and truth/falsity conditions. The consequence relation is a relation between a set of sentences X and a sentence A . The definition is this:

- X logically entails A (equivalently: A is a logical consequence of X) iff there is no model in which everything in X is at least true but A is not even at least true.

When X logically entails A we say that the argument from X to A is logically valid – that is, valid by logic’s lights. We use $\vdash$ to represent the logical consequence relation, sometimes writing ‘ $X \vdash A$ ’ as shorthand for the claim that X logically entails A according to the given (FDE) consequence relation.²⁰

Some key *invalid argument forms*, relevant to the project of Contradictory Christology (and also other non-theological phenomena) are these, where ‘ $X \nvdash A$ ’ indicates that X does not logically entail A :

- $A \wedge \neg A \nvdash B$. (Hence, as far as logic is concerned, a theory can contain a contradiction $A \wedge \neg A$ without thereby entailing all sentences whatsoever.)
- $B \nvdash A \vee \neg A$. (Hence, a theory is not required by logic alone to contain all instances of the so-called law of excluded middle – a principle that may well be in force for some important theory-specific consequence relations, but isn’t required by logic itself.)

On the other hand, all standard De Morgan interaction between logical expressions remains in force as the chief concern of logic. For example, where $\dashv\vdash$ indicates logical equivalence (i.e., two-way logical entailment):

- $\neg(A \wedge B) \dashv\vdash \neg A \vee \neg B$.
- $\neg(A \vee B) \dashv\vdash \neg A \wedge \neg B$.
- $\neg\neg A \dashv\vdash \uparrow A \dashv\vdash A$.

In effect, the FDE picture is one in which logic demands De Morgan interaction among the logical expressions, but that is all that logic itself demands. The harder question of whether atomic sentences are ‘gappy’ or ‘glutty’ is a theory-specific matter for the given phenomenon; logic itself recognizes possibilities in which atomic sentences take on any of the four (logically possible) semantic statuses.

²⁰ When the set X contains exactly one sentence B we shall write ‘ $B \vdash A$ ’ instead of the explicit $\{B\} \vdash A$. Similarly, when the set X is empty we shall write ‘ $\vdash A$ ’ instead of the more explicit ‘ $\emptyset \vdash A$ ’. (This notation is not central for present purposes but is useful to have at hand.)

3.2.1. *Chief virtues of this account of logic*

There are at least three salient virtues of this (FDE) account of logic.

The first virtue is that the familiar truth/falsity conditions are maintained, as above. There is no revision of the truth/falsity conditions; there is instead a more complete and explicit account. In this way, the ‘meanings’ of the standard logical vocabulary remain as per the standard (classical-logic) account; it’s just that the former account is to be seen as in fact a restricted account: it is a theory-specific consequence relation (e.g., for mathematical theories) that restricts its truth and falsity conditions only to the logical possibilities in which ‘exclusion’ and ‘exhaustion’ are satisfied. There is nothing at all wrong with the resulting consequence relation on such a restriction; it’s just that, as above, the full space of logical possibilities demands a fuller and explicit specification of truth/falsity conditions – namely, the ones involved in the given (FDE) account.

A second virtue is that the resulting logic is clearly topic-neutral by not taking a stand on whether gappy or glutty atomic sentences are ruled out. Such an issue, as far as logic is concerned, is a topic-central one for theories to figure out. This is a virtue for an account of logic itself; it is a frustration for the epistemological process of determining the true theory of various phenomena, but that’s a different matter. Epistemology (or rational ‘change in view’) is a complicated but distinct discipline from a theory of logical consequence (see Beall 2015; Harman 1986).

A third virtue is most relevant to the principal project of a Contradictory Christology: namely, that logic does not force unique, strange phenomena into the cramped confines of classical-logic possibilities. While logic itself is silent on whether theorists *should* entertain a contradictory (glutty) theory of a given phenomenon – or, similarly, a gappy one, or an entirely ‘classical-logic’ theory – logic itself, contrary to the standard account, doesn’t rule it out. And in the face of extraordinary or strikingly bizarre phenomena it is a good thing to have a very wide space of possibilities to work with in constructing a true theory of the rare entity.

4. Contradictory Christology

It should now be plain that a Contradictory Christology is not ruled out by logic itself. One must now ask why it should be ruled out. By my lights, it should not.

I claim that a Contradictory Christology – and negation-inconsistent theology in general – is viable. In particular, the key, fundamental thesis of orthodox Christology is that Christ has two – apparently contradictory – natures. The fundamental problem for Christology is to respond to the apparent contradiction. While many sophisticated theories have spelled out ways to conceive of the apparent contradiction of Christ as non-contradictory, few have argued against the position being advanced here: namely, that the true Christology is in fact logically contradictory, just as it appears to be.²¹

²¹ There are some who have argued against the very idea of a glutty theology, including Timothy Pawl (2015) and John Anderson (2007). I discuss some of their arguments in §5. While I do not think that

4.1. Christ as the fundamental ‘problem’

The fundamental problem of Christology is simple to see. The apparent contradiction is glaring; one needn’t be steeped in the conciliar texts or theological tomes to be confronted by it.

Orthodox Christianity maintains that Christ is the divine, omniscient God who also exemplifies non-divine human nature with its imperfect knowledge and imperfect understanding. The apparent contradiction is vivid, fueled by the foundational role of Christ in orthodox Christianity. An omniscient being could not have our imperfect understanding of the pains and frustrations of our limited epistemic states unless – and here is the problem in a nutshell – the being were not omniscient. The apparent contradiction fuels the pull of the Kenotic tradition in Christology which, against orthodox Christianity (my focus here), puts priority on exactly one of the two natures. The pull of Kenotic Christology arises from the simple contradiction of Christ’s needing to be imperfect in his understanding and knowledge in order to have the experience of imperfect epistemic agents; but to be worthy of worship Christ needs to be divine and perfect in his understanding and knowledge. The fundamental ‘problem’ of Christology is simple to see from the role that Christ occupies: the Christ figure is to have the divine properties of God who is worthy of worship but is to have the logical complement of those properties. (Contradiction.) The way that this is achieved – the way that Christ realizes the apparently contradictory role – is exactly as orthodoxy seems to imply: the having of two contradictory natures, the one divine and the other human. The Conciliar texts use language like ‘passible and impassible’ and ‘capable of suffering and incapable of suffering’ (Tanner 1990, 162), but the explicit contradiction comes from standard paraphrases of ‘incapable of suffering’ as ‘not capable of suffering’.²²

his project is (at all) in line with Contradictory Christology as I advance it here, John Dahms (1978) deserves credit for being the first contemporary theologian to advocate something gesturing in the area of a glut-theoretic Christian theology, even though the view he actually advocates is not clear to me in the end – including whether he holds that the true Christian theology is a (closed) negation-inconsistent theory. While deserving credit for questioning the standard account of logic, Dahms’ work is nonetheless very different in both detail and even broad strokes from the position I advocate in the current paper. One (among many) critical and salient difference(s) is that Dahms’ conception of logic is at odds with what I take to be essential to logic – namely, its universality (and, for that matter, topic-neutrality). Complicating matters is that Dahms’ work hints at theology’s being entirely free from logic, a position he fails to elucidate, and a position that I do not understand if, as I take it, theology is a truth-seeking discipline. Still, despite its not clearly being a precedent for a serious glut-theoretic theology, Dahms’ work deserves credit for looking in what I take to be the right direction.

Aaron (A.J.) Cotnoir (2017) also deserves credit for advocating the exploration of glut-theoretic Christian theology. Cotnoir’s work is an initial, partial exploration of different glut-theoretic options – some compatible with the position advanced here, some not. I intend to discuss Cotnoir’s results in the larger project of which this paper is a part.

²² Timothy Pawl’s recent contribution to the fundamental problem of Christology seeks to avoid the apparent contradiction by redoing the natural truth conditions – or satisfaction conditions – of predicates such as ‘incapable’ and ‘impassible’. The view is one against which my current proposal must ultimately be weighed, but I leave that for later work. The aim at the moment is simply to defend the viability of a simple and (by my lights) natural Contradictory Christology. [I do agree with much of Pawl’s work. A major disagreement is the correct account of logic itself (Pawl thinks that it’s largely

On the Christology being proposed Christ plays the foundational role of both having the features required to fully experience suffering as we experience it while at the exact same time being worthy of worship and incapable – not capable – of such suffering or imperfect understanding of such suffering. The contradiction of Christ, on the proposed Christology, is not there because the Conciliar-text authors were sloppy; it's there because Christ's foundational role in Christianity requires something contradictory – and thereby something extraordinary, unique and awesome. Of course, if logic itself required that a contradiction – the logical conjunction of a sentence and its logical negation – entails outright absurdity, then Contradictory Christology would be absurd and immediately off the table. But logic doesn't rule it out. (Recall that $A \wedge \neg A$ does not logically entail arbitrary B , unlike in classical logic.) And so the question is whether the apparent contradiction of Christ is motivated. That orthodox Christianity – and the Conciliar texts that at least in large part define it – makes vivid the apparent contradiction of Christ is good reason to think that the apparent contradiction is motivated.²³

In short, Contradictory Christology responds to the fundamental problem by accepting the apparent contradictions as genuine contradictions. This is not simply 'because we can' (given the correct account of logic); the view is motivated by the screamingly apparent contradiction at the heart of Christ's role – perfect God but also as human in imperfection and limitation as you and me. On a mistaken view of logic the proposed solution to the fundamental problem would be off the table. But we need not carry a mistaken view of logic. And once dropped we may fully explore the logical possibility of embracing the contradiction of Christ at face value.

4.2. The rarity of true contradictory theories

Before addressing a number of objections, which aim to fill out the proposal further, a very common reaction should be addressed: I am not hereby proposing that theologians should seek to find contradictions willy nilly. The reason that we generally reject all logical contradictions is that true ones are ultimately few and far between. And this is why so few of our true theories are contradictory (i.e., negation-inconsistent). Logically possible contradictions are nonetheless ruled out in many theories as theoretically impossible, given the nature of the theory's target phenomenon. Standard mathematics rules out – or blocks off – the logical possibility of contradictions as *mathematically* impossible; and much of physical theory, biological theory, many metaphysical theories do the same. But in strange cases of extraordinary phenomena the truth may require a contradiction.

My proposal, again, is not that theologians ought to seek out contradictions; the proposal is that Christ's unique role motivates a contradictory account – his contradictory exemplification of two complementary (contradiction-entailing)

standard while, as above, I think that it is weaker than the standard account), though we are, I think, in agreement about the role of logic (qua logical entailment) in theology.]

²³ Pawl 2014 gives a hermeneutical (charity-driven) argument against Contradictory Christology. I take this up in the objections-replies section §5.

natures. Having the two complementary natures brings about the truths entailed by having the one and the falsehoods of having the other (and vice versa): Christ is mutable and Christ is not mutable. Said together just so is jarring; but such is Christ's role in the Christian worldview. As a methodological principle, we should not seek out contradictions but we should be open to the rare cases that motivate them. The having of two complementary natures is one case that appears to motivate a contradictory theory (a Contradictory Christology).

Consider an analogy with Truth and Falsity. These are complementary properties in the sense that having them both entails a contradiction. Were there to be some entity that exemplifies *both* of these properties the entity would be a rare one, something surprising – though perhaps not properly mysterious. As above, I maintain that a very respectable – and, indeed, correct – view of logic is that logic itself does not rule out such an entity, something that is both true and false. Logic enjoys its role of being universal and topic-neutral by being very rich in the possibilities that it recognizes. As it turns out, there are entities – admittedly strange and rare – that (arguably) instantiate or exemplify or have both of the given complementary properties. Witness the familiar Liar paradox:²⁴

✓ The ticked sentence is false.

This sentence is true if and only if it is false. While (on my view) logic itself won't force the issue,²⁵ the ticked sentence is a candidate for the very rare case in which the complementary properties of truth and falsity are exhibited together. As theorists we have a methodological goal of resolving as many claims into the true and the false as possible. Logic, as above, doesn't demand as much; but systematic theorizing motivates the methodological goal. And with that goal, one is quickly motivated to the view that the ticked sentence is false and also true – a contradiction (see Beall 2017).

It is important to emphasize that the ticked sentence is a strange and unexpected case. Moreover, by accepting that the ticked sentence is a (surprising) case of an entity that exemplifies complementary properties we are not thereby committed to accepting that all peculiar sentences are truly contradictory. The very nature of the ticked sentence – a twisted *prima facie* contradiction – motivates a contradictory theory of it; but few other sentences are like that.

And the same is true of Christ: his role is *prima facie* contradictory; and his realization of the role via complementary natures reinforces the contradiction. Indeed, when one asks how something could realize a contradiction, orthodox Christology has provided a clear and fascinating answer: namely, the having of two

²⁴ That a true theory of these sorts of peculiar entities (the Liar sentence or similar property/set sentences) might be contradictory is an idea discussed by many, including Asenjo 1966; Asenjo & Tamburino 1975; Beall 2004; 2009; Dunn 1966; 1976; Priest 1979; 2006; Routley 1979; Routley & Meyer 1976, and many others, though Priest's work has championed and defended the view more than any other work on the topic. Indeed, Priest's career and large body of work, much like the late Sylvan's (née Routley) career and work, has focused largely on advocating and defending the spread of contradictory theories beyond this limited area.

²⁵ In order for logic itself to force the issue one needs something like the law of excluded middle, which is not valid according to logic (viz., FDE) as I've advanced it here (see Beall 2017).

complementary natures. In the end, when the truth is laid bare, Christ may be the unique contradictory being in reality. That's for future theorizing to tell. For now, Contradictory Christology affirms the apparently contradictory orthodox Christology as genuinely contradictory. Christ is mutable; Christ is not mutable. It is true that Christ is mutable; it is false that Christ is mutable. This is jarring, and even in some ways mysterious; but orthodox Christianity has advanced the role of Christ to be just so: jarring and in various ways mysterious. In this case, the mystery is (at least in part) that there is a being whose very existence entails contradictions – that he is perfect and all-knowing but is imperfect and has limited knowledge (and so on). Theological traditions – from negative theology to Kenotic theology to the latest analytic-theological proposals – have one and all tried to avoid the logical contradiction of Christ. While I have not argued against those traditions in favor of Contradictory Christology I think that it is plainly as viable an approach to Christology as the others. Future debate will ultimately tell. For now I respond to a number of objections.

5. Objections and Replies

00: From some to all contradictions

Objection: Once we allow some contradictions we have no grounds to reject any contradictions.

Reply. This is simply unmotivated. Consider the directly analogous claim: once we admit that quantum reality is funny we have no grounds to reject that all of reality is funny.

Belaboring the reply (because the objection seems to be very common), consider another analogous claim (familiar to philosophers): once we accept that 'intersubstitutability of identicals' – or 'intersubstitutability of co-referential terms' – fails in some (true) theories we have no grounds to accept such intersubstitutability for any (true) theory. Again, this is simply unmotivated. When philosophers discovered (so-called intensional or opaque) contexts (e.g., *It is believed that...*), contexts in which all of the following are true for some names '*a*' and '*b*' and some predicate '*F*', they were surprised:²⁶

- *a* is identical to *b*
- It is believed that *a* is *F*
- It is believed that *b* is not *F*

But the lesson is not that we now (i.e., post-discovery) have no reason to accept the intersubstitutability of identicals (or co-referential terms) in any theory; the lesson is

²⁶ For a concrete example, replace '*a*' and '*b*' with 'Superman' and 'Clark Kent', respectively, and replace '*F*' with 'flying'. (And to make it doubly concrete, replace the general operator 'it is believed that...' with (for example) 'Lois Lane believes that...'.) For many more examples see the (vast) literature on intensional and/or opaque contexts.

simply that there are theories that accommodate peculiar contexts in which intersubstitutability fails. Finding unexpected, abnormal contexts in which intersubstitutability fails does not undermine the importance of such intersubstitutability in many (most) true theories. Of course, we were mistaken if we thought that the principle was logical and hence was thereby demanded across all true theories; but – for all I can see – there is no reason not to demand such intersubstitutability in most of our true theories provided that the discovered (opaque) contexts aren't in play (in the language of the theory). That we have found some contexts (or predicates) – or some phenomena – for which the given intersubstitutability fails gives no reason to reject the principle in (for example) our true theory of arithmetic, physics, or biology.

Contradictory Christology – and Contradictory Christian theology in general – is similar. We were mistaken in what we took to be a *logical* – absolutely universal – proscription against true contradictory theories; but for all that I can see the candidates for true contradictory theories remain very rare – indeed, unique if we ignore 'spandrels of truth' (e.g., liar paradoxes, etc.). Of course, maybe the contradiction which is Christ is not unique; maybe there are other such contradictory beings; logic itself doesn't rule them out. But logic rules out precious little; and its failing to rule something out is hardly a good reason to accept it as a leading candidate for truth. Until there's good reason to accept that our true theories of phenomena beyond Christ are likewise glutty I see no reason not to reject the spread of contradictory theories.

01: Historically suspect

Objection: the proposal is historically suspect. According to Gregory Dunn, Leo the Great maintained that 'Jesus could be both impassible and passible at the same time *without there being any contradiction*' (Dunn 2001, 81, emphasis mine).²⁷ Hence, inasmuch as Dunn's interpretation of Leo is correct, and in turn Leo's texts were ratified as part of orthodox Christology, the proposed Contradictory Christology is historically suspect.

Reply. Distinguish two senses of 'contradiction', one being a sentence which is the logical conjunction of a sentence and its logical negation, and the other being an 'explosive sentence', a sentence that, according to a theory's consequence or entailment relation, entails every sentence (of the language of the theory). The first sense is the one involved in the proposed Contradictory Christology. I agree with Dunn and many others that the true Christology has no true explosive sentences – that is, no claims that are both true according to the Christology and also entail all sentences according to the Christology's consequence relation.

02: Hermeneutically suspect

²⁷ This quotation is used by Pawl (2015, 92) for different dialectical purposes, but the passage nicely frames the current objection. I discuss an importantly related objection, based on Pawl's work, below.

Objection: the proposal is hermeneutically suspect by being uncharitable in reading conciliar texts. Pawl, focused only on Conciliar Christology (with which my proposal is intended to be compatible), implicitly argues that it's *uncharitable* to charge the conciliar fathers with advancing a Contradictory Christology:²⁸

Had they really believed these five pairs of predicates to be incompatible, they would not have affirmed that Christ is both visible and invisible, incomprehensible and comprehensible, unlimited and limited, impassible and passible, and inexpressible and expressible. It is a rare feat to be able to contradict oneself so forcefully in a single sentence. Any one of these five conjunctive pairs would be enough to entail a contradiction, and the fathers do it five times over! (2015, 64)

The point is that it's at best uncharitable to interpret the conciliar fathers as advancing anything close to a genuinely contradictory Christology.

Reply. There are two chief problems with Pawl's argument.²⁹ The first problem is that Pawl's (charity-driven) hermeneutical argument comes with an uncharitable reading of the conciliar fathers. Either the conciliar fathers used the key predicates (e.g., 'passible' and 'impassible', etc.) in non-standard and yet undefined ways or they used the predicates in their standard ways with their standard but glaringly contradictory consequences. The more charitable reading, as I see the matter, is the latter disjunct. On Pawl's view the conciliar fathers are using the key predicates in a non-standard way. After all, on the standard usage the given pairs of predicates are complementary (in the sense that their joint satisfaction entails a contradiction); and that is logically impossible according to Pawl. But the conciliar fathers are not simply using key terms in a non-standard way; *they knowingly left their usage completely undefined*. We don't get the special definitions (satisfaction conditions) until Pawl 2016. Why would the conciliar fathers not flag their special – and undefined – usage of (for example) 'incomprehensible' and 'comprehensible' (and 'capable' and 'incapable' and so on) if they didn't intend the usual entailments to hold? Pawl doesn't answer this question but maintains that their usage was indeed non-standard because otherwise the Christology is contradictory. This leads to the second problem with Pawl's argument.

The second problem is that Pawl's argument overlooks the possibility that these 'incompatible' – that is, contradiction-entailing – predicates are precisely what is required for Christ to play the unique role that Christ plays. That Christ must be immutable (entails: not mutable) in order to be worthy of worship while being mutable to experience our suffering (for example) is contradictory; but it's what the conciliar fathers concluded – even if they were not fully clear on how such an extraordinary entity works in detail. If we hold fast to the standard account of logic

²⁸ To be clear, Pawl's arguments are not directed at the Contradictory Christology that I have aimed to defend. His arguments, like much of standard theology, ignores such a Christology. But Pawl's charity-driven hermeneutical argument (below) demands a reply.

²⁹ I think that Pawl's work on the fundamental problem is very important, and I continue to learn much from it. I intend to do a much more extensive discussion of it vis-a-vis Contradictory Christology in the future. For now, my aim is only to give an initial defense of the viability of Contradictory Christology.

(or any so-called explosive account of logic) then Pawl's hermeneutical argument has force, of course; but I think that that account of logic is misplaced.

03: Implausible

Objection: accepting that Christ exemplified a property and its logical complement is downright implausible. As such the proposed Contradictory Christology is implausible.

Reply. If the objection is an empirical claim about what human believers can in fact believe then the objection needs to be evaluated empirically. But there are philosophers who in fact believe of various entities that they instantiate a property and the property's logical complement. Pending further empirical tests such philosophers appear to be counterexamples to the sort of empirical charge of implausibility advanced in the objection.

But perhaps 'implausible' is used in a weaker sense: it's *hard to believe*; it's *nearly incredible* (*nearly not believable*), and so on. But in this case, such a property is to be expected of the true Christology. After all, the true story of Christ – the true story of the extraordinary GodMan – is nearly beyond belief. That Christian theologians of all stripes have emphasized the necessity of faith in the face of 'implausibility' is not an objection to the truth; it's (at least in part) a recognition of the implausibility of the truth.

04: Ad hoc

Objection: the proposal is ad hoc. The fundamental problem of Christology is a difficult one to solve. The proposal points to an alternative logic that can handle contradictions without reducing a theory to all-out absurdity; and then the proposal simply hitches the logic to Christology without independent motivation.

Reply. This objection is misplaced on two fronts. To begin, the alternative (subclassical) account of logic has been motivated in the philosophy of logic by a wide range of theology-independent phenomena, from concerns peculiar to 'relevance' of logic (see Anderson and Belnap 1975; Anderson, Belnap, and Dunn 1992) to modeling various inconsistent but not flat-out absurd theories (e.g., so-called naive account of sets or properties) to strange phenomena from language (e.g., paradoxes – see Priest 2000). So, the given logic itself is not ad hoc.

The second front on which the objection is misplaced is the charge specific to Christology, namely, that Contradictory Christology is an ad hoc solution to the fundamental problem. But this is simply wrong. The very conciliar texts that at least in part define orthodox Christianity carry the *prima facie* contradiction of Christ on their jackets. That the true Christology is in fact logically contradictory is a natural response to the fundamental problem; it has been long ignored simply because of a restricted account of logic.

05: Truth requires coherence

Objection:³⁰ *Coherence is a necessary condition for truth*, and a coherent Christology rules out Contradictory Christology – since a *true list of Christ's properties cannot contain contradictory pairs* (see Cross 2011, 480).

Reply. Setting aside epistemic and question-begging accounts of 'coherence' (as, respectively, irrelevant and uncharitable) the objection rests on a true principle: namely, that true theories must 'hang together' in a way that avoids outright triviality, where triviality is the uncontroversially absurd 'trivial theory' – namely, the theory containing *all* sentences in the language of the theory.³¹ On the standard view of logic no logically contradictory theory can 'hang together' (cohere) in the given way, since logic itself – on the standard view – takes every logically contradictory theory to the trivial theory. But that view of logic is not forced on theology; a more natural account of logic is in the (so-called subclassical) vicinity of FDE. While true theories demand coherence, a logically contradictory theory can be coherent, contrary to the objection's presupposition.

06: Other theological contradictions

Objection: it looks like the proposed Christology naturally generalizes to other parts of theology. In particular, doesn't the general proposal require that every apparent contradiction in theology be treated as contradictory – including, perhaps especially, the very familiar 'logical' puzzles involving God's omniscience, omnipotence (a too-heavy stone) and the like?

Reply. No. While logic leaves open such possibilities – and theologians should be aware of such logical possibilities – the contradiction needs to be motivated too. While the familiar 'logical' problems of orthodox Christianity's 'omnigod' are candidates for a contradictory proposal, the contradiction involved is not as clear in (for example) conciliar sources as the screamingly apparent contradiction of Christ's role and two natures. I do not rule out a contradictory resolution of other theological problems but, pending debate, my proposal is restricted to the fundamental problem of Christology.³²

³⁰ This objection is in the spirit of leading work on Christology. While he is not focused on Contradictory Christology in the relevant passage (see below), I frame the current objection in terms drawn from Richard Cross's state-of-the-art discussion of the fundamental problem (see Cross 2011, 480).

³¹ For example, the standard (say) theory of arithmetic (say, Peano Arithmetic) is written in a certain language, namely, the language of the theory; and the trivial theory of arithmetic, relative to that language, is the theory that contains all sentences of the language. (There is absolutely nothing special about arithmetic. It's used here as a very simple example of the term 'trivial theory' as it occurs in contemporary philosophy of logic.)

³² For what it is worth my own view is that many such familiar 'logical' problems motivate a 'gappy' (vs 'glutty') theology – for example, where certain claims are neither true nor false – but this is for another occasion. See Beall & Cotnoir's work on the stone problem (2017) as an example of a gappy theology which is perfectly compatible with the FDE-logic-based theology advanced here. Moreover, my own view of apparent Trinitarian contradictions is to rely on non-transitive identity – a theology-specific account of identity that isn't ruled out by logic (since, on my view, logic itself is neutral on identity). But these issues are for a much bigger project. I mention them here only to illustrate that the

07: Heretical

Objection: Your position is heretical in that your theory has heretical claims as consequences.³³ You maintain that Christ's divine nature entails Christ's impassibility:

(1) That Christ is divine entails that Christ is impassible.

(1) together with similar entailments give rise to the fundamental 'problem' of Christology. The trouble is that *entailment* contraposes, that is,

(2) If A entails B then $\neg B$ entails $\neg A$.

Hence, from (1) and (2), we have (3) as a consequence, namely:

(3) That Christ is passible entails that Christ is not divine.

But, now, since your theory affirms (the orthodox, Chalcedonian claim) that Christ is passible we get from (3) the heretical (4):

(4) Christ is not divine.

This is plainly heretical. And the same argument goes through to show that your theory claims other heresies – such as that Christ is not human. Inasmuch as your Contradictory Christology aims to be compatible with at least the spirit of Chalcedon-inspired Christology, the current objection shows that Contradictory Christology fails, and should therefore be rejected.³⁴

proposed Contradictory Christology is not wedded to gluts (truth-value gluts) at every theological turn; logic also affords gaps as possibilities.

For a general exploration of glut-theoretic options on 'logical' problems in theology, see Cotnoir 2017.

³³ Dave Ripley pushed this objection at a UNAM Conference in Mexico. The objection is a more direct version of an objection by James Anderson (2007, 125ff), namely, Anderson's third (and, by his lights, weightiest) objection against a glut-theoretic theology. I treat the other two of Anderson's three objections in separate objections below; I discuss his version of the current objection in footnote 34 below.

³⁴ As above, an objection by James Anderson, which is of a kind with the current objection, is that Contradictory Christology winds up making the preservation of orthodoxy irrelevant because it is (allegedly) forced to make heretical claims (see Anderson 2007, 125ff). Anderson's exact objection points to identity claims that, he alleges, would arise from a glutty approach to the Trinity (about which I've said nothing here, but in the bigger project will discuss). By my lights this is a bad example; it's a hard task for any theory to come up with the right identity relation, and perhaps especially so for Christian theology, and especially as involving doctrines of the Trinity. But one thing is pretty clear: either identity in Christian theology (especially the relation involved in the Trinity) will not be transitive or it will invalidate the sort of substitution principles on which Anderson's objection relies. Anderson just assumes that either it is transitive or it allows for familiar substitution (or both). (He might be thinking that logic itself has an identity predicate, and so, inasmuch as logical vocabulary is universal and part of every theory, that predicate is involved in Christian theology. That logic has an

Reply. There are two important parts of the reply. The first part of the reply is to note that heresies need to be understood in a way compatible with the possibility of Contradictory Christology. In particular, a familiar heresy concerning Christ's divinity may be understood in at least two ways:

- Presence of Negation: the theory contains the given negation (viz., 'It's false that Christ is divine').
- Absence of Nullation: the theory fails to contain the given 'nullation' (viz., 'It is true that Christ is divine').

The current objection charges that Contradictory Christology, as advanced here, commits a heresy in the H1 sense; but there is no suggestion that the theory commits a heresy in the H2 sense. By my lights, it would not be surprising were the truth of Christ, who is the unique contradictory being at the center of Christian theology, to involve 'heresies' in the H1 sense. After all, that Christ exemplifies two complementary natures (the joint satisfaction of which entails a contradiction) may bring about falsity claims that appear to be deeply heretical (i.e., H1-heretical); but the substantial heresies, at least by my lights, involve an outright rejection of the orthodox claims – the absence of such claims from our Christology. The substance of serious heresy is in H2: namely, having a theory that rejects or omits the given truth (e.g., that Christ is divine, that Christ is human, etc.).

The second part of the reply is to refute the claim that Contradictory Christology, as advanced here, commits a heresy even in the H1 sense. What the objection assumes is that our Christology's consequence relation – our entailment relation for our theory of Christ – contraposes. This assumption is erroneous. Indeed, the objection illustrates precisely why the entailment relation for true Christology fails to contrapose.

It is true that *logical* entailment (viz., FDE, as outlined above) contraposes: if the entailment relation in premiss (2) of the objection concerns only logical entailment, then premiss (2) is correct. But if premiss (2) is talking about logical entailment, then – for the objection's argument to work – premiss (1) is also talking about logical entailment. But (1) should be rejected if it is talking about logical entailment, since logic is completely neutral on things like passibility and human natures; such things are beyond the sparse, topic-neutral logical vocabulary. If (1) is true – and it is true – then (1) is not talking about logical entailment; it's talking about the entailment (or consequence) relation involved in our specific theological theory. And there's no reason to think that that relation contraposes. (Indeed, as above, there's reason – in the objection – to think that it doesn't.)

identity predicate is incorrect, as I see things; logic does not have an identity predicate (identity relations are not topic-neutral enough to be logical), and even if it did it would hardly be even an equivalence relation. Moreover, even if, contrary to what I think is the correct account, logic had an identity predicate there's no reason to think that that predicate is the one involved in expressing the axiomatic truths of the Trinity. But I leave these issues for another venue.)

08: Awkward consequence

Objection: James Anderson gives various objections to a would-be glutty theology (i.e., a theology with at least ‘truth-value gluts’ about God).³⁵ The first is crisp and powerful:

[Your Contradictory Christology] has the odd consequence that God believes some falsehoods (about God, no less) and invites us to do likewise. This criticism may not be decisive, but it seems hard to reconcile this outcome with the biblical emphasis on promoting truth and eschewing untruth (e.g., Ps. 52:3; Eph. 4:25; 1 John 4:6). (2007, 125)

Anderson is right: your glutty theology is both awkward and, more problematic, goes against Scripture.

Reply. The objection is not only not decisive; it simply repeats the core thesis of Contradictory Christology, namely, that the full truth of Christ involves falsehoods. If by ‘odd consequence’ is meant a surprising, unfamiliar, and strange consequence, then I am in agreement with the claim that Contradictory Christology has the given odd consequence. But this is not an objection. After all, all theologians agree that Christ’s very being is surprising, unfamiliar and very strange – if shown by nothing else than the fundamental problem of Christ’s being.

God is omniscient. God knows the full truth of Christ. Since the full truth of Christ involves falsehoods (e.g., ‘Christ is mutable’, etc.) then some of God’s knowledge is knowledge of falsehoods – which, of course, are also truths (since knowledge demands truth). True falsehoods are so rare as to make them strange, surprising and very unfamiliar; and their existence comes about only in the strangest, most surprising cases – such as Christ.

Does this position go against Scripture’s promotion of seeking truth and avoiding falsehood? No. Seeking truth is paramount; and falsehood is to be avoided at all costs short of losing truth. Scripture’s dictate concerns the normal situation wherein truth and falsity are not inextricably bound together as they are in the unique case of Christ. In the case of Christ we pursue the full truth; and with it we wind up with falsehoods which are also true. Such is Christ’s unique being.³⁶

³⁵ Anderson uses the now-not-uncommon term ‘dialetheism’ (sometimes ‘dialethism’, with adjective ‘dialetheic’ or ‘dialethic’) for any glut theory – that is, a theory that contains gluts (i.e., true falsehoods). Instead of that terminology I mostly use ‘Contradictory Christology’ to make Anderson’s objection specific to my proposal.

On broader terminology: I prefer the simpler terminology of ‘glut theory’ (with adjective ‘glutty’), which is the dual of ‘gap theory’ (with adjective ‘gappy’); this simpler terminology predates the neologism ‘dialetheism’. (Some glut theorists – including Graham Priest and Richard Sylvan (née Routley) who coined the term ‘dialetheism’ (‘dialethism’) – prefer the later terminology because they think that ‘glut’ carries negative connotations. I do not share such a view.)

³⁶ Also – lest there be any doubt – it’s worth noting that the Scriptural texts which Anderson’s objection highlights concern lying and deception (vs falsity on its own); and there is no part of Contradictory Christology that advocates lying or deception.

09: Phenomenological support

Objection: James Anderson gives another objection to Contradictory Christology (and glutty theology generally), one that he takes to be as ‘weighty’ as the first:

[T]he law of non-contradiction enjoys considerable *prima facie* support by way of the phenomenology and ubiquity of belief in it. If nothing else, this indicates that a rejection of the law should serve only as a last resort in attempting to address the [fundamental problem]. Moreover, [a glutty] solution is likely to endear itself only to those standing *within* the Christian faith (and even then will be deemed a bitter pill). As a defensive strategy to counter the charge of irrationality levelled at Christian doctrines, it lacks plausibility and smacks of special pleading (2007, 125).

Reply. There are (again) many things that can be said by way of reply. I limit the reply to comments on four strands of the objection: ‘the law of non-contradiction’, the relevance of phenomenology to logic, the apparent ubiquity of said ‘law’, and the issue of defending Christian theory against charges of irrationality.

Non-contradiction. The term ‘the law of non-contradiction’ is notoriously ambiguous, as the philosophy of logic has made plain (see Priest et al. 2004). On one hand, one might think that the law is a logically true sentence, something like *the logical conjunction of a sentence and its logical negation is false*, which is standardly symbolized

$$\neg(A \wedge \neg A)$$

where A is any sentence in the language of one’s theory. But to express the logical truth of such a thing one uses the logical consequence relation (here symbolized as a single turnstile), namely:

$$\vdash \neg(A \wedge \neg A)$$

This is a top candidate for ‘the’ law of non-contradiction, but this can’t be what Anderson (or others) have in mind, since this is compatible with glut theory.³⁷

Another candidate is some sort of extra-logical principle about rational acceptance and rejection, namely, *that one ought (rationally) to reject all contradictions*, where a contradiction, as throughout, is the logical conjunction of a sentence and its logical negation. Of course, this is an exceedingly difficult principle to justify in the face of viable glut theories, especially if some of those glut theories are true – such as, as I have suggested, Contradictory Christology. At the very least, this sort of ‘law of non-contradiction’ – which concerns the thorny area of rational

³⁷ The scheme is not logically true in FDE, which I take to be the right account of logic; but even if it were logically true, as it is in a well-known extension of FDE called ‘LP’ (see Asenjo 1966; Priest 1979), its logical truth wouldn’t rule out the logical possibility of $A \wedge \neg A$ also being true for some A .

‘change in view’ (see Beall 2015; Harman 1986) – is question-begging if launched against the viability of Contradictory Christology. This too is not what I think is the central notion of non-contradiction.

The core notion of non-contradiction at issue for Contradictory Christology is a version that is directly incompatible with Contradictory Christology. This version of non-contradiction, on which I henceforth take the current objection to focus, is sometimes called ‘*ex contradictione quodlibet*’ or, with more flair, ‘explosion’ (the latter colorfully indicating that a jot of negation inconsistency explodes a theory into the absurd trivial theory, which is the theory that contains all sentences of the language of the theory):

$$A, \neg A \vdash B$$

where A and B are any sentences of the given language, and $\vdash$ is logical consequence (and, hence, is part of *every* consequence relation involved in any of our theories). In what follows I shall take the objection to concern this ‘law’ – better described as a ‘rule’ – of non-contradiction: namely, that arbitrary A together with its logical negation $\neg A$ (and, hence, by logic, the contradiction $A \wedge \neg A$) logically entails B . Contradictory Christology rejects this ‘law’, and must do so on pain of a simply absurd Christology – the trivial Christology.

Phenomenology of explosion. The objection alleges that there is strong phenomenological support for non-contradiction. I question whether this is true. (Does it ‘feel right’ that ‘Satan is a Christian’ logically follows from the claim that Christ is passible and impassible – or, more explicitly, that Christ is passible and yet Christ is not passible?) Even if the phenomenological feel supports explosion as a logical principle, the methodology of following phenomenology in this context is unmotivated. After all, logical consequence governs *all cases whatsoever*; logic is topic-neutral, universal, and is not at all subject to a particular corner of reality. But phenomenology is notorious for being a product of parochial diets: your ‘phenomenological feel’ depends on what you’ve eaten (so to speak). Indeed, that non-contradiction, understood as above (viz., explosion), is entrenched in a standard account of logic (viz., so-called classical logic) is not surprising; the standard account of logic was built exclusively on the diet of (classical) mathematics – a key topic for philosophical reflection. But phenomena like vagueness, semantic or ‘logical’ paradoxes, let alone phenomena like the unique Christ, were not even on the table when the standard account was crafted. Trusting phenomenology to determine logical consequence is not a reliable strategy.

Apparent ubiquity of ‘explosion’. The objection points out that explosion (as the relevant ‘law’ of non-contradiction) is apparently ubiquitous in our best theories. (The objection talks about ‘ubiquity of belief in it’, but it is clearer to talk in this context of its role in our best theories – which, presumably, reflect our beliefs, etc.) On this point the objection is clearly right: explosion looks to play a dominant role in many – perhaps most – of our theories. So, how do we explain the apparent ubiquity of explosion in our theories if explosion is to be rejected?

Here, we need (as always) to distinguish logical consequence (represented as the bare single turnstile above) from a given theory’s consequence relation.

Explosion, as a *logical* rule (using logical consequence), is rejected by all viable glut theories, and certainly by Contradictory Christology. But this does not mean that our theory-specific consequence relations do not exhibit explosion.

The topic is too big for this paper but the point, in short, is simply that theory-specific consequence relations (say, $\vdash_T$, for some theory T), while building on top of logic (and so not transgressing logic in any way), often build a form of explosion into the theory. For example, in our true theory of arithmetic, logic itself (qua FDE, as above) does not demand explosion; it says that it's logically invalid. But arithmetic's consequence relation $\vdash_T$ builds in explosion by narrowing the class of logical possibilities down to the ones that the theory takes to be (theoretically) possible. In particular, the theory (unlike logic) rules out the possibility of gluts for any predicates involved in arithmetic by enforcing this condition:

$$\exists x(Fx \wedge \neg Fx) \vdash_T \perp$$

where ' $\exists x$ ' stands for logic's 'there exists at least one x such that' and ' Fx ' is an open sentence ('property' or predicate) of the language of arithmetic, and $\perp$ is a sentence that entails, according to the theory's consequence relation, all sentences of the theory.³⁸ The effect of this condition is to narrow the set of *theoretical possibilities* down to exactly two sorts: the trivial one (where everything is true) and non-glutty ones (ones where no contradiction is true). With such a restriction on every predicate in the language of the theory one can show that any model of the theory is either trivial or negation-consistent – which is all that classical-logic theories can achieve. While there is a lot more that can be said on the ubiquity of 'explosion' in many of our best theories, this is not the place; however, enough has been said to indicate that the apparent (and, I agree, genuine) ubiquity of explosive consequence relations is compatible with the failure of explosion in logic and, in particular, in Christology.³⁹

Defending Christian theory against charges of irrationality. The objection points out that if the aim of a solution to the fundamental problem is to defend Christian theology against the charge of irrationality (which is James Anderson's key aim in his given book) then Contradictory Christology – or any other glut-theoretic theology – is not likely to be a front-running candidate, since the charge of irrationality is likely to come from those who assume (erroneously) that rationality demands non-contradictory theories.

The objection, as I see things, is irrelevant to the viability of Contradictory Christology. The aim of Christology is to give the truth of Christ. The heart of Contradictory Christology is that the truth of Christ is contradictory. If one charges that *that* – the contradiction – is irrational, then let the objector state her grounds for saying as much. I have little doubt that the objector's 'grounds' will ultimately point to the standard account of logic, and also point to principles tying the given account of logic to (a theory of) rational acceptance-rejection behavior. While these are difficult matters to adjudicate, there is enough work in the philosophy of logic (and

³⁸ I use a unary predicate for simplicity; the generalization to any finite arity is straightforward.

³⁹ For a lot more on how explosive consequence relations play important roles in our theories despite logic's failure to be explosive, see work on 'shrieking' (e.g., Beall 2013a; 2013b; 2015).

theories of rational acceptance-rejection behavior) to question the strength of such planks in the objector's charge.

My aim is not to win debate; my aim is to get at the truth. And when it comes down to it, I find it very difficult to see how the standard account of logic can be the right account given the existence of bizarre phenomena like Christ – or of lesser, theology-independent entities like common paradoxical phenomena. But if logic itself doesn't rule out the gluttness of such entities then an argument is required for the view that something else does; but pending such an argument the view remains highly viable, by my lights.

O10: Just highfalutin theory

Objection: This is all just highfalutin theory; it has nothing to do with the real work of Christology or theology in general.

Reply. That's just wrong. Theologians are theoreticians who, if aiming to get at the true theory of God, seek to record not only the fundamental truths but also all *consequences* of those truths. And this requires that theologians construct an appropriate consequence (closure) relation for theology. And to do this the theologian must take a stance on the fundamental closure relation: namely, logic itself. To think that it's obvious that logic is as per the standard account of logic (viz., so-called classical) is to think in error. Even defenders of the standard account of logic reject that it's obvious that logic is per the standard account.

Moreover, there is a genuine practical upside to Contradictory Christology. The role of Christ demands an entity who is not unlimited, one who can truly understand and experience our limited and imperfect ignorance of what it would be like to escape limitations (something we can only imperfectly imagine); but the role of Christ equally demands an entity who is devoid of limitations – the perfect and limitless God worthy of worship by all. The fundamental 'problem' of Christology is that this role is contradictory; it demands realization at the price of a contradictory being. But Christians may rest assured that Christ is that contradiction: truly perfect; truly imperfect – all in the standard senses of those terms. Hiding the full force of Christ's contradictory being by trying to block the full contradictory consequences that follow from it is to hide the full spectrum of properties that Christ exemplifies – and that Christians need Christ to exemplify. A full understanding of Christ's contradictory being may be beyond our currently limited epistemic reach; but Christ's reality – by all orthodox lights – is not in any way constrained by our epistemic reach.

O11: Not theology

Objection: The proposed theory is not theology. Theologians need not master the technical tools of contemporary logic in order to give a true theory of Christ – a true Christology – or a true theory of any other theological phenomenon. But your

proposed theory – the proposed Contradictory Christology – requires a mastery of just such technical logic.⁴⁰

Reply. A full-on mastery of logic is not required; but basic competence in logic and its role is required. The viability of any Christology – not just that of Contradictory Christology – relies on logic itself, on the logical consequence relation at the bottom of all consequence relations for our true theories (including our true theory of God). Of course, that theology is not about logic is absolutely clear and equally true. But theology needn't be about logic in order for logic to be of fundamental importance in the true theology. Theology relies on logic; and theologians need to be aware of logic's constraints – and, more to the present paper, logic's space of possibilities.

6. Towards future theology

Part of one's task as a theologian is to record theological truth. Treating various claims as axiomatic or basic or bedrock is the beginning. More work arises in constructing a consequence relation for theology – a relation that 'completes' the theory by delivering the consequences of the theory. Any such consequence relation needs to be in step with logic itself – the foundational consequence relation of all of our true theories. Contemporary philosophy of logic has provided good reason to think that logic is subclassical – properly weaker than standard (so-called classical) logic. This has direct effects on the space of theological options.

In this paper I have sketched one new option for Christology. What is important to emphasize is that the proposal is not an unmotivated hack brought about as an ad hoc patch in theology. Logic is different from what many theologians believe. And the truth of Christ may, accordingly, be very different from what most theologians believe too; the truth may be as logically contradictory as the fundamental 'problem' paints. My hope is that this paper puts Contradictory Christology on the theological table. Debate must now measure its promise against the other proposed solutions.

This paper is part of a larger project that aims to measure Contradictory Christology against standard accounts (including, but not limited to, the many 'qua' accounts, 'mereological' accounts, 'negative-theological' accounts, and more). The larger project aims not only to spell out the proposed Contradictory Christology further; it aims to argue directly for the position vis-a-vis limitations of standard accounts. But that remains for a larger project. This paper, as above, has the aim of defending a place at the table for Contradictory Christology.⁴¹

⁴⁰ Compare debates over the importance of analytic theology (see Crisp and Rea 2009).

⁴¹ Acknowledgements: As may be evident throughout, I've benefited a great deal from Timothy Pawl's recent work on the fundamental problem of Christology. Conversations with Gill Russell, Daniel Nolan, Susana Gómez and John Troyer helped clarify my thinking on early drafts. I am also grateful to Dave Ripley for ongoing conversation about this (and many other) topic(s), and similarly to Jared Henderson whose feedback and insights have been invaluable. The Institute for Philosophy at UNAM (Mexico) hosted a lively (and controversial) colloquium on this paper, and the logicians and philosophers who participated (including The Trivial One) provided valuable feedback. Trent Dougherty also provided feedback on the penultimate version of this paper. I am very grateful to Mike Rea and Sam Newlands

Bibliography

Adams, Marilyn McCord. 2006. *Christ and Horrors: The Coherence of Christology*. Cambridge University Press.

Anderson, Alan Ross and Nuel D. Belnap. 1975. *Entailment: The Logic of Relevance and Necessity*. Vol. 1. Princeton University Press.

Anderson, Alan Ross, Nuel D. Belnap, and J. Michael Dunn. 1992. *Entailment: The Logic of Relevance and Necessity*. Vol. 2. Princeton University Press.

Anderson, James. 2007. *Paradoxes in Christian Theology*. Paternoster Press.

Asenjo, F. G. 1966. "A calculus of antinomies." *Notre Dame Journal of Formal Logic* 7 (1): 103–105.

Asenjo, F. G. and J. Tamburino. 1975. *Logic of antinomies*. *Notre Dame Journal of Formal Logic* 16 (1): 17–44.

Bäck, Allan. 1982. "Aquinas on the incarnation." *New Scholasticism* 56 (2): 127–145.

Beall, Jc. 2004. "True and false—as if." In *The Law of Non-Contradiction*, edited by Graham Priest, Jc Beall, and B. Armour-Garb. Oxford University Press.

_____. 2009. *Spandrels of Truth*. Oxford University Press.

_____. 2013a. "LP⁺, K3⁺, FDE⁺ and their classical collapse." *Review of Symbolic Logic* 6 (4): 742–754.

_____. 2013b. "A simple approach towards recapturing consistent theories in paraconsistent settings." *Review of Symbolic Logic* 6 (4): 755–764.

_____. 2015 "Free of detachment: Logic, rationality, and gluts." *Noûs* 49 (2): 410–423.

_____. 2017. "There is no logical negation: true, false, both and neither." In *Non-classicality: logic, philosophy, and mathematics*, edited by Patrick Girarad and Zach Weber. Australasian Journal of Logic.

for hosting a lively – and very, very helpful – forum on this paper at the Notre Dame Center for Philosophy of Religion, and to all of the philosophers and theologians who participated in that forum. Finally, I am especially grateful to Aaron Cotnoir with whom I have had many conversations over (too) many years on ideas in and around this paper.

- Beall, Jc and Aaron Cotnoir. 2017. "God of the gaps: a neglected reply to God's stone problem." *Analysis* 77 (4): 681–689.
- Belnap. N. D. 1977. "A useful four-valued logic." In *Modern Uses of Multiple-Valued Logic*, edited by J. M. Dunn and G. Epstein. D. Reidel Press.
- Cotnoir, A. J. 2017. "Theism and dialetheism." *Australasian Journal of Philosophy* 96 (3): 592–609.
- Crisp, Oliver D. 2007. *Divinity and Humanity: The Incarnation Reconsidered*. Cambridge University Press.
- _____. 2009. *God Incarnate: Explorations in Christology*. T & T Clark.
- Crisp, Oliver D. and Michael C. Rea (editors). 2009. *Analytic Theology: New Essays in the Philosophy of Theology*. Oxford University Press.
- Cross, Richard. 2005. *The Metaphysics of the Incarnation: Thomas Aquinas to Duns Scotus*. Oxford University Press.
- _____. 2011. "The Incarnation." In *Oxford Handbook of Philosophical Theology*, edited by Thomas P. Flint and Michael Rea. Oxford University Press.
- Dahms, John V. 1978. "How reliable is logic?" *Journal of the Evangelical Theological Society* 21 (4): 369–380.
- Dunn, Geoffrey D. 2001. "Divine impassibility and Christology in the Christmas homilies of Leo the great." *Theological Studies* 62 (1): 71–85.
- Dunn, J. Michael. 1966. *The Algebra of Intensional Logics*. PhD thesis, University of Pittsburgh.
- _____. 1976. "Intuitive semantics for first-degree entailments and 'coupled trees.'" *Philosophical Studies* 29: 149–168.
- Harman, Gilbert. 1986. *Change in View: Principles of Reasoning*. MIT Press.
- Pawl, Timothy. 2014. "A solution to the fundamental philosophical problem of Christology." *Journal of Analytic Theology* 2: 61–85.
- _____. 2015. "Conciliar Christology and the problem of incompatible predications." *Scientia Et Fides* 3(2): 85–106.
- _____. 2016. *In Defense of Conciliar Christology: A Philosophical Essay*. Oxford University Press.

- Priest, Graham. 1979. "The logic of paradox." *Journal of Philosophical Logic* 8: 219–241.
- _____. 1998. "To be and not to be - that is the answer: on Aristotle on the law of non-contradiction." *Logical Analysis and History of Philosophy* 1: 91–130.
- _____. 2000. "Motivations for paraconsistency: The slippery slope from classical logic to dialetheism." In *Frontiers of Paraconsistency*, edited by D. Batens, C. Mortensen, G. Priest, and J-P Van Bendegem. Research Studies Press, Kings College Publications.
- _____. 2006. *In Contradiction*. Oxford University Press.
- Priest, Graham, Jc Beall, and B. Armour-Garb (editors). 2004. *The Law of Non-Contradiction*. Oxford University Press.
- Routley, Richard. 1979. "Dialectical logic, semantics and metamathematics." *Erkenntnis*, 14: 301–331.
- Routley, Richard and Robert K. Meyer. 1976. "Dialectical logic, classical logic, and the consistency of the world." *Studies in East European Thought* 16: 1–25.
- Tanner, Norman P. 1990. *Decrees of the Ecumenical Councils*. Georgetown University Press.
- Tarski, Alfred. 1956. *Logic, Semantics, Metamathematics: papers from 1923 to 1938*, translated by J. H. Woodger. Clarendon Press.
- Williams. C. J. F. 1968. "A programme for Chistology." *Religious Studies*, 3: 513–524.

On Contradictory Christology: Preliminary Remarks, Notation and Terminology

Jc Beall
University of Connecticut

The following are some preliminary remarks that will set the stage for my individual replies to Timothy Pawl, Thomas McCall, A. J. Cotnoir, and Sara L. Uckelman's responses to my paper 'Christ – A Contradiction'. In that paper I advance and defend a contradictory Christology which solves the fundamental 'problem' of Christology by holding that Christ is a contradictory being: it is true that Christ is mutable and it is false that Christ is mutable; it is true that Christ is immutable and it is false that Christ is immutable; and so on for other fundamental-problem properties. Familiarity with 'Christ – A Contradiction' (and also with background discussion including, e.g., Richard Cross's discussions of 'the fundamental philosophical problem') is assumed.

1. Aim of these preliminary remarks

The aim of these preliminary remarks is to review or otherwise clarify salient terminology involved in my target position, namely, Contradictory Christology (or a contradictory theology in general). Not all (or even most) issues are touched on in these preliminaries; only issues that run constant through the symposiasts' papers are reviewed here.

Gratitude. While I acknowledge each individual symposiast in my respective replies I want to express my deepest gratitude to all of them – and to the editors – for their work on this symposium. The care and attention focused on my nascent contradictory theology is a gift whose value to the project is beyond what I can adequately express, and also a gift that has humbled me more than I will publicly express. What I can and will say here, at the start, is just this: thank you – to the editors, to the participants in Notre Dame's CPR seminars, and above all to the symposiasts. Thank you.

2. Contradictory Christology: brief recap

Contradictory Christology, as advanced in 'Christ – A Contradiction', takes the strong appearance of Christ's contradictory being – the appearance at the root of what Cross

coined ‘the fundamental problem’ of Christology – to be veridical: it is true that Christ is mutable and it is false that Christ is mutable. (And there are many other fundamental-problem contradictions true of Christ.) Contradictory Christology is so called because it is a contradictory theory; it contains contradictions.

On the mainstream view of logical consequence, where logic is the foundational entailment relation involved in all true theories (and in that way logic is ‘universal’), a contradiction in any theory ‘explodes’ the theory into its so-called trivial one – the theory according to which all sentences (in the language of the theory) are true. The trivial christology is absurd by all lights; and it is plainly untrue (since at least some of the sentences in the language are untrue). Any viable contradictory christology (theology, generally) rejects the mainstream view of logical consequence, not in its universal application but rather in its claims about the explosiveness of contradictions.¹

3. Logical versus theory-specific consequences

An issue in the foreground of various papers is the difference between logical consequence and theory-specific – in the pressing case, theology-specific – consequence relations. Logical consequence is universal; it’s part of every consequence relation involved in any true (and complete-as-possible) theory.²

A review (and elaboration) of terminology from ‘Christ – A Contradiction’ is useful.

3.1. Explosive sentences

Let us say that a sentence *A explodes according to a consequence relation* $\vdash_T$ iff every sentence (in the language of theory *T*) is a consequence of *A*, that is, if $A \vdash_T B$ (read ‘*A* *T*-entails *B*’ or ‘*A* $\therefore$ *B*’ is *T*-valid) for every sentence *B* in the relevant language.

¹ Actually, Dahms, who deserves credit for pointing to a different account of logic to accommodate true theological theory, seems to have rejected the standard account not on its view of contradictions exploding but rather on the universal applicability of logic (see Dahms 1978). As per ‘Christ – A Contradiction’ I firmly reject such a position. From my perspective, to reject the constraints of logic on true theology is to reject that theology is a truth-seeking discipline.

² Technically, the logical vocabulary (here taken to be the standard stock of first-order vocabulary sans identity, and whose material conditional is defined per usual via negation and disjunction) is involved in all true theories, and it is the vocabulary in terms of which ‘logical forms’ – the argument forms on which logical consequence has any say – are defined. Consequence relations of our true theories ‘extend’ logical consequence in the sense that if $X \therefore A$ is logically valid then it’s valid according to the consequence relation of the true theory too. (Important: that $X \therefore A$ is logically invalid is compatible with its being valid according to the consequence relation for some true theory. Much more on this below.)

3.2. Formal contradictions

Now, let $\wedge$ be logical conjunction and $\neg$ logical negation (i.e., logic's unary falsity operator). Call any sentence of the form

$$A \wedge \neg A$$

a *formal contradiction* – for present purposes, a *contradiction* (simpliciter).³ A formal contradiction is literally read (using logic's unary truth operator):

It is true that . . . and it is false that . . .

In the case of a sentence like 'Christ is mutable' the contradiction is:

It is true that Christ is mutable and it is false that Christ is mutable.

Of course, the word 'not' is often employed as a stand-in for logical negation (i.e., for logic's falsity operator),⁴ in which case, where 'not' is so used, the given contradiction is:

It is true that Christ is mutable and Christ is not mutable.

3.3. The mainstream view of logic and contradictions

According to the standard (mainstream) view of logical consequence, contradictions are explosive sentences according to logic (i.e., according to logical consequence), that is, where $\vdash$ (unsubscripted because part of every true theory) is logical consequence,

$$A \wedge \neg A \vdash B$$

(abbreviated: $!A \vdash B$). And since this is a logical entailment, it's an entailment according to the consequence relation of every true theory. So goes the standard view.

3.4. Contradictions and Contradictory Christology

According to Contradictory Christology (as advanced in 'Christ – A Contradiction') the standard account of logical consequence goes too far; the standard account mistakes common consequences involved in many true theories with logical consequences. The correct view of logical consequence, according to Contradictory Christology, is

³ Notation: for both shorthand and ease on the eye I often use ' $!A$ ' as an abbreviation for ' $A \wedge \neg A$ '.

⁴ Often so employed; not always. (And sometimes the usage of 'not' is a theory-specific or highly theory-laden technical term used to comment on logical negation – as in, perhaps, claims like 'both the sentence and its logical negation are not true', but I set these technical tangents aside here.)

one according to which contradictions are not explosive according to logic;⁵ hence, contradictions need not be explosive in all true theories. But they may be explosive in some. Contradictions may be – and, in fact, I think that they are – explosive according to many of our true theories (e.g., arithmetic, biology, and others); however, many is not all. And according to Contradictory Christology contradictions are not explosive in the true theology.

3.5. Contradictions and theory-specific absurdities

How can contradictions be explosive according to some true theories (in particular, their consequence relations) while they are not explosive according to logic – the universal consequence relation common to all true theories? The answer is that logical consequence is an absence-of-counterexample relation: a pair of sentences $A \therefore B$ (or, generally, a pair from a set X to sentence B) is *logically valid* iff logic (-al consequence) sees no counterexample to the pair, where a counterexample is a possibility in which A (or everything in set X) is true but B fails to be true.⁶ But now suppose that a theory restricts the wide space of logical possibilities to some properly smaller space of what the theory treats as *theoretical possibilities*, and in turn the theory's consequence relation looks only at the theoretical possibilities as would-be counterexamples to pairs $A \therefore B$ (or $X \therefore B$) in the language of the theory. In this case, a theory might well ignore all logical possibilities in which a contradiction $\neg A$ is true – that is, the theory might ignore all glutty logical possibilities, treating them as theoretically impossible. In this case, where $\vdash_T$ is the theory's consequence relation, contradictions are explosive according to the theory:

$$\neg A \vdash_T B$$

even though, as above, logic itself (viz., $\vdash$, which is a part of $\vdash_T$) doesn't validate the would-be entailment.

Let us say that a sentence A is *absurd according to theory T* iff A is explosive according to T . As above, Contradictory Christology maintains that contradictions aren't absurd according to all theories, though they may be (and, I say, are) absurd according to some – for example, arithmetic, biology, probably others.

Important to understand is that true theories can (perhaps often do) treat some non-contradictions (i.e., sentences not of the form $\neg A$) as absurd – even if they do not treat contradictions as absurd. Witness: take the true theology. On an orthodox account (or at least a Chalcedon-constrained account) the following two sentences are jointly absurd:

⁵ The correct account of logic, I believe, is so-called first-degree entailment (FDE), so called in Anderson and Belnap 1975, and sufficiently presented, for present purposes, in the symposium's target paper (viz., 'Christ – A Contradiction'). When I talk about logic (i.e., logical consequence) I am talking about logical consequence per the FDE account.

⁶ Worth keeping in mind too is that logical validity looks only at the logical vocabulary; it treats everything except logical vocabulary as, in effect, a neutral variable (so to speak).

1. It's false that Christ is divine.
2. It's false that Christ is human.

These are jointly (just) false in all (non-trivial) models of the true theory (according to a suitably Chalcedon-constrained account); there are no (non-trivial) models of the theory in which both of the given sentences are true.⁷ If these sentences are jointly (just) false in all models of the given theory, their logical conjunction is absurd: it is explosive according to the theory inasmuch as there is no counterexample from the conjunction of (1) and (2) to an arbitrary sentence. (A counterexample from the conjunction of those sentences to an arbitrary sentence requires a possibility, recognized by the theory, in which the given conjunction is at least true.)

Whether you think that (1) or (2) or even their logical conjunction is an example of an absurd sentence in the true theology is not as pressing as whether there can be absurd sentences in the true theology which are not contradictions. I think that (1) and (2) are good examples but others can be offered, including:

3. God is Zeus.
4. It's false that there exists a god.

And there are others.

⁷ The *trivial model* of a theory is the (unique) model in which all sentences in the language of the theory are true. Theories need not involve a trivial model, but they make no real difference to a theory's consequence relation. (The models are 'allowed' as far as logic – that is, logical consequence – itself is concerned.)

Bibliography

Anderson, Alan Ross and Nuel D. Belnap. 1975. *Entailment: The Logic of Relevance and Necessity*. Vol. 1. Princeton: Princeton University Press.

Anderson, Alan Ross, Nuel D. Belnap, and J. Michael Dunn. 1992. *Entailment: The Logic of Relevance and Necessity*. Vol 2. Princeton: Princeton University Press.

Dahms, John V. 1978. "How reliable is logic?" *Journal of the Evangelical Theological Society*, 21: 369–380.

Explosive Theology: A Reply to Jc Beall's "Christ – A Contradiction"

Timothy Pawl
University of St. Thomas (Minnesota)

1. Introduction

I am honored to be a part of this symposium. I have had many conversations with Jc Beall over the last few years about Christology; each has been illuminating. I hope for many more in the years to come.

In this brief reply, I will discuss just a few aspects of Beall's project. And, since I'm an analytic philosopher by training, I will focus primarily on places where we disagree. I ask, then, that the reader allow me a moment to say a word of appreciation before we dive into the standard fare for philosophy articles.

Beall aims both to present an account of logic and to apply it to the Fundamental Philosophical Problem of Christology (401).¹ The application of the account of logic to the Fundamental Problem yields a view that he calls "Contradictory Christology." In addition, he aims to defend Contradictory Christology as having a place at the table of potential solutions to the Fundamental Problem (430). In my estimation, Beall has succeeded in these aims. He does illuminate the role of logic and present his preferred account of it. In fact, his presentation should be praised for being accessible to an interdisciplinary audience. Beall shows how this view of logic, First-Degree Entailment (FDE), when applied to Christology, can undergird his Contradictory Christology. Again, he is to be commended for the perspicuity of his presentation. I'm happy to see another leaf put into the table to allow Contradictory Christology a place as one among many potential options. If, after allowing Contradictory Christology a seat at the table, we discover that it is a viable method of response to the Fundamental Problem, then those invested in affirming the standard Christian view of the incarnation will have another method available for answering objections, to mix metaphors mid-sentence, another arrow in the quiver.

In what follows, I will first present another aim of Beall's, on which I will lean in my two main points. Those two points, briefly, are: first, that even on Beall's account of logic, there is good reason to think that theological contradictions are *theologically* problematic, and second, even on Beall's account of logic, we can still find a path from theological contradiction to every contradictory pair of propositions being true (this inference from one contradiction to the truth of all propositions is called "explosion"). I will also discuss a minor point, Beall's response to an objection

¹ All parenthetical references to page number that do not include an author and year are to Beall's article in this symposium.

based on my work. But before those two major points and one minor point, a framing word on Beall's aims.

2. Viability and Motivation

Beall aims to show Contradictory Christology to be "both viable and motivated" (402). Viability and motivation are sensitive to background beliefs. A thinker who reads the book of Genesis in a literalist fashion, concluding that the universe was created some six thousand years ago in six consecutive 24-hour days, will find different theories of the origin of dinosaur bones viable and motivated than someone who thinks the earth is much older. We need to ask, then: to whom is Beall attempting to show Contradictory Christology viable and motivated? He wants to show that Contradictory Christology deserves a place at the table. Which table? The table of those attempting to *defend* against the Fundamental Problem. The Witch-King of Angmar had no seat at the Council of Elrond.

Since he takes steps to show that what he says is consonant with the early councils, I suspect that he wants to motivate Contradictory Christology not just to some defenders, but, more specifically, to those who are committed to Conciliar Christology, or some subset of the doctrines of Conciliar Christology (perhaps Chalcedonian Christology, to which Beall refers at points). In fact, he claims of Contradictory Christology that it is intended to be compatible with Conciliar Christology (420).

One measure of his success in attaining his aims, then, is whether or not his view sits in tension with the work of the councils, or the theological views common to those at the councils. For insofar as it does sit in tension, it will be less viable to those who accept the councils, and they will be less motivated to affirm his Contradictory Christology. One answer to the question, "What ought we to do with this infernal ring?" is "Offer it obsequiously in tribute to Sauron for our wretched and miserable lives." But even if the Witch-King intoned this strategy in his most charismatic and affable voice between sips of tea, he'd be speaking to no avail in that group. Similarly, one way to resolve the philosophical problems that arise from the Incarnation is to give up on its defense and to deny that the Incarnation occurred. We can put a chair behind that surrender placemat at the table; motivating someone at the council to sit in it will prove tricky.

3. The Objection of Being Hermeneutically Suspect

Beall foresees a type of objection that I'd be inclined to run at precisely this point. He labels it "the objection of being hermeneutically suspect." I have claimed that it is an uncharitable read of the church fathers to see them as explicitly affirming contradictions. In a single sentence that I cite (2016, 153; Tanner 1990, 162), they list five seemingly contradictory pairs of predicates apt of the one Christ. It is much more

charitable, I believe, to understand those predicates as in some way consistent than it is to see the fathers as affirming explicit contradictions.

Beall raises two problems for this objection. The first problem is that it is my view, not Contradictory Christology, that is an uncharitable reading of the fathers. He writes,

Either the conciliar fathers used the key predicates (e.g., ‘passible’ and ‘impassible,’ etc.) in non-standard and yet undefined ways or they used the predicates in their standard ways with their standard but glaringly contradictory consequences (420).

In Beall’s judgment, the latter disjunct is the more charitable reading. What we have here is a disagreement about what charitable reading looks like in this case. Against my view, he writes:

the fathers are not simply using key terms in a non-standard way; *they knowingly left their usage completely undefined*. We don’t get the special definitions (satisfaction conditions) until Pawl’s early twenty-first century work (420, his emphasis).

There we have it. Either the fathers meant the terms in a non-standard way, or they meant them in their standard, glaringly contradictory way. Is it more charitable to read them as knowingly not telling us the meanings of their terms, or is it more charitable to read them as really meaning to accept true contradictions?

This reasoning against my view of the dictates of charity strikes me as too strongly put for three reasons. First, did they knowingly leave the usage undefined? I don’t have evidence that they did. I say in my discussion of this objection (2016, 169-170) that they *might* have meant what Beall calls my “special definitions” of the predicates, for all I know. But I don’t have reason to think that they did leave them undefined, and I don’t see any historical evidence ushered by Beall to show that they did. Perhaps they defined their usage in other texts, or in the Acts of the very councils. Some of these guys wrote a lot! Second, were my preferred aptness conditions for the terms non-standard back then? Again, I confess ignorance. It is important to remember the dialectic here, though. I haven’t claimed that these aptness conditions were standard back then. I claimed that they *might have been*. Beall claims that they were not, but he doesn’t offer any evidence that this is true. Third, is he right that we had to wait until the 21st century to get the truth conditions I provide? Here I think we can show that he is wrong. I owe a debt of gratitude to Richard Cross for translating the following passage and bringing it to my attention. It is a long passage that I have broken up into two parts (the second part comes later), in which we see Gabriel Biel (died 1495) give the same style of truth conditions that I prefer:

It can be said about things privatively opposed that a negation included in the privative term either removes [*privat*] a disposition in relation to every one of a subject’s natures, or in relation to a specified nature of the subject. For example, ‘impassible’ either implies merely

‘that is, “a *suppositum* not having a passible nature”, or it implies merely ‘that is, “a *suppositum* having an impassible nature”. In the first case, ‘nature’ is distributed; in the second [it is] not, but is taken determinately. (III, d. 7, q. un. (III, 161.34.49))

Here’s what Biel means:

- Distributed (1st) sense of “impassible”: *x* is impassible if and only if *x* is a suppositum that does not have a nature that can be causally affected.
- Determinate (2nd) sense of “impassible”: *x* is impassible if and only if *x* is a suppositum that has a nature that cannot be causally affected.²

Biel’s second sense is very close to my preferred definition of impassible:

- Pawl’s sense of “impassible”: *x* is impassible if and only if *x* has a concrete nature that it is impossible for some other thing to causally affect (Pawl 2016, 159)

At the time of writing my (2014) article and my (2016) book to which Beall is responding, I wasn’t aware of any smoking gun quotations from earlier thinkers who understood the terms as I define them. So, no shame on Beall for not knowing of the Gabriel Biel case; it isn’t that he missed a case I offered. Nevertheless, Biel’s claim is a counterexample to Beall’s claim that we had to wait until the 21st century. Moreover, Biel isn’t presenting his understandings of these terms as if they are novel. Might there be even earlier examples of people understanding the terms as I do? Richard Cross tells me that there are; I’m looking forward to seeing his forthcoming book on the Reformation debates about the Incarnation.³ To summarize, Beall’s first problem with my objection both goes under-justified (in the first part) and is subject to counterexample (in the second part).

Beall’s second problem with my objection is that it “overlooks” the possibility that the predicates were really meant as contradictory, and that such a contradiction is required for Christ to play his unique role (420). Here I am sympathetic to Beall’s point. I did not consider Christ’s unique role and whether it would *require* some true Christological contradictions. As he has carefully argued, it is a possibility that is worthy of consideration. But I balk at the claim that I’ve “overlooked” it. I did discuss accepting the contradiction in an earlier part of the book, in Chapter 4, Section IV.a, where I call such a response to the Fundamental Problem the “boldest” response, pointing to Beall himself as one of some “very able philosophers who defend the claim

² I have changed the definitions so that they do not include the word they are defining. In doing so, I have made an assumption about what impassibility requires. If a reader thinks that passibility is something other than ability to be causally affected, the reader is free to substitute in her preferred understanding of the term. What’s important here is not so much the understanding of the term – whether passibility requires ability to be causally affected, or mere ability to feel emotion – but rather the logical form of the explanation of the term, that is, where the negation goes.

³ Cross, Richard (forthcoming) *Communicatio Idiomatum: Reformation Christological Debates*. Oxford University Press: Oxford.

that there are some true contradictions" (84). (The previous sentence may seem to conversationally imply that Beall has missed this section of my book. If so, I hereby cancel that implication; one thing I appreciate about Beall is how carefully he reads the texts he discusses.)

In that section, when discussing the possibility of a true contradiction in Christology, I don't think that I say anything with which Beall will disagree. I note that there are certain inference forms, forms found in classical logic, but not found in Beall's preferred logic, which, if they were universally valid, would imply explosion – that is, would imply that from a contradiction, one can derive any other proposition. I furthermore noted, autobiographically, that I just can't see my way around thinking that these forms are, in fact, all universally logically valid. Beall should agree: Pawl, the poor guy, can't see how Disjunctive Syllogism (for any propositions P and Q , if P or Q is true and P is false, then Q is true) is invalid. The other two forms needed to derive explosion, which I referred to as "Conjunctive Elimination" and "Disjunctive Introduction," are accepted by Beall as logically valid (408). It must be Disjunctive Syllogism, then, which fails to be universally logically valid. Just to reiterate, though: for the life of me, I can't see how that's not universally valid.⁴ This may well be a defect on my part. Be that as it may, it is a defect shared by many other people. I don't see this as "overlooking" Contradictory Christology, but rather looking at it, seeing that it requires the logical invalidity of Disjunctive Syllogism, and judging that to be a reason to deny Contradictory Christology. Beall, of course, judges the validity of Disjunctive Syllogism differently than I do, and so the reasoning I give in that section will not be persuasive to him. In fact, I see him as an expert that I should defer to on this topic! But, alas, what's a guy to do?

For the remainder of this brief article, I want to consider two worries I have about Beall's Contradictory Christology. Both worries accept, for argument, that FDE is the correct logic, not classical logic. Both worries attempt to show that even if FDE is the correct logic, there's still reason to think that Contradictory Christology will be unable to stop the contradictions from spreading by means of explosion. In short, the first worry attempts to motivate that Theology's theory-specific consequence relation is one that allows for explosion. The second worry attempts to motivate that even if theology's theory-specific consequence relation does not allow for explosion, some truths derivable in theology serve two masters, are subject to two different theories, and some of those other theories have theory-specific consequence relations which undergird explosion.

4. Does Theology's Theory-Specific Consequence Relation Allow for Explosion?

⁴ I do not mean that I don't see what one says here if one believes in FDE. Here's what one says: "Suppose that P is both true and false, and that Q is just false. In such a case, both premises of the Disjunctive Syllogism are true. The disjunctive premise has a true disjunct, namely, P , so it is true. P is false, so the second premise is true. But the conclusion is false, since Q is false and not true. So, there is a possible situation, given FDE, in which the premises are all true, but the conclusion is false. Thus, that inference form is invalid. What's not to understand, Pawl?"

On to the first worry. Beall saves his Contradictory Christology from explosion by noting that not all consequence relations, and, importantly, not the consequence relation relevant to Theology, allow one to derive from the conjunction of some proposition and its negation to the truth of any proposition whatsoever. There are different theory-specific consequence relations, only some of which behave like classical logic insofar as they satisfy exhaustion and exclusion—meaning, respectively, that for any proposition, it is either true or false, and no proposition is both true and false (414). Which theories allow explosion? Beall lists multiple examples, including mathematical theories (414). For instance, the arithmetic consequence relation, as Beall notes, “builds in explosion by narrowing the class of logical possibilities down to the ones that the theory takes to be (theoretically) possible” (428). In addition to mathematical theories, “much of physical theory, biological theory, [and] many metaphysical theories” preclude the possibility of contradictions (416). He says elsewhere that “explosion looks to play a dominant role in many – perhaps most—of our theories” (427).

Suppose we grant to Beall both that logic itself does not preclude true contradictions and that some theory-specific consequence relations *do* preclude true contradictions. Here’s a question at this junction: how do we determine which theory-specific consequence relations preclude true contradictions or build in explosion, and which do not?

Whatever our answer to that question is, it shouldn’t require us to become experts in every theory to check for ourselves whether it requires explosion. Rather, we should trust the judgment of the expert theorists. I suspect that this is what Beall has done, rather than becoming an expert himself in physical theory, biological theory, and many of our other theories. If, as is true for very many disciplines, there hasn’t been an explicit, formal consensus on the niceties of the consequence relations the theory allows, then trusting the experts is more a matter of seeing *how* they reason than a matter of seeing their official pronouncements on whether there can be true contradictions. So, how do the theologians reason? Do they reason in theological contexts with theory-specific consequence rules that, together with FDE, would yield explosion, were there a true contradiction in the theory? That is, do we see, both now, and throughout history, theologians using inference forms like Disjunctive Syllogism without being called out for using them? If the clear practice of theologians is one that allows for rules that yield explosion, then Contradictory Christology will not be a viable and motivated option in theology. And this is true whether those rules are part of logic itself, as Classical Logic says, or whether those rules are part of the theory-specific consequence rules, as FDE allows.

By my lights, the overwhelming majority of theologians employ inference rules that would preclude true contradictions in their theological work. Consider what Gabriel Biel says, immediately following the quotation I employed above (with my emphasis):

In the first case [the distributed sense of impassible], privatively opposed things do not pertain to the same thing, *because they imply contradictories* [said] of the same thing. In the second way they can,

through divine power, pertain to the same thing, and do not in this way imply contradictories. In the case at hand, all these privative terms are taken in the second way. *For if we take them in the first way they are not properly speaking privatively but contradictorily opposed.* So [the terms] are defined in these ways: the 'impassible' is a *suppositum* subsisting in an impassible nature; the 'immortal' is a *suppositum* subsisting in an immortal nature. Whence, just as the same *suppositum* can subsist in two natures, one of which is mortal, and the other immortal, so the same *suppositum* can be mortal and immortal. Therefore what are privatively opposed do not pertain to the same thing according to the same nature; they can, however, pertain to the same thing according to diverse natures. (III, d. 7, q. un. (III, 161.34.49))

Here Biel reasons as follows: either the predicates should be understood in the distributed (1st) sense, or in the determinate (2nd) sense. If distributed, then they imply contradictories. *But that can't be!* So, not distributed. So, we must understand them in the determinate sense. Here, he uses both Modus Tollens and Disjunctive Syllogism. And I'll bet my office chair that no one has ever called him on that. Moreover, this isn't just true of Biel: examples abound of theologians employing inference rules in their theological reasoning that, along with FDE, would imply explosion. All of the early church disputes concerning Christological heresies of which I am aware include Modus Tollens-style arguments, showing (or attempting to show) a false implication of the heretical views. I know of very few responses that questioned the logic.

Martin Luther (1971, 256), for instance, wrote: "there are syllogisms that are valid in logic, but not in theology."⁵ But he wrote this in a disputation where he also employed many inference rules that would yield explosion. In short, (almost) everybody in the debate, all the experts, treated theology as being a discipline the theory-specific consequence relations of which include inference rules that imply explosion, and so preclude true contradictions. In my view, then, trusting the experts leads us to judge that the theory-specific consequence rules of theology include rules that allow explosion. As such, Contradictory Christology has not safeguarded the true contradictions from spreading and ruining everything.

Perhaps Beall could claim that the theologians have been consistently misunderstanding their own consequence relations. They have misjudged the proper consequence relation for their discipline. In the face of such a claim, though, the viability and motivation of Contradictory Christology plummets. The traditional Christology once handed down, which so many theologians were and are at pains to defend, was itself arrived at through careful reasoning and argumentation. That reasoning and argumentation involved inference rules such as Modus Tollens and Disjunctive Syllogism, as is clear in a reading of Athanasius's works against the Arians, Leo's *Tome*, and many other seminal works. If all that reasoning was theologically invalid, and we now see that, that will take much of the impetus away from those who intend to defend it, whether through accepting contradictions or not.

⁵ Dahms (1978) is another thinker who questions the application of logic to theology.

5. Smuggling Explosives

The second worry. Suppose that I'm wrong about the theory-specific consequence rules of theology. Suppose that, unbeknownst to me (and just about every theologian ever), theology and its sub-theories do *not* allow the validity of inference forms such as Disjunctive Syllogism in that domain. Even still, Contradictory Christology is not yet out of the blast range. For I now intend to smuggle some implications outside their contradiction-friendly confines, into realms that behave as classical logic dictates. Or, put otherwise, I want to derive some truths in the Christological domain that can be employed in other domains with more robust (i.e., classical) consequence relations, in the hopes of deriving an explosion over there. One last way of putting the point: I intend to take theological claims, derive results from those claims according to our theology-specific consequence relation, then import those results to another relevant theory which does include explosion in its theory-specific consequence relation. I need a partner in crime; go grab some blasting caps.

Beall writes that, according to Contradictory Christology, "Christ is mutable; Christ is not mutable. It is true that Christ is mutable; it is false that Christ is mutable" (418). Here we have a true contradiction in a domain, theology, the consequence relation of which, according to Contradictory Christology, allows for some true contradictions without explosion. At this point, we can use Conjunction Elimination to derive both that *Christ is mutable* and that *it is false that Christ is mutable*. And we can use Disjunction Introduction to derive *Christ is mutable or $2+2=5$* . But, importantly, even though $2+2=5$ is squarely in the arithmetic domain, we cannot use the theory-specific consequence relations of arithmetic, which include Disjunctive Syllogism, to derive that $2+2=5$ from *it is false that Christ is mutable* and *Christ is mutable or $2+2=5$* . Contradiction averted.

One might wonder at this juncture when one is allowed to use a theory-specific consequence relation. Abstractly put, if the domain of sentence A is arithmetic, and the domain of sentence T is theology, can we rightly use the theory-specific consequence relations of arithmetic that are not theology-specific consequence relations to form the argument: A or T, but not A, so T? If we can, is that because there are more tokens of arithmetic atomic sentences in the premises (i.e., 2) than there are theology atomic sentences in the premises (1)?⁶ Or perhaps we can only use the intersection of the theory-specific consequence rules? In this case, we could only use the rules that both arithmetic and theology agree upon. Since they don't agree on Disjunctive Syllogism (recall we are assuming in this second worry that theology does not include in its consequence relations any rules that, together with the rules of FDE, would imply explosion), we can't use it. I'm interested to hear the answers to these questions, but for the moment, I'll simply assume that Beall has this worked out; he's

⁶ This would be a bad way to go. For we can disjunctively introduce a conjunction, and so introduce in more tokens of (false) arithmetic atomic propositions. For instance, *Christ is mutable or ($2+2=5$ and $2+3=6$ and $2+4=7$...)*. Here we'd have more atomic arithmetic propositions than atomic theological propositions, but the proponent of Contradictory Christology should still disallow the use of Disjunctive Syllogism here.

a sharp guy. We can't derive $2+2=5$ from our theological premises through any logical shenanigans. Conceded. Nevertheless, I think that we can still make mischief for Contradictory Christology. Let's try our hand at smuggling some explosives.

According to Contradictory Christology, Christ is not mutable, in the ordinary sense of that term. Christ cannot, and did not, change. Now, one question here is, "what did that look like, in real life?" Someone put a nail next to the flesh of his blessed hand, then struck the nail with a hammer. Did the nail pierce the skin? Yes, it did. But did it also not pierce the skin, owing to the fact that to be pierced is to change, and Christ did not change? Given that Contradictory Christology is an attempt at a general answer to the Fundamental Problem, what holds for mutability should hold for materiality, and for all the other instances of difficult predicates for Christology: passible, contingent, temporal, etc. What does it look like for something not material—not material in the sense of being the contradictory of material; not material in the same sense that the number 2 or the form of Courage is not material—to be struck? It seems to me that the contradictions proliferate at an astounding rate. He bled and he didn't; he walked on water and he didn't; he had a body and he didn't. Everything he did in life that required being incarnate is also something that he did not do, owing to the fact that he was not material, passable, mutable, and temporal. As another autobiographical note, I have a hard time picturing in my mind what it would look like to be around Jesus.

Even if we can't imagine what such a scenario would look like, we can still derive some truths about what's happening around Jesus. Jesus has no body, does not change, is not temporal, and is not causally affected. And Jesus is a living human (true man), in exactly the same sense that I am a living human. So, there is a living human who has no body, does not change, is not temporal, and is not causally affected. There's a living adult human who did not pass through adolescence (sure, he also *did* pass through adolescence; but to *pass through* adolescence is to change, and it is false that he changed). We could multiply cases, but I don't see a need. What we see here is that there are scads of truths about a living adult human that will sit poorly with contemporary biology and physics. Now quick: write a few of those bad boys down and shove the paper under your shirt – we're going to O'Shaughnessy Science Hall.

Though we've come to the claim that some fully functioning living adult human had no body through our theological reasoning, that claim itself is squarely a biological claim. More generally, take any claim about humans that, prior to reading this article, you thought was surely a biological claim. Maybe that all living humans have functioning circulatory systems or that all living humans have certain parts (brain stems, for instance). Those are things discovered by biology, taught in biology books, etc. If these claims aren't part of biological theory and subject to the biology-specific consequence rules, well, I don't know what is. By a strike of sweet serendipity, the contradictories of these claims are among the claims that you scrawled down in our mad dash to get out of the Theology Department in the John Roach Center with our theological fulminates.⁷

⁷ The John Roach Center used to have the much grander name, "Albertus Magnus Hall." Alas, times have changed.

I've belabored this enough. I hope the point is clear. Biology has the inferential machinery such that contradictions lead to explosion. And Beall has given us the means by which to derive some properly biological claims from theological premises. Since the claims are part of biological theory, we should be able to use our biology-specific consequence relations on them. That, in turn, leads to explosion. The precautions, the contradiction proof bunkers, the "Disjunctive Syllogism Not Welcome" signs surrounding the theology faculty offices, all for naught.

In reply, maybe the inference forms I've used in this section are also ruled out by the Theology-specific consequence relation. For instance, I reasoned like this, "Christ is immutable, and an immutable thing cannot go from being one way (e.g., preadolescent) to being another (adult); so Christ did not go from being preadolescent to being an adult." Maybe the correct consequence relation for Theology does not warrant such inferences. After all, Beall does say in response to an objection which attempts to deduce something problematic for his Christology that the correct Christology-specific consequence relation does not contrapose (424).⁸ That is, when discussing Christological topics, we cannot derive from "if *P*, then *Q*" to "if not-*Q*, then not-*P*." Perhaps, then, none of these other inference rules belong in Theology either. Two responses to this reply.

First, Beall allows for a similar sort of inference in his own work. For instance, he accepts his P0, a sort of communication of idioms, which says "Something that has (or exemplifies) a nature *N* has whatever properties are entailed by having nature *N*" (401). Christ has a human nature, which entails having the property of having a working circulatory system. Christ has the divine nature, which entails being immaterial, and (since immaterial) entails having no working circulatory system.⁹ Moreover, the communication of idioms uncontroversially allows for inferences like the following: "Mary bore Christ, and Christ is God; so Mary bore God" or "Christ created the stars, and Christ is a man; so a man created the stars."¹⁰ Thus, theology uncontroversially allows an inference like the following: "Christ has no circulatory system, and Christ is a man; so a man has no circulatory system." In short, it seems to me that the sorts of inference I've used here should be allowed in theology.

Second, suppose that the relevant inference forms are not allowed. That is, suppose, for just one instance, that the correct theology-specific consequence relation forbids uncontroversial uses of the communication of idioms. In such a case, Contradictory Christology again becomes unmotivated for the proponent of traditional Christology. If the sorts of arguments accepted at Ephesus against

⁸ I'm not sure how this works. Beall goes on to say that "It is true that logical entailment... contraposes" (424), and that "logical consequence governs all cases whatsoever; logic is topic-neutral, universal, and is not at all subject to a particular corner of reality" (427). He also says on the same page that logical consequence "is part of every consequence relation involved in any of our theories" (427). So, it looks to me as if logical consequence is part of the consequence relation of theology. But then since logical consequence contraposes, it looks to me as if the theology-specific consequence relation should contrapose too, contra what Beall says.

⁹ Here I am not using my preferred understanding of "immaterial," which would not entail that a thing has no functioning circulatory system, but only, with Biel, that it has at least one nature that has no functioning circulatory system.

¹⁰ The former is the justification the Orthodox party gave against the Nestorians at Ephesus; the latter is an uncontroversial example going back at least to Aquinas (*ST. III* q.16 a.4), but likely farther.

Nestorius and at Chalcedon from Leo's Tome are deemed not permissible in theology by Contradictory Christology, the sought compatibility between Contradictory Christology and Conciliar Christology is lost.

6. Conclusion

As I noted earlier, Beall's aim was merely to secure a place at the table for Contradictory Christology, not to defend it against objections. I think he has succeeded in that goal. There's a sense, then, in which my above worries have outstripped the limits of what he intended to do. I hope that doesn't seem unfair. Beall's larger project is defending the merits of Contradictory Christology against the other potential responses. My goal was to provide a few worries he will have to consider in his larger project. I look forward to seeing what he produces, and to trying to cause more explosions.¹¹

¹¹ I thank Jc Beall and Thomas McCall for helpful comments on this article.

Bibliography

- Cross, Richard. Forthcoming. *Communicatio Idiomatum: Reformation Christological Debates*. Oxford University Press.
- Dahms, John V. 1978. "How Reliable Is Logic." *Journal of the Evangelical Theological Society* 21: 369–80.
- Luther, Martin. 1971. *Luther's Works: Word and Sacrament*. Vol. 4, edited by Helmut T. Lehmann. Fortress Press.
- Pawl, Timothy. 2014. "A Solution to the Fundamental Philosophical Problem of Christology." *The Journal of Analytic Theology* 2: 61–85.
- . 2016. *In Defense of Conciliar Christology: A Philosophical Essay*. Oxford University Press.
- Tanner, Norman P. 1990. *Decrees of the Ecumenical Councils*. 2 Volumes. Georgetown University Press.

On Contradictory Christology: A Reply to Pawl's 'Explosive Theology'

Jc Beall
University of Connecticut

1. Introduction

Pawl advances one principal claim: namely, that even if – as I hold – logic doesn't validate the explosion of (formal) contradictions (i.e., even if there is no logical entailment from the logical conjunction of an arbitrary sentence and its logical negation to any arbitrary sentence) Contradictory Christology, as I advance it, is still not viable because 'explosions' of contradictions come from quarters other than logic. This is a fundamental claim, reaching to the very roots of any would-be Contradictory Christology – and any would-be contradictory Christian theology generally. Accordingly, my chief aim is to rebut the two arguments Pawl gives for his principal claim.

Despite their not being his principal concerns, Pawl also raises a handful of other very interesting and equally important but nonetheless ancillary issues – ancillary to his purposes in his paper, not ancillary to the broader project of Contradictory Christology. Full responses to these (and, alas, even to his principal claim) are left to a bigger project (viz., a monograph tentatively entitled *The Contradictory Christ*); however, initial responses to the ancillary issues are given in §3.

2. Pawl's principal objection

Pawl's principal claim can be viewed as a dilemma: either Contradictory Christology entails the trivial theology or it results in a trivial scientific theory. Put just so, Pawl's dilemma looks like nothing more than a question-begging one; but it's not – at all. Pawl gives two arguments for his principal claim, one (for the first horn) concerning the salient practice of theologians in the face of contradictions, the other concerning cross-disciplinary – inter-theoretical – truths common to both theology and (in his example) biology. If either of the two supporting arguments is successful, then Contradictory Christology – and, generally, any contradictory theology – should be rejected. But neither of Pawl's given arguments supports his principal claim, as I argue below.

Throughout his discussion, so as not to beg the question against Contradictory Christology, Pawl grants – for discussion – that logical consequence (i.e., logic itself) recognizes the possibility of gluts (true contradictions), and hence that logic itself

doesn't treat contradictions as explosive sentences. While logic doesn't demand that true theories treat contradictions as explosive sentences (nor does it demand that they don't), many true theories rule out the logical possibility of gluts (true contradictions) by treating them as theoretical impossibilities. It is just such theory-specific 'explosion' from contradictions that Pawl's principal objection concerns. His first horn is the claim that true theology itself rules out gluts as theoretically impossible.

2.1. From theological practice?

Pawl's argument for the claim that contradictions are explosive sentences in true theology points to theological practice itself. Why point to theological practice? Pawl does this in response to a prior question in the face of logic's treating contradictions one way (viz., as not explosive sentences) and yet many other consequence relations involved in our true theories treating them differently (viz., as explosive). Pawl puts matters this way:

Here's a question at this junction: how do we determine which theory-specific consequence relations preclude true contradictions or build in explosion, and which do not?

Whatever our answer to that question is, it shouldn't require us to become experts in every theory to check for ourselves whether it requires explosion. Rather, we should trust the judgement of the expert theorists. (445)

There seem to be two questions here:

Q1: How do we tell whether a theory's consequence relation validates explosion for contradictions (i.e., validates the entailment from arbitrary contradiction ! A to arbitrary sentence B)?

Q2: How do we determine whether theorists implicitly assume that the true theory of their theory's consequence relation – whenever it is explicitly recorded – validates explosion for contradictions?

(Q1) has an easy-to-state answer: we look at the true theory of the given theory's consequence relation. Such a theory will tell us whether the given consequence relation validates explosion for contradictions. Pawl assumes (correctly, I think) that theologians have not formulated the true theory of theology's consequence relation, at least not in full; and so Pawl's pointing to theological practice is intended to answer not (Q1) but (Q2), and do so in the affirmative, not surprisingly:

By my lights, the overwhelming majority of theologians employ inference rules that would preclude true contradictions in their theological work. (445)

I agree with Pawl on this: namely, that theologians seem to work on the assumption that contradictions are explosive – that they are not in the space of theological possibilities. But that’s not the important question.

We’re assuming – Pawl is conceding (at least for debate) – that logic itself doesn’t underwrite the given assumption of ‘the overwhelming majority’. The pressing question, then, is: why – in the face of the strongly apparent contradiction of Christ – should theologians rule out the possibility of gluts? Why, in the face of the central apparent contradiction, should theologians assume that the consequence relation in true theology validates explosion for contradictions? It is this question to which ‘expert opinion’ is directly relevant – and directly required.

Pawl explicitly discusses the work of Gabriel Biel. Biel is plainly aware of the apparent contradiction of Christ (i.e., aware of ‘the fundamental problem’). His solution to the fundamental problem, a predecessor of Pawl’s own, rejects the standard satisfaction conditions of predicates like ‘mutable’ and ‘immutable’ (etc.) in favor of a nonstandard usage (explained at length in Pawl’s 2016 monograph on Conciliar Christology). Why reject the standard usage? Biel’s answer (as quoted by Pawl, 445) is plain:

because [the standard conditions] imply contradictories of the same thing [viz., Christ].

My response: right, that’s the apparent contradiction of Christ; and that’s the fundamental problem at issue. But the question is: why reject that the apparent contradiction of Christ is veridical? Why reject that there are contradictories true of Christ?

Biel simply doesn’t answer the question, at least not as far as Pawl’s discussion goes.¹ The first-cab-off-the-block answer, of course, is that Biel rejects the possibility of a contradictory Christ – indeed, a contradictory anything – because *logic* itself rules out such ‘possibilities’. My conjecture is that that’s the answer that Biel would give were anyone to actually put the current question to him: namely, that logic rules out such a ‘possibility’, and hence our true theory of Christ – and true theology generally – has no such ‘possibility’ to entertain. Whether Biel would say as much is something I leave to a study of his work. For present purposes, saying as much is unavailable; for, as above, Pawl assumes (at least for debate) that logic itself does not rule out the possibility of gluts – does not rule out an entity of which/whom contradictories are true.

What, then, for present purposes, is the lesson we should draw from Biel’s plain and firm rejection of contradictions in theology – and, indeed, from the vast majority of theologians whose careful work reflects a rejection of gluts in theology? Pending explicit discussion of their reasons for doing so, I do not see a clearly relevant

¹ I do not know the work of Gabriel Biel except for what Pawl has conveyed. (I am told that Richard Cross is writing a book that covers Biel’s work. I look forward to such a book.) What is clear is that Biel is a careful theologian whose work may well contain an answer to the question on the table, one which demands evaluation by any would-be glut-theoretic approach to Christology (or to theology, generally). For now, I go only on what Pawl’s essay discusses.

lesson to draw (i.e., relevant to the issue of whether the true theology rules out gluts). The widespread rejection of gluts in theology is not itself good reason to think that the true theology is glut-free.

The need for some account of why contradictions are taken to be explosive in theology is especially pressing given the historical and conceptual oddity of the central fact in the Christian worldview: namely, the incarnation of God – the walking, talking union of ‘transcendence and immanence’ – who is not many but one person, ‘fully divine’ and ‘fully human’, with all that those natures entail. To many a sympathetic mind, even within committed realms of traditional monotheism, such an alleged fact appears to be nonsense, its nonsensicality falling freely from its *prima facie* logical impossibility. Of course, if true contradictions really were logically impossible, then mainstream theological practice would be right to sing as much, proceeding in turn to explain why the screamingly apparent contradiction of Christ is not after all contradictory (despite the appearances). But in the present context, per Pawl’s (for-purposes-of-debate) assumption, the apparent contradiction is not a logical impossibility; and so some explanation is required as to why true contradictions should be treated as impossible in theology. And we don’t get that from Biel or, as far as I know, from any of the other mainstream (or even side-stream) theologians to which Pawl’s argument points.

The first horn of Pawl’s principal objection is that even if logic doesn’t rule out true contradictory theories, true theology’s own extra-logical consequence relation rules them out. Pawl’s argument from theological practice – qua practice of the relevant experts – fails to establish his first horn. The argument fails to show that true theology has a consequence relation that treats contradictions as explosive sentences.

2.2. From mixing domains?

The second horn of Pawl’s dilemma is that would-be contradictions in theology find their way into scientific theories that are governed by contradiction-exploding consequence relations. Pawl’s second horn rests on the claim, which I endorse, that at least some of our true scientific theories rule out the theoretical possibility of gluts; their consequence relations $\vdash_T$ validate explosion for contradictions: $!A \vdash_T B$. In particular, biology, I say in ‘Christ – A Contradiction’, appears to be one such example; and Pawl relies on this example in the second argument for his principal claim.²

How does Pawl support his second horn? Pawl’s strategy, if I understand it correctly, is to derive, from the contradictory case of Christ, a ‘purely biological truth’ which contradicts claims in (contradiction-exploding) biology; but since said derived truth is ‘purely biological’ it needs to be in the complete-as-possible true biology. But, then, true (and complete-as-possible) biology contains a contradiction; and true biology explodes in the face of contradictions. Hence, true biology is the trivial biology (viz., the theory containing all sentences in the language of biology). But we should reject the trivial biology and reject the root that led us to it – namely, Contradictory Christology.

² He could use other sciences, except maybe mathematics; but biology is a good one.

What ‘purely biological truth’ is derivable from the contradictory case of Christ? Pawl gestures at many candidates but explicitly focuses on one:³ namely,

1. It is false that all humans have bodily parts.⁴

The argument for (1)? Here:

2. It’s true that Christ is divine. [axiomatic in theology]
3. It’s true that Christ is immaterial. [2; divinity entails immateriality]
4. It’s false that Christ has a bodily part. [3; immateriality entails so]
5. It’s true that Christ is human. [axiomatic in theology]
1. It’s false that all humans have bodily parts. [4, 5; logic (quantification)]

(1) is certainly a striking claim in the face of contemporary biological theory, but the argument for it – notwithstanding potential questions about divinity entailing immateriality – is solid. And this, Pawl argues, is the downfall of Contradictory Christology.

An immediate question: where does (1) come from? As Pawl’s discussion makes clear, the argument towards (1) is constructed ‘in the theology building’ (so to speak). This isn’t to say that ‘in the theology building’ the true theories of other (non-theological) phenomena aren’t invoked; they are – of course. For example, true theology contains at least some facts from true biology about humans, and at least some facts from true arithmetic, and at least some facts from true physics. These truths are developed and recorded in separate theories (viz., true biology, true arithmetic, true physics); but the truths from such theories are often lifted – as underived, ancillary truths – in theology. (And the same goes for biology lifting from physics, physics from analysis, etc.) All such inter-disciplinary lifting is common and uncontroversial. The showstopper that Pawl advances is that theology doesn’t just contain – via lifting – truths from biology; theology itself is a source for biological truth! Theology itself, according to Pawl’s argument, derives ‘purely biological truths’ that couldn’t be derived ‘in the biology building’ alone.

I think that Pawl’s argument is very important and equally interesting but ultimately fails to establish its target. The reason, in short, is that (1) is ‘purely biological’ only if all of the entities over which it quantifies are ‘purely biological’, and in particular only if divine entities count as ‘purely biological entities’. Granted, according to true theology, there is a divine entity who, in virtue of exemplifying

³ Actually, I’m not sure whether Pawl’s example of immateriality (see below) is a good one; I’m not sure whether divinity entails immateriality (i.e., that x is divine entails that x is immaterial). I don’t doubt it; I don’t yet believe it either. But I am sure that there are plenty of examples that Pawl’s given strategy can invoke even if the immateriality one fails. (To repeat: I don’t doubt that divinity entails immateriality; it’s just that I need more time to think harder about it.)

⁴ I change Pawl’s example slightly to make plain that by ‘has a body’ Pawl means only ‘has some bodily part’. (I also change to make the quantificational aspect of his example clear, and I drop the ‘living adult human beings’ to just ‘humans’, leaving any necessary tweaks – including potentially necessary reference to *actual* humans etc. – to be implicit. None of these changes affect his example or his overall strategy.)

human nature, is also a biological entity (as biological as you and me); but to call that entity ‘purely biological’ is misleading at best, incorrect at worst. Since Pawl’s argument requires that (1) be ‘purely biological’ – to motivate its insertion into the true but (we’re assuming) contradiction-exploding biology – the argument thereby fails due to a faulty premise, namely, that (1) is purely biological.

Another reply, which is viable but I think is unnecessary (in light of the sufficient reply above), is to distinguish ‘normal biology’ from ‘abnormal biology’ (and similarly for other theoretical domains), where the domain of the former is devoid of gods, and the domain of the latter includes the domain of the former but also contains some divine entities. With distinction in hand the background assumption about true biological theory – which is central to Pawl’s running argument – is to be rephrased: true normal biology is explosive with respect to contradictions, but true abnormal biology is no more explosive with respect to contradictions than true theology. In turn, Pawl’s derivation of (1) is a derivation common to both true theology and true abnormal biology; but the contradiction isn’t explosive in abnormal biology, and so the case does not play the intended role against Contradictory Christology (and its alleged effect on true biology).

3. Additional issues and (gestures at) replies

Pawl raises important issues that are ancillary to the main aim of his paper. Because of their importance to Contradictory Christology (and any viable contradictory theology, generally) I briefly discuss them here, gesturing in the direction of responses to the issues. I expect to address all of the issues (and more) in a larger book-length project (tentatively entitled *The Contradictory Christ*).

In what follows I do not attempt to stay true to the exact letter of Pawl’s discussion; my aim is simply to highlight (and very briefly respond to) important issues that his discussion flags.

3.1. Contraposition of consequence

This is an issue addressed in my ‘Christ – A Contradiction’ (see §5, objection 07) but Pawl’s expressed unclarity highlights the inadequacy of my given discussion. My aim here is to elaborate on the key ideas.

The background issue is whether Contradictory Christology is committed to the falsity of Christ’s divinity (similarly, falsity of humanity), and the resulting heresies involved therein.⁵ The argument towards the heretical position is this:

⁵ Note that ‘Christ – A Contradiction’ (§5 reply to 07) distinguishes two types of heresy: a theory is H1-heretical if it contains (for example) the negation of ‘Christ is divine’ (i.e., claims that ‘Christ is divine’ is false), and is H2-heretical if it omits the nullation of ‘Christ is divine’ (equivalently, omits ‘Christ is divine’ from the theory). One avenue for Contradictory Christology to take is the H1-heretical one, maintaining the truth of Christ’s divinity but also maintaining its falsity. I believe that this option is worthy of very careful consideration; however, my official position in ‘Christ – A Contradiction’ steers

1. That Christ is divine entails that Christ is impassible.
2. If A entails B then $\neg B$ entails $\neg A$.
3. That Christ is passible entails that Christ is not divine.

(3) is supposed to follow from (1) and (2), where (1) is an instance of (2)'s antecedent and (3) is an instance of (2)'s consequent (with suitable fiddling with negations in the background).⁶ The problem with (3) is that, when conjoined with the truth of Christ's passibility (something to which Contradictory Christology is committed), it entails the negation of *Christ is divine*; and so it looks as if Contradictory Christology is committed to the (H1-) heresy in question.

But, as per the reply to O7 in §5 of 'Christ – A Contradiction', the argument above fails to soundly support its target (3). The failure is due to equivocation on 'entails'. If sound, the argument needs to invoke the same relation of entailment throughout its premises. In the context, there are two salient relations of entailment: namely, logical and (let me say) theological (i.e., the target consequence relation in true theology). If the former (viz., logical) relation is in play, then while (2) is true, (1) itself isn't (because the entailment is not a logical one), and so the argument fails to be sound. If the latter (i.e., the target entailment relation is theological consequence), (1) is true but (2) isn't – as the official response in the paper goes on to say.

Pawl highlights some remaining questions around my claim that theological consequence (i.e., true theology's consequence relation) doesn't contrapose even though logical consequence – which is universal and involved in the consequence relations of all true theories – does contrapose. Pawl writes:⁷

Beall does say in response to an objection which attempts to deduce something problematic for his Christology [viz., that Christ is not divine, per the argument rehearsed above] that the correct Christology-specific consequence relation does not contrapose.... [Begin Pawl's fn 8:] I'm not sure how this works. Beall goes on to say that 'It is true that *logical* entailment...contraposes'...and that 'logical consequence governs *all cases whatsoever*; logic is topic-neutral, universal, and is not at all subject to a particular corner of reality'.... He also says...that logical consequence 'is part of *every* consequence relation involved in any of our theories'.... *So, it looks to me as if logical consequence is part of the consequence relation of theology. But then since logical consequence contraposes, it looks to me as if the theology-specific consequence relation should contrapose too, contra what Beall says.* (449, fn 8, italics mine)

clear of both sorts of heresies, and indeed treats the negation of 'Christ is divine' (similarly, the negation of 'Christ is human') as absurd sentences according to the true theology.

⁶ With no fiddling, (3) looks like this: *that it's false that Christ impassible entails that it's false that Christ is divine*.

⁷ Here, I thread Pawl's initial main-body text with his footnote 8 in which his concern arises. Pawl's paper is very clear that the following issue is not directly related to Pawl's principal dialectical aims, which is why he puts the highlighted unclarity in a footnote. But, again, the unclarity that Pawl highlights is important to address even if only ancillary to his direct dialectical aims.

The italicized part at the end is the crux of the unclarity. Clarity is achieved by clarifying the sense in which logical consequence is part of theology's (and every true theory's) consequence relation.

Let $\vdash$ (unsubscripted) be logical consequence and let $\vdash_{\theta}$ be theological consequence (*Theta* for theological consequence). In turn, read ' $X \vdash A$ ' as ' X logically entails A ' and likewise, mutatis mutandis, for ' $X \vdash_{\theta} A$ '. (Here, X is either a set of sentences or, for simplicity for present purposes, just one sentence.) Now, logic is part of theology's consequence relation in that the latter 'extends' the former:

- Theological consequence (viz., $\vdash_{\theta}$) *extends* logical consequence (viz., $\vdash$) iff if $X \vdash A$ then so too $X \vdash_{\theta} A$.

There's nothing peculiar about theological consequence; every true theory has a consequence relation that extends logic (in the sense above). And in that sense, logical consequence is 'universal' – it's part of every true theory's consequence relation. If $X \vdash A$ is valid according to logic (i.e., logically valid) then $X \vdash A$ is T-valid for every true theory T, including the true theology. That's all there is to logic's being a part of every true theory's consequence relation: namely, the theory's consequence relation 'obeys' logic on any 'form' that logic declares to be valid. Importantly, what is not involved in logic's given universality (i.e., in its being a part of every consequence relation involved in every true theory) is that anything true of logical consequence is thereby true of T-consequence, for every true theory T. In particular, what is not involved in logic's universality is that anything true of logical consequence is thereby true of $\vdash_{\theta}$, true theology's consequence relation.

But that's where Pawl's highlighted unclarity persists. In particular, logical consequence contraposes: if A logically entails B , then $\neg B$ logically entails $\neg A$. (In notation above: if $A \vdash B$ then $\neg B \vdash \neg A$.) But this doesn't entail that every consequence relation that extends logical consequence contraposes; and in particular, according to me, theological consequence doesn't contrapose.

There are two ways to diminish the unclarity around this point. The first route: what argument would establish that $\vdash_{\theta}$ contraposes if $\vdash$ (logic) does?⁸ The second route: is there a simple counterexample? I'll briefly address each route in turn.

3.1.1. Argument for target contraposition?

In highlighting the target unclarity Pawl's discussion gestures at an argument from logic's contraposing to the contraposition of theological consequence. The argument seems to be as follows.

1. Fact: if $A \vdash B$ then $A \vdash_{\theta} B$. [Logic is part of $\vdash_{\theta}$.]
2. Fact: if $A \vdash B$ then $\neg B \vdash \neg A$. [Logic contraposes.]
3. * Suppose: $A \vdash B$.

⁸ Generalizing, the issue seeks an argument for $\vdash_T$'s contraposing if $\vdash$ contraposes and $\vdash_T$ extends $\vdash$, but I'll focus on the particular case of logic and theology.

4. $* \neg B \vdash \neg A. [2, 3]$
5. $* \neg B \vdash_{\theta} \neg A. [1, 4]$
6. *Hence:* if $A \vdash B$ then $\neg B \vdash_{\theta} \neg A. [3, 4, 5]$

Is there anything wrong with this argument? No; the argument is sound.⁹ But one must be clear about what the argument does (not) establish.

The argument *does* establish its conclusion: namely, that if logic declares that $A \vdash B$ is valid then theological consequence declares $\neg B \vdash \neg A$ to be valid – in short, that if $A \vdash B$ then $\neg B \vdash_{\theta} \neg A$. (The same holds for every consequence relation involved in any of our true theories.) But this fact is not the one towards which Pawl's argument is directed.

The argument above is sound but does *not* establish Pawl's key desideratum, namely, that theological consequence itself contraposes: namely,

- $\vdash_{\theta}$ contraposition: if $A \vdash_{\theta} B$ then $\neg B \vdash_{\theta} \neg A$.

In that respect, the argument is defective; it misses its target.

3.1.2. Counterexample to target contraposition?

The search for a sound argument from the contraposition of logic to the contraposition of theological consequence is not fruitful; in fact, it is doomed. There are counterexamples that refute the would-be target. One counterexample, from my view, is made plain in the fallacious (because equivocating) argument towards heresy discussed above (see §3.1). But there is a simpler though more abstract way to see how counterexamples emerge.

Here's one clear way to see how logic can contrapose but, even though $\vdash_{\theta}$ (viz., theological consequence) never disobeys logic when logic claims that some pattern $X \vdash A$ is valid, $\vdash_{\theta}$ itself doesn't contrapose. Let's suppose (not implausibly) that fundamental-problem properties – tied essentially to one of Christ's two natures – are truly (and/or falsely) exemplified by Christ in all of the possibilities recognized by the true theology. Take

Christ is immutable.

as an example. This, then, is true in all of theology's possibilities but, according to Contradictory Christology, likewise is false across all such possibilities; (1) is glutty in all models of the true theological theory. (This is what we're stipulating for the example.)

Notice that theology thereby carves out a proper part of logical space of possibilities wherein there is a 'necessary glut', recognized as such by theology's

⁹ Some readers might worry about the use of conditional proof here or even detachment from these conditionals; the worry is fully answered by the fact that this argument is done in the language of a (meta-) theory which validates such things.

consequence relation $\vdash_{\theta}$. But this has direct effects on contraposition. To see this, let γ (gamma as heuristic for glut) be one of theology's necessary gluts: it is true and false at all models of the true theology, so that $\dagger \gamma$ (logic's truth operator applied to γ) and $\neg\gamma$ (logic's falsity operator applied to γ) are each true and false at all possibilities seen by theology's consequence relation. But, then, since γ is at least true at all possibilities seen by $\vdash_{\theta}$, we have the following theology-valid form/pattern:

$$A \therefore \gamma$$

That is: $A \vdash_{\theta} \gamma$. But now contrapose to get the form/pattern:

$$\neg\gamma \therefore \neg A$$

Since γ is glutty everywhere that $\vdash_{\theta}$ sees, it's at least true every such where. But there are many sentences A in the language of theology that are just true (not also false) at many possibilities. All we need is one such A and one such possibility where A is just true; for at that possibility $\neg A$ is thereby just false, even though, as above, $\neg\gamma$ is glutty (and thereby at least true). Accordingly,

$$\neg\gamma \not\vdash_{\theta} \neg A$$

which is to say that $\neg\gamma$ does not theology-entail $\neg A$.

Putting the pieces of the example together, one can see that one (among other) ways that contraposition for $\vdash_{\theta}$ fails arises from special features of the language of the theory (i.e., of theology) and in particular constraints on the space of theoretical possibilities that result in making some sentences necessarily glutty.¹⁰

But necessary gluts (or gaps) are not necessary for ruining contraposition in a theory's consequence relation. Suppose that, as some have suggested (in conversation), the true theology is a glut-only theology, treating logic's gappy possibilities as theoretical impossibilities.¹¹ Suppose, too, that there are no theoretically necessary gluts; it's just that the space of theoretical possibilities is exhausted by ones where sentences are either just true, just false, or they are glutty. (No gaps, though it's worth noting that the example can be run with no gluts and just gaps too.) In that case, even though (we're stipulating) there are no theoretically necessary gluts, theology's consequence relation fails to contrapose, largely for the same reason given above. To see this, note that without gaps in the picture the following is a true theological-entailment claim according to the given theological consequence relation:

¹⁰ Another route towards the same point points to theology-necessary gaps (if there are any), which are possible according to logic but which I've set aside as not directly relevant to Pawl's overall discussion.

¹¹ Mike Rea, Tim Pawl, Natalja Deng and Gill Russell have independently suggested that a contradictory theology that is uniformly glutty or, dually, uniformly gappy enjoys a theoretical unity (and thereby some degree of theoretical attractiveness) over one that treats some theological 'problems' as gluts and some as 'gaps'. This sort of issue, which I discuss no further here, might motivate a glut-only theology or a gap-only theology.

$$A \vdash_{\theta} B \vee \neg B$$

(Recall that FDE governs the truth and falsity conditions of the logical vocabulary; and so, without gaps, $B \vee \neg B$ cannot be made untrue; it is either just-true or it is a glut.) But now consider the contraposition:

$$\neg(B \vee \neg B) \therefore \neg A$$

This is not θ -valid, that is,

$$\neg(B \vee \neg B) \not\vdash_{\theta} \neg A$$

To see this, go to a possibility, recognized by $\vdash_{\theta}$, whereat A is just-true and B is a glut. As a walk through the truth/falsity conditions for logical negation and disjunction will reveal, $\neg(B \vee \neg B)$ is glutty in the given possibility too. But, then, $\neg(B \vee \neg B)$ can be (at least) true while $\neg A$ can be untrue – not even at least true. So, in light of the θ -recognized counterexample, the given form is θ -invalid, even though logic itself (viz., FDE) contraposes.

3.2. Observable gluts

Perhaps one of the most striking issues is the one to which Pawl points concerning observable gluts. Pawl raises the issue as follows (quote at length):

According to Contradictory Christology, Christ is not mutable, in the ordinary sense of that term. Christ cannot, and did not, change. Now, one question here is, ‘what did that look like, in real life?’ Someone put a nail next to the flesh of his blessed hand, then struck the nail with a hammer. Did the nail pierce the skin? Yes, it did. But did it also not pierce the skin, owing to the fact that to be pierced is to change, and Christ did not change? Given that Contradictory Christology is an attempt at a general answer to the Fundamental Problem, what holds for mutability should hold for materiality, and for all the other instances of difficult predicates for Christology: passible, contingent, temporal, etc. What does it look like for something not material – not material in the sense of being the contradictory of material; not material in the same sense that the number 2 or the form of Courage is not material – to be struck? It seems to me that the contradictions proliferate at an astounding rate. He bled and he didn’t; he walked on water and he didn’t; he had a body and he didn’t. Everything he did in life that required being incarnate is also something that he did not do, owing to the fact that he was not material, passable, mutable, and temporal. As [an] autobiographical note, I have a hard time picturing in my mind what it would look like to be around Jesus. (448)

Pawl is admirably clear that he takes this issue to be at best only tangential to his main dialectical aims (which concern his principal claim discussed above in §2); however, the issue is likely to be one of wide interest to other readers, and so I discuss the direction of my thinking below – alas, only gesturing at the direction of my reply, not going into detail. (As above, details are left to a larger project.)

Before turning directly to the main issue of observable gluts, it is worth flagging (though, given space, only flagging) that the ‘astounding’ spread of would-be contradictions to which Pawl points may not be nearly as widespread or astounding as portrayed. One reason, similar to the issues discussed in §3.1 above, is that the entailments on which Pawl’s portrait depends may not contrapose in ways that underwrite the would-be spread of gluts. For present purposes I leave that issue for a larger discussion elsewhere, and assume for the sake of discussion that at least some of the observable gluts to which Pawl points – for example, that it’s true that blood ran from Christ’s hands and that it’s false that blood ran from Christ’s hands – are contained in Contradictory Christology as I advance it.

There is a great deal more to be said about observable contradictions than can be said here. My strategy is to address two issues: one, the dialectical role that the issue of observable contradictions might be taken to play; the other is simply the direction of my current thoughts on the issue of observable contradictions – and specifically the observable contradiction of Christ. I take each in turn.

3.2.1. Note on dialectical role

An important dialectical point to keep in mind: one might try to argue from the absence of anticipated observable consequences of $!A$ to a rejection of $!A$. The thinking, for example, might be this: we know what it looks like when A is true; we know what it looks like when A is false; and so we know what it looks like when $!A$ is true, since $!A$ is true just if A is true and A is false. But for the alleged Christological $!A$ we see only the observable consequences of A , or only the observable consequences of $\neg A$; and hence we should reject that $!A$ is true since its observable consequences are absent.

The would-be argument is not a good one. The success of such an argument rests squarely on our knowledge of the observable consequences of $!A$. One might insist that the observable consequences of a conjunction just are the observable consequences of its conjuncts. But even if that’s generally true, the claim is at least doubtful when it comes to contradictions, which, after all, tend to have (what else to say) ‘contradictory consequences’ – for example, that the cat is on the mat, that it’s false that the cat is on the mat, and so on. If there were very strong reasons to think that the observable consequences of gluts just are the observable consequences of both conjuncts then we’d have a swift argument against Contradictory Christology – at least given that, as I’m assuming (and in fact firmly hold), the historically observed consequences of (for example) Christ’s crucifixion were only the expected ones (e.g., blood running down the hand, etc.). But pending discovery of such very strong reasons for thinking that the observable consequences of gluts just are the observable consequences of both conjuncts, I think that the point remains doubtful.

From my perspective, there is very strong reason to think that Christ is contradictory (e.g., among other potential ones, the longstanding fundamental-problem arguments); but there's also strong reason to think that those who observed the crucifixion did not observe anything out of the ordinary (no would-be flittering between blood and absence of blood, or a nail hole and the absence of a nail hole, or any other flickering-buffering magic); they saw the blood, oozing from the nail holes, and so on – full stop. But rather than infer – in light of the ordinary observable consequences and lack of extraordinary 'flickering' or whathaveyou – that therefore there's no contradiction we should instead infer the more immediate fact: namely, that the observable consequences of (observable) contradictions are just so: they are the observable consequences of just one of the conjuncts. As such, it is not – nor has it ever been – that we look to its observable consequences to conclude that a phenomenon is contradictory; we rather look to a broader set of data, including, in the case at hand, revelation, the councils, reflection, and more.

While there is a very interesting and important issue concerning the observable consequences of Christ's contradictory being, the dialectical role that the issue plays is not a simple one from the absence of extraordinary observable consequences to the absence of the given contradiction.¹²

3.2.2. Initial thoughts on the observable contradiction of Christ

Setting aside the dialectical issues, the fundamental question remains: what should we make of the observable consequences of Christ's contradictory truths?

I do not, as yet, have a full answer, but the direction of my answer is strongly apparent in the discussion above (see §3.2.1). Pawl raises the question (only to record an autobiographical fact):

What would it look like for it to be both true and false that blood ran down Christ's hand?

By my lights the more pressing question is the one that Pawl explicitly (and non-autobiographically) raises (see the second sentence of the quoted Pawl passage in §3.2). The fruitful question, towards figuring out the truth about observable gluts, is not what *would* it look like for the given contradiction to be true but rather

What *did* it look like when it was true and false that blood ran down Christ's hand?

¹² Lest some readers are wondering: the epistemology of all this is not intended to be different from the epistemology of other truths. The truth about epistemology of just about anything is messy and hard; but I see no reason to think that epistemology is wildly different in the case of a contradictory theology. The topic has been largely unexplored; and so surprises are likely; but, at least as yet, I see no reason to think that the epistemology of Contradictory Christology requires breaking genuinely new epistemological ground.

And the answer to this striking and fundamental question is the, by comparison, rather dull but obvious answer: it looked exactly as it did. And how was that? It was just as all of us believe: it looked like blood running down the hands – and that’s an end on’t.

That’s the answer. But the answer presses for explanation:

How can the observable consequences of an ‘observable conjunction’ $A \wedge B$ fail to be (so to speak) the sum of the observable consequences of A and the observable consequences of B ?

Let $O(A)$ be the observable consequences of A . (For simplicity I’ll think of $O(A)$ as the set of truths that record the observable consequences of A .) Normally, we expect that $O(A \wedge B)$ is just the sum – the union of – the observable consequences of A together with the observable consequences of B , namely,

$$O(A \wedge B) = O(A) \cup O(B)$$

Explanation is required for the failure of this expected equation.

The explanation, I suggest, adverts to the special case of contradictions together with the apparent fact that perception privileges the positive.

Not surprisingly, the conjunction of A and its logical negation $\neg A$ is a special case of a conjunction. Focusing, for simplicity, only on logically atomic sentences (let me use ‘ p ’, ‘ q ’ etc. for atomic sentences),¹³ the special case is one in which logic’s fundamental unary operators (viz., truth and falsity) are applied to a single claim. This special case, I suggest, really is a case where $O(\neg p)$ is ‘exactly hidden’ by $O(p)$. In particular, my arm is resting on the armrest; and this arm takes up a certain region of space r ; and when it’s (only) false that my arm is in r then $O(\neg p)$ involves no observation of my arm in r , just as when it’s (only) true that my arm is in r then $O(p)$ involves the observation of my arm in r .¹⁴ My view is that *perception privileges the positive*; the otherwise perceivable emptiness of r (involved via the falsity of my arm’s being in r) is ‘hidden behind’ my arm. Take away the truth of p and leave only the falsity of p ; the emptiness of r is there.

My current view on observable contradictions, informed (I admit) by holding to the observable contradiction of Christ and the apparent historical record of perceiving only the ‘positive traces’ of the contradiction, may be expressed as the general perception-privileges-the-positive principle (PPP):

- Let A be glutty. Then $O(!A) = O(A)$.

¹³ Atomic sentences, in this context, are devoid of logical vocabulary.

¹⁴ I’m sliding between ‘observation’ and ‘truly recorded observation’ here to make the point plain. If, as I’m assuming, $O(A)$ is a set of claims recording A ’s observable consequences then there aren’t any observations in $O(A)$, just truths recording as much. But I hope that the slide in this context causes no confusion.

I carry no pretense that this is all that need be said on the topic. Much more reflection is required to get at the full truth of observable contradictions. But I also see no reason to think that the matter is somehow so wildly perplexing that it serves as a reason to doubt the truth (or even plausibility) of Contradictory Christology.

3.3. The ‘loss’ of material modus ponens and more

In his §4 Pawl gestures towards the logical invalidity of material modus ponens, material modus tollens, disjunctive syllogism, where these can be thought of as ‘argument forms’ or would-be sentence-sentence or set-sentence forms (where the set contains only sentences). Let $\supset$ be logic’s material conditional, defined (per usual) via logical negation and logical disjunction:

$$A \supset B := \neg A \vee B$$

The given ‘argument forms’ to which Pawl refers are

- Material Modus Ponens (MMP): $A, A \supset B \therefore B$
- Material Modus Tollens (MMT): $\neg A, B \supset A \therefore \neg B$
- Disjunctive Syllogism (DS): $\neg A, A \vee B \therefore B$

Each of these forms is logically invalid (according to FDE, which I take to be the correct account of logical consequence). A single counterexample, which exists in logic’s space of possibilities, refutes their would-be logical validity: namely, a case in which A is a glut and B is gap (i.e., not at least true and not at least false).¹⁵ Since A is (at least) true (since glutty), so too is the logical disjunction of A and any sentence in the language, including B and including the negation of B , namely $\neg B$. But, then, each of $A \vee B$ and $\neg B \vee A$ are (at least) true, in which case, by definition of the material conditional, $B \supset A$ is (at least true). But since B is a gap, neither B nor its negation $\neg B$ is true in the given case, and hence none of the conclusions in the target forms are even at least true. This refutes the would-be logical validity of MMT and DS. To see that MMP is similarly refuted, note that since A is a glut, its negation $\neg A$ is also true; and, hence, by truth conditions for disjunctions $\neg A \vee B$ is at least true, and hence by definition of the material conditional $A \supset B$ is at least true; ergo, the second premise of MMP is at least true; ergo, from this and above, both premises of MMP are at least true, but B , being a gap, is not even at least true.

So, Pawl is exactly right that such forms are logically invalid. Is this a loss? Well, logic never validated them; rather, a bad account of logic validated them. The question is: what about the flat-out ubiquity of such argument forms that appear to underwrite our ‘reasoning’ and the consequence relations involved in many, many, many of our true theories? Without an answer to this, Contradictory Christology appears to be

¹⁵ Counterexamples for each of the given forms can be given without invoking truth-value gaps (which I’ve been bracketing out of the discussion until this spot); but using gaps affords a single counterexample to all three.

plainly implausible: we're left with next to no resources to do our theology (or, for that matter, biology, physics, mathematics, more)!

This issue is a very big one. (And that's an understatement.) This paper is not the venue to tackle the problem, but let me highlight some important directions of reply that, by my lights, sufficiently address the concerns. (Clarification: I don't mean that the highly abbreviated remarks below sufficiently explain the replies; I mean that the replies, when spelled out in full, sufficiently address the concerns. My aim here is only to gesture in the direction of the replies.)

3.3.1. *Extra-logical consequence and logical vocabulary*

One important reply is that in many of our true theories we are not dealing with glutty (i.e., contradictory) phenomena; the theories rule out the logical possibility of gluts as theoretical impossibilities. But take away the theoretical possibility of gluts, so that a theory's entailment (consequence) relation doesn't treat them as candidate counterexamples, and you've thereby taken away the common core of the (logical) counterexamples to MPP, MTT and DS. Accordingly, those forms are valid according to the given theories that restrict the space of available possibilities. And this is precisely what happens in our true theory of (for example) arithmetic, biology or so on. In particular, even though

$$A, A \supset B \therefore B$$

is *logically* invalid, it is valid according to those consequence relations involved in true theories whose space of possibilities precludes (the logical possibility of) gluts.

The details of how this is pulled off is less pressing than that it is pulled off in many true theories.¹⁶ In turn, the explanation for why so many of our true theories appear to validate MMP, MMT and DS – where these use only logic's given expressions (i.e., logic's conditional, negation, etc.) – is that they do. Logic itself doesn't do the work for the theories; the theories' respective consequence relation build in extra-logical (and otherwise logically invalid) patterns that result in the given theory-specific validities.

3.3.2. *Extra-logical vocabulary*

Another important reply is that while the logical invalidity of MMP, MMT and DS may be initially surprising, the effects of such logical invalidity are minor-to-nil, even if extra-logical consequence relations (per §3.3.1) are set aside. On this reply, one points not (mainly) to extra-logical constraints imposed on a theory's consequence relations; instead, one points to extra-logical vocabulary for which modus ponens, modus tollens, even disjunctive syllogism are valid (according to any entailment

¹⁶ For some details see, for example, my papers on 'shrieking' (similarly 'shrugging'): Beall 2013a; 2013b; 2018.

relation defined over that vocabulary). Skipping details here, the idea is simply that there are more conditionals involved in many of our true theories than logic's material conditional; and it may well be that Modus Ponens for such conditionals is not in any way undermined by the possibility of gluts. Similarly, *mutatis mutandis*, for different negations and disjunctions.

On this reply, the widespread appearance of MMP's validity, MTT's validity and so on is one of mistaken identity: the expressions involved aren't in fact logic's expressions (for which such forms are invalid) but rather extra-logical vocabulary for which such forms are valid.¹⁷

3.3.3. *Necessary instances versus valid forms*

Yet another reply is that MMP and so on have counterexamples even though many of its instances don't. In particular, it might be, as a matter of fact, that the vast majority of *instances* of MMP are necessarily truth-preserving over all relevant possibilities (however these are to be carved out) even though, of course, there are a few instances that spoil the soup (so to say). On this reply, we are surprised to learn that MMP (etc.) is logically invalid because the vast majority of instances of MMP are necessarily true across the space of all possibilities that wind up being theoretically possible (according to our true theories).¹⁸

3.3.4. *Theory-specific absurdities and 'DS' etc.*

Another sort of reply, similar to some of the foregoing, is another case of mistaken identity. In this case, we are in fact relying on theory-specific absurdities (see 443) when we 'reason' in disjunctive-syllogism or 'reductio' sorts of ways. Consider one example, where $\vdash_T$ is the consequence relation of theory T, and $\perp$ is some T-specific absurdity, some explosive sentence according to $\vdash_T$ where, let us stipulate (for simplicity), $\perp$ is (just) false in every possibility (model) recognized by $\vdash_T$. In this case, we have the sort of reductio- or disjunctive-syllogism-like pattern:

- If $A \vdash_T \perp$ (i.e., A entails an absurdity) and $A \vee B$ is true according to T, then either A is untrue according to T or T is the trivial theory (for the given language).

The idea here is that this sort of reductio- or disjunctive-syllogism-like pattern is ultimately the only sort of such pattern that we ever need in our theorizing. The given pattern (or, if you want, principle) might not – for various technical reasons – be expressible in the target theory T to which the principle applies; but it's a prevalent principle for reasoning about T.

¹⁷ For details on this sort of reply, see the work of early 'relevance' (aka 'relevant') logicians (Routley et al. 1982; Anderson et al. 1992) and various applications (Priest 2006; Field 2008; Beall 2009). References in such works point to a multitude many other works in which such ideas are discussed.

¹⁸ This sort of story is gestured at in Beall 2009.

3.3.5. *Extra-linguistic acceptance-rejection*

One other reply (probably not the last available) points not to extra-logical consequence relations, which beef up entailment relations to validate MMP etc., and points not to extra-logical vocabulary to stand in for the otherwise weak (but universal) logical vocabulary, but rather points to ‘extra-linguistic’ behavior that we – qua theorists – utilize in our reasoning about theories. The details of this reply are spelled out in different ways in different places, but the basic idea is that when we talk about the apparent validity of MMP (or the like) we are instead talking about rational acceptance-rejection behavior, whereby we have both of the following sentences

$$A, A \supset B$$

in our theory. Logic, of course, does not validate B ’s going into the theory; however, a generalization of logic (to so-called multiple-conclusion logic) does say that at least one of

$$\neg A, B$$

is true if our theory, which contains both A and $A \supset B$, is itself true. Hence, if – for whatever our theoretical reasons – we reject the logical possibility of $\neg A$ (i.e., the possibility of the contradiction $A \wedge \neg A$ being true) we are then assured, by the given generalization of logic, that our putting B into the theory results in a theory which remains true.¹⁹

3.4. Conciliar Christology and charity

An issue raised by Pawl’s discussion (see his §§2-3) is whether Contradictory Christology, as I advance it, is compatible with Conciliar Christology as Pawl defines it in his *A Defense of Conciliar Christology* (Pawl 2016). On this topic there is a lot to say, and a lot of details to wade through. I leave the broader discussion to a larger project, focusing on just a few points of reply.

First, I do think that Contradictory Christology, as I’ve advanced it (so far), is compatible with Pawl’s definition of ‘Conciliar Christology’; and I remain committed to this until I see good reason to give it up. As far as I can see, Pawl hasn’t provided (or, to be clear, claimed to provide) good reason to think that Conciliar Christology is incompatible with Contradictory Christology. The one explicit argument rests on whether conciliar fathers took themselves to be committed to the absence of logical contradictions. Pawl says that the most charitable reading of relevant conciliar texts is one according to which it’s absurd (i.e., theoretically impossible) that Christ be contradictory. I briefly argued in ‘Christ – A Contradiction’ (see §5, reply to objection

¹⁹ Details of this sort of reply are filled out in various places, including especially Beall 2015, but also with important early ideas in Routley et al. 1982.

02) that the *prima facie* more charitable reading is one according to which Christ is contradictory. Pawl's target 'Explosive Theology' responds to my argument.

Without getting into any of the details (which, again, I expect to cover in a larger project), I am not convinced that Pawl's given reply undermines my argument; but I do fully concede that the case of 'the most charity' is as yet at least epistemically underdetermined – waiting, perhaps, on further evidence about both the full intentions of the relevant authors of the relevant passages, and especially the weight that those to-be-discovered intentions carry with respect to the content and consequence relation involved in true theology (in this case, true conciliar theology). But beyond conceding that the matter remains open for debate, I should note two other points, one methodological and the other, in turn, on the fate of Contradictory Christology vis-a-vis Conciliar Christology (were it to turn out to be incompatible with Conciliar Christology because the authors, let us imagine, intended to endorse the explosion of logical contradictions, and that their intentions are to be treated as relevantly authoritative).

On the methodological point: I think that it's a highly delicate matter for those committed to Conciliar Christology as to *which* matters the councils – when taken to be infallible – are a source of truth. There is a great deal more to say on this, but suffice to say, just to flag the issue for further debate, that I see no reason to think that Conciliar Christology demands that conciliar fathers recorded the truth about logic, metaphysics and more in their (presumably, spirit-inspired) infallible writings. Such texts may well record the true account of many central matters theological, but that's compatible with the authors of the texts being wrong about what they took the true metaphysics to be or the true account of logical consequence to be. Short of a detailed, explicit – and, presumably, infallible – statement of what (for example) the metaphysics of natures truly is, or the full slate of features of logical consequence truly are, or so on, such conciliar texts may record the official constraints on Christology, the Trinity, or the like, all the while written by well-meaning authors who were in fact wrong about the details of the metaphysical or logical ingredients of said truths.²⁰ The point – again, simply flagged for present purposes – is that charitably reading the conciliar texts is compatible with acknowledging that the authors of the texts were wrong about salient and, in the current context, dialectically central ingredients. (Example: it's true that Christ exemplifies the divine nature and also the human nature, even if nobody, as yet, has the truth about what natures are, or what the exemplification relation is, or what logical consequence demands on all such discussions, etc.) So goes an important methodological point from my perspective.

The second point is that, while I do think that Conciliar Christology is compatible with Contradictory Christology, if evidence ultimately shows that the authors intended their work to be incompatible with a contradictory account of Christ, *and* we are convinced that their intentions about logical consequence (presumably backing their first intentions) are to be accepted as authoritative (indeed, sufficient for truth on the matter), then I'd grant that this is a major blow to the viability of a Contradictory Christology qua candidate open to (for example)

²⁰ Sarah Coakley's paper on different ways to think of the creeds (Coakley 2002), discussed in Thomas McCall's contribution to the current symposium, is illuminating on this issue.

Conciliar Christians (understood per Pawl's account of Conciliar Christology). But, as things sit, I find it very difficult to believe that we'll reach such a state. Moreover, I remain convinced that Contradictory Christology is more plausible than the many non-contradictory accounts of Christ; and so if Conciliar Christology is ultimately incompatible with Contradictory Christology, this is a knock against the former. But supporting such a view is a burden I leave to the promised larger book project.

4. Summary

Pawl's chief objection to Contradictory Christology takes the form of a would-be dilemma according to which Contradictory Christology, as I advance it, either results in the trivial theology or the trivial biology (or some such science). But the dilemma, I've argued, is only a would-be one. Pawl's arguments for the horns fail to establish their target points.

Despite his principal objection failing to hit its mark, Pawl's discussion is eminently valuable for the future viability of any would-be contradictory theology, including the still-growing Contradictory Christology that I have advanced. The issues that Pawl has raised reach the very foundations of Contradictory Christology – and, again, contradictory theology of any sort. I hope to that my future work measures up to the value of the Pawline prods in his 'Explosive Theology'.²¹

²¹ Acknowledgements: In a short time Professor Timothy Pawl has taught me a great deal, not only through his work but through correspondence. Without Pawl's engagement with my work there would be far less value, if any value at all, in the resulting project. I should also explicitly note that there are many (many) more issues that Pawl has raised that demand attention; but I could not do them justice while also keeping to the Journal's target schedule. My book project (viz., *The Contradictory Christ*) will take up further issues. For now, let me just repeat: thanks, Tim. Also, I received valuable feedback from Jared Henderson and participants in a seminar on this paper at the Notre Dame Center for Philosophy of Religion: thank you, all.

Bibliography

- Anderson, Alan Ross, Nuel D. Belnap, and J. Michael Dunn. 1992. *Entailment: The Logic of Relevance and Necessity*. Vol. 2. Princeton University Press.
- Beall, Jc. 2009. *Spandrels of Truth*. Oxford University Press.
- . 2013a. “Shrieking against gluts: the solution to the ‘just true’ problem.” *Analysis* 73: 438–445.
- . 2013b. “A simple approach towards recapturing consistent theories in paraconsistent settings.” *Review of Symbolic Logic* 6: 755–764.
- . 2015. “Free of detachment: Logic, rationality, and gluts.” *Noûs* 49: 410–423.
- . 2018. “The simple argument for subclassical logic.” *Philosophical Issues* 28: 30–54.
- Coakley, Sarah. 2002. “What Chalcedon solved and didn’t solve.” In *The Incarnation*, edited by Stephen T. Davis, SJ Daniel Kendall, and SJ Gerald O’Collins. Oxford University Press.
- Field, Hartry. 2008. *Saving Truth from Paradox*. Oxford University Press.
- Pawl, Timothy. 2016. *In Defense of Conciliar Christology: A Philosophical Essay*. Oxford University Press.
- Priest, Graham. 2006. *In Contradiction*. Oxford University Press.
- Routley, Richard, Val Plumwood, Robert K. Meyer, and Ross T. Brady, editors. 1982. *Relevant Logics and their Rivals*. Ridgeview.

Doctrinal Orthodoxy and Philosophical Heresy: A Theologian's Reflections on Beall's Proposal

Thomas McCall
Trinity Evangelical Divinity School

1. Introduction

"A contradiction is false. It is false everywhere and always. It is false in hell. It is false in heaven. It is even false in theology." With these words, a distinguished philosopher began a lecture to a group of divinity school students. Accustomed to quick and easy appeals to "mystery," the theology students and aspiring pastors before him were rather taken aback, but this statement reflects a view that is not uncommon among philosophers. Indeed, Graham Priest (et al. 2018) refers to classical logic and its commitment to the principles of non-contradiction and excluded middle as "orthodoxy."

But in his fascinating essay "Christ – a Contradiction," Jc Beall wields the resources of subclassical (or paraconsistent) logic in defense of Chalcedonian Christology. The past few decades have seen much ink spilled and many trees killed in arguments over the coherence of orthodox Christology (happily, this is an open-access electronic journal, so no trees were harmed in the making of *this* essay). Critics such as John Hick have made the case that "to say, without further explanation, that the historical Jesus of Nazareth was also God is as devoid of meaning as to say that this circle drawn with a pencil on paper is also a square" (1977, 178). Analytic philosophers of religion and theologians have risen to challenges such as that raised by Hick, and different proposals have been developed (or retrieved from the tradition) and defended against objections. We now have various combinations of metaphysics and doctrine: we have two-minds proposals with either abstractist or concretist metaphysics, we have both abstractist and concretist kenotic accounts on offer, we have "Model A's" and "Model T's." But for all the creativity and variety, what such proposals share in common is the commitment to demonstrate that Chalcedonian or, a bit more broadly, "conciliar" Christology is *not* contradictory. In other words, these proposals seek to show that there is no logical contradiction between the admittedly striking affirmations made by the creeds – and thus the Christology of the creeds should not be rejected on the grounds that it is necessarily false.

Beall takes a different approach. Indeed, it is a *very* different approach: he defends "the viability of 'Contradictory Christology'" by arguing that "the right response to the fundamental problem of Christology (viz., Christ's having two apparently complementary – contradiction-entailing – natures) is to accept the familiar contradictions" (401). I am not yet persuaded that such a move is either

viable or necessary; I am not convinced that the kind of work done in analytic Christology is unsuccessful (and thus that Christians *need* to resort to paraconsistent logics), and I am not sold on either the necessity or viability of the paraconsistent logics that call for exceptions to the law of non-contradiction. But such issues as the viability of more traditional Christological proposals or the debates over classical logic are not the focus of this discussion, and at any rate Beall offers an important option for thinking about the doctrine of the incarnation. He does so with verve, clarity, and rigor, and his proposal raises some fascinating and important issues. In what follows I shall make some observations about, and raise some questions for, his discussion of the role of logic – and especially the place of contradictions – in theology. I do so as a theologian, and I do so with attentiveness to the potential reception of his proposal by theologians.

2. Seeking Clarity: The Role of Logic in Theology

As a theologian, I find myself in hearty agreement with much of what Beall says about the role of logic in theology. He notes that any theory (in whatever field of inquiry) will include the (initial) truths that are basic to the theory and that motivate that theory. But any theory that strives for completeness and adequacy will also include “*whatever follows from the truths in the theory*; it should contain all of the *consequences* of a theory’s claims” (403). Logic sorts out these relations of consequence; it helps us see what does – and what does not – follow from the first-order truth claims of the theory itself. I welcome much of what Beall says here, for logic has an important role to play in theology. As John Wesley – who is somewhat more renowned as an evangelist than a logician – puts it, logic is “necessary next to, and in order to, the knowledge of Scripture” (1959, 483). Despite the fact that it was considered “unfashionable” among the clergy of his time, nonetheless logic is invaluable. For with it we have the possibility of “apprehending things clearly, judging truly, and reasoning conclusively” (483). Logic “is good for this at least (wherever it is understood), to make people talk less; by showing them both what is, and what is not, to the point; and how extremely hard it is to prove anything” (492).

Beall insists that “theology is no different” from other disciplines in this respect (404). Logic is rightly said to be “‘universal’ and ‘topic-neutral,’” and thus it includes theology (405). I could not agree more. Systematic theology is ultimately about God, but it is also about all else as that “all else” relates to God (see, for example, Webster 2009). As such, it includes not only core claims about God and the world but also whatever is entailed by those core claims. Thus “theologians must not only add various basic truths about God but also ‘complete’ (as far as possible) the theory via a consequence relation” (404). Accordingly, theologians should include in their theories not only those truths that they take to be revealed by God but also what truths of theological relevance really follow from those revealed truths.¹ They should

¹ I say “what truths of theological relevance” because I think that Beall’s way of putting matters commits us to too much. Every necessary truth follows from any truth, but surely systematic theology shouldn’t have to include all of that to be complete. The task of systematic theology is daunting enough

recognize that the entailments of what they affirm are also included in their doctrinal proposals.

This may seem obvious, but I am grateful for Beall's insistence here, and I hope that theologians will be properly appreciative of this point. For in modern and contemporary theology (in sharp contrast to much theology in the Christian tradition) it is sometimes too easy to find theologians making claims about the "implications" of some doctrinal proposal – either positively or negatively – without doing the hard work of seeing just what *is* implied or entailed. In other words, it is not uncommon to see theologians rush to celebrate the (desired) "implications" of some pet doctrinal proposal – but without pausing to demonstrate that the desired conclusions indeed are implied or entailed. Similarly, it is not hard to find theologians make affirmations and then deny the (undesired) implications; it is almost as if the operative assumption is that there are no such consequences if we do not *want* those consequences. A theologian may affirm some tenet of classical orthodoxy and then also affirm some other propositions that would entail the contradiction of that tenet – but then insist that there is no problem because they do not intend to affirm the contradictory proposition. But it is one thing to affirm some proposition *A* and deny some proposition *B*. It is another thing entirely to affirm some proposition *A* and deny some proposition *B* while also affirming some proposition *C* – when *C* entails the denial of *A* and/or the affirmation of *B*.²

Beall concludes that "without a consequence (closure) relation our theories remain inadequate; they fail to contain truths that are entailed by the given set of truths. Inasmuch as theorists, and theologians in particular, aim to give as complete a theory of the target phenomenon as possible, the reliance of a consequence relation for our theory is required" (404). Beall is right that any theological theory should include whatever is entailed by the given set of truths. Amen – logic has an important role to play in theology, and theologians would do well to recognize this. As someone important in theology once said, "Come, let us reason together" (Isaiah 1:18).

But just what, more precisely, is the role of logic? Beall is unmistakably clear that it helps us trace consequences. But what does this mean, and does it do more? Logic (at least as it is classically understood) is invaluable in demonstrating what follows from a proposition (and that proposition's conjunction with other propositions), what comes "downstream" of a set of claims, what comes as an entailment whether we want it or not. But is this all that it can do? Or can it make more substantive contributions to theology? More directly to the issue at hand, logic can show where contradiction follows as a consequence. But does logic also show us that those contradictions are *false* – does it show that they are false simply in virtue of being contradictions? Here we see with clarity how Beall's view takes leave of classical logic – on Beall's account, logic itself does not show that contradictions are false. Various contradictions may in fact be false, and indeed Beall is insistent that they should not be accepted widely in theology. But logic itself does not rule out contradictions, and it leaves open the door to the possibility that some may in fact be

– and the textbooks long enough – without also having to include "God is triune *and* 2+2=4" and "God is triune *or* 2+2=4." Thanks to Tim Pawl for very helpful conversation here.

² As Keith E. Yandell and I argued in McCall and Yandell 2009, 357.

true (and, indeed, one contradiction – the set of claims contained in orthodox Christology – *is* true).

3. Looking for Charity: The Role of Logic in Pro-Conciliar Theology

So what are we make of the apparent contradictions in the creeds and conciliar statements? Beall notes that Timothy Pawl makes the case that it is “at best uncharitable to interpret the conciliar fathers as advancing anything close to a genuinely contradictory Christology” (420). On Pawl’s account (and I think that we could extend this beyond Pawl to other analytic apostles of Christian orthodoxy), it would be uncharitable to do so because this would mean that the conciliar fathers were asserting things that cannot even possibly be true (see Pawl 2016, 84–85). So, for the sake of charity, we should interpret them as making claims about *apparent* contradictions. Beall disagrees. In fact, he charges Pawl with an uncharitable reading because Pawl’s account has the conciliar fathers using the “key predicates in non-standard and undefined ways” (420). So both Pawl and Beall want to promote a charitable reading. Neither, so far as I can see, wants to read the creedal statements in such a way that implies that the conciliar fathers were simply incoherent, and neither wants a reading that is implausible. Thus Pawl assumes that they were not asserting something they took to be a genuine contradiction, and thus Beall assumes that they really meant to affirm the contradictions (since they just asserted them without making the sophisticated “Pawline” moves or watering them down). Both want a charitable reading. But they disagree about what that *is*.

Here are some observations. First, I take it that the creedal statements were intended neither, on the one hand, as mere “grammatical rules” or “linguistic regulation” (with no metaphysical commitments or constraints whatsoever), nor, on the other hand, as more-or-less complete explanations of the incarnation.³ Both readings are, in my view, both uncharitable and quite implausible. I think that it is much better to think of the creedal statements as both making central affirmations (“here is what we *must* hold”) and crucial denials (“here is what we *can’t* believe”) – and then as leaving interpretive space for various possibilities and metaphysical development between the core of what we must hold and the boundaries beyond which we cannot go. If I am correct, then we should not expect them to make explicit their metaphysical and logical commitments as part of the creeds (or even as addendums).

Second, it seems to me that the any charitable reading will be one that allows for the possibility of coherence while not being historically implausible. So if we have reason to think that the framers and defenders of the conciliar statements were thinking along the lines of Beall’s subclassical proposal, then interpreting them as making claims that they knew were directly contradictory might be the charitable way to go. But in the absence of such reasons, it becomes less plausible. And, if less

³ The phrase “linguistic regulation” is taken from Coakley 2002, 143–163.

plausible, then it is also less charitable, for then we are interpreting them as making overt contradictions – while also believing contradictions to be false.

So do we have such reasons? Commenting on the philosophical history, Nicholas Rescher and Robert Brandom note that

Since Aristotle's day, virtually all logicians and logically concerned philosophers in the mainstream Western tradition have had a phobia of inconsistency. They have been near to unanimous in proscribing it from the precincts of their logical and ontological theorizing, holding that the toleration of inconsistencies would inevitably bring cognitive disaster in its wake (1979, 1).

This may be true of the philosophical history, but, not surprisingly, it is also true of the theological history. As Ephraim Radner points out,

Almost all the Fathers were wary of affirming that Scripture had within itself real “contradictions,” a charge associated with the enemies of Scripture. And much effort was made to explain the presence of such *apparent* tensions within the texts (2016, 218).

What they took to be true about claims made within the text of Scripture they also took to be true more broadly. Thus, for example, Gregory of Nyssa relies upon both “the law of excluded middle” and “the law of non-contradiction” in his debates with Eunomius of Cyzicus. Indeed, he claims that “contraries of contradictories are themselves contradictory of each other,” and that “it is always a true axiom, that two things which are naturally opposed to two things mutually opposite are themselves opposed to each other,” and he then presses these axioms into service in a *reductio* argument against the Eunomians (see “Against Eunomius,” 1.42). With direct reference to Chalcedon, Coakley concurs:

In a broadly accepted sense, the Chalcedonian “Definition” does indeed involve a “paradoxical” claim – the claim that “God” and “man,” normally perceived as strikingly different in defining characteristics, find in Christ a unique intersection. Here “paradox” simply means “contrary to expectation,” and the mind is led on from there to eke out an explanation that can satisfy both logic and tradition. However, we should be careful to distinguish this meaning of “paradox” from a tighter one in which not merely something “contrary to expectation” is suggested, but something self-contradictory. . . The overwhelming impression from following the debate leading up to Chalcedon, however, as well as that which succeeds it, is that the “paradoxical” nature of the incarnation in the first sense is embraced (with greater or lesser degrees of enthusiasm), but that “paradox” in the latter sense is vigorously warded off (2002, 154–155).

If this is right (and I think that it is), then the efforts of Pawl (and his fellow apostles) should be seen as a kind of “eking out” effort. Pawl’s is not the first such effort, and indeed it has a great deal of both formal and material continuity with important theologians within the Christian tradition. As such, it is neither uncharitable nor implausible.

4. Hoping for Rarity: Contradictions Galore?

Beall rightly anticipates a “very common reaction” to his proposal (416). He wants to make it clear that he is *not* “proposing that theologians should seek to find contradictions willy nilly;” he is not suggesting “that theologians ought to seek out contradictions” (416). There is good reason, he insists, for us to reject most logical contradictions as false. True logical contradictions are very rare, for many are ruled out by the objects of inquiry themselves. His proposal, again, is that it is only on state occasions – notably, for our purposes, the incarnation – that the truth might require a genuine contradiction. He does not want to completely “rule out” the possibility that there may be other true contradictions in theology, but he clearly does not intend for this to be taken as license (422).

Beall’s own preferences are clear enough, but I am not sanguine about their reception among theologians. I worry that many theologians will indeed take what Beall says as open season on the constraints of classical logic and, more importantly, to license contradictions galore.⁴ It is not hard to imagine a theologian being convinced by Beall and then saying, “Cool, I no longer need to worry about avoiding contradictions.” Beall might remonstrate with “No, you theologians should not ‘seek out contradictions’” (416). But the theologian’s response is quick: “look, we don’t have to seek them out – they are all over the place and come looking for us. They are unavoidable. The good news now is that we don’t need to worry about them.”

My worry, in other words, is that contemporary theologians might take Beall seriously – too seriously. Beall says that “until there’s good reason to accept that our true theories of phenomena beyond Christ are likewise glutty I see no reason not to reject the spread of contradictory theories” (419). But a theologian converted to Beall’s position may wonder what reasons there might be not to *accept* the spread of such theories. Contradictions will be seen as delightfully if perhaps recklessly mischievous – but will become dangerously promiscuous. Not only will logic in theology be “gappy” (where the “law of excluded middle” is rejected and the proposition may be neither true nor false) and “glutty” (where the “law of contradiction” is rejected and the proposition may be both true and false), it will also be overly promiscuous.

While some theologians might welcome and cheer such a development, others may be concerned about the proliferation of contradictions. Indeed, some – perhaps still under the spell of “classical logic” – may fear that to allow one genuine

⁴ Ephraim Radner discusses several recent (and not-so-recent) theologians (most notably Pavel Florensky and Vladimir Lossky) who make explicit and positive use of contradiction, and he references the work of Graham Priest. See Radner 2016, 216–219, and Florensky 1997, 106–123.

contradiction as true is to embrace all falsehoods. They would see that this would be very bad news indeed for theology because it would open the door to all falsehoods both contingent and necessary. Beall denies “explosion” as a consequence of logic itself while allowing that it might be a part of theory-specific consequence relations (e.g., 428), and he quite understandably says that detailed discussion of such matters is beyond the scope of the essay. Fair enough, but at some point something further needs to be said about this if his proposal about logic in theology is to be helpful to theologians. For as matters stand, it is less than fully obvious why we should not conclude “*ex contradictione quodlibet*” (roughly, *very roughly*, “out of contradiction, whatever the heck”).

I take it that it is safe to assume that Beall has much more to say about such matters (indeed, I take this to be an assumption safer than which is difficult to conceive). Assuming further that his explanations here turn out to be satisfactory, his proposal still raises further questions. It is entirely understandable that these are not the concern of his paper, but the answers will be important nonetheless when considering the reception of his work among theologians and especially in considering its utility for ecclesial theology.

5. Some Questions for Contradictory Christology

Beall’s proposal is intriguing at several points, and it raises some important questions. I take it that these questions will be important when theologians consider the adequacy and helpfulness of his proposal. I focus on several here.

The first question is epistemological: how are we to know which are the “true” contradictions and which are the false? The theologian who makes do with the shop-worn old tools of classical logic and theology has a ready and easy answer: there are no “true” contradictions. If something is genuinely – and not just apparently – contradictory, then it just is false. Sorting out the apparent contradictions from those that are genuine is the hard work, but once we get clear on that the work is easy (or at least easier). Once sorted, the genuine contradictions are rejected as false. But on Beall’s proposal, the hard work may come after the initial sorting exercises; once the genuine contradictions are separated from those that are merely apparent, rounded up, and corralled together, the really hard work begins. For now we have to sort out the “true” contradictions and quarantine them off from their sickly false cousins. And how are we supposed to do *that*? Again, it is entirely understandable that Beall does not supply us with the needed tools and methods here, but at some point that assistance will be crucial if his proposal is going to have a positive impact in theology.

A second question is closely related to the first: what is the level of required support that is needed to establish the truth of both claims of a contradiction? Beall’s proposal rather casually refers to “initial thrown-in truths” (e.g., 403), and he mentions the affirmations of two-natures Christology as an example. But in theology, at least, matters are often somewhat more complicated than this, especially when engaging in constructive theology but sometimes also when doing retrieval theology. If two theological propositions taken together seem to produce a contradiction, does

that give us reason to go back and look closely at the data or evidence (whether textual, empirical, experiential or just what) supporting the propositions? If another non-contradictory theory is not impossible and also makes more-or-less adequate sense of the data, is that one to enjoy a preference (at least initially)? If so, then why? Just how much support for the propositions must one have to embrace something that surely is an actual contradiction? Once again, I understand that Beall cannot deal with all such questions here (first things first), but at some point answers to such questions will be important if his proposal is to put down theological roots and produce some doctrinal fruit.

A third question is perhaps due only to my ignorance (as a under-informed theologian). It concerns the relation of subclassical (or paraconsistent) logics to a set of issues that are important in theology. It is this: how does Beall's proposal map onto issues of modality? Issues of modality are important in theology generally and in Christology specifically, and it is not clear how Beall's proposal impacts our understanding of modality. One way of approaching this issue is to consider the following proposition

(T) *it is possible that there is at least one true contradiction.*

It seems obvious that Beall is committed to (T). Now compare it with

(NT) *it is not possible that there is at least one true contradiction.*

Now consider further the conjunction of (T) and (NT). Putting them together yields

(TNT)⁵ *it is possible that there is at least one true contradiction and it is not possible that there is at least one true contradiction.*

It seems obvious that (TNT) is not only *about* contradictions, (TNT) itself *is* a contradiction. But is (TNT) a true contradiction? Or does it suffer the inconvenience of being a false contradiction?

Suppose that (TNT) is true. If (TNT) is one of the true contradictions, then we are left to conclude not only that there is at least one true contradiction *and* that there are no true contradictions, we are also to conclude that what is possible is also impossible and even that what is necessary is also impossible. So what is true is also false, and what is *necessarily* false is also true. According to S5, $\Diamond p \Rightarrow \Box \Diamond p$. Thus the first conjunct of (TNT) cannot fail to be true if it is true at all. To put it in possible worlds semantics, if it is true at all, then it is true in all possible worlds.⁶ Accordingly, there is at least one possible world where a contradiction is true, and it is true in all possible worlds that there is at least one possible world where a contradiction is true. But the second conjunct, if true, is also necessarily true (because $\sim \Diamond p = \Box \sim p$); it is true in all possible worlds. If the second conjunct is true, then there is no world in

⁵ Standing, obviously, for "Whether True and/or False."

⁶ Beall elsewhere endorses an understanding of necessity as truth in all possible worlds, e.g., Beall and Restall 2006, 15.

which the first conjunct is true; while if the first is true, then there is no world in which the second is true. Either way, there is no world in which both are true.

This leaves me, as a theologian, with at least two concerns. The first is that I struggle to know what it would even mean to say that (TNT) is true. The second problem is that (TNT) would seem to give us modal collapse or something even more worrisome (perhaps modal explosion). Where “modal collapse” happens when possibility is “collapsed” into necessity, here it seems we have the threat of *impossibility* collapsing into necessity, of necessary truth “collapsing” into necessary falsehood. Since I think that modality is important in theology (and that reality has a modal structure), I think that theology should be very wary of any theory with such consequences.

Suppose, on the other hand, that (TNT) is false. If (TNT) is false, then these consequences do not follow. So, it seems, the obvious thing to do is to reject (TNT) as false. But on what basis? The classical logician will immediately recognize that (TNT) is false and will reject it as such – (TNT) is not only about contradictions, it *is* a contradiction. Thus it is false. It is necessarily false, and not even Chuck Norris can make it true. There are a lot of hard problems in philosophy, but this is not one of them. End of story. But Beall’s theory can hardly take this route. For on his view, as we have seen, logic is “clearly topic-neutral by not taking a stand on whether gappy or glutty sentences are ruled out” (414). With respect to some topics, it may indeed be the case that there is no room for gluttness (with mathematics, this clearly *is* the case), while with respect to other matters, acceptance of gappiness and gluttness may be appropriate. The salient point is that logic itself does not decide. As Beall puts it, subclassical “logic does not force unique, strange phenomena into the cramped confines of classical-logic possibilities” but “is silent on whether theorists *should* entertain a contradictory (glutty) theory.” The upshot is that when considering the possibility of a true contradiction on the subclassical account, “logic itself, contrary to the standard account, doesn’t rule it out” (414). Logic itself does not rule out (TNT). So if it is going to be eliminated, it will have to be on the basis of something theory-specific. However, in this case there is no other theory that (TNT) is about, and because there is no theory there are no theory-specific eliminators. The contradiction in question is straightforwardly and merely about (modal) logic – so we have neither logic itself nor other theory-specific criteria to guide us. If logic itself does not rule out the possibility of a true contradiction, then logic does not rule out this one. But neither is it obvious that anything else does (since it is a logic-only matter).

Moreover, at least if I’m understanding him correctly, Beall’s view wants to maintain space for the axioms of classical logic within it. He describes subclassical logic (at least his preferred version of it) by saying that what it “does *not* do is reject any classical-logic models;” instead it “simply *expands* the space of models to recognize ones that go beyond the narrow confines of the classical-logic space” (411). Since the second conjunct stems from the very classical-logical model that he wants to include and expand around, it would seem to be included.

So what are we to do with (TNT)? Rejecting the second conjunct outright seems to be against the grain of Beall’s preferred subclassical account (committed, as it is, to inclusion of classical logic even as it expands around and beyond it). And to reject (TNT) as one of the false contradictions seems arbitrary (because logic itself

cannot rule it out, and, as a logical matter, there is no theory-specific evidence that would do so). I guess we could say “so much the worse for thinking about modality.” But perhaps instead we should conclude “so much the worse for any system that makes it so difficult to reject something so obviously problematic.” But without good reason to reject either conjunct – and Beall’s account is committed to the first and without obvious reason to reject the second (since the logic itself is neutral on the issue and we don’t see any theory-specific reasons to reject it) – we are unsure how to avoid it. So taking (TNT) as true threatens modal collapse or explosion, but Beall’s subclassical logic leaves us unsure (pending further explanation) of how to avoid it. Either way, we have modal instability.

More broadly – and more importantly – we are left to wonder about the relationship between subclassical logic (as applied to theological issues) and modality. It is understandable that Beall does not address all such matters here; his is, after all, an essay on Christology rather than an essay on the relationship of subclassical logic to modal logic. But neither is this irrelevant, for modal considerations are important in theology. This is true generally, and Christology is no exception. Beall’s account assumes that

“Christ has a divine nature (entailing immutability) and *independently and without diminishment* also has a human nature (entailing mutability).”

This follows from orthodox Christology, but of course there is more to say. To the issue at hand, it is important to note that Christ has a divine nature *necessarily* but has a human nature *contingently* (see Cross 2002, 179). Theology needs an account of modality adequate to handle such affirmations.

Perhaps there are also good reasons for the subclassical logician to consider (TNT) to be one of the false contradictions and to reject it as such (in this case, one can think of my worries merely as potentially common misunderstandings that are likely to be made by theologians). Or perhaps it is the case that acceptance of subclassical logic will entail different understandings of modality.⁷ If so, then it would be good to know the price; theologians should look carefully and count the cost before embracing it. I am confident that Beall has more to say about these matters. But accounting for modality in subclassical logic is not, as Beall (2010, 11) recognizes, “entirely straightforward,” so I look forward to further clarification as we seek to relate his proposals about logic to theology.

A fourth and final question is more directly practical and even pastoral in nature. This is a concern about the potential and even likely reception of Beall’s proposal, which is, of course something over which Beall does not have much control. Nevertheless, given the argument he makes and the enthusiasm for affirming contradictions that one sometimes finds among contemporary theologians who are not as careful as Beall, there are reasons for concern. The question is this: how is the account drawn here to offer helpful practical guidance for Christian communities if it

⁷ Haack 1974 (2) sees modal logics (such as T, S4, and S5) as “supplements” to classical logic rather than “rivals” to it.

is affirmed and applied more broadly? Nicholas Wolterstorff observes that theologians often have an urge to “heal the world” (2005, 83). More broadly, theology is (at least partially – there are debates over this) a *churchly* enterprise. Doctrine plays important roles in the formation of the community of faith and in the formation of character and the virtues within that faith community (see Charry 1997). Will the acceptance of contradictions (in this case of the doctrine of the incarnation, at the very heart of the Christian faith, but potentially more broadly as well) actually strengthen the faith of the faithful and assist ecclesial communities in the important work in moral and spiritual formation? Or might it bring harm? Consider the following scenario:

The Pope and his Council of Cardinals, along with the Orthodox Patriarchs and Metropolitans, the Archbishop of Canterbury, and the relevant Protestant ecclesial leaders, embark on an ecumenical study of the debates over the ordination of women to the priesthood. They assemble the “ideal” team of scholars; they get the best theologians (of the various disciplines) gathered from the respective ecclesial groups. Notably, all parties agree that this is an ideal team. They lock themselves in the basement of the Vatican with the full range of resources. In other words, this is the All-Star team, they have all that they need, and they have as long as they need.

Something interesting and unexpected happens. The longer they are together, the more they become convinced that there are unassailable theological arguments for the restriction of ordination (to some set of ecclesial offices) to males – *and* they become increasingly convinced that there are unassailable theological arguments for opening ordination (to the full set of ecclesial offices) to women. Interestingly, both the “traditionalists” and the “progressives” are in substantial agreement on both accounts: scholars from both sides see and affirm the strength of the arguments for both conclusions. They seem to be stuck, and – because they tacitly assume that a contradiction cannot be true – they keep going back to the arguments. But each time they do so, they are even more deeply convinced of the theological case to be made for both conclusions.

Fortunately, however, the basement of the Vatican has decent internet access, and at some point a bishop who is frustrated by the situation seeks diversionary relief by reading the *Journal of Analytic Theology*. There he comes across a brilliant article commending “Contradictory Christology,” and he is immediately taken by the idea that subclassical logic is appropriate for theology. The next morning he makes the case that it is appropriate for the issue before them; he argues that the only thing holding them up is this dang relic called the “Law of Non-Contradiction.” What we need, he says, is a “glutty” theology of ordained ministry. The scholars and clerics agree. In one accord, this ideal team of ecumenical scholars issues an important statement: they conclude that the ordination of women to the

priesthood is both theologically permissible and morally obligatory *and* that the ordination of women to the priesthood is both theologically impermissible and a grave sin. Understanding that this might be initially confusing to the catholic faithful, they include in their statement not only their strongest arguments for both views but also a short primer on subclassical logic.

The catholic faithful find this statement and accompanying explanations – to be interesting but also super confusing. Indeed, they are frustrated by it, and they keep asking this question: “But what do we *do*?” They begin to hope that their leaders do not make similar progress on other contested issues. For while these sorts of exercises might be good for ecumenism considered abstractly, they are not good at all for the life and health of the church.

Christian theology attempts to tell the truth – the whole truth so far as we can – about God and all things as these are related to God. As the truth, it is supposed to shape and mold our characters (individually and communally), it is supposed to form us spiritually and morally, it is supposed to give us moral guidance. How can it do so if it includes contradictions (or even allows for their possibility)? Perhaps the answer is that there will be no true contradictions on matters with practical import; maybe it is the case that anytime there is a contradiction with respect to a practical, pastoral, or moral issue that itself is a clue that there must be some theory-specific reason to judge the contradiction false. Maybe so, but such a criterion might threaten to rule out the very Christological move being made by Beall. At any rate, more explanation would be welcome indeed.

5. Concluding Observations

I am not yet convinced that we *need* to resort to subclassical logic to hold to classic, conciliar Christology. I think that there are viable options to be found in the proposals that defend the creedal accounts while staying within the bounds of classical logic, so I do not feel the pressure to make the move that Beall is recommending. I would rather give up philosophical “orthodoxy” than surrender theological orthodoxy, so I am, as a theologian, appreciative of Beall’s work in this area. But at this point I do not think that it is the only way forward. Nor am I convinced that paraconsistent or subclassical logics make the best sense of reality; I am not persuaded that the debates over the “Law of Non-Contradiction” are settled in favor of its demise. But such issues are beyond the scope of Beall’s essay, and accordingly they have not been the focus of my response. Instead, I have tried to voice a theologian’s concerns and raise some questions that seem important – even where these go beyond the immediate scope of his essay. I have done so in hopes of raising concerns that will perhaps assist Beall in his “larger project” as well as help theologians think through what is at stake.

I say these things as a theologian – one who is very well aware that theologians have a great deal to learn from specialists in logic and one who is appreciative of their work. Beall’s proposal is very stimulating. It is original (at least so far as I can see) and

imaginative, it is well-informed, and it is rigorous and rich in argument. It is an honor to engage it. I have benefitted much from thinking through it, and I am certain that other theologians will as well.

Ibn Sina once said that “those who deny a first principle should be beaten or exposed to fire until they concede that to burn and not to burn, or to be beaten and not to be beaten, are not identical.”⁸ I don’t want Christian theology (or Christian theologians!) to take a beating, but I also do not want Christian theology to pick up a tool that burns it.

⁸ Cited in Scotus 1987, 9. The citation is referenced to Avicenna’s *Metaphysics* 1.

Bibliography

- Beall, Jc. 2010. "Truth, Necessity, and Abnormal Worlds." In *The Logica Yearbook 2009*, edited by Michal Pelis. College Publications.
- Beall, Jc and Greg Restall. 2006. *Logical Pluralism*. Oxford University Press.
- Charry, Ellen T. 1997. *By the Renewing of Your Minds: The Pastoral Function of Christian Doctrine*. Oxford University Press.
- Coakley, Sarah. 2002. "What Chalcedon Solved and Didn't Solve." In *The Incarnation*, edited by Stephen T. Davis, Daniel Kendall, SJ, and Gerald O'Collins, SJ. Oxford University Press.
- Cross, Richard. 2002. *The Metaphysics of the Incarnation: Thomas Aquinas to Duns Scotus*. Oxford University Press.
- Florensky, Pavel. 1997. *The Pillar and Ground of Truth: An Orthodox Theodicy in Twelve Letters*, translated by Boris Jakim. Princeton University Press.
- Gregory of Nyssa. 1996. "Against Eunomius." In *The Nicene and Post-Nicene Fathers, Series II*. Vol. 5, edited by Alexander Roberts, James Donaldson, Philip Schaff, and Henry Wace. Hendrickson Publishing Company.
- Haack, Susan. 1974. *Deviant Logic: Some Philosophical Issues*. Cambridge University Press.
- Hick, John. 1977. "Jesus and the World Religions." In *The Myth of God Incarnate*, edited by John Hick. SCM Press.
- McCall, Thomas and Keith E. Yandell. 2009. "On Trinitarian Subordinationism." *Philosophia Christi* 11: 339–358.
- Pawl, Timothy J. 2016. *In Defense of Conciliar Christology: A Philosophical Essay*. Oxford University Press.
- Priest, Graham, Koji Tanaka, and Zach Weber. 2018. "Paraconsistent Logic." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. <https://plato.stanford.edu/entries/logic-paraconsistent/>
- Radner, Ephraim. 2016. *Time and the World: Figural Reading of the Christian Scriptures*. Wm. B. Eerdmans.
- Rescher, Nicholas and Robert Brandom. 1979. *The Logic of Inconsistency: A Study of Non-Standard Possible-World Semantics and Ontology*. Rowan and Littlefield.

Scotus, John Duns. 1987. *Philosophical Writings: A Selection*, translated by Allan B. Wolter, OFM. Hackett Publishing Co.

Webster, John B. 2009. "Principles of Systematic Theology." *International Journal of Systematic Theology* 11: 56–71.

Wesley, John. 1959. "Address to the Clergy." In *The Works of John Wesley, Volume X: Letters, Essays, Dialogs, and Addresses*. Zondervan Publishing House.

Wolterstorff, Nicholas. 2005. "To Theologians: From One Who Cares About Theology but Is Not One of You." *Theological Education* 40: 79–92.

On Contradictory Christology: A Reply to McCall's 'Doctrinal Orthodoxy and Philosophical Heresy'

Jc Beall
University of Connecticut

1. Introduction

Thomas McCall's paper aims to highlight issues for Contradictory Christology (and a contradictory theology, generally) from an exclusively theological – but also in some ways even pastoral – vantage point, versus from a philosophical or philosophy-driven perspective. Such a contribution is invaluable to the broad project of Contradictory Christology (theology, generally), as the position is not advanced as a 'merely philosophical' view but instead as a candidate for the theological truth of the central core of Christian thought (viz., the incarnation) and other aspects of theological reality.¹

McCall's first four sections flag a variety of issues and concerns while also jointly providing a synopsis of salient ideas in the target paper 'Christ – A Contradiction'. McCall's principal section is his fifth section, which marches through four fundamental questions that confront Contradictory Christology.

The structure of this paper runs as follows. §2 briefly responds to three issues that McCall raises in his first three (largely synoptic) sections. §3, in turn, responds to McCall's concern about potential promiscuity with respect to theological contradictions. §4 provides my first steps towards answering McCall's four principal questions for Contradictory Christology.

2. Clarity and charity

McCall's discussion in his §§1-3 raises many issues, each one requiring a deeper reply than I provide here.² In my following replies to said issues (§§2.1–2.3) I aim towards brevity over breadth, often pointing in the direction of answers rather than providing full-on answers; and I do so all with a promise of fuller discussion in another venue.

¹ A tangential, autobiographical and entirely non-substantive comment: I cannot but note that its various section titles, which one cannot help but enjoy, would've earned McCall's paper very high marks in the homiletics class I once had to take; they are 'musical' while also highly telling. (I did not do so well in that class, and do not now attempt to pull off similarly valuable section titles.)

² The deeper reply is in the promised 'larger project' to which McCall alludes (namely, a monograph entitled *The Contradictory Christ*).

2.1. Clarity: subclassical logic as a last resort?

The issue at hand is one that McCall doesn't intend to use as an objection or in any way as the focus of his symposium paper. Still, the issue is worth a comment because it reflects a common attitude concerning the mainstream account of logic (-al consequence).

After noting that Contradictory Christology offers a very different view of the apparent contradiction of Christ – offers a very different solution to the fundamental 'problem' of Christology – McCall writes as follows:

I am not yet persuaded that such a move is either viable or necessary; I am not convinced that the kind of work done in analytic Christology is unsuccessful (and thus that Christians *need* to resort to [nonstandard accounts of logic] that call for exceptions to the law of non-contradiction). (473-474)

These remarks reflect the view that the standard account of logic is the best account of logical consequence, and hence that any nonstandard account should be adopted only if there's pressing or even desperate need to do so. Such a view, I think, should be rejected.³

This paper is not the place to rehearse independent arguments for nonclassical (in particular, subclassical) accounts of logic versus the mainstream (so-called classical) account; however, in light of McCall's remarks above, two comments might be useful.

First, while I am no historian of logic, it is pretty clear that the standard (so-called classical-logic) account was never intended to be an account of the logical consequence relation on our common language (say, English or other natural languages); rather, it was intended to model the consequence relation involved in mathematics. Mathematics is a very special phenomenon, where the extra-logical vocabulary is nearly as sparse as the logical vocabulary itself, and the vocabulary in such theories is strikingly precise – often a paradigm of precision. In standardly done mathematics, the consequence relation governing the logical vocabulary (i.e., standard first-order vocabulary) is what we now call 'classical logic'.

But now the leap: is the classical-logic account true of the broader common language – beyond the language of mathematics? This is a wide-open question! In

³ I should also briefly note that, from my perspective, McCall's characterization of standard solutions to the fundamental problem of Christology (see 473) is true but possibly misleading: he claims that such 'proposals seek to show that there is no logical contradiction between the admittedly striking affirmations made by the creeds – and thus the Christology of the creeds should not be rejected on the grounds that it is necessarily false [or untrue]' (473). A theory (including a theology) can be necessarily false or untrue without being logically contradictory – that is, without containing a logical contradiction. Witness: if a theology contains 'There is no god' or 'Satan is Christ' or some such theological absurdity, the theory is necessarily false (or untrue). Ultimately, then, an avoidance of logical contradictions is not the key aim even in standard responses to the fundamental problem; it's a desideratum involved in such responses given their acceptance of the standard story of logical consequence.

many ways one should find it surprising to think that the standard account, which was constructed to be an account of nothing more than the precise confines of stark but beautiful mathematics, is also the correct account of a language that contains not only very imprecise language (e.g., ‘is a child’ or whatnot) but downright paradoxical expressions such as ‘true’, ‘exemplifies’ and more. Furthermore, that the standard account – again, constructed to model only the consequence relation in mathematics – obviously governs the language of true theology is a view which itself requires argument, as far as I can tell. I know of no good argument that makes the case.⁴

The second comment is that there is a very simple argument for the view that a subclassical account of logic should be accepted over the mainstream, classical-logic account. The argument is spelled out elsewhere (Beall 2018), but the gist is simple. By accepting a subclassical account of logic (e.g., FDE) you lose no true theories (e.g., no classical-logic-governed theories) and you gain viable – and, note well, currently very much ‘live-option’ – candidates for true theories of especially strange phenomena (e.g., the incarnation of the transcendent god, various lesser phenomena such as semantic oddities, perhaps vague phenomena, and more). In a slogan: you lose nothin’ and you gain som’in’. And that, as my grandad would say, ain’t nothin’.

Exactly how it can be that the subclassical account of logic loses nothing (i.e., loses no true theories) is fairly straightforward but involves discussion that goes beyond the confines of this one. Details are given elsewhere (Beall 2018).

In the end, McCall’s given autobiographical comments (above) on the lack of ‘need’ for a nonclassical (especially FDE) account of logical consequence reflect a common view that, I think, is not well-founded. McCall is abundantly clear that he offers such comments only to put his own cards on the table, so to speak, and not at all to object to a nonclassical account of logic. Still, I hope that the few remarks above give pause on whether the mainstream account of logic is in fact one to which we all should so firmly cling as the top candidate. To repeat: I know of no good argument that supports the view that the correct account of mathematical consequence is thereby (because the right account of consequence in true maths) the correct account of consequence in all true theories (including the radically strange ones like true theology); and there is a good argument for accepting a subclassical account over the standard one.

2.2. Technical point: ‘theological truths of relevance’

Another noteworthy issue that McCall raises (in passing) concerns the full reach of consequences that a complete-as-possible theology contains. In describing my view of the role of logic in theology, McCall writes as follows:

⁴ One argument might be that the account gets consequence for mathematics right; and mathematics is powerful and beautiful and an exemplar of fundamental theory; and since theology is equally powerful and beautiful and an exemplar of fundamental theory, it too ought to be governed by the consequence relation of mathematics. (I leave the fate of this argument for reflection.)

[According to Beall] ‘theologians must not only add various basic truths about God but also ‘complete’ (as far as possible) the theory via a consequence relation’ [Beall, ‘Christ – A Contradiction’, 404]. Accordingly, theologians should include in their theories not only those truths that they take to be revealed by God but also *what truths of theological relevance* really follow from those revealed truths. (474, italics mine)

The issue to which I should briefly reply arises in McCall’s footnote 1 immediately following the above quotation:

I say ‘what truths of theological relevance’ because I think that Beall’s way of putting matters commits us to too much. Every necessary truth follows from any truth, but *surely systematic theology shouldn’t have to include all of that to be complete*. The task of systematic theology is daunting enough – and the textbooks long enough – without also having to include ‘God is triune and $2+2=4$ ’ and ‘God is triune or $2+2=4$.’ (474-475, fn 1, italics mine)

By way of clarification I note that even if systematic theology *shouldn’t have to* include all necessary truths expressible in the language of the theory (viz., theology), it just does – full stop, provided that it is closed under a consequence (entailment) relation. The consequence relation (qua closure relation), being an absence-of-counterexample relation, puts all necessary claims (in the language of the theory) into the theory, and does this regardless of the theologian’s wishes. So, all such necessary truths – whether irrelevant or otherwise – are in the theory, regardless of whether the theologian actually writes them down on paper. Accordingly, such truths do not increase the workload of the systematic theologian.

Moreover, and still just by way of clarification, whether the sentence ‘God is triune or $2+2=4$ ’ (or the like) is in the true theology depends in part on whether the language of (true) theology contains the language of arithmetic – indeed, includes, as a non-theological true sub-theory, true arithmetic. I do not have a firm view on this except to say that if the true theology does not contain the language of arithmetic then McCall’s example (involving ‘ $2+2=4$ ’) requires revision. The same goes, of course, for the languages of other true theories.

2.3. Charity and Pawl’s good news about consistency

In ‘Christ – A Contradiction’ I consider an objection inspired by Timothy Pawl’s hermeneutical argument for a non-contradictory Christology. Pawl’s argument, in short, is simply that it would be uncharitable to attribute contradictions to the conciliar fathers – to the writers of conciliar texts, including those from Chalcedon. By way of reply I argue in ‘Christ – A Contradiction’ that, contrary to Pawl, the more charitable reading is the contradictory one; otherwise, the conciliar fathers left the glaring appearance of a contradictory Christ shining through without so much as

flagging that the predicates in question (viz., the fundamental-problem predicates such as ‘mutable’ and ‘immutable’ etc.) are being used in nonstandard ways – namely, in ways that, given Pawl’s good news conveyed in his target monograph (Pawl 2016), take away even the slightest hint of contradiction.

In his ‘Explosive Theology’ (440-451) Pawl replies to my argument above, and argues that at best the jury should remain out on whether the Pawline (noncontradictory) or my own (contradictory) reading of the given texts is the more charitable of the two. In my reply to Pawl’s given reply (452-472), I concede the point: more needs to be studied and explored. As things stand, I remain unconvinced that Pawl’s reading is more charitable than mine – nor, as things stand, mine more than his. As things stand.

McCall’s §3 wades into the foregoing issue on charitable readings of the creeds. Contrary to his own assessment, nothing that McCall argues convinces me that Pawl’s reading – and Pawl’s solution to the fundamental problem – is the more charitable (let alone more plausible) Christology. I remain as per above: the jury remains open. Still, it may be useful to comment on a few key remarks that McCall’s discussion makes on the topic.⁵

The main issue that requires comment is McCall’s appeal to various expert claims on the historic place of inconsistent, contradictory or, as I think is at issue, explosive (or otherwise theoretically absurd) claims in the history of philosophy and in theology. On the former (viz., philosophy) McCall quotes from an early authoritative work by Brandom and Rescher (1979):

Since Aristotle’s day, virtually all logicians and logically concerned philosophers in the mainstream Western tradition have had a phobia of inconsistency. They have been near to unanimous in proscribing it from the precincts of their logical and ontological theorizing, holding that the toleration of inconsistencies would inevitably bring cognitive disaster in its wake. (477)

Of course, Brandom and Rescher think that such widespread fleeing from inconsistency is unwarranted unless, of course, the inconsistency takes the form of an explosive sentence, one which genuinely entails all sentences in the language of a given theory. Their book goes on to give elementary models of consequence relations that are not explosive with respect to contradictions, even though such consequence relations might explode with respect to various theory-specific sentences. (Worth

⁵ I also wish to note that I share McCall’s enthusiastic embrace of the Coakley-inspired take on creedal statements (see McCall’s §3), at least as far as McCall goes with them:

[I]t is much better to think of the creedal statements as both making central affirmations (‘here is what we *must* hold’) and crucial denials (‘here is what we *can’t* believe’) – and then as leaving interpretive space for various possibilities and metaphysical development between the core of what we must hold and the boundaries beyond which we cannot go. (476)

This is completely compatible with a Contradictory Christology – and contradictory theology, generally – which, I take it, is McCall’s point (even if Coakley herself might be pressing against a contradictory theology in my sense).

noting too is that the ‘phobia’ of which they speak, which has led to near unanimity ‘in proscribing [inconsistency] from . . . theorizing’ is compatible with my view according to which logical consequence allows for gluts while many true theories rule them out (in addition to ruling out theory-specific absurdities.) On all of this, I agree: the history of mainstream theorizing has reflected a largely unreflective stance on contradictions, based largely (I surmise) on a rather normal diet of examples.

And on a similar ‘phobia’ against inconsistency in theology McCall quotes Radner 2016:

Almost all the Fathers were wary of affirming that Scripture had within itself real ‘contradictions’, a charge associated with the enemies of Scripture. And much effort was made to explain the presence of such *apparent* tensions within the texts. (477)

Worth flagging here is that pending Radner’s definition of ‘real contradictions’ this passage is not terribly telling on the issue of whether contradictions (i.e., sentences of the form !A) are problematic. I suspect that, probably saddled with the standard account of logic (which, as in §2.1, was constructed as a model of consequence in mathematics and nothing more), Radner’s use of ‘real contradiction’ is intended to be equivalent to ‘explosive sentence’, where Radner would (given the standard conception of logic) treat contradictions as among the real contradictions – the explosive sentences.

The pressing question, to my mind, is not whether many theologians and philosophers are under the grip of the standard account of logic (-al consequence); the important question is whether they ought to be. Why hold that account? As above (see §2.1), I see no good reason for it, and some good reason against it. But I’ve said enough on that topic for present purposes. We know that the vast majority of thinkers at one time treated ‘round earthers’ (or take some other such widespread erroneous belief) as enemies of knowledge; but a widespread – indeed, near unanimous phobia – against a certain claim does not show that the claim is untrue. McCall, of course, does not in any way (whatsoever) suggest otherwise; but it is worth remembering that widespread – even near-unanimous (even unanimous) – belief can be untrue.

McCall’s point in quoting the above passages, part of his larger argument on the plausibility of a noncontradictory Christology over a contradictory one, is that, given the widespread fleeing from contradictions, it is uncharitable to infer contradictory readings of the given theological creeds. I remain unconvinced by this if, as I believe, a central part of charity aims for truth over what may’ve been fallacious intentions – based on erroneous beliefs – of the authors. (A charitable reading, on this view, can go against the intentions of the text’s authors.)

3. Rarity and the threat of promiscuity

Contradictory Christology, as developed so far, is conservative with respect to the stock of true contradictions. In short, the account, as so far developed, contains only

contradictions that follow from the core contradiction of Christian theology: namely, Christ's contradictory being emerging from the union of two contradictory natures (where two natures are contradictory iff their joint exemplification entails a contradiction). This is at the very core of Christian thought; it is at the very heart of Christian theology, separating it not only from its monotheistic cousins (including Judaism and Islam) but also from the many historical heresies that attempt to navigate around the apparent contradiction. While there may be other true contradictions in theology that are not entailments from the contradiction of Christ, my official account, as developed so far, refrains from endorsing as much. Those issues are for further study, reflection, and debate.

McCall firmly understands the conservativeness of my account with respect to true theological contradictions. But he worries that theologians more generally will reject such conservativeness in a promiscuous pursuit of contradictory mayhem. As he puts it (n.b.: I insert bracketed numerals for ease of reference):

I worry that many theologians will indeed take what Beall says as [i] open season on the constraints of classical logic and, more importantly, [ii] to license contradictions galore. ... [McCall footnotes a work of Ephraim Radner who discusses examples of potential such 'threats'.] (478)

As for (i), and as per §2.1, I think that it is – or at least should be – 'open season' on classical logic as an account of logic (-al consequence); but with McCall I also see no reason to think that the constraints of so-called classical logic – in the form of extra-logical, theory-specific constraints on the consequence relations of many true theories – should be rejected. And as for (ii), nothing I have said provides good reason to accept that theological truth or the truth of any other part of reality is rife with contradictions.

McCall is aware of my position on (i) and (ii) but his worry persists:

It is not hard to imagine a theologian being convinced by Beall and then saying, 'Cool, I no longer need to worry about avoiding contradictions.' Beall might remonstrate with 'No, you theologians should not seek out contradiction!'. ... But the theologian's response is quick: 'look, we don't have to seek them out – they are all over the place and come looking for us. They are unavoidable. The good news now is that we don't need to worry about them.' (478)

How to reply?

Let me be clear that I defer to McCall's sense of the general proclivities of contemporary theologians. My experience with systematic theologians does not raise the worry that McCall carries; but I gather from McCall's expressed concern that my experience is based on non-representative examples. The question remains: how to respond?

McCall acknowledges that one who advances a theological position cannot control the use to which it will be put by other theologians. Still, his concern reflects

the need to be even clearer about the irresponsibility involved in making the leap from some true theological contradictions to many. The imagined response, per McCall's passage above, is that such a so-called leap is in fact very well warranted by the apparent ubiquity of contradictions in theology – from God's too-heavy stone to the core Trinitarian doctrine to God's contradictory knowledge of the claim 'God cannot know this sentence' to so much more. Far from a paucity of apparent contradictions theology is a cacophonous carousel of core contradictory creeds.

No it isn't. That's my reply: no, theology is plainly contradictory at just one core point – the incarnation. Yes, the omni-god problems need to be addressed, but the only point at which apparently contradictory predicates are explicitly attributed in core theology is Christ's two-natured being – as the fundamental problem attests.⁶ The would-be contradictions involved in God's omni- properties are fairly downstream, whereas the apparent contradiction of Christ's 2-natured being hits the moment one looks at the water. Similarly with the Trinity, which is a core axiom of Christian theology but which carries the hint of contradiction only if one thinks – for what reason? – that the identity relation involved in the axiom is an equivalence relation (or sanctions substitutivity of 'identicals' so understood)? One reason to think as much is to think that logic itself provides an identity relation which is common throughout all true theories, and that that (alleged) relation is an equivalence relation or at least sanctions substitutivity of 'identicals'. By my lights, that's a mistaken view. But even if such a view were correct, there's no good reason, as far as I can tell, to think that the identity relation involved in the Trinitarian axiom is the relation that logic itself (supposedly) supplies to all true theories.⁷

I take McCall's concern very seriously. His aim is to aid in the further development and articulation of Contradictory Christology, but do so in a way that is sensitive to its reception by practicing theologians. On this score, I hope to be clearer than crystal: there may be true contradictions beyond the core contradiction who is Christ; but a giddy quest for making Christianity contradictory at every whim is not only (to use McCall's term) promiscuous; it is simply silly, irresponsible 'theorizing' which, pending good reason to think otherwise, would appear to me to not be after truth at all.

4. Responses to McCall's principal questions

McCall's paper raises four fundamental questions for the (as yet nascent) contradictory Christian theology that I've advanced. The questions are invaluable for

⁶ Note that gappy responses to the standard omni-god problems are available where no such gappy solution is available to the apparent contradiction of Christ – inasmuch as the fundamental-problem predicates are definitive (axiomatic) of Christ, and so can be gappy only at the cost of heresy. (See, e.g., McCall's echoing of Coakley about the role of the creeds in constraining what true Christian theology *must* contain.)

⁷ Van Inwagen's pioneering paper on so-called relative identity relations (1988) is in keeping with my view of identity relations in theories: the theorist needs to supply her identity relation, which mightn't be an equivalence relation, or mightn't validate (by the lights of the theory's entailment relation) substitution of 'identicals'. See too the earlier work of A. P. Martinich (1978).

progress on the fuller account. In what follows I simply rehearse the question (as concisely as possible) and in turn provide a response (again, as concisely as I can compatible with clarity).

4.1. Epistemology: Which contradictions are true?

McCall puts his first question just so:

[H]ow are we to know which are the ‘true’ contradictions and which are the false? The theologian who makes do with the shop-worn old tools of classical logic and theology has a ready and easy answer: there are no ‘true’ contradictions. (479)

This is clearly a fundamental question.

Before addressing the fundamental epistemological question a clarification about true ‘versus’ false contradictions should be flagged.⁸ For convenience, let $!A$ be $A \wedge \neg A$ (with parentheses around it when necessary). On my view, reflected in the truth and falsity conditions for logical negation (and logical nullation, though this is logically redundant), any true contradiction is a false contradiction: $!A$ is true just if $\neg !A$ is true too. Put in terms of true theories, a true theory contains an application of logic’s truth operator (viz., $\dagger$) to a contradiction $!A$ just when it contains an application of logic’s falsity operator (viz., $\neg$) to $!A$ too – that is, $\dagger !A$ is in a true theory just when $\neg !A$ is in the true theory too. So, if we have a true contradiction, we thereby have a false contradiction too.

McCall’s question, in light of the terminological clarification above, is really just this: which are the true contradictions? The answer, to the frustration of truth-seeking theorists everywhere, is the usual one: namely, that’s the question we’re all trying to answer.

Take a step back to the general question of which McCall’s is a special instance: namely, which are the true sentences? If there were a simple answer to this question prior to arrival at the answer, our search for truth would be very much easier than it is – to put things mildly. Indeed, even if there were a complicated but largely algorithmic answer to this question, our search for truth would be vastly easier than it is. But such is not the way things are. Sorting the truths from the rest is a messy and very, very difficult business, one still nicely illustrated by the old metaphor of rebuilding our raft at sea. Accordingly, there is no simple answer to the general form of McCall’s question – an answer to which would sort all truths from the rest.

Of course, McCall’s question is explicitly not the general one; it concerns only contradictions. And in that case – the case of contradictions – one might suggest that there ought to be a simple answer. But why? Consider the same question concerning ‘ought’ sentences: which of them are the true ones? Or ‘it is necessary that ...’

⁸ I should also note that I am unclear on why McCall uses scare quotes around ‘true’ in the context. My position is not that there’s some special sense of ‘true’ – say, true* – whereby some contradictions are true*. My position is that some contradictions are true – full stop – in the usual sense of ‘true’.

sentences: which of them are the true ones? And so on for any form of sentence: which of them are true? Truth-seeking inquiry is complicated precisely because there simply isn't an easy answer to such questions.

But one might still press the particular example to which McCall points: namely, *contradictions*. As McCall rightly says, if we adopt the mainstream theory of logical consequence (viz., so-called classical logic) we get an easy answer to at least that question (of contradictions): namely, *none of 'em* – full stop. But getting an easy answer to the given question is not itself good reason to accept the easy-answer-giving theory. If it were, we'd have good reason to accept the trivial theory of every phenomenon.⁹ After all, trivialism gives the easiest answer to figuring out the truths: namely, *all of 'em*.

McCall is correct that on my account logic does not help with respect to sorting truths of the form $\neg A$ any more than logic helps with sorting truths of the dual form $\neg A$ (where $\neg A$ is $\neg A \vee A$). In this respect, my account makes our epistemological situation with respect to such sentences appear to be more difficult than the standard account of logic affords. But if my account is correct, our epistemological situation was always just that difficult: it wasn't logic classifying $\neg A$ as logically false or $\neg A$ as logically true; it was our extralogical theorizing, perhaps backed by various methodological practices (with respect to default rejection of $\neg A$ and/or default acceptance of $\neg A$) that did the given epistemological work. For all that I can see, few if any of such practices are jeopardized by an account according to which there is a strikingly rare contradictory being.

But one might still press: but if we accept the existence of even one contradictory being – regardless of how strikingly radical, strikingly bizarre, and strikingly abnormal the being appears to be – we are no longer justified in a default rejection of contradictory accounts of any other being.

No. This paper is not the place to take up such a huge epistemological issue. (And, alas, probably the promised larger book project is not the place either.) But let me reply as clearly and concisely as I can: such a charge is untrue. To put my epistemological cards on the table: I accept a rather crude form of so-called epistemic conservatism according to which we are justified in what we accept unless we have some special reason to reject it. (This is the sort of dual of a crude Cartesian foundationalism, according to which we are unjustified in what we accept unless we have some special reason to accept it.) For all that I can tell, the history of truth-seeking disciplines, aimed mostly at the normal diet of examples, has run smoothly and successfully on a default rejection of gluts (and likewise gaps). Things have not gone so well when it comes to the bizarre phenomena that appear to all reflective lights to be wildly paradoxical, paranormal, and equally beyond the normal run of examples. Such phenomena scream out against our normal – indeed, widely default – extra-logical practices of acceptance-rejection behavior. But further details of such difficult epistemological and methodological issues must wait for elsewhere.

** Tangential and long parenthetical remark.* I want to briefly flag that the epistemological issues that McCall is raising for my contradictory theology are at least equally – in fact, more – problematic on the Pawline (or Biel) sort of view that McCall

⁹ The trivial theory in/for a language L is the theory containing all sentences of L .

claims is not implausible (see 478, ultimate paragraph of §3). On my view, logic does not decide the question of whether arbitrary contradictions are true, false, gappy or glutty. We, qua theorists, have to do that. But on my view the standard truth/falsity conditions of contradictions – and the standard satisfaction conditions of all fundamental-problem predicates, and all predicates in general – are preserved. And while on Pawl's view logic does decide the status of all contradictions (viz., they're one and all just-false), much of the remaining language – including all seemingly 'explosive pairs of predicates' – is unhinged from even the possibility of explosion. Let me briefly explain. On Pawl's account, nonstandard satisfaction conditions for 'mutable' and 'immutable' (and likewise for all fundamental-problem predicates) are given, wiping away even the appearance of contradiction. Briefly, to get a sense of the Pawline-cum-Biel solution, consider the Scotus-inspired example:

1. x is blind.
2. Therefore, it's false that x can see.

Pawl's endorsement of a Scotus passage (Pawl 2016, 158, citing work of Richard Cross) suggests that the Pawl solution rejects the entailment from (1) to (2). The problem with the alleged entailment, according to Pawl ('s given endorsement of Scotus), is that x might have some 'part' (not necessarily mereologically understood) that allows – indeed, might itself essentially entail – seeing.

Here's the rub: To avoid worries of ad hocery Pawl likely extends such treatment to all predicates, not just the ones that would otherwise cause problems. But, then, it looks like this licenses far too much. Let M (for you know whom) be the unique (two-natured) Round Square – which is round (in virtue of its Circular nature) and Square (in virtue of its 4-right-angled nature). On what grounds do we now argue that there is no object M ? Here's one obvious and very mainstream argument from reductio.

3. M is Round and M is Square.
4. M is Round. [(3), Simplification]
5. Therefore, M is not Square (i.e., it's false that M is Square). [(4) and the alleged entailment from Round to not-Square]
6. Therefore, M is Square and not Square. [(3) and (5)]
7. Therefore, . . . whatever nightmare sentence you like . . . [by a bad view of logic, but let this pass.]

We're to conclude that there's no such object as M – no Round Square. But, of course, the argument from (4)-(5) is unavailable if the entailment from (1) to (2) fails. But if that's unavailable, what rules out Round Square (or replace any would-be incompatible predicates F and G)?

Now repeat McCall's epistemological worry: how are we to know the incompatible pairs of predicates from the compatible ones?

The point, for present purposes, is that McCall's epistemological worries may be even more severe for the sort of noncontradictory 'eking-out' solutions that McCall thinks are more plausible than contradictory candidates. I flag this not to endorse the sketched objection to Pawl's (Biel's) account, or to go into further detail; I flag the

issue simply to emphasize that the epistemological issues to which McCall points are not a peculiar problem for a Contradictory Christology – and, as said, there may be a greater problem for leading noncontradictory candidates. (The larger monograph project is intended to discuss Pawl’s views, along with other noncontradictory views, in much more detail.) ** End long parenthetical remark.*

4.2. Epistemology: What level of support is required?

McCall puts his second question as follows:

A second question is closely related to the first: what is the level of required support that is needed to establish the truth of both claims of a contradiction? (479)

My reply to the question, as it stands, is straightforward: one needs the support that shows them to be true. What is that? Again, as in §4.1, the standards of truth are what they are; and the difficulties of our epistemic position with respect to finding truth are also what they are – typically, very difficult. The bar of truth does not discriminate among candidates: for a sentence – no matter what it is – to be true is, well, for it to be true. Put ‘graphically’, the truth of

‘Snow is white’ is true

requires nothing more nor less than that snow is white. Likewise, the truth of

The consequence relation for metaphysical necessity is so-called S5

requires nothing more nor less than that the true theory of metaphysical necessity (whatever that is) be closed under the so-called S5 consequence relation. Likewise, the truth of

It’s false that Christ is mutable

requires nothing more nor less than that it’s false that Christ is mutable. And yet again likewise, the truth of

It’s true that Christ is mutable

requires nothing more nor less than that it’s true that Christ is mutable. And so on, including logical conjunctions of such claims. In particular, the truth of

It’s false that Christ is mutable and it’s true that Christ is mutable

requires nothing more nor less than what is required for the truth of the respective conjuncts.

As stated, McCall's question is answered as above. But McCall is in fact after more, where the more is expressed in three more questions as follows (each taken verbatim from 479-480).

* McCall's three supplementary questions:

1. If two theological propositions taken together seem to produce a contradiction, does that give us reason to go back and look closely at the data or evidence (whether textual, empirical, experiential or just what) supporting the propositions?
2. If another non-contradictory theory is not impossible and also makes more-or-less adequate sense of the data, is that one to enjoy a preference (at least initially)? If so, then why?
3. Just how much support for the propositions must one have to embrace something that surely is an actual contradiction?

McCall is very clear that these questions are not highlighted as flaws of omission in my target paper 'Christ – A Contradiction'. The three given questions are highlighted because 'at some point answers to such questions will be important if [Beall's] proposal is to put down theological roots and produce some doctrinal fruit' (480).

By way of reply I offer the following as directions towards answers, not as fully developed answers to McCall's given questions.

- Reply to (1): it depends on what 'seems' means here. Take the fundamental problem itself. Here, the central truths of Christ, as recorded in Chalcedon and creeds, screamingly seem to be contradictory – right on its surface, right from the get-go. And yet, even with their screaming contradictoriness, they stand as defining truth. Given the centrality of the apparent contradictoriness of such (fundamental-problem) truths, going back to 'eke out' a non-contradictory substitute strikes me as misguided, or at least without good reason.¹⁰ But if 'seems' in McCall's question flags that we are talking about more tenuous, less central facets of theology than the apparent contradiction of Christ displayed on the very welcome sign of Chalcedon-constrained Christology, then following the normal default rejection of a contradictory conclusion is probably reasonable. (I say 'probably' because, of course, details really do matter in these sorts of *what-do-I-do-here* sort of question.) Again, the search for truth is hard no matter the area. Theology, as McCall reminds, is certainly no different. But the bar, as in §4.1, is the same throughout: the support required for the truth of *A* is, well, whatever is sufficient for *A*'s truth. Unlike separating sheep from goats, there is no general recipe that one can follow to separate the truths from the untruths. There are simply general rules of epistemic responsibility, including *think carefully; be as unbiased as you can in the*

¹⁰ The 'eke out' terminology is from Coakley 2002, quoted by McCall in a different dialectical context of his paper.

pursuit of truth; be open but not hoodwinked by inspiration (e.g., revelation); and many other general (but imprecise) such rules.

- Reply to (2): I take this question as follows. Suppose that we have a contradictory theory and a non-contradictory theory as theoretically possible candidates for the truth of a given phenomenon. (In other words, from our current epistemic position, the logical possibility of a glutty theory of the phenomenon is not ruled out.) Moreover, suppose that both candidates make equally good sense of the phenomenon (or the data concerning the phenomenon as the target of our theory). Does the non-contradictory theory enjoy some higher level of probability?

The answer to the question depends a little bit on the space of possibilities in question. If the space is equally (or even roughly equally) divided between glutty candidates and non-glutty candidates, the answer to the question is negative. If, on the other hand, the space has just a few glutty candidates compared with a vast multitude of non-glutty candidates, then the answer is affirmative. Pending details, there is not a lot more to say by way of answer.

- Reply to (3): This question is answered in §4.1 above.

Even though (3), as above, is answered in §4.1 it is worth repeating that we do seem to have a longstanding successful practice of rejecting logic's glutty possibilities as leading candidates for the truth of a phenomenon. The practice revolves around 'normal cases', things that offer up little suggestion of being glutty (or gappy). If, at bottom, McCall's epistemological questions are fueled by the practical question of whether we should continue the given default methodological practice with respect to gluts (and/or gaps), my reply is: yes. And if one asks whether the 'yes' here is defeasible the answer is: yes. After all, we are not only in a difficult epistemic situation with respect to finding truth; we are also epistemically fallible through and through. The existence of true contradictions (gluts) neither helps nor hurts our epistemic predicament, as far as I can see. Those who, perhaps with McCall, think that the logical possibility of gluts (or gaps) wreaks havoc on our pursuit of truth are mistaken, as far as I can see. The chief effect of such logical possibilities is not havoc; the effect is simply that logic itself no longer explains our default practice of rejecting gluts (gaps). By my lights, this is not a negative effect.

4.3. Theology and metaphysics: what of modality?

McCall puts his third principal question as follows:

A third question . . . is this: how does Beall's proposal map onto issues of modality? (480)

The reply to McCall's question, stated just so, is that the true theory of modality (for every modality there is) is underwritten by logical consequence (viz., FDE, according

to me): the true theory has, as the consequence relation governing just the logical vocabulary, the given subclassical consequence relation.

But there are background concerns driving McCall's question, ones that aren't addressed by the answer given above. By way of elaborating the driving concerns behind his third question McCall points to a dilemma around the following claim (480):

TNT: It is possible that there is at least one true contradiction and it is not possible that there is at least one true contradiction.

McCall assumes that (TNT) is either true or false – ergo, a gappy (TNT) is ruled out. In turn, McCall argues that if true then (TNT) forces a 'modal collapse' of notions that are importantly distinct in true theology, including a collapse of impossibility and necessity, necessary truth and necessary falsehood, and perhaps more. In turn again, McCall argues that if false then Contradictory Christology is either arbitrary or ad hoc in treating (TNT) as false. The (alleged) dilemma, then, is that Contradictory Christology, as I've advanced it (in concert with the given subclassical logic), is either not theologically viable (because it can't accommodate important modal distinctions) or is ad hoc with respect to modal truths – for example, the negation of (TNT) – that are important in theology (because it has no principled grounds on which to establish such truths).

A few points of reply. The first is that the true account of modality might well involve some fairly far-out 'worlds' where things behave wildly different from the S5-like setting in the background of McCall's discussion. I am not suggesting that the true account of modality has such wildly far-out elements; but it may. But for present purposes I grant that something in the vicinity of S5 – modulo effects of FDE as logic – is roughly correct for some important notions of modality that are central to theology.¹¹

¹¹ Technical Note (for those familiar with the slate of so-called normal modal logics): if one uses the standard truth- and falsity- (at-a-point) conditions for the box and diamond, namely, where $\models_1$ and $\models_0$ are the truth-at-a-point and falsity-at-a-point relations, respectively,

- $w \models_1 \Box A$ iff all w -accessible points (i.e., all w' st wRw') are st $w' \models_1 A$
- $w \models_0 \Box A$ iff some w -accessible point is st $w' \models_0 A$
- $w \models_1 \Diamond A$ iff some w -accessible point is st $w' \models_1 A$
- $w \models_0 \Diamond A$ iff all w -accessible points are st $w' \models_0 A$

and if one puts the usual S5 constraints on the accessibility relation R (viz., it's an equivalence relation on the points) and imposes no constraints on the 'worlds' – for example, allows worlds to be as glutty or gappy as logic itself (qua FDE) allows – then because there are no logical truths (no truths that are true at all of logic's possibilities) there will be no 'M-logical truths' – i.e., no M-valid sentences (i.e., sentences true at every point of every model) – either. But one still validates the characteristic S5 *entailment* (just not the material implication version) in such a setting: namely,

$$\Diamond A \vdash_M \Box \Diamond A$$

where $\vdash_M$ is the consequence relation of the given theory of modality. [Proof: suppose $w \models_1 \Diamond A$, in which case there's some point w' such that (st) wRw' and $w' \models_1 A$. Since, by stipulation on R (viz., the S5 requirement that R be an equivalence relation), $w'Rw'$, we have that $w' \models_1 \Diamond A$. Suppose, for reductio (we're working in a set theory which rules out gluts), that $w \not\models_1 \Box \Diamond A$, in which case there's some point w'' st wRw'' but $w'' \not\models_1 \Diamond A$, in which case there's no point x st $w''Rx$ and $x \models_1 A$. But w' itself

The second point of reply is that McCall's assumption that (TNT) is either true or false is not itself logically backed, that is, it is not forced by logic (viz., FDE). Still, I see no obvious reason to reject the default rejection of gaps in this case, and in any event accept that it is either true or false (for some theologically important notion of possibility).

The third reply is the critical one: namely, that McCall's dilemma is at most an apparent dilemma; the second horn (concerning falsity) turns on a terminological issue about which 'Christ – A Contradiction' was (I gather) insufficiently clear.¹² The issue concerns my use of 'logic' in discussion of Contradictory Christology (or other candidates for true theories) and the very standard use of 'modal logic' (and in particular, the use of 'logic' in 'modal logic'). I say that, where 'logic' picks out logical consequence, logic – by itself (i.e., without help from extra-logical, theory-specific principles etc.) – doesn't decide whether a contradiction is true, false, gappy or whatnot; a fortiori, logic – by itself – doesn't decide whether (TNT) itself is true, false, gappy or whatnot. McCall's second horn involves the assumption that so-called modal logic is logic; and hence, applying what I say about logic, McCall concludes that modal logic doesn't decide whether a contradiction is true, false, gappy or whatnot – and, a fortiori, doesn't decide whether (TNT) is true, false, gappy or whatnot. But – and here is where the second horn comes to a point – (TNT), McCall rightly notes, is surely decided by modal logic if anything. And if that's right, and modal logic doesn't decide the status of (TNT) because logic (hence, modal logic) doesn't decide the status of (TNT), there's nothing but ad hocery or arbitrary fiat to decide (TNT); and any theology (or theory of modality) saddled by such ad hocery should be rejected.

The problem with McCall's second-horn argument is its assumption that what's true of logic (-al consequence) is true of modal logic. As I say elsewhere (Beall and Burgess 2017; Beall 2018) the term 'logic' is used in many ways by many people.¹³ Moreover, the common practice in philosophy (and, to some degree, in mathematics) is to count any relation that remotely looks like a formal consequence relation, whether defined proof-theoretically or model-theoretically (which are the two main strategies for defining such relations), as 'a logic'. There's no fruit in debating such usage; it's just usage, and makes sense in the general contexts in which the terminology is used. But there are very important contexts in which a different usage is clearly in play. In particular, when the debate is whether logic is subclassical the debate is not whether the field of logic includes so-called subclassical logics. (It does, many many times over.) The debate is over which such candidate, among the many consequence relations out there, plays a particular role. Which role? My answer is the one to which 'Christ – A Contradiction' points: namely, the role of 'universal

(via R 's equivalence-relation properties) is such an x . QED] For basic details, see Beall and Logan 2017; for more in-depth details, see Priest 2008.

¹² My pointing only to McCall's second horn should not be read as my endorsing his argument for the first horn; the soundness of that argument is not clear to me (though this is not in any way a polite implicature to the effect that I think the argument is unsound). What is abundantly clear is that McCall's first horn shows why, as he rightly insists, the development of Contradictory Christology must be explicit about the details of theologically relevant modal notions.

¹³ For an overview of the five main – and in many ways very different – subfields of logic qua discipline see my essay with John P. Burgess in the *Oxford Bibliographies* series (2017).

closure' for all of our true theories. That relation, I say, governs the standard stock of first-order vocabulary that usually gets to be called 'logical vocabulary'. The usual stock (sans identity, functions signs) is involved in all of our true theories – even ones that have no modal vocabulary (e.g., arithmetic, etc.). The debate is whether that relation – governing said vocabulary – is per the mainstream, so-called classical account or whether it's nonclassical in some fashion (in my case, subclassical).

Given the foregoing usage, so-called modal logic is so called not because it's logic (in the target, much narrower sense involved in debates over whether logical consequence is subclassical); it's so called because it's an account of the formal consequence relation underwriting our true theory of the given modal notions. One such account (viz., S5) claims that the true theory of the given modal notions has a consequence relation that validates the entailment from $\Diamond A$ to $\Box \Diamond A$. Other accounts (still in the so-called normal modal accounts) claim that the true theory of the given modal notions has a consequence relation that does not validate the given S5 entailment, but rather is weaker than S5.¹⁴ Accordingly, our so-called modal logic – qua account of the consequence relation underwriting the true theory of (the given) modality – will decide the fate of McCall's (TNT), largely as a reflection of whatever's true of the given modal notions. Logic itself (i.e., logical consequence, not the extra-logical consequence relation involved in the true theory of modality) will not decide that issue.

McCall's second-horn argument assumes that modal logic is as neutral on gluts as logic itself. I reject that assumption, just as I reject it for 'theological logic' – that is, the consequence relation governing the true theology. Theology itself takes a stand on whether Christ is contradictory. Logic won't dictate as much one way or the other; but 'theological logic' – qua extra-logical consequence relation involved in the true theory of theological reality – will certainly reflect the fate of gluts (similarly gaps) in the theory.

4.4. Practical theology: what guidance for the church?

McCall puts his fourth and final principal question as follows:

A fourth and final question is more directly practical and even pastoral in nature. . . . The question is: how is the account [of a contradictory theology] drawn here to offer helpful practical guidance for Christian communities if it is affirmed and applied more broadly? (482-483)

Elaborating on the question McCall writes:

¹⁴ And in many so-called non-normal modal logics the behavior of modal operators fails to validate the 'meta rule' of necessitation, which says that if A is M-valid (i.e., true in all models involved in the definition of the given consequence relation) then so too is $\Box A$ (i.e., it is M-valid too). The normal modal logics, by definition, validate necessitation; the non-normal ones don't.

Doctrine plays important roles in the formation of the community of faith and in the formation of character and the virtues within that faith community. [McCall cites Charry 1997 as an example.] Will the acceptance of contradictions (in this case of the doctrine of the incarnation, at the very heart of the Christian faith, but potentially more broadly as well) actually strengthen the faith of the faithful and assist ecclesial communities in the important work in moral and spiritual formation? Or might it bring harm? (483)

Illustrating some potential harm that a contradictory theology – indeed, Contradictory Christology (viz., ‘at the very heart of the Christian faith’) – may carry, McCall presents a scenario in which Catholic leaders assemble top-shelf scholars to evaluate the ordination of women in the priesthood. Lacking no resources accessible to humans, and lacking no time to figure out the issue, the given leaders come to the following position: namely, that both of the statements

- It is true that ordination should be open to women.
- It is false that ordination should be open to women.

enjoy seemingly sound theological arguments. But since sound arguments have true conclusions the sound arguments for both (contradictory) conclusions jointly (logically) entail a contradiction. What to do? A scholar in the gathering points to the fact that logic itself, being FDE, doesn’t rule out the veridicality of the given appearance. Pending some special reason to reject the strong appearance of soundness in both cases, the gathering of scholars and Church leaders proffers a unanimous statement to the effect that the given contradiction is true; and the Catholic church in turn declares the matter to be fact (dropping the modal ‘should’ to the actual ‘is’):

- It is true that ordination is open to women.
- It is false that ordination is open to women.

Catholics are thereby required to abide by the moral and ecclesiastical obligations that follow from the truth of both conjuncts.

The point of McCall’s scenario is to highlight what he perceives as potential harm flowing from a contradictory theology into the moral obligations of a church (both leaders and laity). By way of reply, I first note that there’s no requirement in Contradictory Christology that any other facet of the true theology – except that which follows directly from the contradiction who is Christ – be contradictory. Accordingly, McCall’s scenario is indeed hypothetical, lest any reader should think otherwise. (And to be doubly clear: McCall nowhere suggests that Contradictory Christology requires further contradictions; he only rightly says that it may, for all that’s been said so far.)

One question raised by McCall’s scenario is whether it’s possible. Clearly, the scenario is logically possible; but that’s saying little. Moreover, as far as I know, the scenario is theologically possible. One might wonder, though, whether there’s some

physical impossibility that gets in the way. For example, it's physically (or cognitively or the like) impossible, I believe, to both accept and simultaneously reject the truth of some claim *A*.¹⁵ It might be that being a priest requires that one accept some claim *A* while being a non-priest requires that one reject the very same claim *A*. (I can't think of such a requirement, but for purposes of example imagine that the priesthood demands 'self-reflection' of its priests in such a way that the priest must, on pain of excommunication, accept that they themselves are priests – accept the claim *I am a priest*.) In this case, there's good reason to reject the physical (or cognitive or the like) possibility of McCall's scenario. Whether, then, McCall's scenario is possible in relevant respects turns on further details of the case.

Grant, for discussion, that the scenario is possible in relevant respects. Focus, as is McCall's intended target, on the upshot for the church and its obligations. (I say 'church' rather than 'Church' because McCall's scenario needn't be tied just to one particular tradition such as the Catholic Church.) What guidance should – can – be given by way of carrying out the obligations of the given contradiction concerning ordination? Truly, I do not know. I think that it's a very remote possibility – if, as we're assuming for discussion, a relevant possibility it be – that the church in its wisdom should arrive at such a position. After all, ordination has a very, very direct practical arm to it; and without having some sense of how the practical arm is to function in the final truth about ordination, it is unlikely that top-shelf church leaders will conclude that they've reached the final truth.

None of this is to say that moral dilemmas (even theologically driven moral dilemmas) – namely, moral obligations to do what you cannot relevantly possibly do – refute the truth of the moral claims that result in such dilemmas; they don't. My point about McCall's scenario is that it's at least implausible that the leaders would unanimously agree that the truth about such an important practical matter results in the obvious dilemma – namely, to both ordain and not ordain women. Does logical space allow it? Yes. Does the space of theological possibility allow it? We're assuming as much, at least for discussion. But does the given scenario reflect a likely practical issue for Contradictory Christianity – as the wider view of which Contradictory Christology is a part? I don't yet see it.¹⁶

¹⁵ I'm not alone. Many theorists who either think that there are true glutty theories or think that there are true gappy theories or, like me, think that there are both sorts of such theories, reject that one can simultaneously accept and reject a claim *A*, even though the glut theorists require, for some *A*, acceptance of both *A* and its negation $\neg A$ while the gap theorists require, for some *A*, rejection of both *A* and its negation $\neg A$ (see Priest 2006; Field 2008; and Beall 2009).

¹⁶ Acknowledgement: I am very, very grateful to Professor McCall for engaging with my work. What should be plain to all readers is that McCall's questions cut to the fundamental levels of both the theoretical viability and the in-practice viability of Contradictory Christology – a contradictory Christian theology in general. My hope is to move forward on both fronts, thanks to the generosity and richness of McCall's engagement. To Professor McCall: thank you. Truly.

Bibliography

- Beall, Jc. 2009. *Spandrels of Truth*. Oxford University Press.
- _____. 2018. "The simple argument for subclassical logic." *Philosophical Issues* 28: 30–54.
- Beall, Jc and John P. Burgess. 2017. "Logic." In *Oxford Bibliographies*, edited by Duncan Pritchard. Oxford University Press.
- Beall, Jc and Shay Logan. 2017. *Logic: The Basics*. Routledge.
- Charry, Ellen T. 1997. *By the Renewing of Your Minds: The Pastoral Function of Christian Doctrine*. Oxford University Press.
- Coakley, Sarah. 2002. "What Chalcedon solved and didn't solve." In *The Incarnation*, edited by Stephen T. Davis, SJ Daniel Kendall, and SJ Gerald O'Collins. Oxford University Press.
- Field, Hartry. 2008. *Saving Truth from Paradox*. Oxford University Press.
- Harman, Gilbert. 1973. "Rationality." In *Reasoning, meaning, and mind*. Oxford University Press.
- _____. 1986. *Change in View: Principles of Reasoning*. MIT Press.
- Martinich, A. P. 1978. "Logical operations." *Journal of Religion* 58: 169–181.
- Pawl, Timothy. 2016. *In Defense of Conciliar Christology: A Philosophical Essay*. Oxford University Press.
- Priest, Graham. 2006. *In Contradiction*. Oxford University Press.
- _____. 2008. *An Introduction to Non-Classical Logic*. Cambridge University Press.
- Ephraim Radner. 2016. *Time and the Word: Figural Readings of the Christian Scriptures*. William B. Eerdmans Publishing Co.
- Rescher, Nicholas and Robert Brandom. 1979. *The Logic of Inconsistency*. Rowman and Littlefield.
- Van Inwagen, Peter. 1988. "And yet they are not three gods but one god." In *Philosophy and the Christian Faith*, edited by Thomas V. Morris. University of Notre Dame Press.

On the Role of Logic in Analytic Theology: Exploring the Wider Context of Beall's Philosophy of Logic

A.J. Cotnoir
University of St Andrews

Abstract: What is the proper role of logic in analytic theology? This question is thrown into sharp relief when a basic logical principle is questioned, as in Beall's 'Christ – A Contradiction.' Analytic philosophers of logic have debated between *exceptionalism* and *anti-exceptionalism*, with the tide shifting towards anti-exceptionalism in recent years. By contrast, analytic theologians have largely been exceptionalists. The aim of this paper is to argue for an anti-exceptionalist view, specifically treating logic as a modelling tool. Along the way I critically engage with Beall on the role of logic in theology, maintaining that theological inquiry is in some ways disanalogous with other theoretical enterprises.

How should considerations of the limits of human reason influence our theological methodology? That is a central question spanning the history of theology, of course. But it is one which is particularly pressing in the contemporary context of analytic theology. What is the role of logic in theology? What principles of logic are open to revision based on theological considerations? These questions – which are raised anew when a dearly held logical principle is challenged – take us deep into the realm of the philosophy of logic. In this essay my aim is to provide some answers to these questions, answers which challenge a stance predominant among analytic theologians.

In his paper, Beall also devotes significant attention to the role of logic in theology. Among Beall's claims: (i) the role of logic in theology is just the same as the role of logic in every other theoretical enterprise – it is the common core of all theory-relative consequence relations; and (ii) that the validity of *ex falso quodlibet* (or 'explosion') and the *law of excluded middle* are theologically open questions. Beall then argues for a Christology which accepts the contradictions that appear to be entailed by Christ's two natures.

I'm largely in agreement with much of what Beall says about (ii). It is worth highlighting that his aim – to argue that a contradictory Christology is both formally viable and philosophically motivated – is very modest. As to whether a contradictory Christology is the *best* theory of the incarnation, I have some doubts (some of which

are expressed in §3.2). But I want to reiterate something I've said elsewhere:¹ the time is ripe for theologians to explore their (non-classical) logical options.

My main point of disagreement with Beall stems from (i). 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.

Within analytic philosophy there is a long-standing dispute over divergent views on the role of logic in theories generally. The dispute is between two factions, between *exceptionalists* about logic and *anti-exceptionalists* about logic. I suggest that analytic theology has, as a matter of contingent historical (sociological?) fact, been conducted in a way that is largely one-sided, operating only from within an exceptionalist framework. Analytic theology, then, misrepresents the analytic tradition in the philosophy of logic as having an exceptionalist character. But I also wish to argue that anti-exceptionalism is a promising methodological programme for analytic theology. I outline an anti-exceptionalist conception of the role of logic that is philosophically grounded, coheres better with the larger theological tradition, is more flexible and defeasible, and hence is a better analytical tool.

In §1, I explain the dispute between exceptionalists and anti-exceptionalists, and gesture at some philosophical reasons in favour of anti-exceptionalism. In §2, I discuss how analytic theologians have viewed the role of logic, arguing that generally they have been exceptionalists, and provide theological reasons why they should be anti-exceptionalists. In §3, I critically discuss Beall's own views on the role of logic, suggesting in §3.1 two interpretations of Beall on opposite ends of the exceptionalist/anti-exceptionalist spectrum. In §3.2, I cast some doubt on Beall's identification of FDE as the 'common core'. And in §3.3, I argue that theology is unlike other theoretical enterprises; human rational limitations loom large in theological methodology, and this provides even more reason to be skeptical that we have a firm grip on the absolutely true and universal Logic. In §4, I sketch an alternative approach to the role of logic, one that still affords a large role for formal methods in theology but precisely because logical theorizing should always be regarded as subject to scrutiny and potential theological revision.

1. Logic in Analytic Philosophy

I won't assume that readers are familiar with contemporary analytic philosophy of logic, so in order to contextualize a bit, let me start with a few commonplace distinctions. The first is in metaphysics, between what is *necessary* (i.e. true in all possible worlds) and what is *contingent* (i.e. true in only some). This distinction is not to be confused with the semantic distinction between what is *analytic* (i.e. true in virtue of meaning) versus what is *synthetic* (i.e. true in virtue of the way the world is – at least in part). And again, these distinctions should be kept clearly separate from the epistemic difference between what is *a priori* (i.e. known to be true independently

¹ See Cotnoir (2018).

of experience) versus what is *a posteriori* (i.e. known to be true based on experience – at least in part). Logical consequence is virtually always agreed to be metaphysically necessary; if an argument is valid it is so necessarily, and if invalid then so necessarily. Similarly, if a sentence is logically true, it is necessarily true; and if a sentence is logically false², then it is necessarily false. But there is much dispute over whether logical inferences are *analytic* and *a priori*.

1.1 Exceptionalism vs. Anti-exceptionalism

There are two opposing views. In the red corner, the former heavyweight . . .

Exceptionalism: Logic is special! It is analytic and always known apriori.

The main idea behind exceptionalism is that basic logical laws and inferences are valid because they are analytic. They are thought to be the result of stipulating the rules of certain concepts (the ‘logical’ ones e.g. negation, conjunction, etc.). Such stipulations implicitly define their concept and hence are constitutive of the *meaning* of the concept itself. Basic logical laws and inferences are also such that anyone who understands the basic logical concepts knows *a priori* that they are valid. Anyone who purports to disagree with a logical inference is simply confused (e.g. they must not mean *negation* when they say ‘not’). As a result, logical inferences aren’t revisable or subject to scrutiny; no empirical evidence or religious doctrine could ever call them into question.³

And in the blue corner, the challenger . . .

Anti-Exceptionalism: Logic isn't special! It isn't analytic, and isn't always known apriori.

According to anti-exceptionalism, basic logical laws and inferences are not generally stipulations or constitutive rules governing concepts. One can perfectly well understand the meaning of logical concepts whilst rejecting some of the purported ‘rules’ that govern its use. Basic logical laws and inferences are not typically justified *a priori*; the methods of logic are continuous with theoretical methods in science and elsewhere. As a result logic is subject to revision on the basis of abductive considerations like simplicity, explanatory power, unification, fruitfulness, non-ad-hocness, and fit with evidence.⁴ “Logic is in principle no less open to revision than quantum mechanics or the theory of relativity.” (Quine 1986, 100)

² NB: And by ‘logically false’, I don’t mean contradictory!

³ Some exceptionalists: Boghossian (2000; 2001; 2003), Dummett (1975; 1978; 1991), Peacocke (1987; 1992; 1993), Prawitz (1971; 1977), Read (forthcoming), Tennant (1997; 2007)

⁴ Some anti-exceptionalists: Bueno & Colyvan (2004), Maddy (2000; 2002), Putnam (1969; 1976), Quine (1951 1974; 1986), Priest (2006; 2014), Russell (2015), Williamson (2007; 2013; 2015).

1.2 In Favour of Anti-Exceptionalism

A number of arguments have been put forward in favour of anti-exceptionalism.⁵ I won't rehearse them here, but of particular relevance are considerations surrounding the *semantic plasticity* of logical terms. The idea is that use of basic logical vocabulary is flexible; it can vary without it being immediately clear that the 'deviant' uses are incoherent. Williamson (2007) gives a number of examples. Consider Simon, an expert on vagueness in the philosophy of language who, for theoretical reasons, rejects conjunction elimination. Or consider Peter who agrees with Aristotelian logic that 'All *F*s are *G*s' entails that 'there are some *F*s'. Suppose further he (mistakenly) believes that there are no vixens, and hence rejects 'All vixens are vixens'. In both cases we have individuals who deny valid logical principles. But are Simon's and Peter's statements incoherent? Are they incompetent users of the words 'and' and 'all'? Or is it rather that they are coherent and competent speakers of their native language who happen to have slightly odd beliefs?

In the last half of the 20th Century, there has been a massive development of a huge number of non-standard formal logics. For almost any basic logical rule, there is a system violating it. Many of these non-classical systems have been put to fruitful use in attempting to solve difficult philosophical problems. Of course, not all these logics can be correct, or even accurate restricted to their respective applications. But can it really be true that all of these developments involve a deep misunderstanding of logical vocabulary? Another way to put the question: is there exactly one possible theory of the logical concept 'not', such that all other theories must be theories of some other concept? And are the many expert logicians who are proponents of non-standard logics simply being incoherent, talking complete nonsense, or failing to understand the concepts they appear to employ? If exceptionalism is correct, it would seem so.

2. Logic in Analytic Theology

A traditional conception of philosophy's relationship to theology is that of a handmaid to her mistress. "A handmaid is a helper, not a hindrance, and certainly a servant, not a superintendent to her mistress." (Crisp 2009, 41). Correspondingly, there is the *instrumental* conception of the role of logic in theology according to which logic is always subject to the proper aims, methods, and deliverances of theological inquiry.

Analytic theologians are sometimes accused of wheeling in a much more *substantive* conception of the role of logic in theology, according to which:⁶

[R]eason alone, or reason and the senses, give us fundamental and general non-trivial knowledge about the world around us that every

⁵ For an excellent discussion see Hjortland (2017), from which this paper has benefited greatly.

⁶ Here, for terminological reasons, I am eliding the differences between 'reason' and 'logic'. But these are not the same thing and should be kept separate in any complete analysis. (Thanks to John Perry for discussion on these issues.)

rational person can understand, or is capable of understanding, and on the basis of which every rational person is able to make sense of the world. Theology, on this view, must conform to reason in order for it to be taken serious as an intellectual discipline. (Crisp 2009, 41)

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.

Now, this 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 bedrock of all rational theorizing, and any theory which attempts logical revision is strictly incoherent.

2.1 Analytic Theology and Exceptionalism

Analytic theologians have, by and large, tended toward exceptionalism. I can't consider a wide swath of literature, but a few case studies should make the point.

Consider Swinburne who endorses that human knowers have privileged epistemic access to the logical relations holding between their own beliefs.

Although we have *infallible access* to the content of our beliefs, we cannot have single beliefs in isolation from other beliefs and other mental states; and, for each belief with a certain content, in order to be that belief it must sustain certain logical relations to the subject's other mental states. Our *infallible access* is to the web of such states. (2001, 40, emphasis mine)

Swinburne accepts that we have a perfect knowledge of the deductive entailments that constitute our web of beliefs. Perhaps even more strikingly, Swinburne similarly accepts that we also have this privileged access to inductive inferential relationships between evidence and our beliefs.

If science is really a rational enterprise in the sense that certain evidence really does make one hypothesis more probable and another hypothesis less probable, and so there are indeed correct criteria of inductive inference, of what is evidence for what and how strong particular evidence is, there must be principles of probability . . . and in particular *a priori* principles for ascribing intrinsic probabilities. . . . If there are no such *a priori* criteria, we should give up studying science, history, and every other subject of university study. (122, emphasis mine)

The idea here is that correct principles for evaluating and reasoning in accordance with evidence must be knowable *a priori*, that is knowable independent of any experience. And so our knowledge of such principles is exceptional; it is not on a par – is not of a kind – with our knowledge of other sorts of facts we learn through any sort of experience. They are not subject to revision and any disagreement over them constitutes a rational mistake.⁷

Reformed epistemology is perhaps one of the more well-known frameworks in analytic theological circles, due to the influence of Plantinga. It also appears to be committed to the exceptionalist picture. Crucial to the reformed epistemological perspective is the acceptance of indubitable basic (non-inferential) beliefs. And the validity of certain inferential principles are themselves thought to be properly basic. Consider Plantinga:

Now among these faculties, one of the most important is *reason*. Taken narrowly, reason is the faculty or power whereby we form *a priori* beliefs, beliefs that are prior to experience or, better, independent, in some way, of experience. These beliefs include what . . . we called the deliverances of reason: first of all, the simple truths of arithmetic and logic, such as $2+1=3$ and *if all men are mortal and Socrates is a man, then Socrates is mortal*. (2000, 146-7)

Principles of logic (the ‘simple’ ones, at any rate) are taken to be deliverances of reason. We can be justified in accepting them insofar as the faculty of reason is in fact reliable, which Plantinga clearly believes to be the case.

I am in fact convinced that these sources of belief are reliable. True enough: I realize that I can't give a good non-circular argument for their reliability. . . . Not even God himself, necessarily omniscient though he is, can give a non-circular argument for the reliability of his ways of forming beliefs. God himself is trapped in the circle of his own ideas. (125)

The final sentence is intended to be provocative. But what is crucial is that logical principles are, in Plantinga's view: a basic belief forming method, *a priori*, and not subject to (non-circular) arguments for justification or revision.

Though I've given merely anecdotal evidence, I think the exceptionalist presumptions are common enough in analytic theology. But exceptionalism is not required of analytic theologians any more than it is required of analytic philosophers.

2.2 Theology and Anti-Exceptionalism

⁷ Swinburne (2001) again: “Many people defend principles of deductive reasoning that all professional logicians hold to be manifestly invalid. [...] In consequence, there is no incoherence in psychologists reporting that in certain respects many people are irrational.” (p. 122)

I want to suggest that anti-exceptionalism is a good methodological programme for analytic theologians. One key reason is the importance of tradition in the theological enterprise. The Christian theological tradition spans millennia; logical systems were revised and developed over the course of many centuries.⁸ We cannot hope to be faithful to such a diverse tradition if we do not allow ourselves the possibility of treating these systems as rational theoretical options, and examining the internal coherence of these systems.

It would be intellectually dishonest to pretend that Aquinas and Barth, for example, were operating within the same conceptual framework, utilising the same logic(s) in exactly the same way. (Indeed, Barth appears to believe that the law of non-contradiction is invalid in theology.⁹) It's clear enough that not even Aquinas and Duns Scotus were in agreement over all logical principles. Moreover, it would be uncharitable to claim – as exceptionalists must! – that because they had differing systems one or other of them is conceptually confused, incoherent, or simply talking past one another.

Furthermore, logical systems themselves need to be capable of revision because they can and should be challenged on *theological* grounds. This isn't a new thought, of course; principles of logic were called into question on purely theological grounds throughout the medieval period. A classic example of the Trinity, which was taken by some to be a counterexample to the validity of *expository syllogism*.¹⁰

If a logical system has certain internal commitments that lead to doctrinal heresy or serious conflict with sources of evidence taken to be authoritative (e.g. councils or biblical texts), then we must be able to recognise these commitments and revise them accordingly.

3. Beall on the Role of Logic

Apart from the instrumental and substantive conceptions, there is another *procedural* conception of the role of logic in theology. According to this view logic is required for “establishing the logical connections between different propositions, for distinguishing what I am talking about from what I am not, and whether what I am saying makes sense, or is incoherent.” (Crisp 2009, p. 41). Logic, then, is a necessarily unavoidable framework for any inquiry whatsoever; ipso facto inescapable for theology too.

Any reasoning about anything requires the acceptance, the use, of procedural reason. We are continually making judgements of what, given certain assumptions about how the world is, ... is likely to be

⁸ Beall's account of the provenance of 'standard logic' (407) might be misread as suggesting that the accepted logic has been stable since Aquinas. I doubt Beall thinks this, and I certainly don't.

⁹ “God is a free Lord, not only over the law of non-contradiction, but over his own deity” (Barth 1927, 217). See also Rehnman (2008) for discussion. (Thanks to Jared Michelson for the pointer.)

¹⁰ An expository syllogism has singular propositions as both premises (e.g. “The Father is God; God is the Son. So, the Father is the Son”). See Uckelman (2009, ch. 7). (Thanks to Stephen Read here.)

true, and reason is necessary for making or assessing such claims.
(Helm 1997, 7)

The procedural conception brings us nearer to Beall's views on the role of logic in theology.

3.1 Consequence Relations and Universal Logic

Beall draws a contrast between *consequence relations* and *logic*. When we are engaged in a theoretical inquiry about some subject matter, we aim to characterize all the truths of that subject matter. We do this by laying down some accepted truths, and then throwing in all the truths that *follow from* them. This process of 'closing' our initial truths requires the correct consequence relation (or 'entailment relation') for that theory. Consequence relations are determined from the space of scenarios that the theory considers to be 'possible' (i.e. theoretically live options). This means that consequence relations are theory-relative (because different areas of inquiry recognize different spaces of possibilities). Beall is a 'consequence pluralist',¹¹ and I should note that on this score, Beall and I are in much agreement.

Logic, then, on Beall's view, is the common core of all theory-relative consequence relations. Because it is not theory relative, it is *topic-neutral* (405). And because it takes as its space of 'possibilities' *every* theoretically live option (406), its deliverances are *necessary* in the broadest sense.

One might think that, if the space of possibilities is absolutely unrestricted, this might lead to logical consequence that is unfeasibly weak. But Beall claims, "it's not that 'anything goes' by logic's lights" (407), because logic focuses narrowly on a specific stock of 'logical vocabulary' – the common, foundational, universal core. Beall calls this core vocabulary the '*boolean quartet*' containing the usual conjunction ($\wedge$), disjunction ($\vee$), and negation ($\neg$), but also the more unusual 'nullation' or truth operator ($\dagger$). (Notably absent is anything like a conditional.¹²)

The entailment relation governing the boolean quartet, called 'FDE', is *logic* proper, according to Beall; this logic 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 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?

The different directions of explanatory dependence are crucial, since the answer to this question will push Beall further toward the exceptionalist or anti-

¹¹ The views Beall expresses are clearly derived from his earlier work (with Greg Restall, 2006) on *Logical Pluralism*. There, consequence relations were called 'logics', whereas now he wishes to reserve the term 'logic' for the universal relation underlying every kind of entailment.

¹² It might seem that the conditional is foundational to reasoning if anything is. For why this is missing, see Beall (2015).

exceptionalist paradigms. On a consequence-first view, what counts as logic is still in principle revisable by new theoretical discoveries. By contrast, if logic is first and determines a priori the constraints on any possible theory, then logic is unrevisable. It might even be that logically valid inferences are analytic, explained entirely by the meanings of the boolean quartet.

Beall doesn't tell us his views on this issue. But he frequently describes logic as 'foundational' or 'at the bottom' of our practices of inquiry.¹³ Such descriptions suggest that he believes logic, and not consequence relations, is primary. That is, for any theoretical enterprise, if it is to count as coherent at all, it must abide by FDE. And if that's the view, here I part ways with Beall. (More on this below.) On the other hand, I'm much more sympathetic to a consequence-first view, except that I think we have been given little reason to think that the resulting logic will be FDE. (Again more in the next section.)

Before moving to these arguments, though, I want to suggest that the more exceptionalist version of Beall's view puts him in a dialectically weak position against his opponents. I think Beall is quite right that contradictory Christology (and non-classical theology generally) has been almost completely neglected, merely because the majority have simply assumed the law of non-contradiction (or more accurately *ex falso quodlibet*) as logical bedrock. Beall of course sharply disagrees, but he does so by simply assuming a different set of inferences as logical bedrock. They disagree over basic logical rules, and both parties (qua exceptionalists) believe that anyone who disagrees is conceptually confused or changing the subject. And in the words of the Dread Pirate Roberts, "if there can be no arrangement, then we are at an impasse."¹⁴ It might seem – frustratingly, to Beall's opponents – that there are no non-question-begging grounds for debate.

Proceduralism about the role of logic points to an obvious truth: theoretical inquiry procedurally requires the use of some logical system. That is, we must close our theories under some kind of consequence relation. But we should be careful to distinguish this very plausible thought with its stronger exceptionalist cousins. While it is true that *any* theological reasoning requires *some* logical assumptions, it need not be true that there are *some* logical assumptions that are required by *any* theological reasoning.¹⁵ That is worth saying again: all theological inquiry must endorse some logical framework (or other), but there is no logical framework that all theological inquiry must endorse. Or at least, so I'll argue.

3.2 Which Entailments?

¹³ "Logic plays its universal, foundational role in our theories" (406); "the foundation of all entailment" (407)

¹⁴ Reiner et. al. 2000.

¹⁵ Perhaps there are some logical principles that are required of any *orthodox* theological reasoning, but these wouldn't be secured by the procedural conception. The deliverances of creeds and councils are theological data, and so still *theory-first*. See also discussion in Pawl's contribution to this volume.

What is the range of permissible entailment relations? Beall tells us two things: they must be *closure* relations (403, fn 6), and they must contain the boolean connectives with FDE as a sublogic (i.e. they must validate at least all FDE inferences).

For a consequence relation $\Rightarrow$ to be a closure relation, it must validate the following meta-rules:

Reflexivity: $A \Rightarrow A$

Monotonicity: If $X \Rightarrow A$ then $X, B \Rightarrow A$

Cut: If $X \Rightarrow A$ and $X, A \Rightarrow B$ then $X \Rightarrow B$

Reflexivity simply claims that the sentences of a theory must be among the consequences of that theory. Monotonicity claims that consequences cannot be ‘undone’ in light of additional premises. That is, if X is a subset of Y , then the consequences of X are among the consequences of Y . Cut is a form of transitivity; the consequences of the consequences of X just are the consequences of X .

These principles are hard to deny: in order for consequence relations to play their role of drawing out the entailments of a given set of sentences, they seem to be important. And so I’m sympathetic to the thought that consequence relations could, in general, turn out to validate them. But it is worth noting that these each of these principles has been denied by philosophical logicians for a given range of phenomena.¹⁶ Reflexivity has been denied as a resolution of semantic paradoxes in the theory of truth (Greenough 2001; French 2016); it has been doubted in cross-language consequence relations (i.e. ‘heterogeneous logics’ – see Humberstone 1988), and cross-context consequence relations (Zardini 2014); it has been rejected as a logic for ‘begging the question’ (Martin and Meyer 1982); it may even be violated in Aristotle’s syllogistic (Duncome 2014). Non-monotonic logics have seen tons of theoretical applications across a wide range of philosophical issues (for a start, see Antonelli and Strasser 2016). Cut, too, have been denied as the correct response to vagueness (Zardini 2008), the semantic paradoxes (Ripley 2012), the set-theoretic paradoxes (Weir 2006), and antirealism (Tennant 1987).

And so I don’t think we can, in good faith, rule out all such approaches 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. And if they aren’t incoherent but ruled out for some other reason, it’d be nice to be told *why*.

Turning now to the principles of FDE, I want to focus attention on two prime principles. The first is the notoriously controversial principle of *double negation elimination*.

DNE: $\neg\neg A \Rightarrow A$

¹⁶ Sometimes they are explaining the same phenomena Beall uses (§4.2) to motivate the rejection of explosion.

Beall is committed to the claim that every theory must close itself under this rule. So, on the exceptionalist reading, no theory which violates this rule can count as coherent theorizing. But the history of logic and philosophy of mathematics is littered with counterexamples.¹⁷ The most historically influential – and perhaps the most fully developed – non-classical theoretical programme is constructive mathematics. The consequence relation of constructive mathematics is intuitionistic logic, which denies DNE. It would be absurd to claim that no sustained theoretical reasoning can be carried out unless one accepts DNE, and this puts pressure on the exceptionalist reading of Beall's views.

Second, I want to discuss a potential problem with the De Morgan equivalences.

De Morgan 1: $\neg A \vee \neg B \Leftrightarrow \neg(A \wedge B)$

De Morgan 2: $\neg A \wedge \neg B \Leftrightarrow \neg(A \vee B)$

Intuitionistic logic also famously does not validate the right-to-left direction of De Morgan 1, and so the above considerations apply here too.

But there's another potential issue here. Beall permits a mix of theological gaps and theological gluts (422 fn. 32); his approach to theology is not purely glutty, nor purely gappy. Gluts, recall, are true sentences of the form $A \wedge \neg A$. But given that De Morgan 2 is valid in FDE (and hence valid for Beall's theological entailment), $A \wedge \neg A$ is equivalent to $\neg(A \vee \neg A)$. But this latter sentence states that: it's not the case that A is either true or false. In other words, this looks like an affirmation that A is a *gap*. If that's right, then it appears FDE does not have the expressive resources to distinguish between sentences which are *gaps* and sentences which are *gluts*.

What does this mean for Beall's theology? Consider the following two sentences:

- (1) It is both true and false that Christ is immutable.
- (2) It is neither true nor false that Christ is immutable.

We'd expect a contradictory Christology to accept (1) as part of the theory, but deny (2). Unfortunately, since these sentences are logically equivalent, they cannot be distinguished on logical grounds. Perhaps there are theological grounds to distinguish them? It isn't clear how, given that Beall's theological consequence relation will also validate the De Morgan laws.

On a purely *gappy* approach to theology (Beall and Cotnoir 2017), one never asserts sentences of either form, since they will never be true, and so there is no pressure to distinguish them. On a purely *glutty* approach (Cotnoir 2018), we deny that there are any gaps, and thus we can interpret sentences like (2) as asserting the falsity of a disjunction of gluts (which is also glutty). Perhaps Beall can also take this line, but if he does he'll have to admit that 'being gappy' is an inexpressible semantic status.

¹⁷ Including Dummett's intuitionism, which was a robust philosophical (at times theological) programme.

This latter issue is related to an objection from contraposition (Anderson 2007): if we have an entailment from A to B , then there's an entailment from $\neg B$ to $\neg A$. So, if Christ's divinity entails his immutability, it follows by contraposition that Christ's mutability entails that he is not divine. But that is heretical.

The logic of FDE contraposes in the relevant sense. On a purely *glutty* approach, however, the consequence relation (called 'LP') does *not* contrapose; so too on a purely *gappy* approach (called 'K3'). So, avoiding the mixed strategy would provide yet more insulation from heresy.¹⁸

Independently of the above considerations, from a *theory-first* perspective the common core will be determined by the intersection of all true consequence relations. So, unless we are in possession of the true theory for every area of inquiry, our knowledge what's *in* the common core is at best defeasible, and likely mere conjecture.¹⁹

3.3 Whose Logic?

In this section, I want to address Beall's suggestions that theology is just another kind of theorizing, and so the role of logic in theology is just the same as it is in all theoretical endeavours. For example, he writes "Christian theology is a theory of God, just as macro physics is a theory of the macro-physical world and just as mathematical theories are theories of their respective mathematical phenomena" (403). He claims that the theorist's task is "to 'complete' the true theory of the given phenomenon. And theology is no different" (404).

But is that right? A recurrent theme across the theological tradition, from Tertullian²⁰ to T.F. Torrance²¹, is the idea that God is transcendent, or beyond full human comprehension. And if human conceptual schemes are taken to be limited with respect to God, what about logic?

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'." (408) Logic is, for Beall, fundamentally human.²²

¹⁸ These problems are reintroduced once we include a contraposable conditional. For extended discussion of these issues, see Cotnoir (2018). Beall's own solution is to claim that the relevant theological consequence relation *fails* to contrapose even though FDE does. The idea is that, though divinity entails immutability and humanity entails mutability (402), we do not have the entailment from mutability to non-divinity. But again, these problems will just re-emerge if our theological consequence relation permits natural conditional reasoning about God.

¹⁹ For what it's worth, I think it's a live possibility that the common logic to all true theories could turn out to be *classical*!

²⁰ "His nature is different from the condition of all things." (*On the Flesh of Christ*, ch. 3). <http://www.newadvent.org/fathers/0315.htm>

²¹ "He nevertheless refuses to be understood . . . from within the conceptual framework of our natural thought and language." (Torrance 1969, 208)

²² Compare Swinburne: "[L]ogical necessity is at root a feature of actual human sentences and how they are used. It governs language, and not the world" (1994, 96). For a much more in-depth discussion

But can *our* real language accurately and completely characterize the subject of theological inquiry? Here's a reason to think it can't. If the subject matter of theology is a rational agent, then presumably that agent has a practice of inferring. And it is an assumption of much theology that God is personal, with a mental life governed by reason and engaged in inferential practices. Many theologians believe such a mental life is not epistemically open to us (absent divine revelation). This leaves a gap between the consequence relation that is 'correct enough' for human theories about God, and the 'absolutely true' logic of divine thought. I don't mean to suggest that Beall is confusing these two. But if the view he is advancing is that all rational inquiry (including God's) must be governed by FDE, then we run the risk of objectionable anthropomorphism.

To be clear, I am not claiming that theological inquiry is 'beyond the bounds of logic'²³ or any such thing. Theology is fundamentally a form of human inquiry, and so presupposes our linguistic forms and norms of reasoning. My only point is that theologians are right to recognize that these forms and norms place us squarely within a conceptual scheme that God may not share.²⁴

There's a fundamental disanalogy, then, 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.

If all the familiar logical systems are *creaturely* entities tied to human languages and concepts, God could have his own unique form of logic. Even if God were, as Plantinga claims, 'trapped' a circle of his own ideas, he certainly is not trapped in ours.

4. Logic as a Modelling Tool

It seems then that logic is anti-exceptional – that is, broadly continuous with science – and yet its role in theology importantly disanalogous from its role in other scientific inquiry. How can we accommodate both? In this section, I want to briefly sketch a promising anti-exceptionalist picture (albeit not the only one) of the role of in analytic theology. This picture is that consequence relations are tools for *modeling*.²⁵ Formal systems are modelling constraints placed on a particular theology. Those constraints are defeasible, revisable, and subject to typical criteria for theory choice.

Better models will be simpler, more unified, have more explanatory power, and cohere better with the 'data' (be that the ecumenical creeds, dogmas from

about the relation between formal consequence relations and natural language, see Cotnoir (forthcoming). See also Glanzberg (2015) for related ideas.

²³ A complaint Beall (415) makes against Dahm's (1978) position.

²⁴ Contra Anderson and Welty (2011), who give an extended argument that the laws of our familiar (human) logic are in fact thoughts in the mind of God.

²⁵ See especially Shapiro 2014, §2.5. See also related discussion in Cook 2010.

councils or confessions, or the biblical texts). This flexibility allows for alternative systems of thought from across the theological tradition to be modelled, giving us a guide to their internal coherence and explanatory purchase. Moreover, we can achieve this while paying careful attention to the distinction between our limited human understanding of God and God's unlimited self-knowledge.

4.1 The Limits of Modelling

The idea of modelling comprises three key components: the *theory*, the *mathematical models*, and the target *phenomena*. Expressions in the language of the theory are mapped onto ('denote') parts of a mathematical structure. That structure is intended to represent the target phenomena, based on the assumption that the mathematical structures are *similar* (isomorphic, homomorphic, etc.) to the structures present in the phenomena.²⁶ So, theories use models to represent by exploiting structural similarities; models and the reality they represent share relevant properties.

It is worth noting that there are already some key limitations to modelling which take us further away from the exceptionalist conception of logic. First, modelling typically proceeds by *abstraction* in the sense that only certain important aspects of the phenomena are intended to be modelled, without the constraint that *every aspect* of the phenomena be incorporated. So when building models there will always be some level of incompleteness of the theoretical story. Second, models are *idealisations* in the sense that they are intentionally ignore complications and so sometimes produce unintended artefacts which are known to be false or inaccurate. Even in the presence of such artefacts, still the model will be correct in what it intends to affirm. This approach is broadly continuous with usual theoretical practices in the sciences and other disciplines – logic isn't special.²⁷

But if theology isn't just another theoretical enterprise exactly like the others, then what is the relevant difference, according to the logic-as-modelling view? There are at least two possible sources of disanalogy.

The first disanalogy between theology and the sciences is that the 'target phenomena' of theology is a reasoner whose thoughts are beyond our conceptual repertoire. Thus, the logical system we are using to model God need not be a model of God's logical system. One might use models to attempt to go further: one might try to model God's mental life by assigning (representations of) mental entities to parts of a theology in order to represent God's logic. Such a theological inquiry would represent a *human* model of God's mental life, which may be more or less accurate but always an incomplete approximation. But we should not confuse the two distinct things: the correct logic for human inquiry into the divine vs. the correct logic for divine inquiry. We may have no access to the latter. And logic-as-modelling does not assume that the correct consequence relation for *human* theorising about God is the consequence relation that God uses in his own mental life.

²⁶ Modelling is, in effect, building a *measurement system*. See Scharp 2013, §7.2.

²⁷ See Bonevac 2012 for discussion of the relation between modelling and analogical predication.

A second main disanalogy between theology and the sciences: recall that modelling is based on similarities. Similarities are symmetric: if x is similar to y in some respect, then y is similar to x in the same respect. As a result, the presumption of structural similarity requires that the mathematical structure and the target phenomena *have the relevant properties in the same way*. That is, not only is the model like the phenomena, but the phenomena is like the model.²⁸ In the case of theology, this assumption runs up against a problem. Not everyone believes that God can share substantive properties with creatures; many theologians from across the tradition have thought that predicating any creaturely property of God will fail to be *univocal*. So when we say that God is good, we mean something akin to human goodness; or when we say God is wise, we don't mean human wisdom, but a kind of wisdom that is appropriate to God's own being. (Traditionally in theology this have been referred to as '*analogical* predication'. From the perspective of contemporary cognitive science and linguistics, however, *analogical* predication and reasoning are largely rooted in a form of structure mapping much like modelling, and is based on presupposed similarity.²⁹)

For theologians of this stripe, we can easily tweak the modelling picture by suggesting that theological models represent *metaphorically*. One key difference between analogy and metaphor is that metaphors typically aren't symmetric.³⁰ Consider the following two claims:

(3) My butcher is a surgeon.

(4) My surgeon is a butcher.

The two metaphors are asymmetric in that they attribute different properties to their targets based on a prior understanding of the source. On this perspective, then, theological models can represent God, but the means of representation are such that the underlying properties grounding the analogy are not taken to be identical. This is only a sketch, but a fuller version might offer grounds for the view that theological claims can succeed in correct representation without having to resort to univocal predication.

The anti-exceptionalist conception of logic allows us to recognise of the limits of human reason, and hence to affirm the extent to which our own thoughts about God run up against boundaries to our understanding. On a logic-as-modelling view, theological inquiry is limited by our humanity and is always subject to revision and refinement.

4.2 Avoiding Relativism

²⁸ See Bonevac 2012 for a discussion of the relation between similarity and analogical predication.

²⁹ The locus classicus is Gentner 1983.

³⁰ See Gentner et. al. 2001.

One might suspect there is a danger lurking behind anti-exceptionalism: the spectre of *relativism*. Logical relativism is a view that goes back to the beginnings of analytic philosophy, particularly to Carnap.

According to Carnap (1934), questions regarding the correctness of a logic only make sense relative to a particular linguistic framework – they are *internal* questions. Any *external* questions regarding the correct choice of frameworks cannot arise. Such questions are purely pragmatic and hence depend only on the goals and aims of the language users. Moreover, according to the relativist, there is no purely external perspective in which the objective correctness of a logic can be established, as this would have to be formulated within some linguistic framework, with its own internal logical system.

But merely adjudicating *internal* questions within a theological system cannot be the only role of logic in systematic theology.³¹ While it may be true that many questions presuppose a system and are hence internal to the system, we should categorically reject the contention that meaningful external questions cannot arise. And the *theory-first* approach does not deny that there is a ‘common core’ logic in which to adjudicate such questions. Presumably, for any pair of rival consequence relations, we can find a common setting. The theory-first perspective simply denies that the final universal logic – what is common to all theories – can be decided antecedently to the hard work of theory building.

Comparing the value of systems is a crucial part of the theological task. Some inferential constraints are objectively better than others, even if that ‘betterness’ cannot be known a priori and is always subject to revision. The abductive methodology – applying the criteria of theory choice: simplicity, unity, explanatory power, fit with the data – allows anti-exceptionalists to judge (theo)logical systems on their overall strengths and weaknesses. We can make objective comparisons on the relative value of various systems without falling into the danger of relativism.

5. Conclusion

Analytic theologians have typically accepted exceptionalism about logic, and have frequently afforded a large role to logic in theology on that basis. By contrast, contemporary dogmatic theologians are more likely to reject exceptionalism about logic, and afford it a minimal role in theology on that basis.

But stemming from the analytic philosophical tradition, a third option presents itself: reject exceptionalism about logic and yet afford a large role for the use of formal methods in theology. The use of logics – many logics with rival commitments – is a valuable tool for measuring coherence, important entailments, and inferential connections. A dizzying variety of formal techniques have been developed in the last century; in many ways the progress in the discipline of logic in 20th Century is rivalled only in the late Medieval period. These new techniques have proved extremely valuable in philosophical inquiry, and there is every reason to think some of these

³¹ One wonders whether dogmatic theology – in an effort to avoid any semblance of exceptionalism – has at times fallen into a tacit logical relativism.

insights can play a key role – a flexible, revisable, and defeasible role – in theology as well. This is a vision for analytic theology that Beall and I share.

But we needn't expect epistemic 'fixed points', foundational bedrock, or universal principles of reason that are immune to revision. Humans are cognitively limited in a way that makes the object of theological inquiry beyond its ken; and this should remind us that the logical consequence relation for theological inquiry will always be at best correct for *human* thought about the divine. Capturing the full truth about God – God as he knows himself – is an unachievable aim. This need not force us into a relativism where only by presupposing entire frameworks can meaningful questions be raised. Nor should we assume that, because our theoretical inquiry employs logical resources, God's must be constrained by these resources too.³²

³² Thanks to the audience at the University of St Andrews Theology seminar for discussion of some of these ideas, especially Jonathan Lett, John Perry, Alan Torrance, Andrew Torrance, Brendan Wolfe, and Judith Wolfe. Also many thanks to Tim Baylor, Ole Hjortland, Kevin Scharp, and Jared Michelson for conversations around these topics over the last few years. Finally, I am most grateful to Jc Beall, who devoted countless hours and unending effort training me in logic, only to have his presumptuous young student disagree with him! I'm very glad for this opportunity to engage with his philosophical (indeed, theological!) research.

Bibliography

- Anderson, James. 2007. *Paradoxes in Christian Theology*. Paternoster.
- Anderson, James and Greg Welty. 2011. "The Lord of Non-Contradiction: An Argument for God from Logic." *Philosophia Christi* 13 (2): 321--338.
- Barth, Karl. 1927. *Christliche Dogmatik im Entwurf*. C. Kaiser.
- Beall, Jc. 2015. "Free of Detachment: Logic, Rationality, and Gluts." *Noûs* 49 (2):410-423.
- Beall, Jc and A. J. Cotnoir. 2017. "God of the gaps: a neglected reply to God's stone problem." *Analysis* 77(4): 681-689.
- Beall, Jc and Greg Restall. 2006. *Logical Pluralism*. Oxford University Press.
- Bueno, Otavio and Mark Colyvan. 2004. "Logical Non-Apriorism and the Law of Non-Contradiction." In *The Law of Non-Contradiction*, edited by Graham Priest et. al. Oxford University Press.
- Boghossian, Paul. 2000. "Knowledge of Logic." In *New Essays on the A Priori* edited by Paul Boghossian, Clarendon Press.
- _____. 2001. "How are objective reasons possible?" *Philosophical Studies* 106: 1–40.
- _____. 2003. "Blind reasoning." *Proceedings of the Aristotelian Society* 77: 225–248.
- Bonevac, Daniel. 2012. "Two Theories of Analogical Predication." *Oxford Studies in the Philosophy of Religion* 4: 20–42.
- Carnap, Rudolf. 1934. *Logische Syntax der Sprache*, Springer-Verlag; expanded English translation as *The Logical Syntax of Language*. Routledge.
- Cook, Roy. 2010. "Let a thousand flowers bloom: A Tour of Logical Pluralism." *Philosophy Compass* 5(6): 492–504.
- Cotnoir, A.J. 2018. "Theism and Dialetheism." *Australasian Journal of Philosophy*, 96 (3): 592–609
- _____. Forthcoming. "Logical Nihilism". In *Pluralisms in Truth and Logic*, edited by Nathan Kellen et. al. Palgrave Macmillan.
- Crisp, Oliver. 2009. "On Analytic Theology." In *Analytic Theology: New Essays in the Philosophy of Theology* edited by Oliver Crisp and Michael Rea. Oxford University Press.

Dahms, John. 1978. "How Reliable is Logic?" *Journal of Evangelical Theological Society*. 21 (4): 369–380.

Dummett, Michael. 1975. "The Justification of Deduction." *Proceedings of the British Academy* 59: 201–231.

_____. 1978. "Is Logic Empirical?" *Truth and Other Enigmas*.

_____. 1991. "The Logical Basis of Metaphysics." *Harvard University Press*.

Duncombe, Matthew. 2014. "Irreflexivity and Aristotle's Syllogisms." *The Philosophical Quarterly* 64 (256): 434–452.

French, Rohan. 2016. "Structural Reflexivity and the Paradoxes of Self-Reference." *Ergo* 3: 113–131.

Gentner, Dedre. 1983. "Structure-mapping: A Theoretical Framework for Analogy." *Cognitive Science* 7: 155–170.

Gentner, Dedre. et. al. 2001. "Metaphor is Like Analogy." In *The Analogical Mind: Perspectives From Cognitive Science*, edited by Centner, D. et. al. MIT Press.

Glanzberg, Michael. 2015. "Logical Consequence and Natural Language." In *Foundations of Logical Consequence*, edited by Colin R. Caret and Ole T. Hjortland. Oxford University Press.

Greenough, Patrick. 2001. "Free Assumptions and the Liar Paradox." *American Philosophical Quarterly* 38 (2): 115–135.

Helm, Paul. 1997. *Faith and Understanding*. Eerdmans.

Hjortland, Ole. 2017. "Anti-Exceptionalism About Logic." *Philosophical Studies*, 174 (3): 631–658.

Humberstone, Lloyd. 1988. "Heterogeneous Logic." *Erkenntnis*, 29 (3): 395–435.

Maddy, Penelope. 2000. *Naturalism in Mathematics*, Oxford University Press.

_____. 2002. "A Naturalistic Look at Logic." *Proceedings and addresses of the American Philosophical Association*, 61–90.

Martin, E. P.; Meyer, Robert K. 1982. "Solution to the P-W Problem." *Journal of Symbolic Logic* 47 (4): 869–887.

Peacocke, Christopher. 1987. "Understanding Logical Constants: a Realist's Account." *Proceedings of the British Academy* 63: 153–200.

_____. 1992. *A Study of Concepts*. MIT Press.

_____. 1993. "How are a Priori Truths Possible?" *European Journal of Philosophy* 1: 175–199.

Plantinga, Alvin. 2000. *Warranted Christian Belief*. Oxford University Press.

Putnam, Hilary. 1969. "Is logic empirical?" *Boston Studies in the Philosophy of Science*.

_____. 1976. "The logic of quantum mechanics." *Mathematics, Matter and Method*, Cambridge University Press.

Prawitz, Dag. 1971. "Ideas and results in proof theory." In *Proceedings of the 2nd Scandinavian Logic Symposium*, edited by J. E. Fenstad. North-Holland.

_____. 1977. "Meaning and proofs: on the conflict between classical and intuitionistic logic." *Theoria* 43: 2–40.

Priest, Graham. 2006. *Doubt Truth to be a Liar*. Oxford University Press.

_____. 2014. "Revising logic." In *The Metaphysics of Logic*, edited by P. Rush. Cambridge University Press.

Quine, W. V. O. 1951. "Two Dogmas of Empiricism." *Philosophical Review* 60: 20–43.

_____. 1974. "The Roots of Reference." LaSalle.

_____. 1986. *Philosophy of Logic*, 2nd edition. Harvard University Press.

Read, Stephen. Forthcoming. "Anti-Exceptionalism About Logic." *Australasian Journal of Logic*.

Rehnman, Sebastian. 2008. "Does it matter if Christian doctrine is contradictory? Barth on logic and theology." In *Engaging with Barth: Contemporary Evangelical Critiques* edited by David Gibson and Daniel Strange. T&T Clark.

Reiner, Rob et. al. 2000. *The Princess Bride*. MGM Home Entertainment.

Ripley, David. 2013. "Paradoxes and Failures of Cut." *Australasian Journal of Philosophy*, 91(1):139-164.

Russell, Gillian. 2015. "Metaphysical Analyticity and the Epistemology of Logic." *Philosophical Studies*, 171 (1): 161--175

- Scharp, Kevin. 2013. *Replacing Truth*. Oxford University Press.
- Shapiro, Stewart. 2014. *Varieties of Logic*. Oxford University Press.
- Strasser, Christian; Antonelli, Aldo. 2016. "Non-monotonic Logic." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. <<https://plato.stanford.edu/archives/sum2018/entries/logic-nonmonotonic/>>
- Swinburne, Richard. 2001. *Epistemic Justification*. Oxford University Press.
- _____. 1994. *The Christian God*. Clarendon Press.
- Tennant, Neil. 1987. *Anti-Realism and Logic: Truth as Eternal*. Oxford University Press.
- _____. 1997. *The Taming of the True*. Oxford University Press.
- _____. 2007. "Inferentialism, logicism, harmony, and a counterpoint." In *Essays for Crispin Wright: Logic, Language, and Mathematics*, vol. 2, edited by A. Miller. Oxford University Press.
- Torrance, T. F. 1969. *Theological Science*. T&T Clark.
- Uckelman, Sara L. 2009. *Modalities in Medieval Logic*. PhD Thesis. University of Amsterdam.
- Weir, Alan. 2016. "Is it too much to ask, to ask for everything?" In *Absolute Generality*, edited by Agustín Rayo and Gabriel Uzquiano. Oxford University Press.
- Williamson, Timothy. 2007. *The Philosophy of Philosophy*. Blackwell.
- _____. 2013. "Logic, metalogic and neutrality." *Erkenntnis* 79(2): 211–231.
- _____. 2017. "Semantic paradoxes and abductive methodology." In *The Relevance of the Liar*, edited by Bradley Armour-Garb. Oxford University Press.
- Zardini, Elia. 2008. "A Model of Tolerance." *Studia Logica* 90 (3): 337–368.
- Zardini, Elia. 2014. "Context and Consequence: An Intercontextual Substructural Logic." *Synthese* 191: 3473–3500.

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

Jc Beall
University of Connecticut

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 $\vdash_{T_i}$:¹ 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:² 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'.³ 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),

¹ 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.

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

³ 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.⁴ 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

⁴ 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.⁵

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

⁵ 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.⁶ 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

⁶ 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.⁷ 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)

⁷ 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).⁸

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:

⁸ 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.⁹

⁹ 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.

Bibliography

- Beall, Jc. 2015. "Free of detachment: Logic, rationality, and gluts." *Noûs* 4: 410–423.
- _____. 2018. "The simple argument for subclassical logic." *Philosophical Issues* 28: 30–54.
- _____. 2019a. "On Williamson's new Quinean argument against nonclassical logic." In *Anti-exceptionalism about logic*, edited by Ole Hjortland. Special Issue of the Australasian Journal of Logic, forthcoming.
- _____. 2019b. "Transparent truth as a logical property." In *The Nature of Truth: Classical and Contemporary Perspectives*, edited by Michael P. Lynch, Jeremy Wyatt, Junyeol Kim, and Nathan Kellen. MIT Press.
- Beall, Jc and John P. Burgess. 2017. "Logic." In *Oxford Bibliographies*, edited by Duncan Pritchard. Oxford University Press.
- Eschenauer Chow, Dawn. 2018. "The passibility of god." *Faith and Philosophy* 35: 389–407.
- Harman, Gilbert. 1973. "Rationality." In *Reasoning, meaning, and mind*. Oxford University Press.
- _____. 1986. *Change in View: Principles of Reasoning*. MIT Press.
- Quine, Willard van Orman. 1970. *Philosophy of Logic*. Prentice-Hall.

Contradictions, Impossibility, and Triviality: A Response to Jc Beall

Sara L. Uckelman
Durham University

1. Introduction

Orthodox Christian theology is full of peculiar little puzzles of interest to logicians—Can God create a stone so large that he cannot lift it? Can God know what it is like to be ignorant? How can God be identical with the Father and be identical with the Son, but the Father not be identical to the Son? How can free will and God’s omniscience be compatible? Must that than which nothing greater can be conceived exist? Must it exist necessarily? These puzzles (some might call them paradoxes) challenge traditional approaches to logic because of the crucial ways that they all involve some notion or conception of ‘contradiction’. For instance, if God can do anything, then he can create anything, so he can create a stone that he cannot lift. But because he is omnipotent, he can lift any stone, including the stone so large he cannot lift it—a contradiction. A notion central to orthodox Christian theology—the Trinity—patently seems to contradict the laws of identity (which are often considered to be part of the laws of logic itself).

A variety of different solutions can be (and have been) proposed to tackle these contradictory or potentially-contradictory settings, but rarely in a way that provides a global solution for all the problems. Instead, individual solutions are propounded for each of the paralogsms.

The present paper is a response to Jc Beall’s “Christ—A Contradiction: A Defense of Contradictory Christology”, in which Beall outlines a solution to a particular theological problem—the problem of attributing contradictory properties to Christ—that while being presented as a particular solution to a particular problem can nevertheless be generalized to some (perhaps all!) of the other “paradoxes” mentioned above. Beall’s aims in his paper are two-fold: (1) “to illuminate the role that logic itself plays in theology” (401) and (2) to defend the view that “the true Christology is logically contradictory” is “both viable and motivated” (402), and that the only way to accomplish these two aims is through the adoption of a logic that admits contradictions, that is, a paraconsistent logic (and specifically, First-Degree Entailment, FDE).

Those who are familiar with Beall’s work as a logician will not be surprised that this is the conclusion he reaches: He has long been an advocate for non-classical (and specifically sub-classical) logics where the classical rule of *ex contradictione sequitur quodlibet* “from a contradiction anything follows” does not hold. Non-theological reasons for adopting such paraconsistent, non-classical logics are well

rehearsed in other places (including Beall's own paper presently under discussion which provides many relevant references), and I will not spend much time on advocating for—or against—they here.

Instead, my purpose in this short discussion piece is to address a topic that he *doesn't* explicitly address, namely, "What is a contradiction?". Motivating why this question is important, answering it, and showing the consequences of the answer to Beall's project will be the central contribution of my paper.

In addition to this, though, I will also take a closer look at how Beall approaches his two aims. First, I comment on what he says is the role of logic within theories (theological or otherwise), and why—he thinks—this should lead us to adopt a logic that allows us to admit contradictions. Then, I put the spotlight on how logicians prior to Beall have dealt with these same issues in their attempts to solve the Christological and other theological problems.¹ These issues—the relationship of logic to theology, and the ways in which we can accept classical Christology without devolving into irrationality or triviality—were core issues considered by medieval European logicians in 12th–14th centuries, and resolved in very similar ways. So we will in our investigation come to similar conclusions: For what Beall has to say, in essence, is not new, even if the details of his proposal are.

2. What is logic? The role and nature of logic

Before addressing the question of what the appropriate logic for reasoning about theological paradoxes is, 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.

Beall sees logic primarily as a tool for the generation and maintenance of theories (scientific or otherwise). His 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. Logic, according to Beall, is

a very special consequence (entailment, closure) relation. Logic is the common core of all (closed) theories; it is at the bottom of all the (extra-

¹ Medieval attempts to reconcile the contradictions inherent in theology were not limited to the Christological contradictions alone: These contradictions are a part of a broader range of theological contradictions. There is nothing special or specific about the Christological contradictions—any solution that works for them should also work for the other thorny theological issues, and vice versa—and in fact it is these other problems that exercised medieval logicians more than the Christological problems

logical, theory-specific) consequence relations of our true theories (405).

where ‘consequence (entailment, closure) relation’ is taken in the way that Tarski defined it (fn. 6), along with all the technical constraints that come along with such a definition.

A brief aside: Beall argues that the importance of logic is that without the consequence relation(s) given by logic, “our theories remain inadequate; they fail to contain truths that are entailed by the given set of truths” (404); that is, they are incomplete (in the technical, logical sense of the word, in which every truth can be derived from the theory). Two things to note about this: 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. It is also important to note that this 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. But such a theory doesn’t come without a price: For without having some entailment relation—or some other means of churning truths into other truths—it is not clear how we could generate or enumerate the truths of our theory. Such a system would be complete, but it would not be terribly useful. Therefore, the reason why we need an entailment or consequence relation is so that we can generate our set of truths from a finite—or finitary—set of basic truths. End aside.

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 of logic in a given theory is to explicate what are the non-theory-specific consequences 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.

The upshot 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’. This 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.

There is another reason why should prefer an alternative account of logic. If we look to the history of logic, it becomes clear that Beall’s very narrow conception of ‘logic’, wherein it is nothing more than the most general consequence relation available, makes much of what has been called logic in the past no longer logic. (Some people might say this is a good thing; but one should worry about the suitability of a

definition of a phenomenon that excludes much of what has historically been taken to be a part of that phenomenon, without some independently motivated reason for excluding those other parts, and an explanation for why history has gotten things so badly wrong. Neither of these two things are forthcoming in Beall's paper, and in fact when he approaches some historical questions raised in the "objections" section of his paper, attributing this narrow view of what counts as logic to historical theologians leads him into problems, as we'll see below.)

Let us consider a specific historical account of the nature of logic, one that does not resemble Beall's definition very much at all, but typifies an approach to logic that was dominant for more than a millennia and a half. Writing around 1250, Bacon says in his *Art and Science of Logic* that

logic, as a science, is the habit of distinguishing what is true from what is false by means of rules or maxims or dignities by which we can comprehend the truth of a locution through our own efforts or with the help of others. And logic is so-called from '*logos*', which means discourse, and '*lexis*', which means reason or understanding—as it were, the science either of reason joined to discourse or of discourse joined to reason [4, ¶3].

Bacon's definition highlights four important features of (the study of) logic:

1. It is aimed at distinguishing truth from falsehood.
2. It is rule-governed.
3. It can be a joint venture.
4. It involves discourse.

This provides a much wider scope for what can—and should—count as logic, which is determining truth using rule-governed methods, focusing on what *is* in fact true, and built into a cooperative, dialogical setting. In what follows, what we have to say about logic is to be placed against this more general conception: Logic is a set of practices or activities which are truth-seeking—and thus involve logical consequence—but also potentially involve other features.

With this alternative account of the nature of logic, I'd like to say a little bit about how Beall views its role. Recall above that Beall thinks logic's most important purpose is to generate and maintain theories via a notion of "follows from", explicated in terms of a consequence relation. Interestingly, nowhere in Bacon's account is a notion of consequence or entailment or closure mentioned. This is not merely because modern logicians have developed different terminology than what Bacon used, but for a more pathological reason: because there wasn't yet a concept for some alternative terminology to pick out.²

² Regardless of whether someone might respond to this point by saying "well, they *should* have had this concept (of logical consequence), and if they didn't, then they failed," the point still remains that the discipline of logic thrived for more than a millennia without an articulation of the concept that Beall

This is because a general notion of “following from” or “what follows from what” was something that was only first begun to be articulated in the 12th century, and was still in the process of being articulated in the 13th and 14th centuries. For many centuries logicians had been able to provide rules of inference governing limited sets of logical consequences (e.g., Aristotelian categorical syllogisms; limited propositional logic due to the Stoics; hypothetical syllogisms in Boethius; etc.), but one of the remarkable aspects of the developments of logic from the 12th century onwards is that they can be understood in the context of people developing an understanding of a notion of “logical consequence” broader than the syllogistic, and then attempting to codify an informal and not well defined notion of “what follows from what”. Until one has a general notion of logical consequence, in the sense that Beall wants to identify with ‘logic’, it is impossible for this concept to play a substantive role in the generation of our theories.

More importantly, the fact that a general notion of logical consequence or entailment wasn’t developed until around the 12th century has substantial consequences for some of the claims Beall makes in his paper. Throughout, Beall speaks of “Conciliar Christology”, without ever being explicit what this is. Christology is, of course, the study of the properties and actions of Christ; but the “Conciliar” adjective derives from the grounding of these properties and actions in the so-called “conciliar texts” (402). These texts are the ones that resulted from the ecclesiastical councils in the early Christian era, and most specifically the Councils of Nicaea, Constantinople, Ephesus, and Chalcedon in the 4th and 5th centuries, where the Church Fathers set much of what is considered orthodox theology today. Thus, when we move back to the era of the ecumenical councils that first articulated the Contradictory Christology that Beall is supporting, we are now many centuries before the medieval logical developments we have been discussing.

When Beall asks:

Why would the conciliar fathers not flag their special—and undefined—usage of (for example) ‘incomprehensible’ and ‘comprehensible’ . . . if they didn’t intend the usual entailments to hold?
(420)

this rhetorical question anachronistically assumes that there was some sort of “usual entailment relations” that the church fathers (a) were familiar with and (b) intended to hold. But neither of these are warranted assumptions. Logic—in both my and Beall’s use of the term—was simply not sufficiently developed the time of the councils establishing these contradictory properties of Christ for us to impute any sort of sophisticated logical understanding to the church fathers. What sort of logic did the conciliar fathers know? That’s a question for history and historians, and one that would take me out of the scope and space of this paper to pursue. Instead, I’ll address a slightly different question, “what sort of logic could the conciliar fathers have known?” Until the developments of the 12th century, the broad answer to this

wants to identify with logic (and even when a general concept of “following from” was articulated, this was still but a *component* of logic, not logic in its entirety).

question is “Aristotle’s *Prior Analytics* and *De Interpretation*, with some of the Stoics thrown in; that is, the syllogistic, a system of logic which very narrowly prescribes what counts as an argument and what follows from”; even Boethius’s commentaries post-date the earliest ecumenical councils. None of the complex intricacies of reasoning that Beall attributes to the Church Fathers later in his paper (cf. his response to Objection 2, that his proposal is “hermeneutically suspect”) are plausible, but instead reflect an anachronistic approach founded on two assumptions: (1) that “logic” or even “consequence” was a relevant notion at the time these theologians were articulating their claims, and (2) that this logic was identifiable with what we call logic nowadays (or, more narrowly, with how logic is defined in the context of Beall’s paper).

Neither of these assumptions are plausible. The more likely reason that the conciliar fathers did not flag their special usage of terms is not because they intended ordinary entailment relations to hold but because they didn’t even conceive that there could be something like entailment relations. Even if they did know their Aristotle, there simply is nothing that corresponds to explosion in the Aristotelian syllogistic,³ and the idea that there was some well-known/well-understood concept of ‘entailment’ that existed apart from the syllogistic is simply unsupportable.

What you *do* get, though, in Aristotle, are views on the notion of contradiction and contradictory opposition which are relevant here, and which we explore in the next section.

3. What is a contradiction?

The central conclusion Beall is arguing for is that “Christology is in fact logically contradictory, just as it appears to be” (414). This is certainly quite a bold claim, but it is not clear what, exactly, is meant by it. In the early parts of Beall’s paper, “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 classical logic. However, after FDE has been introduced, it is no longer clear what counts as “logically contradictory” *according to FDE*.

In this section, I want to explore different ways in which “contradiction” and “(logically) contradictory” can be defined, formally and informally, as well as how these ways are manifested in Beall’s paper.

The first systematic account of contradiction in western philosophy is found in Aristotle, who discusses contradiction and non-contradiction in a variety of places, including the *Metaphysics*, *On Interpretation*, and the *Posterior Analytics* (see Gottlieb 2015). The most detailed discussion is in the *Metaphysics*, in the context of what is now known as the law or principle of non-contradiction. Lukasiewicz identifies three different ways that Aristotle formulates the law of non-contradiction, (a) ontological, (b) logical, and (c) psychological, all in *Metaphysics* Γ (Lukasiewicz 1971, 487):

³ Though the use of *reductio ad absurdum* to reduce Baroco and Bocardo to Barbara contains the germ of EFQ.

- (a) It is impossible that the same thing belong and not belong to the same thing at the same time and in the same respect (*Met.* Γ 3. 1005b 19, 20.)
- (b) The most certain of all basic principles is that contradictory propositions are not true simultaneously (*Met.* Γ 6. 1011b 13, 14.)
- (c) No one can believe that the same thing can (at the same time) be and not be (*Met.* Γ 3. 1005b 23, 24.)

Lukasiewicz points out that “None of the three formulations of the principle of contradiction is identical in meaning with the others” (489), and Couvalis (2009, 37) claims that Aristotle does not think that either (b) or (c) are the fundamental versions of the principle, only (a) is. However, “the logical formulation seems to be for Aristotle logically equivalent to the ontological formulation” (Lukasiewicz 1971, 489), due to the correspondence between propositions and facts about the world, so even if it is not the most fundamental version of the law, we can still concentrate on it, rather than the ontological formulation which underpins it, as it is logic that interests us most here.

However, whichever version of the law we adopt, it still remains that—a law, and not a definition. The law governs the behavior of contradictory propositions—if two propositions are contradictory (to each other), then they are not true simultaneously—but leaves open the question of what, exactly, contradictory propositions are (that is, it gives us a necessary, but not sufficient condition). The law cannot be taken as a definition of contradictory propositions because defining contradictory propositions as those which are not true simultaneously is incomplete, as the definition would lack the other property traditionally ascribed to contradictory propositions, namely, that they are also not simultaneously false. That is, we need to be able to distinguish contradictory pairs from contrary pairs.

As a result, even though *Metaphysics* is widely agreed to be the place where the most detailed discussions (and arguments in support) of the principle of non-contradiction can be found in Aristotle, we must look elsewhere for a definition of ‘contradiction’, namely, in the *De Interpretatione*:

An affirmation is a statement affirming something of something, a negation is a statement denying something of something. . . . It is clear that for every affirmation there is an opposite negation, and for every negation there is an opposite affirmation. . . . Let us call an affirmation and a negation which are opposite a contradiction (17a25–35).

There are two ways that this definition can be understood: It can be understood as operating at a syntactic level, where “affirmation” and “negation” are identifiable on the basis of their syntactic properties (for instance, whether or not a negation is included, or whether the total number of negations is odd, rather than even). However, the notion of opposition involved is not one of syntactic structure but one of truth value. In the *Categories*, Aristotle says that in the case of the opposition between contradictories,

and in this case only, it is necessary for the one to be true and the other false (13b2–3).

That is, for Aristotle, contradiction is fundamentally about opposition in truth value: If two contradictory opposites are such that one must always be true and the other false (that is, if contradictory opposites satisfy the principle of non-contradiction, in its logical formulation, stated above, along with its correlated principle, the law of excluded middle), then “a contradiction”, namely the conjunction of two contradictory opposites, will always be false (assuming that the truth of a conjunction requires the truth of all of its conjuncts).

The problem is that as soon as one admits of a truth value option other than ‘true’ and ‘false’, Aristotle’s notion of contradictory opposition is no longer straightforwardly applicable. For “no third type [of statement] is possible because of all four types of opposition [in Aristotle] the one of ‘affirmation and negation’ excludes intermediates” and

of opposites only contradictories admit of no intermediate terms (for contradiction is that kind of opposition in which either of its two terms could be present in anything whatever); and this opposition clearly has not intermediates (Anton 1957, 96).

On the most uncharitable view, this means that as soon as we have more options than just truth and falsity, the notion of contradiction goes out the window. We could also be more charitable and say that as soon as we have more than two options, the notion of contradiction needs to be revised; and if we were to revise it in a way that most closely captures the essence of the Aristotelian notion, then for any one of the two options we would need to select the one that is “most opposite” of it; that is, “true” and “not true” would become contradictory opposites, not “true” and “false”, since “true” and “false” are no longer exclusive.

However, this is not what we see Beall doing when he tackles the concept of contradiction. The issue of what counts as a contradiction arises in the ninth objection, concerning the ubiquity of the law of non-contradiction. As Beall notes, this ‘law’ is “notoriously ambiguous”, and he offers a variety of ways that it might be precisified (426). Interestingly, none of these ways is the most fundamental way the principle is expressed by Aristotle noted above, namely, the metaphysical version wherein the law of non-contradiction implies exhaustivity: No sentence is both true and false at the same time.

Beall never gives an explicit definition of what he means by ‘contradictory’. In some places (e.g., 416), Beall glosses ‘contradictory’ as ‘negation-inconsistent’; this is a technical *term d’art* of logic which he also does not define or explain. There are two competing definitions of negation-inconsistency, one semantic, and one proof-theoretic. On the semantic conception, a set of sentences (i.e., a theory) *S* is negation-inconsistent if it has at least one model that satisfies both some formula φ and its

negation $\neg\varphi$.⁴ On the proof-theoretic account, a set of sentences S is negation-inconsistent if there is some formula φ such that both φ and $\neg\varphi$ are theorems of S .⁵ Negation inconsistency is a weaker form of inconsistency than absolute inconsistency, which is when a theory can derive every formula in the language. Given a proof-system that is sound and complete with respect to some classical semantics,⁶ the semantic and the proof-theoretic conceptions of negation-inconsistency collide; when the semantics are non-classical, these two conceptions of negation-inconsistency can come apart.

Negation-inconsistent theories in the proof-theoretic sense are absolutely inconsistent in the presence of a rule such as *ex contradictione sequitur quodlibet* (ECQ):^{7,8}

$$\frac{\varphi \quad \neg\varphi}{\psi}$$

as one can then take the theorem φ whose negation is $\neg\varphi$ is also a theorem and use ECQ to derive every formula. The converse is trivially true; any absolutely inconsistent theory is also negation-inconsistent, whether the system contains ECQ or not.

While Beall does not give a precise definition of ‘contradictory’, beyond ‘negation-inconsistent’, he does define ‘contradiction’. Beall’s definition of a contradiction is one that is *syntactic*, anything that is of the form “It is true that p and it is false that p ” for some proposition p , that is, the conjunction of the assertion of the truth of a sentence along with the assertion of the falsity of that very same sentence. (The use of the definition “the logical conjunction of a sentence and its logical negation” occurs on 416). But as we’ve just seen in discussing negation-inconsistency, this syntactic notion of a contradiction is not the only possible one: and indeed, historically it has never been the primary one. Following Aristotle, “contradiction” is more fundamentally a primarily *semantic* concept, with the syntactic notion of contradiction being dependent or parasitic on the semantic notion.

This issue of whether ‘a contradiction’ or ‘contradictory’ is a semantic, syntactic, or proof-theoretic notion comes up again in Beall’s response to Objection 1, that the proposal is “historically suspect”; his evidence for this is a quote of a quote of Leo the Great who argued that “Jesus could be both impassible and passible at the same time *without there being any contradiction*” (emphasis Beall’s). If in the context

⁴ The semantic conception, so defined, can be found in, inter alia, Marcos 2005. Note that even the semantic definition relies on a syntactic component, namely the idea of the negation of a formula being identified with the same formula with a $\neg$ prefixed to it.

⁵ Sometimes the proof-theoretic account is defined as the presence of $\varphi \wedge \neg\varphi$ in a theory S for some wff φ (e.g., in Robles 2008, 57). This definition is equivalent to the one we have given when the theories in question are closed under conjunction introduction and conjunction elimination, or closed under modus ponens and containing the axiom $\varphi \rightarrow (\neg\varphi \rightarrow \psi)$.

⁶ That is, where every sentence has exactly one truth value, either true or false.

⁷ This result is due to Post in the 1920’s (see Woods 2018, 177).

⁸ Note that even though this rule has a Latin name, this name is not medieval. The usual medieval description of the rule was *ex impossibile sequitur quodlibet*. The distinction between contradictions and impossibilities is one we’ll return to below.

of FDE, a contradiction is defined to be something that is both at least true and at least false at the same time, then Jesus's being both impassible and passible would indeed not occur without contradiction—assuming, of course, that being in the extension of 'impassible' implies being in the antiextension of 'passible'.

Beall's reply, quite rightly, is to

distinguish two senses of 'contradiction', one being a sentence which is the logical conjunction of a sentence and its logical negation, and the other being an 'explosive sentence', a sentence that, according to a theory's consequence or entailment relation, entails every sentence (of the language of the theory) (419).

The first sense of contradiction is the syntactic one: Any sentence conjoined to its own negation is a contradiction. (This approach to defining 'contradiction' is in keeping with Beall's regular insistence that logic and logical consequence be a matter of form—though recall the issue noted above about how he doesn't take that syntactic principle seriously when defining logical consequence.) Taking 'impassible' to be the negation of 'passible', then "Jesus is both passible and impassible at the same time" can be rewritten into a syntactic contradiction, and thus on this notion of contradiction, Leo's statement cannot be maintained.

The second sense he distinguishes is semantic, defined in terms of the truth value(s) the sentence has, as one that logically entails other sentences. Such sentences will be ones which can never be true (for all—and only—such sentences will entail every sentence in a theory). But since we haven't yet been told what counts as logical consequence or entailment on the FDE account, it is not clear that "Jesus is both passible and impassible at the same time" is not a contradiction on this sense.

On a classical account of logic, everything that is a contradiction in the first sense is also a contradiction in the second sense, as noted above; it is only on a subclassical account of logic that these two senses can be fruitfully distinguished. Beall says that it is the first sense which "is the one involved in the proposed Contradictory Christology" (419). The problem is that once we change the underlying semantic notions, it is no longer the case that everything of the first type is also of the second type, so we are left with the question of why is it that it is the first type, the syntactic, that is a contradiction, and not the second type. That is: Why do we say that on a subclassical account of logic, Contradictory Christology is contradictory at all?

This issue of whether we are interested in a semantic—i.e., grounded in truth—conception of inconsistency (and by extension contradictoriness) or what is essentially syntactic—i.e., grounded in sentences and their negations—is at the heart of my complaint concerning Beall's account of contradiction. These two approaches coincide in classical contexts. Once the classical principles of exhaustion and exclusion are dropped, a clear definition of "contradiction", whether semantic or syntactic, needs to be given: "negation-inconsistent" without further explication is not sufficient.

Under a semantic approach, contradictions cannot ever be true, and two sentences are a pair of contradictory opposites if one of them being a certain truth value implies that the other cannot have that truth value, and vice versa. Since φ and

$\neg\varphi$ are contradictory opposites on classical semantics, we can say that sentences of the syntactic form $\varphi \wedge \neg\varphi$ *turn out* to be contradictions, because their truth conditions are such that they will never be true; but there are other sentences which are also contradictory that don't have this form, for example, $\neg(\varphi \vee \neg\varphi)$. Thus, a semantic approach is more general than a syntactic one.

Again, once the classical principles of exhaustion and exclusion are dropped, we must ask why it is that “It is true that p and it is false that p ” are taken as contradictory opposites, as opposed to “It is true that p and it is not true that p .” It is easy to be lulled into a false sense of security thinking that the former captures “genuine” or “real” contradictoriness, rather than the latter, when in fact, it is the latter that genuinely opposes two claims; only in the presence of exclusion and exhaustion does the latter collapse into the former.

The issue is that when the semantic concepts of truth and falsity are redefined (so that “at least true” plays the role of ‘true’ and “at least false” plays the role of ‘false’), these definitions have to propagate down the through the rest of the semantic concepts, including that of contradiction. If we retain the semantic conception of contradiction, then *by definition* there is no such thing as a true contradiction: A contradiction is defined to be that which is never true. If we redefine truth and falsity so that they are no longer opposed, then the contradictory of “it is true that p ” is not going to be “it is false that p ” but rather “it is not true that p ”.

Now, I'm sympathetic to the view that adopting this semantic conception of contradiction might seem to be question begging against Beall's position, and that I should try to engage on the syntactic level, as he defines contradiction. But even then, the semantic background cannot be wholly escaped.

If one wanted to retain a syntactic account of contradiction, the definition still needs to be revised so that it adequately captures the genuine contradictoriness of contradictions: If ‘false’ is no longer contradictorily opposed to ‘true’, then “It is true that p and it is false that p ” no longer genuinely represents a contradiction (this is a different claim from what Beall is making, which is that this *is* a contradiction, but one that at least in some cases can be true). A genuine syntactic contradiction would be of the form “It is at least true that p and it is not at least true that p ” (only a slight variant from the revised semantic definition we can two paragraphs earlier). This has the correct semantic outcome—it is never even at least true—and retains the needed opposition between true and non-truth (it is an accident of classical logic that falsity turns out to coincide with non-truth; but if we are going to reject the exhaustion and exclusivity properties of classical logic, then we have to also reject the idea that falsity is opposed to truth).

Even if one is not persuaded by the preceding, there is also evidence that Beall's account of contradiction is too narrow even according to his own views. For instance, in §4.2, he discusses the Liar paradox:

✓ The ticked sentence is false.

and says that this is a “prima facie contradiction”: But it does not have the right syntactic form, and so, taking Beall's definition of contradiction at face value, this

shouldn't be analysed as a contradiction. It appears that there must be something else at play in the conception of contradiction that Beall is trying to capture or refer to.

When Beall says that the tenets of Christology are contradictory, I suspect that what he means is that they are contradictory in the semantic sense, in that they are both "(at least) true" and "(at least) false" at the same time (i.e., in the same model(s)). But as we've pointed out above, once we revise the notions of truth and falsity, as Beall does in adopting FDE, it is no longer clear that something being both "at least true" and "at least false" at the same time is contradictory, at least, not in the Aristotelian sense of 'contradictory' (cannot both be true at the same time and cannot both be false at the same time): The contradictory of "at least true" is not "at least false" but "not at least true". The result is that *either* Christology is not genuinely contradictory on the account of logical consequence that Beall advocates, *or* if it is, then switching to FDE doesn't help solve anything.

4. Where to go from here

I don't want to end on such a negative note, though, 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. The reason I think it's correct is because it's one that is at the heart of a number of systematic approaches to theological paradoxes and puzzles throughout the history of logic. The difference is that instead of focusing on the notion of contradiction, medieval logicians focused instead on possibility and impossibility. In this section I'd like to return to some of these historical solutions, and show how they relate to what we said about the development of a general notion of logical consequence from the 12th century on in §2.

Early medieval work on the general theoretical concept of "logical consequence" tends to be rooted in Aristotelian principles, even if not necessarily Aristotelian logic. Two commonly cited principles are that "from the possible nothing impossible follows" and the possible is "that which is not necessary but, being assumed, results in nothing impossible".^{9,10} The first of these is a necessary claim about logical consequence, but not a sufficient one, and the second is a definition of a term in the former. When these two principles are combined with the imperative that

⁹ For instance, in the anonymous treatise discussed below (cf. fn. 11), the author says that
 Just as we say that something possible must be conceded in order to see what follows from it, similarly we have it from Aristotle that something impossible must be conceded in order to see what happens then" (Anonymous 2001, 217); *sicuti enim nos dicimus quod possibile est concedendum ut videatur quid inde sequitur, similiter habemus ab Aristotele quod impossibile est concedendum ut videtur quid inde accadat* (de Rijk 1974, 117).

Because it is possible to understand something impossible, it is also possible to posit something impossible, and this is the author's justification for considering *positio impossibilis* as a legitimate genre.

¹⁰ Though various authors attribute this principle to Aristotle, in truth no such principle has been identified in Aristotle; the most similar statement is found in Boethius's *De Hypothesis Syllogismis*, attributed to Eudemus. See Martin 2001, 64.

“something possible must be conceded in order to see what follows from it”, we then have a mechanism that we can use to help determine what follows from what, and therefore to step closer to a general account of logical consequence. In fact, perhaps the easiest way to understand what is going on in early treatises in the otherwise mysterious genre of *obligationes* disputations is that they are attempts to work out a rigorous notion of logical consequence that respects these principles.

Note here the central role that possibility and impossibility play. These are two notions that greatly exercised medieval logicians in large part because of their connections with theological puzzles. There are many things which *seem* impossible (or *are* impossible given the natural order of things), but which in the presence of God’s omnipotence are rendered no longer impossible. This led medieval philosophers to distinguish between different types (or grades) of possibilities and impossibilities, with some impossibilities being “more impossible” (taking this loosely!) than others. For instance, certain things are impossible according to the laws of nature, but yet nevertheless can still be understood or imagined. That which is impossible according to nature but possible according to imagination can be said to be “less impossible” than something which is impossible both according to nature and according to imagination.

Early treatises argue that it should be possible to reason from impossibilities in a principled and non-trivial way. As the anonymous author of a treatise on reasoning from impossible statements¹¹ puts it:

something impossible can be understood, for he [Aristotle] talks about taking a fish from the water so that nothing assumes its place—which is impossible. Hence it is possible to understand something impossible. Therefore, since we can posit that that which we can understand, it is clear that an impossible *positio* must be accepted and something impossible must be conceded (Anonymous 2001, 217).¹²

The fact that it is possible to maintain a negation-inconsistent theory without collapsing into triviality (absolute inconsistency) was well-known to the later medieval logicians, who in the 12th century questioned the legitimacy of both the principles *ex impossibile quodlibet* and *ad necessarium quodlibet*, with the *Parvipontanae*¹³ accepting the principles while Peter Abelard and the so-called *Nominales* rejected them. The anonymous treatise quoted above singles out the “Adamite” thesis by name in order to identify it as unacceptable in the context of admitting impossible premises:

¹¹ This treatise is found in MS CLM 14 458, edited and dated to the first half of the thirteenth century by de Rijk (1974), who calls it *Tractatus Emmeranus de Positio Impossibilis*. An English translation appears in Anonymous 2001.

¹² *Quod impossibile potest intellegi. Dicit enim quod piscis extrahatur ab aqua, ita quod nichil subintret locum eius,—quod est impossibile—, ita impossibile potest intelligi. Ergo cum possumus ponere illud quod possumus intelligere, patet quod impossibilis positio est recipienda et impossibile est concedendum* (de Rijk 1974, 118).

¹³ The followers of Adam de Petit-Pont (Adam Parvipontanus, Adam of Balsham), who taught in Paris in the middle of the 12th century. See Minio-Paluello 1956.

And we should note that in this question everything does not follow from an impossible obligation. Thus, in this question one must not concede the consequence of the Adamites—namely that from the impossible anything follows (218).¹⁴

Note the use of “impossible” rather than “contradictory” here: One place where medieval logicians were ahead of much of their modern counterparts was in the recognition of different types, or grades, of impossibility, some of which are more pathological than others (the most pathological being the strictly, syntactically, contradictory, the conjunction of a sentence and its negation).

These different grades of possibility and impossibility were intimately tied to theological questions, specifically questions concerning God’s abilities, such as whether he could make a goat-stag (an animal that participates *essentially* in two different species), a metaphysical impossibility.

Their approach to the problem of theological impossibilities was therefore twofold: to recognize that not all impossibilities are contradictions and then, in the presence of strict syntactic contradictions—the conjunction of a sentence and its negation—to weaken the inference rules so as to prevent trivialization.

Two things are remarkable about this approach. The first is how much it resembles the strategy that Beall himself uses in his paper, by identifying ways in which we can accept apparent “contradictions” without trivializing logic. The second is how the medieval approach avoids some of the concerns that we’ve raised with Beall’s tactics: Whereas Beall focuses on the notion of contradiction, medieval authors separated contradictions and impossibilities, admitting that the former are always the latter, but the latter are not always the former. We can then develop rules of entailment wherein not everything follows from an impossibility (removing that route to trivialization) and only the conjunction of *genuine* contradictory opposites entails everything. Combining this latter prong with the fact that in a non-binary-valued logic, “truth” is no longer contradictorily opposed to “falsity”, we can then take full advantage of all the benefits that FDE gives us.

¹⁴ *Et notandum quod in hac questione ex obligatione impossibili non sequitur quidlibet. Unde consequentia Adamitorum non est concedenda in hac questione, scilicet quod ex impossibili sequitur quidlibet* (de Rijk 1974, 118).

Bibliography

- Anonymous. 2001. "The Emmeran treatise on impossible *Positio*." In *Medieval Formal Logic*, edited by M. Yrjönsuuri. Kluwer Academic Publishers. 217–223.
- Anton, John Peter. 1957. *Aristotle's Theory of Contrariety*. Routledge and Kegan Paul.
- Aristotle. 1963. *Categories and De Interpretatione*, edited by J. N. Ackrill. Clarendon.
- Bacon, Roger. 2009. *The Art and Science of Logic*, translated by Thomas S. Maloney. Pontifical Institute of Medieval Studies.
- Couvalis, George. "Aristotle on non-contradiction." 2009. In *Greek Research in Australia: Proceedings of the Eighth Biennial International Conference of Greek Studies, Flinders University, June 2009*, edited by M. Rossetto, M. Tsianikas, G. Couvalis, and M. Palaktsoglou. Flinders University Department of Languages—Modern Greek. 36–43.
- de Rijk, L. M. 1974. "Some thirteenth century tracts on the game of obligation." *Vivarium* 12: 94–123.
- Gottlieb, Paula. 2015. "Aristotle on non-contradiction." In *Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta. <https://plato.stanford.edu/archives/sum2015/entries/aristotle-noncontradiction>.
- Grant, Edward. 1979. "The condemnation of 1277, God's absolute power, and physical thought in the late Middle Ages." *Viator* 10: 211–244.
- . 1996. *The Foundations of Modern Science in the Middle Ages*. Cambridge University Press.
- Lukasiewicz, Jan. 1971. "On the principle of contradiction in Aristotle." Translated by Vernon Wedin. *Review of Metaphysics* 24 (3): 485–509.
- Marcos, João. 2005. "Nearly every normal modal logic is paranormal." *Logique et Analyse* 48 (189/192): 279–300.
- Martin, Christopher J. 2001. "Obligations and liars." In *Medieval Formal Logic*, edited by M. Yrjönsuuri. Kluwer Academic Publishers. 63–94.
- Minio-Paluello, Lorenzo (editor). 1956. *Twelfth Century Logic: Texts and Studies*. Vol. 1. Edizioni di Storia e Letteratura.
- Robles, Gemma. 2008. "Extensions of the basic constructive logic for negation-inconsistency BKc4 defined with a falsity constant." *Logique et Analyse* 51 (201): 57–80.

Woods, John. 2018. *Truth in Fiction: Rethinking Its Logic*. Springer.

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

Jc Beall
University of Connecticut

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-to-accept (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.¹

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:

¹ 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 complete-as-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);² 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*).³

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 run-of-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

² 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.)

³ 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 model-theoretic 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-/falsity-in-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-of-counterexample 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 first-order 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 ‘Preliminaries’, a *formal contradiction*) is a sentence (or whatever) of the form

$$\dagger A \wedge \neg A$$

or, because logic’s truth operator (viz., $\dagger$) 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.⁴ 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.)

⁴ 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:⁵

✓ The ticked sentence is false.

The ticked sentence is not (officially) a *contradiction* because not of the form $\neg A$, 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.⁶

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 $A \wedge B$ 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

⁵ 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.

⁶ 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).⁷

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

⁷ 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.⁸ 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 (non-trivial) 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)

⁸ 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 $\uparrow p$ 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 so-called 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.⁹

⁹ 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.

Bibliography

- Beall, Jc. 2015. "Free of detachment: Logic, rationality, and gluts." *Noûs* 4: 410–423.
- Beall, Jc and John P. Burgess. 2017. "Logic." In *Oxford Bibliographies*, edited by Duncan Pritchard. Oxford University Press.
- Beall, Jc, Michael Glanzberg, and David Ripley. 2018. *Formal Theories of Truth*. Oxford University Press.
- Beall, Jc and Greg Restall. 2005. *Logical Pluralism*. Oxford University Press.
- Grim, Patrick. 1991. *The Incomplete Universe*. MIT Press.
- . 2004. "What is a contradiction?" In *The Law of Non-Contradiction: New Philosophical Essays*, edited by Graham Priest, Jc Beall, and Bradley P. Armour-Garb. Oxford University Press.
- Harman, Gilbert. 1973. "Rationality." In *Reasoning, meaning, and mind*. Oxford University Press.
- . 1986. *Change in View: Principles of Reasoning*. MIT Press.
- Lewis, David. 1970. "How to define theoretical terms." *Journal of Philosophy* 67: 427–446.
- . 1980. "Mad pain and martian pain." In *Readings in the Philosophy of Psychology*, edited by Ned Block. Harvard University Press.
- Priest, Graham, Jc Beall, and B. Armour-Garb, editors. 2004. *The Law of Non-Contradiction*. Oxford University Press.
- van Fraassen, Bas C. 1966. "Singular terms, truth-value gaps, and free logic." *Journal of Philosophy* 63: 481–495.