

## Article

# Divine Foreknowledge and Human Freedom: Exploring a Glut-Theoretic Account

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**Abstract:** This essay marks the first steps towards a viable glut-theoretic (contradictory) solution to the longstanding foreknowledge and free will dilemma. Specifically, I offer a solution to the dilemma that accommodates omniscience (foreknowledge) and human freedom (as the ability to do otherwise) in a simple, flat-footed way. This goal is accomplished via viewing the theological fatalist argument not as a problem, but as a sound argument: omniscience and human free will are contradictory and by dropping to a weaker underlying account of logical consequence, we can embrace them in their full-throated, robust (though contradictory) interpretations. That said, the primary aim of this paper is one of exploration: how does a subclassical solution to the foreknowledge and free will dilemma stack up in comparison to the traditional solutions on offer in the literature. This essay represents the beginning of such an exploration.

**Keywords:** contradictory theology; foreknowledge; free will; subclassical logic; gluts



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## 1. Introduction

Central doctrines of traditional monotheism (Islam, Judaism, and Christianity) have the status of axioms in the theory (in the theology); they make up the core of the standard theology. Some of the distinctive axioms have long struck both reflective theists and non-theists as apparently contradictory. Yujin Nagasawa (2008) categorises these apparent contradictions into three distinct types:

Type A: Inconsistencies that arise when considering individual divine attributes.

Type B: Inconsistencies that arise when considering two or more divine attributes.

Type C: Inconsistencies that arise when considering divine attributes and contingent states of the world.

Indeed, the history of monotheistic thought reflects a long effort towards avoiding the apparent contradictions categorised above.

Recent work done in the field of analytic theology has sought to address a number of these longstanding issues by way of subclassical solutions.<sup>1</sup> That said, much of this work has focused on Type A and Type B problems (restricting subclassical solutions to divine reality). This trend is, of course, to be expected. Divine reality is strange, and if contradictions and truth-value gaps (which are themselves strange phenomena) are to be found anywhere, the supernatural is a good place to start looking. What has yet to have been explored, however, are subclassical solutions to Type C problems (where the contradictory nature of divine reality bleeds into human reality). This a particularly pressing question if one accepts a principle of uniformity: If Type A and B problems find natural subclassical solutions, why not Type C problems? The aim of this paper is to begin this exploration.

The specific instance of a Type C inconsistency that I will be examining is the infamous foreknowledge and freedom dilemma, which manifests at the intersection of the following two axioms:

- a. God is omniscient; God has foreknowledge.
- b. Human beings have the ability to do otherwise.

The apparently contradictory nature of (a) and (b) is easily demonstrated and the oceans of ink that continue to flow on the target problem are wide and deep. The traditional stock of solutions tend to achieve consistency (if achieve it at all) via highly complicated theories. While complexity is not necessarily a mark of untruth, it can sometimes be a flag that the initial claims that apparently entail the contradiction are not worth the weight of a consistent account of them.

However, what would a contradictory (glut-theoretic)<sup>2</sup> solution to the familiar problem of divine foreknowledge and human freedom look like? In the spirit of exploration, this paper gives a first sketch towards answering that question. This paper is meant to provide neither a decisive solution to the target problem nor the only viable glut-theoretic approach. Rather, the aim is just to motivate and outline a glut-theoretic account so that future debate can measure its promise against extant traditional accounts. Given the recent promise of subclassical accounts of Type A and B apparent contradictions, this paper represents a natural next step in determining the fruits of such an approach to other longstanding problems in the field.

## 2. The Target View: Fatalism and Freedom

The position I aim to accommodate is the familiar, flat-footed one that enjoys a simple but robust account of omniscience and a simple but robust account of human freedom. Of course, as initially plausible as the familiar simple accounts appear, their combination very quickly leads to one of the most familiar apparent contradictions confronting monotheistic theology, namely, the so-called theological-fatalist contradiction.

My aim is to accommodate the simple, flat-footed view via a motivated glut-theoretic understanding of God's omniscience in relation to human freedom. The target position involves three ingredients each of which is taken in its simple, robust and flat-footed fashion: omniscience (and, in turn, foreknowledge), human freedom, and their apparent contradiction as witnessed in the theological-fatalist argument. I review each ingredient in turn.

### 2.1. Omniscience and Foreknowledge

The target notion of divine omniscience is defined as follows:

A being S is omniscient iff S knows all true propositions and believes only true propositions.

More specifically, God infallibly (and eternally) knows all true propositions, including exhaustive foreknowledge of the future—including all true future contingents (of which, according to the target view, there are many). This robust notion of omniscience is the notion of omniscience that many thinkers initially have prior to confronting the apparent contradiction on the table.

### 2.2. The Freedom to Do Otherwise

Literature on the free will/determinism problem is very wide and equally non-uniform with respect to terminology, making definitions of, for example, free will no easy task. The debate starts at, but is quickly driven away from, the target flat-footed view by a commitment to glut-free theology. Fortunately, we can sidestep the complications (or guaranteed objections) involved in using terms such as "libertarian free will" or "leeway incompatibilism" in the current context; for, the target flat-footed view simply defines human freedom as the ability to do otherwise.<sup>3</sup>

Additionally, the definition is not unmotivated. An important motivation for adopting the familiar target view of human freedom stems from the issue of moral responsibility. Many have thought that in order for an agent to be morally responsible for a given action, they must have had the ability not to do said action. This is especially the case in light of theological considerations such as heaven and hell, eternal culpability and eternal reward

and the problem of evil. However, again, regardless of such motivations, the target view takes the ability to do otherwise as a necessary component of human freedom.

### 2.3. The Theological-Fatalist Argument

As emphasised throughout, the definitions above reflect a familiar though simple theological theory. Perhaps the most famous objection to the theory points to its apparent contradiction—the notorious theological-fatalist contradiction—which follows from the simple view’s core theses together with the entailments in the theological-fatalist argument.

There are a number of formal versions of the theological-fatalist argument,<sup>4</sup> but a quick, informal sketch of the argument is sufficient for present purposes. Take the following (where  $t_0$  is some time earlier than  $t_1$ ):

1. God foreknew at  $t_0$  that an agent  $S$  would do some action  $A$  at  $t_1$ .
2. If (1) is true and  $S$  is free not to do  $A$  at  $t_1$ , then it is in  $S$ ’s power to do something such that, were  $S$  to do it, either (i) God would have had at least one different belief at  $t_0$  or (ii) God would have had at least one false belief at  $t_0$ .
3. It is not in  $S$ ’s power to do something such that, were  $S$  to do it, (i) God would have had at least one different belief at  $t_0$  or (ii) God would have had at least one false belief at  $t_0$ .
4. It is false that  $S$  is free to do  $A$  at  $t_1$ .<sup>5</sup>

Given that at  $t_0$  God infallibly believed that at  $t_1$   $S$  would do  $A$ , and the (herein undisputed) fact that the past is fixed (e.g., there is nothing  $S$  can do at  $t_1$  to change God’s belief at  $t_0$ ),  $S$ ’s would-be “free choice” of  $A$  appears to have been no genuine choice at all—and ditto for not- $A$ . The strong appearance, then, is that God’s omniscience (ergo, on the target view, God’s foreknowledge) contradicts  $S$ ’s freedom to do otherwise: that God has foreknowledge entails the falsity of  $S$ ’s being free to do otherwise (in the simple, flat-footed sense).<sup>6</sup> Additionally, the contrapositive is equally apparent: that  $S$  is free (in the simple, target sense of doing otherwise) entails the falsity of God’s foreknowledge. This, of course, is true for all free creatures. Hence, combining these entailments with the core axioms of the target view—namely, God’s omniscience and human freedom (understood in the simple, initial ways)—delivers contradiction. So goes the familiar apparent contradiction at the intersection of God’s foreknowledge and human freedom.

### 2.4. The Target Position

Standard responses to the target contradiction divide very roughly into two directions but are united in rejecting the contradiction. Such responses to the theological-fatalist contradiction come from every area of philosophy (e.g., metaphysics, epistemology, mind, morality and more). In one direction is the keep-but-complicate strategy: maintain the letter of the target view while giving up its initial simplicity. This strategy keeps the letter of the core axioms by interpreting them in fairly complicated ways. In a different direction is the walk-away strategy: simply give up one or the other core axioms but keep the simplicity of the other. The driving force behind both strategies is the unwavering commitment to a contradiction-free theology.<sup>7</sup>

Against both of the standard directions is one that holds tightly to the simple, flat-footed view and its resulting contradictions. The principal question for such a glut-theoretic response is twofold: how is it logically coherent? Is there any independent motivation for it? Each question in turn.

## 3. Logic’s Role and Reach

Logic serves a key role as the universal (topic-neutral) entailment relation governing all true theories; it “logically closes” the theory by adding every logical consequence of anything in the theory to the theory, thereby completing the theory with respect to its logical consequences. While different theories have different languages, all true theories possess a common underlying (topic-neutral) logical vocabulary, which is the vocabulary

governed by this foundational entailment relation called “logical consequence” or, for short, “logic”.

On the given understanding of logic (-al consequence), whatever is logically valid—valid according to the relation of logical consequence—is valid according to every true theory *T*. In other words, anything that is logically valid is *T*-valid for every true theory *T*, where *T*-validity is simply the validity (or consequence or entailment) relation of theory *T*. (*T*-validity is built on top of the logical-validity relation; *T*-validity covers *T*-specific vocabulary that goes beyond the universal logical vocabulary.) Because anything that is logically valid is *T*-valid for all true theories *T*, it is critically important that our account of logical consequence be correct.

The so-called classical account of logical consequence has long ruled the day as the assumed universal closure relation on true theories—as the assumed correct account of logical consequence. On the standard account, both the logical possibility of gluts (possibilities in which some claim is both true and false) and the logical possibility of gaps (possibilities in which some claim is neither true nor false) are ruled out. The exclusion of such possibilities from the space of logical possibility continues to drive much of theology and philosophy of religion. The result is that strikingly apparent contradictions in theology immediately fuel a flight to avoid them—no matter what the cost to simplicity or deviation from what appears to be the initial, flat-footed theology.

As mentioned above, both glutty and gappy solutions to omni-problems can be found in the literature. Jc Beall has elsewhere argued (both for theological reasons and theologically independent reasons) for first-degree entailment (FDE) as the paradigmatic account of logic.<sup>8</sup> In order to stay in step with the current literature, as well as providing a solution that would not rule out gap-theoretic approaches, I also utilise FDE in this essay. This is a strictly weaker account of logical consequence than the classical-logic account; it allows for the logical possibility of gluts and the logical possibility of gaps. On this account, anything that is FDE valid (i.e., valid according to the FDE relation) is classical-logic valid (i.e., valid according to the classical-logic relation); however, the converse fails because the latter account ignores counterexamples that invalidate certain patterns (specific to this paper, the principle of explosion according to which an arbitrary contradiction entails any and every claim in the language of the theory).

The details of FDE are available elsewhere.<sup>9</sup> For present purposes, the question is not whether theology can accommodate a contradictory account; for, with the right account of logical consequence (e.g., FDE), it can. The important and interesting question—and the chief aim of this paper—is whether there is something natural and motivated in a simple, flat-footed, glut-theoretic response to the target theological-fatalist contradiction. What follows is a step towards an affirmative answer.

#### 4. God’s Knowledge, Foreknowledge, and Gluts

Just because FDE allows for gluts and gaps does not mean one should posit them without reason to do so. Proper motivation is key. Such motivation, as it relates to a glut-theoretic approach to the target theological-fatalist contradiction, comes from the nature of God’s knowledge—understood in a simple, flat-footed fashion in concert with the overall target view. Take the following sort of familiar (liar-like, knower-like) proposition: G. God fails to know that G is true.

On the target view, as a theological (versus logical) matter, there are two options when it comes to God’s knowledge of G: namely, knowledge and failure to know. First, if God knows that G is true then, since knowledge entails truth, G must be true, in which case, God fails to know that G is true (since G speaks truly and says only that God fails to know it). Second, if God fails to know that G is true, then G is true (since G says exactly that God fails to know it), and given that God knows all true propositions (omniscience), God therefore knows G (i.e., knows that G is true). Hence, in each of the two relevant options, it is both true that God knows G and false that God knows G. As a result, it is natural, at least

on a simple, flat-footed account of God's knowledge, to conclude that God's knowledge is glutty: the true theory of God's knowledge contains contradictions.

Again, my aim is not to establish that theology demands a glutty account of God's knowledge; the point is simply that, at least from a simple, flat-footed view of God's knowledge there is motivation for a glut-theoretic treatment.<sup>10</sup> That the motivation arises from a peculiar sort of (self-referential, etc.) phenomenon does not diminish the motivation; for, monotheistic theologies are rife with peculiar and rare phenomena (the trinity, *T'chiyat Hameitim*, *Mi'raj*, etc.)

However, now a question: The given motivation is fine so far as it goes, but how does it help motivate a glut-theoretic response to the target theological-fatalist contradiction? The answer to this question rests on the perspective of the target view itself. On the view being explored, the theological-fatalist argument is not seen as a problem; rather, in concert with core axioms, it is seen as a sound argument to the conclusion that God's *foreknowledge* is glutty—truly and fully described only via contradiction.

1. God's being omniscient entails that God has foreknowledge (i.e., knows the future).
2. God is omniscient. [Core axiom of target view.]
3. God has foreknowledge (i.e., God knows the future). [From 1 and 2.]
4. That humans have the ability to do otherwise entails the falsity of God's foreknowledge.
5. Humans have the ability to do otherwise. [Core axiom of target view.]
6. It is false that God has foreknowledge. [From 4 and 5.]
7. It is true that God has foreknowledge and it is false that God has foreknowledge. [From 3 and 6, by logic.]

Traditional responses treat (7) as beyond logical (and therefore beyond theological) possibility, and thus are forced into rejecting some version of (4) or its contrapositive—rejecting one or the other entailments established by the theological-fatalist argument (per Section 2.4 above). Non-traditional solutions are forced to reject claims that many see as axiomatic in monotheistic theologies, specifically, (2), (3) or (5). However, on the target simple view, underwritten by a suitable subclassical account of logic, all of (1)–(6) are independently well-motivated claims resulting in the true and equally motivated (7).

An important though familiar observation is notable: unlike apparent contradictions of omnipotence and omniscience, the target “problem” arises not just from God's nature, and not just from human freedom; the problem arises when the two are together—when they are entangled, as God apparently chose them to be (per the target theology). The entanglement is as tight as can be: freedom at the cost of false foreknowledge together with foreknowledge via false freedom.<sup>11</sup> Given the entanglement of divine foreknowledge with the freedom to do otherwise, the proposed glut-theoretic understanding of divine foreknowledge also entails a glut-theoretic understanding of human freedom. Specifically, it is via the truth of God's foreknowledge that results in the falsity of a human's ability to do otherwise (i.e., the truth of God's foreknowledge entails the falsity of human freedom). However, the inverse is equally true: it is the falsity of God's foreknowledge that allows for the human ability to do otherwise. For example, it is the truth of God's foreknowledge that I will have coffee tomorrow for breakfast that entails my having coffee for breakfast and, as such, the falsity of my ability to choose tea or juice. Yet—equally so—it is via the falsity of God's foreknowledge that I truly could have chosen tea or juice for breakfast. Again, this radical (i.e., at-the-root) glutty entanglement of foreknowledge and free will emerges not just from God's having foreknowledge alone, nor humans free will alone; rather, the glutty entanglement is a feature of any world within which both realities obtain.

The proposed picture, simply put, is one in which the reality of human freedom, entangled with the reality of God's foreknowledge, delivers gluts. Those who say that the combination of God's omniscience and human freedom, understood in simple and flat-footed ways, entails a contradiction are correct: the two powerful realities coexist in an entangled glut of truth and falsity. However, rather than either give up or water down human freedom, or give up or water down God's foreknowledge, we can accommodate the flat-footed, robust sense of both phenomena by way of contradiction. The truth of God's



foreknowledge is purchased via the falsity of human freedom; the truth of human freedom is purchased via falsity of divine foreknowledge.

It is critical to note that the glutty entanglement of freedom and foreknowledge does not take away from the truth about either God or humans; the gluts *add information*. The simple view holds as axiomatic both that God truly foreknows human actions and that human actions are truly free (where freedom and foreknowledge are simply and robustly as above). The famous theological-fatalist argument makes explicit what is obviously implicit: namely, that the given claims entail a contradiction. The proposal is that the theological-fatalist contradiction is a twofold explanation of the core but contradictory truths. How is it that our human action is truly free in the face of God's foreknowledge? Answer: it is false that God foreknows the action. How is it that God truly foreknows human actions? Answer: it is false that human actions are free.

On the target theological view, God brought together two fundamental realities—God's omniscience and human freedom, both in the simple and robust senses reflected at the start of the theological-fatalist argument. On the proposed account, God's bringing together such realities was achieved via contradiction.

## 5. Some Virtues of a Glut-Theoretic Account

While there are various other virtues that the glut-theoretic solution to the foreknowledge and freedom problem (hence forth, DFF) enjoys, I briefly highlight two salient ones.

### 5.1. Simplicity

Accepting the contradictory entanglement of divine foreknowledge and human freedom provides a comparatively simpler solution to DFF than the standard stock of traditional solutions. The theological-fatalist argument, on the glut-theoretic account, is a sound argument. There is no need to search for hidden ingredients that invalidate the argument to contradiction. What is needed is simply a check on arguably unchecked assumptions about logical consequence itself. Moreover, the given—and DFF-independently motivated—subclassical account of logic enjoys the classical-logic account as a special case (a proper extension) whereby, as with many true theories (e.g., mathematics), neither gluts nor gaps are involved. In this way, even the account of logic does not involve a full-on rejection of the classical-logic.

### 5.2. Resiliency

T. Ryan Byerly argues that any successful solution to DFF must apply to “an[y] only slightly modified but still well-motivated version of the foreknowledge argument”. (Byerly 2014) A classic example of an approach that (arguably) fails this condition is the so-called timeless solution, wherein God's being placed outside of time is said (for various reasons) to avoid the contradiction. However, as Linda Zagzebski observes, “the timelessness move does not avoid the problem of theological fatalism since an argument structurally parallel to the basic argument can be formulated for timeless knowledge” (Zagzebski 2017).

On the proposed glut-theoretic approach, there is no such worry of “revenge DFF problems” (so to speak) arising down the road from the starting line; for, the contradiction of foreknowledge and free will is accepted at scratch. Embracing the target contradiction—the glutty entanglement of foreknowledge and freedom—as such provides a resilient solution to DFF.

## 6. Objections

Towards further elaborating the shape of the glut-theoretic account, I address a few key objections.

### 6.1. The Problem of Evil

Nagasawa's classification has Type A, Type B and Type C problems. The first two types are naturally treated along glut-theoretic lines. The current project attempts to

explore a glut-theoretic solution to Type C problems. However, a familiar principle of uniform solutions (viz., same problem, same solution) now applies. In particular, a glut-theoretic account of any Type C problem is adequate only if all Type C problems are equally resolved along glut-theoretic lines. However, then, the contradictory account of the freedom-foreknowledge problem is adequate only if a glut-theoretic treatment of the problem of evil is equally adequate. However, it is unlikely that gluts can help resolve the problem of evil.<sup>12</sup> Hence, arguing for a glut-theoretic solution to the foreknowledge and freedom problem without offering a glut-theoretic solution to the problem of evil simply ignores the obvious principle of uniform solution in play. If one really wants to explore subclassical solutions to Type C omni-problems, the principle of uniform solutions demands the same (glut-theoretic) solution to the problem of evil.

Reply: By way of response, it is important to note that unlike the foreknowledge and free will problem, the problem of evil manifests when considering three of God's attributes (omnipotence, omnibenevolence, and omniscience). This point highlights the need for further differentiation within Nagasawa's classification of omni-problems. Specifically, Nagasawa's framework sees Type C omni-problems as one class of problems (which, of course, is fine for his original purposes); however, the classification is too coarse-grained for any correct principle of uniform solutions to apply. In particular, some Type C problems are, say, Type C-1 problems, where inconsistencies arise when considering *one divine attribute* and its relationship to a contingent human reality. Some, like DFF, are Type C-2 problems, where *two divine attributes* and their relationship to a contingent human reality are under consideration. Lastly, some, like the problem of evil, are Type C-3 problems, where *three divine attributes* and their relationship to a contingent human reality give rise to inconsistencies. Thus, while it is *prima facie* natural to think that a principle of uniform solutions applies to all Type C problems, this further distinction highlights why such a claim is at best unmotivated—at least until some argument is given in defense of such a position. This is not to say that a glutty solution to all Type C-3 problems is impossible (indeed, pending further debate, there may be good reason to consider contradictory solutions to these issues); rather, the point is simply that a contradictory solution to the problem of evil is not required by a principle of uniform solution, *pace* the current objection.<sup>13</sup>

## 6.2. The Falsity of God's Omniscience

A second salient objection is that the proposed glut-theoretic account of DFF decisively fails to achieve its goal. Specifically, it may be true that God has foreknowledge, but, on the proposed solution, it is still false that God has foreknowledge. However, then, the falsity of divine foreknowledge undermines the truth of the very divine omniscience that the entire account attempts to accommodate. The objection can be stated as follows:

1. God's omniscience entails God's foreknowledge. [Given]
2. If *A* entails *B* then the logical negation of *B* (viz.,  $\neg B$ ) entails the logical negation of *A* (viz.,  $\neg A$ ). [Would-be fact about any entailment relation]
3. The falsity of God's foreknowledge entails the falsity of God's omniscience. [From 1,2]
4. It is false that God has foreknowledge. [Part of the proposed glut-theoretic account]
5. It is false that God is omniscient. [From 3,4]

Hence, the glut-theoretic account is forced to give up the very feature it purports to accommodate: the truth of God's omniscience.

Reply: First, it is important to note that, inasmuch as God's foreknowledge is glutty, the falsity of God's foreknowledge does not take away from the truth of God's foreknowledge. Glutty phenomena are described by claims that are both true and false—ergo false, to be sure, but equally true. To better illustrate the point, consider a distinction with respect to negations and a given theory (say, the target theology):

1. O1. Presence of Negation: the theory contains the given negation (viz., *it is false that God has foreknowledge*).

2. O2. Absence of Nullation: the theory fails to contain the given “nullation” (viz., *It is true that God has foreknowledge*).<sup>14</sup>

O2 is a substantial failure to accommodate God’s omniscience—a serious failure of omission (so to speak). Additionally, there is nothing in the proposed account that satisfies O2; so this is not an issue.

However, what of O1? Here, the objector alleges that the proposed theory satisfies O1, that the theology contains the negation of God’s omniscience (because it contains the negation of God’s foreknowledge). However, while this sort of negated-omniscience theory is a related glut-theoretic option, it is not forced; one could simply maintain that God’s omniscience is just true of him (not also false) even though God’s foreknowledge is both true and false. The matter turns on whether the extra-logical entailment relation in the target theology contraposes:<sup>15</sup> if it does not then premise two of the objection is to be rejected; if it does, then the “objection” goes through—but to no obvious problem if, as in this would-be case, the theory commits only an O1 “failure of commission”. Such a “failure of commission” in this context is hardly a failure: the reality is contradictory, and so the full truth demands that both conjuncts of the target contradiction be in the theory. (However, again, to be clear: the proposed account can go either way here, depending on whether extra-logical entailment that underwrites the theology contraposes.)

### 6.3. Requisite Re-Conception of Human Freedom Is Too Radical

Finally, one might worry that with a glut-theoretic solution to DFF all freedom-involving predicates become potentially glutty, in the sense that each such predicate is possibly (and in many cases, actually) true and false of the free actor who satisfies it. The worry, in other words, is that all sentences attributing free human actions are both true and false. The objection, arising from the given worry, is that the glut-theoretic response to DFF thereby requires an overly radical re-conception of human actions.

Reply: The background view that I am accommodating begins with the fundamental principles of God’s foreknowledge and human freedom in the robust and flat-footed senses that drive the theological-fatalist contradiction. While one can (and many have) revised this background view in light of the contradiction, the aim of the current discussion is to accommodate both “horns” via contradiction. Accordingly, the “cost” of glutty human freedom (or glutty foreknowledge) is to be measured against the simplicity involved in the target view. However, now a prior question: what exactly is the cost that the objection raises? This just is not clear. Yes, given God’s foreknowledge, it is false that humans act freely (in the familiar, flat-footed sense that delivers the typical theological-determinism contradiction); however, it is also true that humans act freely (because it is also false that God foreknows the given actions). Additionally, this goes for all actions freely done. However, what exactly is the alleged “radical re-conception of human actions” that must be executed? Again, this just is not clear.

Perhaps the idea is that it is an entirely new conception of human actions to say that *it is always glutty when humans freely act*. However, that is incorrect. It is not a new view of *human freedom* (or *human actions*) per se; what is new is simply the semantic status of (the full descriptions of) such actions. In particular, the standard conception according to which S freely does Act-A is one that, on the standard conception of logic, delivers exactly two options: it is true that S freely does Act-A or it is false that S freely does Act-A. The proposed glut-theoretic account does not remove these options; rather, the account keeps both on the table: the truth that S freely does Act-A (purchased via the falsity of God’s foreknowledge), when combined with the fundamental truth of God’s foreknowledge that S does Act-A, is forever entangled with the falsity that S freely does Act-A. So, no “new conception” is required; it is a broadening of what is involved in the simple, flat-footed view of human freedom and divine foreknowledge. The view I am exploring is one that accommodates the target axioms in their full-throated familiar senses while acknowledging that the combination results in glutty action (and glutty foreknowledge).<sup>16</sup>



## 7. Concluding Remarks

This is an exploratory paper. Moreover, this paper is far from exhaustive. (There are lots of avenues for different glut-theoretic and gap-theoretic solutions that differ from an FDE-based account.) Still, despite its limits, I hope that the proposal initiates debate over the merits of a glut-theoretic approach to the longstanding foreknowledge and freedom “dilemma” and, more generally, Type C omni-problems. In the end, the vast majority of accounts generally acknowledge the apparent contradiction, only to ultimately reject it without seriously considering an acceptance of it. However, once the weight of the classical-logic account of logical consequence is lifted, the persistent appearance of contradiction involved in God’s exhaustive foreknowledge of future contingents and the ability of free agents to do otherwise begins to look very different. Embracing the contradiction may well be the way to embrace the full truth. Further debate will tell.

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## Appendix A

The sole purpose of this appendix is to give a few key features of the FDE account of logical consequence. Further details are available in many places.<sup>17</sup>

### Principal Similarities

Both the FDE and classical-logic accounts agree on the logical vocabulary (see Syntax below); both accounts agree on the meanings (truth/falsity conditions) for the logical vocabulary (see Semantics below); and both accounts agree on the definition of consequence or validity as being nothing more nor less than absence-of-counterexample (see Logical Consequence below).

### Principle Difference

The difference is in the space of counterexamples. The classical-logic account is a so-called proper extension of the FDE account. Anything FDE valid is classical-logic valid but not vice versa, since the latter classifies some patterns (“argument forms”, etc.) as counterexample free while the former recognises counterexamples to the given patterns. (Salient witnesses: “explosion” and its dual “excluded middle”, where the former goes from an arbitrary contradiction  $A \wedge \neg A$  to an arbitrary sentence  $B$ , and the latter goes from arbitrary sentence  $B$  to an arbitrary “dual of a contradiction”  $A \vee \neg A$ . Both of these patterns are FDE invalid but classical-logic valid.)

### Syntax

The syntax is standard (focusing here just on the propositional fragment):<sup>18</sup>

- Unary Operators: truth ( $\dagger$ ) and falsity ( $\neg$ ).<sup>19</sup>
- Binary Operators: conjunction ( $\wedge$ ) and disjunction ( $\vee$ ).
- Derivative Material Conditional:  $A \supset \sqcap B$  defined per usual as  $\neg A \vee B$ .
- Atoms: Propositional variables ( $p, q, r$ , with or without numerical subscripts).
- A-Logical Parentheses: left and right parentheses.
- Sentences are defined recursively per usual.

### Semantics

FDE acknowledges all four natural combinations of the fundamental semantic properties of truth and falsity; so, the set of semantic values is modelled by the power set of the

set  $\{1, 0\}$  of usual values 1 (truth) and 0 (falsity), namely,  $\wp(\{1, 0\}) = \{\{1\}, \{0\}, \{1, 0\}, \emptyset\}$ . Each atomic sentence is assigned exactly one such value: a sentence assigned  $\{1\}$  contains “just truth”; a sentence assigned  $\{0\}$  contains “just falsity”; a sentence assigned  $\{1, 0\}$  contains “both truth and falsity”; a sentence assigned  $\emptyset$ , the empty value, contains “neither truth nor falsity”. Additionally, on this simple picture, the usual truth and falsity conditions for logical vocabulary are preserved. For example, where  $|A|$  is the semantic value assigned to  $A$  by an interpretation, truth and falsity conditions for negation and disjunction are per usual:

- Truth of Negation: 1 is in  $|\neg A|$  iff 0 is in  $|A|$ .
- Falsity of Negation: 0 is in  $|\neg A|$  iff 1 is in  $|A|$ .
- Truth of Disjunction: 1 is in  $|A \vee B|$  iff 1 is in  $|A|$  or 1 is in  $|B|$ .
- Falsity of Disjunction: 0 is in  $|A \vee B|$  iff 0 is in  $|A|$  and 0 is in  $|B|$ .

Conjunction is also defined per the usual (classical-logic) conditions, where both the truth and falsity conditions are explicit. Additionally, the material conditional is likewise the same: “contains truth” just if the antecedent “contains falsity” or the consequent “contains truth”, and “contains falsity” just if the antecedent “contains truth” and the consequent “contains falsity”.

### Logical Consequence

Define the FDE consequence (validity, entailment) relation in the usual “truth-preservation” or, equivalently, “absence-of-counterexample” fashion: a sentence  $A$  FDE-entails a sentence  $B$  just if there is no possibility (model, interpretation, admissible assignment of values) wherein  $A$  contains 1 but  $B$  does not contain 1. (In other words: let a *counterexample* to the argument  $A/B$  be any admissible assignment on which 1 is in  $|A|$  but 1 is not in  $|B|$ . Then,  $A/B$  is FDE valid iff there is no counterexample.)

This account is generalised to set-sentence patterns in the usual way: a sentence  $A$  is “satisfied” by an assignment (or a model, interpretation, “possibility”) iff  $A$  contains 1 on the assignment; and a set  $X$  of sentences is said to be “satisfied” by an assignment just if every sentence in  $X$  is satisfied by the assignment. Then, the pattern  $X/A$  is FDE valid iff there is no assignment that satisfies  $X$  but fails to satisfy  $A$ .

### Important Invalidities

Notably, the “explosive” pattern  $A \wedge \neg A/B$  is not FDE valid. Witness: let both 1 and 0 be in  $|A|$ , thereby modelling a case in which  $A$  is “glutty”, but let  $|B|$  not contain 1.

Likewise, the “excluded-middle” dual pattern  $B/A \vee \neg A$  is similarly FDE invalid: let  $|B|$  contain 1 on some assignment but let  $A$  be gappy on the assignment—that is,  $|A| = \emptyset$ .

### Closing Comment on FDE

There are a lot of other features of FDE that are important and interesting for philosophical theology and other would-be true theories that either contain gluts or are gappy (or both); however, the foregoing ideas are sufficient to see that the proposed glut-theoretic account is grounded in a well-defined and viable account of logical consequence. (Additionally, the first-order extension follows the pattern above, with quantifiers mimicking conjunction and disjunction in the usual ways.)<sup>20</sup>

## Notes

<sup>1</sup> See, (Beall 2021; Beall Forthcoming; Beall and Cotnoir 2017; Chowdhury 2021). In addition, A. J. Cotnoir’s (2018) was an early advocate of the exploration of glut-theoretic theology.

<sup>2</sup> Background Terminology: A *consistent theory* (or theology) never contains both a sentence and its logical negation; a *complete theory* always contains either a sentence or its negation (for all sentences in the language). A gappy theory is a theory wherein some statements (sentences, propositions) are neither true nor false (they are a “truth-value gap” between truth and falsity, according to the theory). A contradiction is a statement (sentence, proposition) of the form *It is true that P and it is false that P*, where  $P$  is any statement (sentence, proposition). A *glutty theory* is a theory according to which some contradictions are true—that is, a theory that contains gluts (where a “truth-value glut” is so-called in analogy with a “gap” of truth values).

- 3 Additionally, it is not just the sort of familiar, flat-footed “starting” view of human freedom that equates such terms; a number of philosophers see these terms as synonymous. See (Kane 2011). However, again, my aim is not to argue for the target flat-footed view; it is to accommodate it in a principled, motivated fashion.
- 4 See, (Zagzebski 2017).
- 5 Thank you to Taylor Cyr and Philip Swenson for this helpful formulation.
- 6 Here, the “falsity of foreknowledge” or, similarly, “falsity of human freedom” is shorthand for “it is false that God has foreknowledge” and “it is false that humans have freedom to do otherwise”, respectively.
- 7 See, (Fischer and Todd 2015; Zagzebski 1991; Zagzebski 2017; De Florio and Frigerio 2019) for extensive surveys covering the varieties of complexities (and problems) involved in standard (consistent) solutions.
- 8 See (Beall 2019).
- 9 See Appendix A for the main gist of FDE, and see references cited therein.
- 10 One may object that while subclassical logicians may accept G as evidence of a true contradiction, those who adhere to the classical account of logic will simply appeal to consistent interpretations of G. However, it is worth noting that David McElhoses has argued that avoiding the contradictory nature of G and similar propositions (or sets of propositions) is no easy endeavor given the “vengeful variants”, or simple reformulations of these propositions that easily recreate the contradiction. See, (McElhoses 2021) This leads McElhoses to concluded that, “classical omniscience does not fit with classical logic”. (Ibid.)
- 11 Again, “false foreknowledge”, etc., is just shorthand for “It is false that God foreknows such-n-so”, etc.
- 12 There are various reasons to worry about the prospect of a viable glut-theoretic solution to the problem of evil. One reason cuts to the core: the most obvious glut-theoretic response to the problem involves accepting the falsity of suffering in the world (in addition to the truth of suffering). However, at least on the surface, the falsity of suffering in the world, unlike the falsity of human freedom, faces strong empirical resistance.
- 13 I am indebted to a blind reviewer for this forceful reply.
- 14 Compare (Beall 2021, p. 71).
- 15 For closely related discussion see Chapter 4 of Ibid.
- 16 Because the overwhelming practice in philosophical theology is driven by classical logic (or, at least, a rejection of the logical possibility of gluts and, dually, gaps), I pause to emphasise an important clarification. When I say that God’s foreknowledge (likewise, human freedom) is glutty, I am saying that the full truth of God’s foreknowledge (likewise, human freedom) contains contradictions—some of the truths are also falsehoods. The important clarification is that, unlike in typical classically closed theories or generally non-glutty phenomena, one errs in thinking that the falsity of a claim removes the claim away from the true theory. A true but glutty theory is one that contains *more* claims about the target phenomenon. In the case of God’s foreknowledge, the full truth contains not only the claim that God foreknows your actions; the full truth also contains the negation of that claim (viz., the sentence “it is false that God foreknows your actions”). This is not a flip-flopping theory that has a claim A that is in the theory and somehow not in the theory. Rather, the theory contains *both* claims, namely, A and its logical negation  $\neg A$ . Of course, if one insists (for what reason?) that the theory of God be non-glutty, one can have a consistent theory by having only “God foreknows” and “Humans can do otherwise” in the theory; those claims are true; however, the theory is critically incomplete because it fails to contain the negations.
- 17 See chap. 2 in (Beall 2021). For a lot more details on FDE, see (Omori and Wansing 2019).
- 18 For present purposes I present only the propositional or sentential fragment of the language, as this is where the main action is. Extending to full first-order vocabulary is straightforward. (See references cited above.)
- 19 The truth operator is logically redundant and almost never explicitly listed; its semantics is just the “null” semantics: it takes a sentence and kicks back a logically equivalent sentence. Still, I list the operator because of the symmetry of logical vocabulary from the FDE perspective.
- 20 I am indebted to Jc Beall for feedback that significantly improved this paper. I also want to thank Jussi Suikkanen and Nikk Effingham for their helpful comments on earlier drafts.

## References

- Beall, Jc. 2019. FDE as the One True Logic. In *New Essays on Belnap-Dunn Logic*. Hitoshi Omori and Heinrich Wansing. Cham: Springer Nature, pp. 115–25.
- Beall, Jc. 2021. *The Contradictory Christ*. Oxford: Oxford University Press.
- Beall, Jc, and Aaron Cotnoir. 2017. God of the Gaps: A Neglected Reply to God’s Stone Problem. *Analysis* 77: 4. [CrossRef]
- Beall, Jc. Forthcoming. *Divine Contradiction*. Oxford: Oxford University Press.
- Byerly, T. Ryan. 2014. Foreknowledge, Accidental Necessity, and Uncausability. *International Journal of Philosophy of Religion* 75: 141. [CrossRef]
- Chowdhury, Safaruk Zaman. 2021. God, Gluts and Gaps: Examining an Islamic Traditionalist Case for a Contradictory Theology. *History and Philosophy of Logic* 42: 17–43. [CrossRef]
- Cotnoir, Aaron. 2018. Theism and Dialetheism. *Australasian Journal of Philosophy* 96: 3. [CrossRef]

- De Florio, Ciro, and Aldo Frigerio. 2019. *Divine Omniscience and Human Free Will: A Logical and Metaphysical Analysis*. Cham: Palgrave Macmillan.
- Fischer, John Martin, and Patrick Todd, eds. 2015. *Freedom, Fatalism, and Foreknowledge*. New York: Oxford University Press.
- Kane, Robert, ed. 2011. *The Oxford Handbook of Free Will*. New York: Oxford University Press.
- McElhoes, David. 2021. The Intoxicating Effects of Conciliatory Omniscience. *Philosophical Studies* 178: 2166. [CrossRef]
- Nagasawa, Yujin. 2008. A New Defence of Anselmian Theism. *The Philosophical Quarterly* 58: 577–96. [CrossRef]
- Omori, Hitoshi, and Heinrich Wansing, eds. 2019. *New Essays on Belnap-Dunn Logic*. Cham: Springer Nature.
- Zagzebski, Linda. 1991. *The Dilemma of Freedom and Foreknowledge*. New York: Oxford University Press.
- Zagzebski, Linda. 2017. Foreknowledge and Free Will. In *Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. Available online: <https://plato.stanford.edu/entries/free-will-foreknowledge/> (accessed on 14 September 2021).