

## ***Realism Behind the Veil: Critical Notice of Tim Button's The Limits of Realism***

NICHOLAS K JONES

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### *1. Introduction*

Tim Button's *The Limits of Realism*<sup>1</sup> is a systematic and subtle examination of Putnam's model-theoretic arguments against external realism. A detailed analysis of the themes emerging from Putnam's evolving views is used to stake out a novel and interesting position that genuinely advances the debate. Anyone interested in the area will benefit from studying this book.

The book is divided into four parts. Part A introduces external realism (Ch. 1), the model-theoretic arguments against it (Ch. 2), and a standard kind of external realist response (Ch. 3), before arguing that no response of that kind can succeed (Chs. 4-7). Part B blames the external realist's problems on her Cartesian thesis that ideal theories may be radically false (Ch. 8). Three Putnamian attempts to explain why that thesis fails are then rejected (Chs. 9-11). Part C examines the connection between external realism and scepticism. Button first defends Putnam's semantic argument against our all being brains in vats as a way of undermining the Cartesian thesis's motivation (Chs. 12-14). The argument then becomes a tool for investigating the limits of realism. Spectra of sceptical hypotheses are used to characterise corresponding spectra of realisms. Button argues that although some forms of realism survive Putnam's semantic argument, it is vague which (Chs. 15-16). Part D examines two final Putnamian themes: semantic externalism (Ch. 17) and conceptual relativism (Ch. 18). Although Button rejects conceptual relativism, he argues that one of its central tenets is a live threat to much contemporary metaphysics: toleration about which conceptual and linguistic frameworks we use to describe the external world (Ch. 19). The book concludes with two Appendices; one introduces the formal background to the model-theoretic arguments; the other examines the connection between truth and justifiability.

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<sup>1</sup> *The Limits of Realism*. By Tim Button. Oxford: Oxford University Press, 2013. 288 pp. £45.

To my mind, one of the book's most interesting and distinctive aspects is its discussion of the 'just more theory' manoeuvre in chapters 4-7. My comments will focus on that.

## 2. The 'just more theory' manoeuvre

In chapter 1, Button defines external realism as the conjunction of:

**Independence:** The world is (largely) made up of objects that are mind-, language-, and theory-independent.

**Correspondence:** Truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things.

**Cartesianism:** Even an ideal theory might be radically false.

Button argues that this licenses a model-theoretic representation of semantic facts (Ch. 1.4). The model-theoretic arguments then cast external realism into doubt. Given a model that satisfies a theory T, the arguments first show how to construct many more models that also satisfy T (Ch. 2.1). Call these the *deviant models*. Deviant models are obtained by varying the extensions of the vocabulary used to formulate T. Unless the meaning-determining facts somehow rule out the deviant models, the extensions of our words will be highly indeterminate. Given the extent of indeterminacy involved, this is tantamount to meaninglessness (60). The variety of deviant models is so great that the corresponding relation between sentences and propositions is too weak to count as a form of expression. Since the argument requires no contingent assumptions, external realists will then be committed to:

**Kantian Scepticism (KS):** Truth-evaluable beliefs, assertions and theories are impossible; we cannot mentally or linguistically represent the external world.

Believing **KS** is self-defeating: believing (or even merely entertaining) **KS** falsifies it, thereby rendering the belief incorrect. So if external realism really does entail **KS**, believing external realism is self-defeating too.

External realists must avoid commitment to **KS**. How? The natural strategy is to offer an account of meaning-determination that rules out the deviant models. Putnam notoriously claimed that any such account is just more theory, subject to re-interpretation like any other theory, and hence unable to serve the external realist's need. This is the 'just more theory manoeuvre', or JMT for short. Many complained that Putnam had misunderstood: the external realist doesn't claim that the sentences of her theory determine meaning; rather, those sentences express propositions made true by extra-linguistic facts about meaning-determination (Ch. 4.2 contains discussion and references). **KS** follows only if the external realist's theory of meaning-determination doesn't express any such proposition. Putnam's complaint thus appears to beg the question. My impression is that this kind of response has become orthodoxy, and is largely responsible for declining interest in Putnam's argument in recent years.

Button seeks to overturn orthodoxy. He argues that a version of Putnam's complaint undermines any external realist attempt to rule out the deviant models. The idea is that **Cartesianism** commits external realists to a notion of empirical content, and that any successful account of meaning-determination must lack empirical content in this sense. Thus Button writes:

[I]t transpires that, no matter *how* the external realist distinguishes between a theory's being true and its being ideal, she is unable to object to the JMT manoeuvre. (46)

The external realist's problems depend only upon the dichotomy she draws between a theory's being true and its being ideal... The shape of external realism is essentially schematic, but however the external realist completes the schema -- however she spells out what it means for a theory to be ideal, and so to have empirical content -- the model-theoretic arguments arise against her, and she must accept that her attempts to constrain reference are without empirical content. (52)

[M]ost philosophers reject the JMT manoeuvre as wholly question-begging. But they are wrong to do so; or at least, they are wrong to do so when the JMT manoeuvre is wielded against the external realist. To show this, I explored the external realist's theory of empirical content, which shines through from her [**Cartesianism**]. After a lengthy discussion... of the various things that she might mean by empirical content, we

concluded that her Cartesian angst forces her to take the JMT manoeuvre seriously. The external realist cannot dismiss the JMT manoeuvre as question-begging. (58)

The argument begins by considering what it is for a theory to be ideal (Ch. 5.1).

Some (interpreted) sentences (purport to) report observable states of affairs.<sup>2</sup> Theorists will differ over what the observable states of affairs include. They might include only private sense-data, which stand in some (representational and non-constitutive) relation to the external physical world. Or they might include public modes of presentation. Or maybe even familiar macroscopic facts about ordinary concrete objects. Whatever the observable states of affairs include, sentences that report them are capable (in principle) of being justified by experience. Call sentences capable (in principle) of being experientially justified *observation sentences*.

The *empirical content* of a theory comprises the observation sentences that follow logically from it. A theory is ideal only if its empirical content is true (alternatively: experientially justified or almost entirely true). This is a partial analysis of idealness.

Note that the observation sentences needn't be precisely delimited or independent of theory. If observability is vague or theory-dependent, then idealness may be too. External realists needn't object to that. The arguments below are also unaffected: although the models involved become vague and theory-dependent, they proceed unchanged relative to a precisification and background theory.

Variant model-theoretic arguments now come into play: Completeness and Permutation behind the veil (41). Call these the *veil arguments*. Suppose interpreted theory T is ideal. Let theory T\* be the empirical content of T. Since T is ideal, T\* is true. By the model-theoretic representation of semantic facts: some model both satisfies T\* and captures its intended interpretation; this model may or may not satisfy T. The veil arguments proceed by varying the interpretation of non-observation sentences, leaving the interpretation of observation sentences unchanged. Permutation behind the veil shows how to do so without varying

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<sup>2</sup> Note that my observable/unobservable contrast differs slightly from Button's. My observables are whatever we can encounter in experience. Button's observables are whatever aspects of the physical world we can encounter in experience (assuming there are any) (Ch. 6.4). These come apart if, e.g., we experientially encounter sense-data that represent the physical world.

satisfaction. Completeness behind the veil shows how to obtain a model that satisfies T. Call deviant interpretations of both kinds *veil interpretations*. Call a theory of meaning-determination *adequate* if it rules out all veil interpretations. Because veil interpretations leave the interpretation of observation sentences unchanged, they satisfy T\*. So no sentence in T\* expresses (on its intended interpretation) an adequate theory of meaning-determination. The argument generalises to show that no observation sentence expresses an adequate such theory. The argument is schematic in that different accounts of observability will yield different accounts of what (interpreted) vocabulary T\* may contain, whilst everything else proceeds unchanged.

Although Button sometimes suggests that adequate theories of meaning-determination lack empirical content (e.g. 42, 43, 46, 52, 53), that does not follow; for non-observation sentences can have empirical content. An adequate theory of meaning-determination will entail sentences of the form:

- For any name  $x$  and object  $y$ ,  $x$  refers to  $y$  only if  $\Phi(x, y)$ .

Since the ' $y$ '-quantifier ranges over some unobservable objects, these sentences aren't observation sentences. But observation sentences may express their instantiations for observable objects (depending on  $\Phi$ ). In which case, the theory has empirical content. All the veil arguments really show is that no observation sentence expresses an adequate theory of meaning-determination.

Where does this leave the external realist? The veil arguments commit her to:

**Veil:** Either (a) unobservable meaning-determining facts rule out the veil interpretations, or (b) the meaning-determining facts don't rule out the veil interpretations.

On first inspection, **Veil** is unobjectionable. Disjunct (a) follows from admitting meaningful non-observation sentences: if some sentences aren't observation sentences, the semantic facts aren't all observable; likewise for the metasemantic facts in virtue of which they obtain. That alone is unobjectionable.

Disjunct (b) doesn't imply that our language is radically indeterminate. Only indeterminacy of non-observation sentences follows; observation sentences may retain determinate content. The severity of this indeterminacy will depend on one's view of the observation sentences. Button considers several views of bracketed experience in chapters 5 and 6. On these views, observation sentences report mental phenomena standing in representational and non-constitutive relations to the physical world. Radical indeterminacy for non-observation sentences will then undermine our ability to make truth-evaluable claims about the non-mental, physical world. The notion of a physical world itself becomes incomprehensible. This close cousin of **KS** is plausibly refuted by our ability to entertain it. External realists with bracketed views of experience therefore cannot accept disjunct (b); they must endorse the seemingly unobjectionable disjunct (a) instead.

As Button points out, external realism does not require bracketed experience (Ch. 6.4-6.5). Experience might present us with mind-independent objects and properties. If so, then disjunct (b) undermines our ability to make truth-evaluable claims about the physical world's unobservable aspects. That is a surprising and unattractive conclusion. But unlike **KS**, it is compatible with our entertaining it (although not with our entertaining the deviant semantics of veil interpretations). External realists who reject bracketed experience may accept either disjunct of **Veil**.

In sum, the veil arguments commit external realists to **Veil** (though §4 will question that). Disjunct (a) is *prima facie* unobjectionable. Disjunct (b) will be unacceptable to some external realists and unattractive to others. The next section examines Button's attempt to convert this into an objection to external realism.

### 3. *Angst*

Button describes the lesson of the model-theoretic arguments thus:

At long last, we have a reason to reject external realism. External realists entertain Cartesian angst. The model-theoretic arguments show that they must also entertain Kantian angst. But Kantian angst is incoherent. So external realism itself is incoherent. (60; see also 57, 58, 71, 82, 87, 94.)

Button introduces angst in chapter 7.2. Cartesian angst involves agonizing over questions like ‘Are our beliefs and theories largely false?’ Kantian angst involves agonizing over questions like ‘How is it so much as possible for our beliefs and theories to be truth-evaluable?’ when there appear to be significant obstacles to this truth-evaluability. Note that both forms of angst are mental activities.

Button’s conclusion is puzzling. The model-theoretic arguments are supposed to be arguments. Arguments concern entailment relations amongst propositions. But the presence, absence and rationality of Cartesian and Kantian angst are independent of the entailment from external realism to **Veil**.

The external realist needn’t entertain Cartesian angst. **Cartesianism** creates logical space for her to do so. But she might rationally ignore sceptical hypotheses unless presented with reason to take them seriously, to treat them as live possibilities. Even if she does entertain Cartesian angst, the external realist can accept **Veil** without acquiring reason to indulge in Kantian angst. As we saw above, disjunct (a) of **Veil** commits only some external realists to (a variant of) **KS**. Yet even those external realists shouldn’t indulge in Kantian angst. Given how easily **KS** is refuted, they should accept the apparently unobjectionable disjunct (b) instead. Other external realists may simply accept disjunct (a) without engendering Kantian angst. So the veil arguments don’t force external realists to entertain Kantian angst, even when they do entertain Cartesian angst.

Some of Button’s remarks suggest an alternative account of Cartesian angst.<sup>3</sup> Chapter 5.2 considers a Carnap-inspired external realist. She asks whether the constructions within her linguistic framework really correspond to the external world. Button then writes:

[H]er question is likely to lead to a certain kind of Cartesian angst: no matter how wonderful her constructions are, they need not correspond with the external world. This is just the external realist’s Cartesianism Principle (37)

This appears to equate believing **Cartesianism** with entertaining Cartesian angst. On this approach, one entertains *revised* Cartesian angst by accepting that one’s empirical evidence, as

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<sup>3</sup> Correspondence with Button helped me see this alternative approach to angst.

expressed in observation sentences, is always consistent with widespread error about the unobservable. That's the sense in which an ideal theory might be radically false. This explains Button's claim that all external realists entertain Cartesian angst (46, 57, 60): although false on the official account of angst as a mental activity, the present revised account makes it a definitional consequence of external realism.

A parallel approach to Kantian angst is also available. On this view, one entertains *revised* Kantian angst by accepting that one's empirical evidence, as expressed in observation sentences, is always consistent with **KS**. The veil arguments show that no observation sentence expresses a proposition inconsistent with **KS**; that, in effect, is what **Veil** says. So all empirical evidence is consistent with **KS**. The consistent external realist must therefore entertain revised Kantian angst.

The last paragraph's conclusion is too strong. The veil arguments show that no observation sentence's truth (on its intended interpretation) rules out any veil interpretations. As the end of the previous section pointed out, failure to rule out veil interpretations doesn't imply **KS**; it depends on what the observation sentences include. So the veil arguments force only some external realists to entertain revised Kantian angst. For argument's sake, I'll now set this worry aside.

We've just seen how the model-theoretic arguments convert revised Cartesian angst into revised Kantian angst. External realists entertain revised Cartesian angst by believing **Cartesianism**: empirical evidence is always consistent with widespread falsity about the unobservable. The veil arguments ensure that the falsity of **KS** is unobservable. So empirical evidence is always consistent with **KS**. The external realist is thereby forced into revised Kantian angst. This is a powerful and ingenious argument. But what's wrong with revised Kantian angst?

Button claims that **KS** and Kantian angst are incoherent:

Cartesian scepticism and Kantian scepticism are rather different beasts. Kantian scepticism is radically incoherent. How can I worry that my words express nothing about the world? Really: *How*? If the worry is right, nothing could express it. No worry could be



more self-stultifying... [Kantian angst] is simply *incoherent*, in a way that Cartesian angst does not seem initially to be. (60)

In what sense are **KS** and Kantian angst incoherent? Note first that **KS** itself isn't unintelligible or meaningless. Negating the intelligible (true) thesis that truth-evaluable belief is possible doesn't yield unintelligibility. However, *believing* **KS** is incoherent in the following sense: believing **KS** falsifies it, thereby rendering the belief inappropriate. Similarly for Button's official notion of Kantian angst: worrying about **KS** falsifies it, thereby rendering the worry inappropriate. This self-defeating notion of incoherence is what the quote above concerns. The incoherence here attaches not to **KS** itself, but to various attitudes to **KS**. Revised Kantian angst is not incoherent in this sense. It is not self-defeating to believe that **KS** is always consistent with observational evidence.

I see no sense in which revised Kantian angst is incoherent. **KS** is necessarily false.<sup>4</sup> So revised Kantian angst involves accepting that observational evidence is always consistent with a necessary falsehood. That's not incoherent or self-defeating. It doesn't imply **KS**. It doesn't imply that anyone ought to treat **KS** as a serious, live possibility. And it doesn't prevent one from knowing that **KS** is (necessarily) false; for one might deduce the (necessary) falsity of **KS** from one's ability to entertain it, rather than from observation sentences.

Revised Kantian angst even allows knowledge of an adequate theory of meaning-determination. Our ordinary empirical methods provide ways of extending knowledge beyond the logical consequences of the observable. Inference to the best explanation is the paradigm case.

In a slightly different context, Button rejects inference to the best explanation as a way of knowing about the unobservable:

[O]n this view, all the evidence we *ever* have for anything is from this dirty fluxing world around us. Perhaps inference to the best explanation is a very useful principle to apply to the flux, in the sense that it allows us to *get by*. But why should it really and truly apply to the unsullied crystalline purity of Platonic Heaven? ... We are taking our grubby little notions of likeliness and loveliness, projecting them heavenwards. To put it theologically:

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<sup>4</sup> Assumption: the B principle  $A \rightarrow \Box \diamond A$ .

we are assuming that the gods like what we like and have configured the Forms according to those likes. Nothing mandates that assumption. Indeed, the content of the assumption starts to drift away. (52)

This criticism is effective against its immediate target: an absolute metaphysical divide between the observable world of flux and the unobservable world of forms. More moderate views survive. On these views, unobservable and observable objects instantiate many of the same (observable) properties and relations, e.g. spatiotemporal and causal relations, mass and charge. The unobservable is just more of the same, inhabiting the same spatiotemporal manifold as ourselves. It should then be unsurprising for the inferential practices that yield knowledge about the observable to yield knowledge about the unobservable too. Note also that this view retains the absolute mind/world dichotomy on which Button takes the veil arguments to depend (51); for an absolute mind/world dichotomy needn't reflect an intrinsic difference between observable and unobservable states of affairs.

In chapter 12, Button offers independent reason to reject **Cartesianism**. The present considerations create problems for his argument. Say that  $x$  is a BIV iff everyone there ever is, was or will be is an envatted brain. The motivation for **Cartesianism** is: one might be a BIV. This 'might' expresses consistency with one's empirical evidence: observation alone cannot show that one isn't a BIV. As Button puts it:

'[I]f the world really is as mind-, language-, and theory-independent as the external realist claims it is, then might not *appearances* be radically deceptive?...Perhaps we are really all just brains in vats.' (10, emphasis added.)

Button uses an argument of Putnam's against this way of motivating **Cartesianism**:

- (1) If one is a BIV, then one's uses of 'brain' don't apply to exactly the brains.
- (2) One's uses of 'brain' apply to exactly the brains.
- (3) So one isn't a BIV.

Premiss (1) isn't an observation sentence (and maybe likewise premiss (2)). So the argument doesn't show that one's empirical evidence is inconsistent with one's being a BIV. So it doesn't threaten the motivation for **Cartesianism**, on the external realist's intended interpretation of

'might'. It shows that a more inclusive conception of one's evidence is inconsistent with one's being a BIV. The external realist can accept that.

To summarise, Button faces a dilemma. First horn: angst is a mental activity. Then Kantian angst is plausibly incoherent, but the model-theoretic arguments don't force external realists into it. Second horn: Kantian angst is belief in the consistency of **KS** with any observation sentences. Then although the model-theoretic arguments commit external realists to Kantian angst, that's unproblematic. Either way, external realism survives. The next section raises a final worry about the veil arguments.

#### *4. Do the veil arguments preserve the interpretation of observation sentences?*

The veil arguments are supposed to show that no observation sentence expresses (on its intended interpretation) an adequate theory of meaning-determination. External realists can resist this conclusion.

Suppose theory  $T^*$  captures the empirical content of ideal theory  $T$ . Since  $T$  is ideal,  $T^*$  is true. Let " $Fa$ " be an observation sentence in  $T^*$ , let  $a$  be the interpretation of " $a$ ", and let  $F$  be the interpretation of " $F$ ". The interpretation of " $Fa$ " is compositionally determined by the interpretations of " $F$ " and " $a$ ". Given standard compositional views: the interpretation of " $Fa$ " is that  $a$  is  $F$ . Veil interpretations result from variation in the extensions of predicates and terms, holding fixed their intersection with the observable objects. These variant extensions represent different interpretations of " $F$ ". So by the compositional rules: any veil interpretation that varies the extension of " $F$ " varies the interpretation of " $Fa$ ". So the extension of " $F$ " is invariant across veil interpretations that capture the intended interpretations of the observation sentences. All veil interpretations are supposed to capture the intended interpretations of the observation sentences. So we can generalise: any vocabulary that appears in an observation sentence has the same interpretation on every veil interpretation.

This argument shows that a predicate's interpretation varies across veil interpretations only if it lacks observable instances. This limits the semantic indeterminacy veil arguments can produce. One's view of the limitation will depend on one's view about the extent of

observability. Predicates with observable instances won't be indeterminate. Predicates without observable instances may be highly indeterminate. If most predicates lack observable instances, the resulting indeterminacy may be tantamount to **KS**. But if most predicates have observable instances, the indeterminacy will be limited. Without taking sides on this debate, we see that the veil arguments require non-trivial structural assumptions about observability. In that sense, they are not entirely schematic.

Focusing on coarse-grained sentence-interpretations -- truth-values in an extensional setting, sets of worlds in an intensional one -- obscures the problem. Even if the semantic values of sub-sentential expressions can vary whilst preserving the coarse-grained interpretations (hence also satisfaction) of whole observation sentences, it doesn't follow that the same goes for fine-grained sentence-interpretations. In the monadic atomic case, fine-grained sentence-interpretations are pairs of an object and extension/property. This makes it impossible to preserve a sentence's fine-grained interpretation whilst varying the interpretations of its sub-sentential components. In order for the veil arguments to go through, however, constancy in fine-grained sentence-interpretation despite variation in sub-sentential interpretation is required. Since variation in fine-grained and sub-sentential interpretation needn't affect coarse-grained sentential interpretation, non-standard views about the relative priority of fine-grained and coarse-grained sentential semantic values might resolve this problem. But external realists needn't accept such non-standard views.

This objection presupposes that we understand what it is for both observable and unobservable objects to be *F*. That's needed for our understanding of observation sentences featuring "*F*" to involve an interpretation for "*F*" that extends beyond the observable objects. Button objects:

The external realist owes us an explanation of what it means to say that the 'very same [property]' holds [of] observable objects, as holds [of] unobservable objects. [B]y the external realist's own admission, the instances of [*F*] which [hold of] unobservable objects are *in principle unobservable*, for they fall on the wrong side of the external realist's own gulf between observable and unobservable. (50)

Now, the external realist should certainly grant that we cannot experience an unobservable object instantiating *F*. It does not follow that an explanation is owed of what it means to say

that an unobservable object is  $F$ . That would require an argument for the prima facie inadequacy of the following explanation: it means that an unobservable object is  $F$ .<sup>5</sup> Absent substantive assumptions connecting meaningfulness to observation sentences, which the external realist may reject, I do not see how to construct such an argument.<sup>6</sup>

*Nicholas K Jones*

*University of Birmingham*

*ERI Building, Edgbaston, Birmingham, B15 2TT*

*n.k.jones@bham.ac.uk*

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<sup>5</sup> An ambiguity. To say that an unobservable object is  $F$  might be to say either (1) that  $a$  is  $F$ , for some particular unobservable object  $a$ , or (2) that *some* unobservable object is  $F$ . Even if we cannot understand the former, the compositional rules for quantification, negation, " $F$ " etc. may allow us to grasp the latter.

<sup>6</sup> Thanks to Matt Parrott, Naomi Thompson and Al Wilson for comments. I'm especially grateful to Tim Button for some very helpful comments and correspondence.