

# Truth Without Detachment

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## Series Abstract

These lectures are based (closely) on a current (in-progress) book project. The general topic concerns truth, paradox, and logic. My aim is to motivate, advance and defend a new approach within the family of paraconsistent approaches to transparent truth. Specifically, I aim to motivate a ‘detachment-free’ view. In short: we enjoy a transparent truth predicate in a language free of any ‘detachable’ (modus-ponens-satisfying) conditionals. (NB: while I’ll be concentrating on my own paraconsistent views, there will, I think, be ideas of direct bearing to related paracomplete views.)

.. *Autobiographical background note.* For readers familiar with my [1] or Field’s [5], the question of a ‘suitable conditional’ for truth (similarly exemplification/property) theory looms large. In comments on an earlier draft of that book, Robbie Williams asked ‘Why worry so much about a detachable conditional if it has to be so complicated? Can you do without a detachable conditional?’. I simply thought ‘Well, it strikes me that we have a detachable conditional; and if it is complicated, well, it’s complicated.’ I didn’t think hard enough about that question at the time, but have since done so. And now, I find myself landing on something that was, without details, suggested by Laura Goodship [6] – and so I think of this as the ‘Goodship Project’, a term that Graham Priest and I have used (in conversation): namely, that our language is without a detachable conditional. The book, to which the lecture series is tied, lays out the motivations for and virtues of this new approach to transparent truth. And while the book (and lecture series), in keeping with my earlier work, will focus on a paraconsistent such theory, lessons for allied non-paraconsistent theories will be discussed (e.g., the paracomplete transparency theory of Field). *End note.* ..

## Lecture Titles and Abstracts

The lecture titles and abstracts are as follows.

## Lecture 1: *From Transparency to Gluts*

What is the transparency conception of truth? How do we enjoy a transparent truth predicate in our language despite the paradoxes? These are the guiding questions of this lecture.

Transparent truth theorists are committed to a non-classical logic.<sup>1</sup> As in [1], I shall advance a theory which is non-classical with respect to negation: excluded middle is valid, but explosion (i.e., arbitrary contradictions imply everything) is invalid. This route, from transparency to gluts, will be discussed in this lecture, and the details of the target theory LPTT will be laid out – including its apparent defects (e.g., lack of a suitable conditional).

## Lecture 2: *To Other Worlds: The Quest for Detachment*

Following the work over the last 30-40 years, this lecture assumes (though not without discussing a few reasons for recognizing) the need for a detachable conditional – and, via transparency, for detachable T-biconditionals. The guiding questions for this chapter:<sup>2</sup>

- How do we get a detachable conditional? (Answer: invoke *worlds* or some such point-based approach.)
- But how do we avoid Curry-troubling *contraction* principles? (Answer: invoke *non-normal* worlds; define validity only over normal worlds.)

Details vary, but the basic ideas may be found in many of the cited works, most explicitly in [1, 5, 7].

The result is that, following the given (here, merely waved-at) recipe, we get *detachable T-biconditionals* – very ‘strong’ ones that ‘look’ across all ‘worlds’, but detachable ones. And (very) importantly: the resulting conditionals are *Curry-paradox-safe*! (Much of the ingenious work in the area came about in showing that these otherwise fairly unintuitive and complicated conditionals can underwrite transparent truth theories that enjoy ‘non-triviality’ or, in some settings, ‘consistency’ or, better, ‘coherence’ proofs. This will be discussed in the lecture.) The question: Is all now well and good? The answer: No.

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<sup>1</sup>I am (here, in this abstract) sliding over the operator-vs-structural-rules issue concerning defining ‘non-classical logic’. This will be discussed (at least briefly) in the lecture.

<sup>2</sup>NB: because it makes for a more intuitive way of seeing the issues, I will present this chapter in a way that freely uses talk of worlds – as is the case in much of the literature. But let me note here that, while some of the objections to the target detachable conditionals point to the oddity of some of the ‘worlds’ in question, these are not the biggest issues. In fact, among other bigger issues, the biggest issue concerns Curry’s paradox and, in particular, uniformity of solution, a very simple issue to see – namely, treating Curry’s paradox and the Liar alike. But because, historically, some of the talk of finding detachment has gone via ‘going intensional’ or ‘going to other worlds’ etc., I will make free use of such talk in setting up the issues (and, in Lecture 3, discussing problems). But I should emphasize: none of the most serious issues turn on a ‘realist’ approach to the model theory.

### Lecture 3: *And Back: The Demise of Detachment*

This lecture marches through the main (and, I should emphasize, for the most part *known*) problems with the standard approach(-es) to a ‘suitable conditional’ (see Lecture 2 above). Where they’re available (i.e., in print or even in conversation), solutions to the problems will be evaluated, and my reasons for thinking them inadequate given. (In this abstract, I simply wave at the problems, rather than discuss them.) In the end, the assumption that our language has detachable T-biconditionals is questioned – and the remaining two lectures aim to spell out and defend my detachment-free view.

The main (though not all of the) problems to be discussed are as follows (here listed in more or less smallest-to-biggest order).

- If we have to invoke non-normal worlds for our ‘suitable conditional’, we need to make intuitive sense of such entities. What are they?!
- Similarly, if we have to invoke a ‘ternary relation’ on worlds, we need to make intuitive sense of such a thing. What is it?!
- The distinction between ‘normal’ and ‘non-normal’ worlds is supposed to be important. But it can be shown that there’s no sentence  $\eta$  such that  $\eta$  is true at all and only normal worlds (or even, more neutrally, ‘normal points’) – something you’d expect if we can, as it looks we must, pick out normal worlds from non-normal ones. But if we can’t (and we can’t), how can this allegedly critical distinction be made?
- Other philosophically important modal notions: it can be shown that, in the setup invoking normal and non-normal worlds (which was introduced to avoid Curry-paradoxical problems involving contraction), we cannot enjoy apparently coherent operators like, for example, an actuality operator  $\alpha$  such that, for any sentence  $A$ ,  $\alpha(A)$  is true at a world just if  $A$  is true at the (unique) actual world @. And similar problems confront other common notions (e.g., *contingency* operators, etc.).
- On the proposed approach, one has to give up at least the most natural sense of understanding the claim that all valid arguments are truth-preserving. This appears to be a high intuitive cost of the proposal.
- Restricted generalizations – like *All As are Bs*. If we are to use a detachable conditional in common forms of restricted quantification or restricted generalizations, the proposed ‘suitable conditional’ is simply unsuitable: it fails to deliver the right logical behavior. And this is particularly bad for transparent-truth theorists, who point to common restricted generalizations as examples of the truth predicate’s chief work (e.g., ‘everything in my favorite theory is true’, or ‘whatever she said is true’, or etc.).<sup>3</sup>

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<sup>3</sup>Vann McGee, in comments on an early version of [1], raised this point forcefully. It is discussed in Ch. 5 of [1], but I think that the ‘solution(s)’ provided there are ultimately inadequate, for reasons that the lecture(s) will discuss. I have come to think – and am excited

- Curry’s paradox (so-called v-Curry): there is recent work suggesting that, in the end, the route towards a ‘suitable conditional’ doesn’t fully resolve Curry’s paradox in all of its guises. There are questions about so-called validity-Curry paradoxes that aren’t obviously resolved [4].
- Most importantly of all: a glaring disunity is forced into the theory! One might reasonably reject that so-called ‘vagueness paradoxes’ (e.g., sorites) demand the same solution as standard ‘semantic’ paradoxes [2]; but the demand is well-placed for the Liar and Curry’s paradox. The Liar paradox and Curry’s paradox appear to be in exactly the same family; but once one has a detachable conditional (strictly, detachable T-biconditionals), Curry’s paradox must, on pain of absurdity, be treated differently from the Liar paradox. Being *forced* to treat the two in very different ways (treating only the Liar, not Curry, as a glut) removes whatever simplicity, symmetry, and general elegance the basic non-classical proposal otherwise enjoyed.

The main task of this lecture is to discuss such problems (and a few more), making the case for a reexamination and, in the end, rejection of the quest for detachable T-biconditionals (or simply, given transparency, the quest for detachable conditionals).

#### **Lecture 4: *Doing Without Detachment: Logic and Choices***

The previous lecture made the case against detachable T-biconditionals. This lecture advances the main view: transparent truth without detachable T-biconditionals. But it’s not just doing without detachable T-biconditionals. Because we’re relying on *transparent truth*, where  $Tr(x)$  and  $x$  may replace one another in all (non-opaque) contexts, the absence of detachable T-biconditionals requires the absence of detachable conditionals – full stop. (This point will be explained in the lecture.) The burden of this lecture is to lay out this view in detail. This involves three main tasks: 1) laying out the logic  $LP^+$  [3], supplemented with the transparent-truth rule; 2) laying out the corresponding philosophy of the (multiple-conclusion) logic, wherein the logic leaves us with ‘choices’ in many cases (choices to be made only via extra-logical principles) [3]; and 3) showing how the resulting theory not only avoids the problems discussed in the third lecture (or corresponding Ch. 3) but also retains all of the virtues of the ‘detachable-T-biconditionals’ approach (without actually having one).

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by the thought – that many of these issues may be resolved along the entirely-detachment-free approach advocated in these talks (and book). [A note for experts on the problem of ‘restricted conditionals’ in this context: the obvious option is to take the LP material conditional to serve as one’s restricted conditional. This route achieves two features characterized, in unpublished notes by Hartry Field, as the *Hard* and *Harder* problems facing restricted conditionals in non-classical truth theories: *HARD* (rule form) is achieving  $A \vdash (A \rightarrow B) \rightarrow B$ , and *HARDER* (axiom form) is  $\vdash A \rightarrow ((A \rightarrow B) \rightarrow B)$ . Replacing  $\rightarrow$  with the LP  $\supset$  gives both of these. (There is much more to say on this topic – left for the lectures (and corresponding book).)]

## Lecture 5: *Objections and Replies*

This lecture – corresponding to what will likely be the largest chapter in the book – serves to further elaborate the view by answering objections from a number of fronts. The lecture (chapter) will be structured in a familiar fashion: presenting pairs of objections and replies, with families of such pairs grouped into 3–5 families (under themes such as ‘Mathematics and Science’, ‘Epistemological objections’, ‘Comparing rivals’, and the like). *NB: input from the audience will be especially valuable in filling out some parts of the corresponding chapter in the book – viz., Ch. 5.*

## Note to Participants at the Lectures

My hope is to distribute at least handouts if not minimal chapter drafts. My hope is to get a lot of feedback on the ideas, feedback that I will in turn use, with much gratitude, in filling out a full draft of the book – scheduled to be in full-draft status by the end of 2011. This is all to say: your feedback will be greatly valued!

## References

- [1] Jc Beall. *Spandrels of Truth*. Oxford University Press, Oxford, 2009.
- [2] Jc Beall. Finding tolerance without gluts. *Mind*, 2011. Forthcoming.
- [3] Jc Beall. Multiple-conclusion LP and default classicality. *Review of Symbolic Logic*, 4(2):326–336, 2011.
- [4] Jc Beall and Julien Murzi. Two flavors of Curry’s paradox. *Journal of Philosophy*, 2011. Forthcoming (completed in 2011; to appear later).
- [5] Hartry Field. *Saving Truth from Paradox*. Oxford University Press, Oxford, 2008.
- [6] Laura Goodship. On dialetheism. *Australasian Journal of Philosophy*, 74:153–161, 1996.
- [7] Graham Priest. *In Contradiction*. Oxford University Press, Oxford, second edition, 2006. First printed by Martinus Nijhoff in 1987.