

The Inaccuracy of Partial Truths in Yablovian ‘If-Thenism’

I.

According to fictionalism in the philosophy of mathematics, mathematical objects are mere fictions. Some fictionalists, such as Hartry Field (2001), have argued that mathematics is indispensable for the natural sciences, despite that mathematical statements strictly speaking are false, while others, such as Otávio Bueno (2009) following Amie Thomasson (1999), wish to make the stronger claim that mathematical objects are abstract artifacts. Stephen Yablo has employed Kendall Walton’s (1990; 1993) pretense view of fiction to argue for a figurative fictionalism that recommends language operate without positing abstract mathematical objects by interpreting mathematical language as figurative or metaphorical.¹

Yablo has argued for an alternative form of if-thenism more conducive with his figurative fictionalism. This commentary sets out to challenge whether the remainder, ρ , tends to be an inaccurate representation of the conditions that are supposed to complete the enthymeme from ϕ to ψ . Whilst by some accounts the inaccuracies shouldn’t set off any alarm bells, the truth of ρ is too inexact. The content of ρ , a partial truth, must display a sensitivity to the contextual background conditions for subtraction to work properly in Yablo’s view. Using a toy example, I argue that Yablo’s subtraction model tends to yield partial truths as remainders that fail to rule out inaccurate expressions that may prove to be problematic for it.

¹ Some have called the view ‘hermeneutic fictionalism’, but, since that name seems to be used pejoratively (on occasion), I choose not to employ that term to describe Yablo’s view. See Stanley, Jason 2001: ‘Hermeneutic Fictionalism’. *Midwest Studies in Philosophy*, 25, pp. 36-71.

II.

When we have a relatively weak claim, ϕ , that implies a more controversial statement, ψ , a crisis emerges because a truism of probability theory is that ϕ cannot be more probable than the logically stronger claim, ψ ; yet, we tend to think under such circumstances that we shouldn't let go of ψ if we have to let go of either. The orthodox view of if-thenism strips the implication from ϕ to ψ by conditioning it on ψ and reinterpreting it as $\phi^* = \psi \rightarrow \phi$. Doing that, however, comes with the downside that the increased subject matter prevents the thin account from serving its intended purpose.

Yablo has recommended that ϕ^* be replaced with a subtraction account of ϕ^* : $\phi^Y = \phi \sim \psi$, where “ $\sim$ ” (read as: ‘minus’) is a non-truth-conditional connective. ϕ^Y cancels the implication from ϕ to ψ , ending up with a remainder, ρ , filling the gap between the two. Yablo's replacing ϕ^* with ϕ^Y is supposed to remove ϕ of the implication ψ , and ϕ^Y can be understood colloquially in the following ways: ‘ ϕ , except maybe not ψ ’; ‘ ϕ , ignoring the bit about ψ ’; or, ‘ ϕ , but possibly for ψ ’. For instance, to employ Yablo's own example: ‘Pete won, ignoring the possibility that he folded’. Yablo has analogised the above account with subtraction such that ρ has to be added to ψ to get ϕ . He writes:

The obvious analogy is with subtraction in arithmetic. The corresponding problem there is that of identifying m minus n on the basis of m and n . This is solved, we know, by looking for the unique number ρ such that adding ρ to n gets you back to m . (Yablo 2017, 11f)

According to Yablo, ρ completes the enthymeme $\psi, \dots \therefore \phi$ in a maximally ψ -beholden way (cf. Yablo 2014, 178-88). For example:

Pete called

..... p

Pete won

To finish the enthymeme, Yablo recommends that we use the analogy from subtraction to show that p is what remains when you subtract out ‘Pete called’-worlds from ‘Pete won’-worlds (Yablo 2014, chapters 8 and 9; Yablo 2017, 11f). Obviously, there are any number of statements that could replace p such that ‘Pete called’ and p imply ‘Pete won’, but Yablo contends that there’s one that completes the enthymeme in a ‘maximally ψ -beholden way’.

When we complete the enthymeme in a maximally ψ -beholden way, the feature we find overlapping in *Pete won*-worlds and *Pete called*-worlds: *Pete had the better hand*.

(Yablo 2017, 12)

The trouble with this analysis may lie in the fact that there are distinct ways of describing what’s going on in *Pete called*-worlds that make them *Pete won*-worlds. The p completing the enthymeme is a partial truth.

III.

When one claims that ϕ^Y completes the enthymeme in a maximally ψ -beholden way, it suggests that ϕ^Y is a partial truth that satisfies the requirements of being maximally ψ -beholden. Elsewhere, Yablo has explained a partially true statement as ‘partly true iff it has parts that are wholly true’ where ‘one [statement] is part of another iff it is implied by the other’ (Yablo 2014, 12). This partial truth view of Yablo’s should serve us as a reminder of Popper’s dictum regarding verisimilitude (See Popper 2002, 309-15):

An expression, A , is said to be closer to truth than B just in case A 's truth content contains B 's truth content, and B 's falsity content contains A 's falsity content, and one of these containments is proper.

Since ϕ^Y comes in degrees where at least one statement is maximally ψ -beholden, there might be a multitude of expressions that satisfy ϕ^Y , where one or more is not maximally ψ -beholden.

If we were to believe that one and only one expression is maximally ψ -beholden, then the other descriptions would have to be ruled out as candidates for ϕ^Y . Yet, it seems they cannot be eliminated from consideration because each replacement of ϕ^Y can be truthlike enough to complete the enthymeme. In fact, there's reason to deny that there be exactly one ϕ^Y that completes the enthymeme. That's too demanding because 'sometimes whether a statement is partly true is all that we want to know' (Yablo 2014, 10). To demand for a statement to be true or false *simpliciter* is to suffer from a sort of pathology that fails to appreciate the nuances and ambiguities of careful thinking (Yablo 2014, 9-15).

If more than one statement fills the gap between ϕ and ψ , then there isn't one maximally ψ -beholden claim that fits as the remainder. If we haven't got the apparatus to decide which of the ϕ^Y s is the maximally ψ -beholden one, then we're unable to complete the enthymeme with the partial truth that's *closest-to-truth*. There, then, seems reason to deny that a partially true remainder completes the enthymeme sufficiently well enough. It's then incumbent upon Yablo to explain away candidate ϕ^Y s that aren't closest to truth.

IV.

Whatever criteria we employ to understand partial truths, it seems that ϕ^Y isn't a hard truth, an expression that's just flat-out true (Millgram 2009). If we add (or subtract) a feature

of the world, then there is a corresponding decrease in the likelihood of an expression's remaining close to truth. The addition implies that the expression, as well as other nearby contenders in the list of expressions that are maximally ψ -beholden, becomes less true. What we mean when we say that an expression becomes less true is that its accuracy—its representing the world in a way that correctly identifies the conditions that make it true—tends to decrease for every expression we uncover.

The challenge for Yablo is to account not for the parts that confer truth upon the whole but to rule out parts that misrepresent the truth of the whole. For example, let's take a look at the Kennedy example Yablo uses in his paper.

Someone other than Oswald shot Kennedy $\sim$ Oswald didn't do it = Someone shot Kennedy

The remainder: 'Someone shot Kennedy' is supposed to complete the enthymeme from 'Oswald didn't do it' to 'Someone other than Oswald shot Kennedy'. The remainder is a partial truth because other hypotheses complete the enthymeme, and they seem to do so in a maximally ψ -beholden way. Any one of the following statements would serve equally well as a remainder in the above example, showing that someone other than Oswald did it:

1. A third gunman on the grassy knoll shot Kennedy.
2. Mafioso shot Kennedy.
3. Martians shot Kennedy.

Each of 1, 2, and 3 are maximally ψ -beholden since it is possible that the feature we find overlapping in *Oswald-didn't-do-it* worlds and *Someone-other-than-Oswald-shot-Kennedy* worlds include a third gunman on the grassy knoll shooting Kennedy *or* Mafioso shooting Kennedy *or* Martians shooting Kennedy.

Of course it's reasonable for us to assume that Yablo might argue that 'Someone shot Kennedy' includes 1, 2, and 3 as its parts, one of which is wholly true. There's no doubt that

someone shot Kennedy, he might claim, and we can remain agnostic as to *who* it was, whether the person who did it was one of the persons mentioned. If the three statements are hypotheses included as part of the content of ‘Someone shot Kennedy’, then there is no reason to think that this statement fails to complete the enthymeme. Whilst the statement is generally acceptable, the particular counterpart statements seem to suggest that its generality would hinder its preferability among other partial truths since it would include more false-content than truth-content. Even if we were to narrow Kennedy’s assassins to suspects not from otherworldly environs, 1 and 2 would be acceptable and more accurate representations of what happened than 3. Still, that the statement contains some inaccuracies makes it less truth-like than a statement that didn’t contain the inaccuracy.

General statements, such as ‘Someone shot Kennedy’, need not be inaccurate representations of truth-content. To rid the remainder of inaccuracy doesn’t necessarily call for an exact statement like the ones we deemed pathological above. On the contrary, an accurate statement would merely need to rule out inaccuracies. Thus, a candidate statement that rules out inaccuracies might be: ‘Someone alive and who resides on Earth shot Kennedy’, which rules out Martians as potential Kennedy assassins.

The general statement’s verisimilitude depends upon one of 1-3 being ruled out, but that we must rule out such silly statements as Martians perpetrating the killing of Kennedy could be construed as asking too much of the general statement or of being too cumbersome. Of course, Martians couldn’t have killed Kennedy, since there are no Martians! Given that the general statement couldn’t have been replaced with that content, the general statement is partially true *enough* to complete the enthymeme.

There’s not much room to disagree with this assessment of the toy example, but the intent of the toy example is merely to put into full relief the serious problem partial truths wreak upon Yablo’s model. Instead of talking about Martians shooting Kennedy, let’s consider a

few other particular statements that would be part of the general statement: ‘Someone shot Kennedy’:

4. A conspirator hired by the FBI and Lyndon Johnson shot Kennedy.
5. Cuban immigrants angered by the Bay of Pigs incident shot Kennedy.
6. Clandestine powerbrokers of the Illuminati shot Kennedy.

As in 1-3, 4-6 could be more-or-less true of ‘Someone shot Kennedy’. There’s a likely scenario in which President Lyndon Johnson and J. Edgar Hoover conspired against then President Kennedy and had him assassinated for political expediency, or some such reason. Likewise, Kennedy’s assassin could have been Cuban immigrants or powerbrokers of the so-called Illuminati. We can’t rule out any of 4-6 as easily as we ruled out 3. Given 4-6, the general statement comes out sufficiently truthlike to constitute a partial truth that completes the enthymeme.

When we consider each of 4-6 individually as potential parts of the general statement, however, the verdict that the general statement is close enough to the truth begins to look less likely. If it turns out that the person who shot Kennedy was a Cuban immigrant, then neither 4 or 6 provide alethic support for the general statement, unless the Cuban immigrant was a member of the Illuminati *and* a conspirator hired by the FBI and Lyndon Johnson. We know, however, that it is less probable that a person has all of these features than a person who has just one of these features. Again, we find ourselves in the predicament of having to accept some inaccuracies about Kennedy’s assassin in order to accept the partial truth of the general statement completing the enthymeme.

The further trouble is that 4-6 don’t exhaust all of the possible parts that fall in the general statement. For example, other possible parts of the statement could be:

7. The Associate Superintendent of Schools for the City of Boston shot Kennedy.
8. Ed Sullivan shot Kennedy.

9. John Kennedy shot Kennedy.

7-9 are false. We know that neither Ed Sullivan, the Associate Superintendent of Schools for the City of Boston, or John Kennedy (himself) shot Kennedy. Yet, these sentences would all seem to be parts of the general statement. We'd have to rule out 7-9 for the general statement to be accurate and truth-like in a maximally ψ -beholden way. Since Yablo's alternative if-thenism hasn't got the wherewithal to rule out these statements, the partial truth completing the enthymeme is largely inaccurate.

V.

There has to be a way for Yablo's 'If-Thenism' to stop the runaway argument by stipulating the individuation conditions of ϕ^Y in a fine-grained manner to avoid the consequence that there are a multitude of expressions satisfying it in a maximally ψ -beholden way. This might mean that there could be one, and only one, way in which an expression is maximally ψ -beholden. Yet, if there is one and only one statement completing the enthymeme, it has to be a partial truth that avoids the pathological concern of hard truths. Perhaps a relatively good response to the above would be that an expression may be maximally ψ -beholden without also being closer-to-truth. An expression being maximally ψ -beholden might be completely independent of its being truthlike. This suggestion might seem strange since all of the replacement remainders complete the enthymeme in a 'maximally ψ -beholden way', and we wouldn't be restricted to use just one of them. If pushed, we would be at a loss for what remainder is *the* one that completes the enthymeme. This commentary has attempted to argue that, without a way for Yablo's subtraction account to rule out content that

makes the remainder farther-from-truth, his alternative if-thenism cannot be close enough to truth.²

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