

## The Implausibility of Hermeneutic Non-Assertivism<sup>†</sup>

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In a recent paper, Mark Balaguer has responded to the argument that I launched against Hermeneutic Non-Assertivism, claiming that, as a matter of empirical fact, ‘when typical mathematicians utter mathematical sentences, they are doing something that differs from asserting in a pretty subtle way, so that the difference between [asserting] and this other kind of speech act is not obvious’. In this paper, I show the implausibility of this empirical hypothesis.

In his [2011], Mark Balaguer responds to the argument that I [2011] launched against Hermeneutic Non-Assertivism (henceforth, ‘HNA’). Balaguer [2009] formulates HNA as follows:

When typical mathematicians utter sentences like ‘Every number has a successor’ and ‘4 is even’, they should not be interpreted as saying what these sentences say, and indeed, they should not be interpreted as saying anything, *i.e.*, as asserting propositions at all. [Balaguer, 2011]

His main reply [*ibid.*] to my objection is to note that my claim that typical mathematicians understand their mathematical sentences (henceforth, ‘M-sentences’) is compatible with the thesis that they are, actually and intentionally, performing some nonassertoric speech act when they utter the M-sentences that they do.

In this paper, I shall not object to the claim that the two views are compatible. Rather, what I will show is the implausibility of this empirical hypothesis, *viz.*, that

when typical mathematicians utter mathematical sentences, they are doing something that differs from asserting in a pretty subtle way, so that the difference between [asserting] and this other kind of speech act is not obvious. [Balaguer, 2011]

### I

Balaguer [2009; 2011] grants that typical mathematicians think that the M-sentences they utter are true but objects to the view that because they

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think that the M-sentences they utter are true, we should conclude that they are asserting (or what Balaguer [2011] calls ‘W-asserting’ — that is, asserting propositions).<sup>1</sup>

For reasons that will become evident shortly, let us say that when one utters a sentence with the *force* of a W-assertion, one performs a ‘W-utterance’.

Of course, Balaguer is right that simply thinking that what you utter is true is not a sufficient condition for concluding that you are asserting. But this raises a question: what, if not intending to assert, should HNA-ists take typical mathematicians to be doing, when they utter M-sentences?

Balaguer provides an answer to this question. He (personal communication and [2009]) claims that HNA-ists should contend that when typical mathematicians utter their M-sentences, although they are neither W-uttering nor intending to W-utter any propositions at all, they are ‘playing a non-assertive language game’. On this view [2009, p. 159], ‘ordinary mathematical discourse is a “language game” in which the “players” typically do not assert what their sentences actually say.’

Let us take seriously the view that typical mathematicians are engaged in a language game in which, when they utter the M-sentences that they do, they are neither W-uttering nor intending to W-utter but are performing some sort of non-assertoric speech act, which we can call ‘N-uttering’. So, we will assume that when a typical mathematician utters an M-sentence, she N-utters that sentence and, whatever else she does, she does not assert any proposition at all. [Balaguer, 2011]

## II

An opponent to HNA might put forward the following (empirical) hypothesis, regarding what typical mathematicians are doing:

- (i) Typical mathematicians sincerely utter M-sentences with the same intention that they have when uttering non-M-sentences (*e.g.*, something like ‘Snow is white’, which utterance we normally interpret as assertoric).

Now (i) is an empirical hypothesis and is not one that I aim to establish in this paper. But noting it is important for, while Balaguer [2011] sees HNA-ists as accepting the following premises,

<sup>1</sup> Balaguer [2009; 2011] seems to have in mind more than just failing to express a proposition, when he contrasts N-uttering (see below) to standard W-uttering (that is, to standard asserting). It seems that, for the HNA-ist, whatever speech act one performs, when one N-utters a sentence like ‘4 is even’, one does not assert something as holding of the mind-independent world, as, *ex hypothesi*, a non-mathematician might do. Be that as it may, for present purposes what is central to N-uttering is that when one performs such an act, one does not express any proposition at all.

- (ii) Mathematicians have the concept number, and they accept various number sentences, *e.g.*, ‘3 is prime’, ‘ $2 + 2 = 4$ ’, and so on;<sup>2</sup> and
- (iii) Mathematicians understand their mathematical sentences,

he sees HNA-ists as denying (i) and opting, instead for its *dual*, *viz.*,

- (– i) Typical mathematicians are uttering M-sentences with different (and non-assertoric) speech-act intentions (Henceforth, ‘act-intentions’) from those that they have when uttering non-M-sentences like ‘Snow is white’.

While I am inclined to accept (something like) (i), it is an empirical hypothesis, and I do not have any real data in support of it. That said, I shall offer two arguments for thinking that the HNA-ist’s rejection of (i) is implausible.

### III

Recall that Balaguer proposes to HNA-ists the view that, when typical mathematicians utter M-sentences, they N-utter them but do not W-utter them.

Of course, HNA-ists would not hold that typical mathematicians *never* W-assert. The claim would just be that they N-utter when they utter M-sentences. Even so, this view faces both a worry and a problem. Let us begin with the worry.

HNA-ists will claim that typical mathematicians will perform different speech acts when uttering M-sentences from those they will perform when uttering non-M-sentences. But this presupposes that they have a means for identifying the M-sentences.

In some cases, it will be easy for them to identify an M-sentence. For example, they will all agree that

- (1) 4 is even

is an M-sentence, presumably because (1) purports to be ‘about’ the number 4. But what about

- (2) Sam, a typical mathematician, proved that 4 is prime,

which purports to be about Sam, who is a person, not a number, and, perhaps, the proposition that, purportedly, he proved? (Since ‘proved’ is a

<sup>2</sup> As a referee noted, one might wonder about the relationship between *accepting* and *asserting* and, in particular, might wonder whether there is a notion of N-accepting, in contrast with standard accepting. This is a good wonder. But it is worth noting that because the notion of acceptance that is in play essentially involves something metalinguistic — because, that is, it is *sentences* that we accept or reject, rather than what those sentences purport to say — there is no reason to introduce a notion of N-accepting (or, for that matter, W-accepting).

two-place relation, between a prover and what is proved, and since what is proved is a proposition, we might see (2) as ‘about’ Sam and the proposition that he proved.) Since (1) is about a number and (2), by all accounts, is not, an HNA-ist might say that (1) is an M-sentence and, thus, will be N-uttered, whereas (2), which is not an M-sentence, will not be N-uttered.

But this is not the end of the matter, for even if (2) is not deemed an M-sentence, it certainly seems *closer* to an M-sentence than

(3) Sam, a typical mathematician, proved that snow is white,

since (3), but not (2), is ‘numeral-free’.

This raises a general problem of ‘mixed sentences’. For example, even if (1) is clearly and determinately an M-sentence, it does not seem that the same can be said of

(4) The number of planets in the solar system is 8.<sup>3</sup>

The worry here is that HNA-ists will not be able to *say* exactly what counts as an M-sentence and what does not. The problem with this is that it *matters* what is to count as an M-sentence. According to Balaguer [*ibid.*], HNA-ists want to say that a typical mathematician will N-utter (1), and they want to be able to say *whether* a typical mathematician will N-utter (4) or will W-utter (4).<sup>4</sup> But they cannot, until it is determined whether (4) is to count as an M-sentence. And if it is not clear to *us* whether (4) (and allied sentences) counts as an M-sentence or not, why think that it will be clear to an HNA-ist?

I do not see a way of assuaging this worry, but let us leave it aside, at least for present purposes. As I will now show, even if we do leave it aside, HNA-ists face a further problem.

#### IV

Let us say that when a typical mathematician N-utters a sentence or W-utters a sentence, she ‘G-utters’ that sentence, so that G-uttering is a *genus* of which N-uttering and W-uttering are *species*.

So, for example, a typical mathematician will understand, accept and, given HNA, presumably will wish to G-utter both (1) and

(5) Red is a color,

N-uttering the former and W-uttering the latter. But now a problem arises. If a typical mathematician understands, accepts and G-utters (1) and (5), then she ought to be able to G-utter their conjunction. But if she N-utters

<sup>3</sup> Thanks to an anonymous referee for suggesting such a case.

<sup>4</sup> Moreover, they want to say that she will not legitimately take herself to W-utter (1).

(1) and W-utters (5), she will not (and, indeed, cannot legitimately) G-utter their conjunction,

(6) 4 is even and red is a color,

which conjunction she presumably understands, accepts, and by all accounts might like to G-utter.

A similar problem emerges with respect to other ‘mixed sentences’. Suppose that a typical mathematician understands, accepts, and W-utters (5). Now, if she accepts (5) and abides by minimal logic, she will likewise accept (5) disjoined with any meaningful sentence.

Now, if that is so then she will accept

(7) Red is a color or 4 is even.

But, if HNA is correct, she will not be in a position legitimately to G-utter that sentence. After all, since (7), like (6), has a non-M-sentence component and an M-sentence component, it does not seem that she can N-utter (7) (or (6)), since it is not an M-sentence — that is, not *fully* an M-sentence — and it does not seem that she can W-utter (6) (or (5)), because it is not fully a non-M-sentence. This problem is exacerbated were we to conjoin (or disjoin) (4) with either (1), a clear M-sentence, or (6), a clear non-M-sentence. But, at least *prima facie*, typical mathematicians can and, indeed, do G-utter such sentences. Hence, HNA is not correct.

Of course, we would avoid this result if HNA-ists could explain how, despite the afore-noted appearances, typical mathematicians can G-utter sentences like (6) and (7). So, can HNA-ists so explain?

It seems to me that the only possible option that might be available to HNA-ists is simply to stipulate that one of the two speech acts is default so that, when a complex sentence is ‘mixed’, with one component being an M-sentence and the other component being a non-M-sentence, a typical mathematician will either N-utter that sentence or W-utter that sentence.

But this stipulation move is totally unacceptable, since HNA was proposed as an *empirical* hypothesis about the intentions and actions of typical mathematicians. As such, stipulation is totally inappropriate. For all of these reasons, I conclude that HNA is implausible, Balaguer’s [2009; 2011] defenses notwithstanding.

## REFERENCES

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