

Informativeness and Moore's Paradox*

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1. Irrationality approaches

So-called Moorean statements are of statements of the form

- (1) a. p and I don't believe that p .
- b. p and I believe that *not* p .

The first case is usually referred to as *omissive* and the second as *commissive*. What is traditionally perceived as paradoxical is that although such statements may well be true, asserting them is clearly absurd. An *account* of Moore's Paradox is an explanation of the absurdity. In the last twenty years, there has also been a focus on the incoherence of *judging* or *believing* such propositions.

In their recent survey of accounts of Moore's Paradox, Mitchell Green and John Williams (2007b) divide current accounts of Moorean absurdity into four categories: Moorean Speech as Theoretically Irrational, Moorean Speech as Practically Irrational, Moorean Belief as Theoretically Irrational, and Moorean Belief as Practically Irrational.

The first category, Moorean Speech as Theoretically Irrational, includes Moore's own account (in an assertion that p the speaker *implicates* that she believes that p —Moore 1944), Wittgenstein's account (in saying that she believes that p the speaker asserts that p —Wittgenstein 1953, section X of part 2), and Max Black's account

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(in asserting that p , the speaker represents herself as believing that p —Black 1952) It also includes Green’s own account (Green 2007), according to which a speaker *expresses* an inner state which he also explicitly disavows.

The third category, Moorean Belief as Theoretically Irrational, includes Jaakko Hintikka’s account (the assumption that someone believes a moorean proposition entails a contradiction; relying on the principles BI ($Bp \rightarrow BBp$) and BE ($BBp \rightarrow Bp$)—Hintikka 1962), Roy Sorensen’s revised version (since one believes the logical consequences of one’s beliefs and the principle BE is valid, believing commissive Moorean propositions entails having contradictory beliefs—Sorensen 2000), and John Williams’s account (since what justifies me in believing that p justifies me in believing that I believe that p and justification distributes over conjunction, it is impossible to have a justification for believing a Moorean proposition—Williams 2004).

And so on. In each of the accounts, some general property of belief, or of assertion, or of justification, makes believing a Moorean proposition, or asserting a Moorean proposition, irrational, and exposing the irrationality by showing how a proposed principle can help deriving a contradiction, or deriving attributions of contradictory beliefs, is taken to explain the absurdity.

In this paper I shall propose an account of Moorean absurdity that falls outside the main current insofar as it does *not* appeal to rationality. There is a basis for claiming this much of an account if one can make plausible, firstly, that Moorean absurdity can be exemplified in arational systems, and secondly, that what explains the absurdity in the cases of arational systems also can explain the absurdity of Moorean assertions or beliefs. I shall attempt this in the following sections. The proposal will involve a suggestion about the nature of assertoric force.

2. Arational Moorean absurdity

We usually identify the core cases of Moorean absurdity by means of the syntax *cum* semantics of the sentences that paradigmatically express Moorean propositions. However, no one thinks that the absurdity is syntactic in nature. To delineate the range of examples of Moorean absurdity almost amounts to explaining it, for the

features that are shared between all the examples in that range include the features that are taken to explain the absurdity. If we want to *test* a particular account, one option is to test whether all the examples that exhibit Moorean absurdity *according to* that account in fact also do so. In performing such a test, we need to rely on intuitions. Below, I shall exhibit a few non-standard examples that I think generate Moorean absurdity effects.

Consider first a simple observation of a clock on the wall, showing *one o'clock*. Looking at it you take it at face value, thus immediately forming the belief that the time is one o'clock. Ten minutes later you look again, and the clock still shows *one o'clock*. At first, you again form the belief that it is one o'clock, but in the next instant you recall your earlier observation, and instead infer the the clock doesn't work. From then on, you do not take it to "show the time", in the intuitive sense, i.e. to indicate what time it is. You cease to take the clock as *informative*.

Roughly, to regard the clock as informative when it shows *one o'clock* is to take the time to be one o'clock *because* the clock shows *one o'clock*.¹ That is, you infer from the clock's showing *one o'clock* that the time is one o'clock. To generalize, the clock reading is an example of a *presentation* of a proposition (that the time, at the time of presentation, is such-and-such), where a presentation is a particular event *u* at some time *t*. Let's use '*P(u, p)*' as abbreviation of '*u* is a presentation of the proposition that *p*'. Then we can define

(I) A presentation *u* that *p* is *informative* iff the inference

$$\frac{P(u, p)}{p}$$

is *valid*.

Call an inference of kind (I) an *information inference*. For an information inference to be valid in the relevant sense, the presentation must have been produced by some reliably *truth-tracking* process.² The process need not be infallible, and if what is

¹Here, of course, the 'because' applies to taking the time to be one o'clock, not to the time's being one o'clock.

²Note that the presentation isn't *truth-tracking* if the presentation itself, or the process that generates it, *makes* the proposition true. Without this qualification, promises, orders and requests, with a world-

presented is not in fact true, the inference is not valid, and so the presentation is not informative. Being informative requires both truth and reliability. Validity here of course is neither logical nor nomological validity.³

Again, if it holds that your conditional subjective probability that the time is t on the clock's showing t is high, and higher than your prior subjective probability that the time is t , then you treat the clock presentation as informative. This is a sufficient but not a necessary condition, since you can take the clock presentation to be informative while having independent knowledge of the time.

Your second observation of the clock caused you to stop regarding it as informative. You would also have stopped taking it as informative if you had discovered that the battery was missing, or that the arms of the clock were only painted on the front piece. Similarly, if you are watching TV and you see what looks like a sequence of a football match, and then suddenly discover that the antenna chord is disconnected, not only will you be puzzled, but you will at least cease to take for granted that what is shown on the screen accurately represents anything that is simultaneously going on in the outside world. You stop taking it as informative.

So far there is no absurdity. However, loss of the *presumption* that a certain apparent display of information *is* informative is one essential ingredient in Moorean absurdity. The second essential ingredient is that it is part of the presentation *itself* that the presentation isn't informative. Consider a modification of the TV case. Your TV screen actually seems to show, apparently in a live broadcast, yourself in front of your TV, and according to what you can see *on the screen*, the antenna chord is disconnected. You have no direct observation of the chord, only the apparent inform-

word direction of fit, could be counted as informative. If they were, bad predictions about moorean absurdity would result (as noted by an anonymous referee).

³In the terminology of Grice 1957, 377-78, if x means that p entails p , then 'means' is used in its *natural sense*, and Grice uses that entailment relation to distinguish *natural meaning*, or meaning_N , where it holds, from *non-natural meaning*, or meaning_{NN} , where it does not. Since the values of x in Grice's examples are utterances or events, $P(u, p)$ corresponds well to u means that p . By Grice's criterion, then, if it is true that $P(u, p)$ and the inference from $P(u, p)$ to p is necessarily truth-preserving, then u has the proposition that p as its natural meaning, or meaning_N in Grice's sense. If this does not hold, then u has non-natural meaning, or meaning_{NN} . (Note that here it is assumed that u does mean that p , and that it is only a question whether it is a case of meaning_N or meaning_{NN} , not whether the meaning relation is natural in any other sense.) Since for a presentation to be informative it is not required that the inference be *necessarily* valid, being informative does not entail having natural meaning. On the other hand, the validity *may* be necessary, e.g. nomologically necessary. If it is, we have a case of natural meaning, and so having natural meaning entails being informative.

ation from the screen itself. Now you are in the peculiar situation that if you rely on the screen as informative, and hence as veridically showing reality, then if you are right, your TV does not get any information from the external world, and hence (by ordinary assumptions about how it works) is not informative. The screen display may nevertheless be veridical.

Again, consider a barometer that shows the atmospheric pressure on a digital display, as depending on the amperage of a certain internal electrical current. It has a second screen, displaying the amperage itself. You know that that if there is zero amperage in the circuit, then either there is zero air-pressure, or the the machine does not work. Now the barometer shows a pressure of 1000 millibar in the one display, and zero amperage in the other. If the second display is veridical, then there is no electrical current in the circuit that connects the first display to the atmospheric pressure, and hence the first display is not informative. What is shown there may nonetheless be veridical.

I submit, firstly, that in both these cases we have an intuitive absurdity effect that not only is very close to standard Moorean absurdity, but also in fact is a variety of Moorean absurdity. This is an intuitive judgment about the cases. Secondly, if these are examples of Moorean absurdity, they are examples of Moorean absurdity without rationality violations. For the machines can not be rational, and hence can not violate rationality either.⁴

Thirdly, there is an explanation of the absurdity: if the displayed content is veridical, then the display is not informative, and hence there is no reason to take it as veridical. What we have is a kind of *information collapse*, and I think that

⁴It may be objected that they do violate rationality since they fail to function in accordance with a rational design. However, that they are rationally designed is immaterial. What matters is the evidential value of causal regularities.

As was suggested by an anonymous referee, it may also be objected here that we have a case of irrationality anyway, since the absurdity only arises from the perspective of an observer who is trying to extract information. No doubt it would be irrational of an observer to *believe* that both displays of the barometer are informative. But an observer who merely notes the absurdity of taking both displays at face value does not himself exhibit any irrationality. Similarly, it would be irrational of a hearer to believe a normal speaker who makes a standard omissive Moorean statement, but the hearer who merely notes the absurdity is not guilty of irrationality. Only the speaker is. So, although we have a case of arational Moorean absurdity only from an information seeking perspective, irrationality need not be exemplified by someone who has takes it.

standard examples of Moore's Paradox are instances of this.⁵

3. Belief and assertion

The connection between the machine examples and ordinary assertion emerges when we ask for the connection between an assertion and the world, i.e. what the assertion is about. When Lisa asserts

(2) It is raining.

there is a default presumption that what she asserts is true, as well as a default presumption that part of the *reason* why she asserts it is that it is true. It is a default presumption that it is asserted in part *because* it is true, i.e. that you can validly infer from Lisa's saying [*that it is raining*] that it is raining. That is, there is a default presumption that the utterance is informative.

The default presumption of informativeness involves an assumption that the process by which Lisa is a good indicator of rain is also involved in producing the utterance. An essential part of the mechanism by which she is a good indicator of rain is that she *believes* that it is raining. If she does not believe that it is raining, then it is unclear what connection there is between her saying that it is raining and the rain.

Then, if Lisa produces an omissive Moorean statement

(3) It is raining and I don't believe that it is raining.

her assertion is such that if its second conjunct is true, the first conjunct is not informative. Intuitively, it has the effect of nullifying the force of the first conjunct in way analogous to effect of ceasing to take the clock as informative: if the second conjunct is taken to be true, then the fact that Lisa has uttered 'it is raining' is no longer presumed to indicate the weather. Thus, on the present account, the assump-

⁵Being an information collapse falls short of being an information *paradox*. We generate a standard paradox by means of assertions of the form

(i) This utterance is not informative.

The reasoning that leads to a contradiction (by means of the definition of informativeness above) is analogous to that by which we get a contradiction from the sentence 'This sentence is not provable'.

tion that the speaker believes what she says is essential since it is part of the reason for the *hearer* to believe that what the speaker says is true (unless the speaker has independent reasons to believe it).

It is natural to take the presumption of informativeness as characteristic of assertoric force. On this view, an utterance has assertoric force just in case it is *prima facie* informative, i.e. that it *prima facie holds* that the utterance is made partly because the proposition expressed is true, or again that the information inference from the premise that the speaker *has said* that *p* to the conclusion that *p* is *prima facie* valid. That this information inference is *prima facie* valid allows that it is in fact invalid, e.g. because the speaker is insincere or because the speaker is ill informed or more generally unreliable.⁶

If this simple account of assertoric force is correct, what is required of a speaker to have made an utterance *as* an assertion? The condition of producing an utterance partly *for the reason* that it is true is met if the speaker simply expresses his belief, for then part of the explanation of why the utterance was made is that the speaker *believed* that what he said was true, and hence implicitly the speaker believes that he made the utterance partly because it *was* true. Hence, implicitly, the speaker regards the information inference, from the premise that the utterance was made to the conclusion that what was said is true, as valid, although this reflexive thought itself need not be explicitly entertained.

What about insincerity? The insincere speaker *S* who says that *p* by means of an utterance *u* may want to make his hearer *H* believe that *p*, and in that case implicitly to *infer* that *p* from the premise that *S* says that *p* (by means of *u*). That is, *S* intends *H* to take *u* as informative. Alternatively, *S* has no hope of making *H* believe that *p*, but wants *H* to believe that *S* believes that *p*, and in that case implicitly that *S*

⁶This should already make it clear that the present account is not a version of the so-called *knowledge account* of assertion. According to the knowledge account (e.g. as presented in Williamson 2000, chapter 11), in a standard form, an utterance is assertoric just in case it is governed by the norm that the utterance should be made only if the speaker knows that what is said is true. One of several differences is that taking the information inference, from having been asserted to being true, as *prima facie* valid falls short of taking what is asserted as being *prima facie* known to be true by the speaker: my conditional subjective probability that *p* on your assertion that *p* may be higher than my subjective probability that *p*, while my conditional subjective probability that you *know* that *p*, given that you have asserted that *p*, is not. Expecting the former is different from expecting the latter. Also, no normativity is involved in the present account.

utters u partly for the reason that p , i.e. make H believe that S implicitly regards u as informative. Or again, S only intends H to believe that S intends that H will believe that p , and in that case, S implicitly intends H to implicitly believe that S implicitly intends that H take u as informative. And so on.⁷

What is common to the sincere case and to all the various cases of insincerity is that S intends u to be *prima facie* informative. That is obvious in the sincere case, since then S takes it in fact to *be* informative. In the first level of insincerity, intended to produce in H the first-level belief that p , S must intend u to be *prima facie* informative, since S intends H to take it as informative. In the second level of insincerity, intended to produce in H the second-level belief that S believes that p , S must again implicitly intend u to be *prima facie* informative, since it must be reasonable for H to believe that S regards u as informative. In the third level of insincerity, S intends to produce in H the third-level belief that S intends to produce in H the second-level belief that S believes that p . It must then be reasonable for H to believe that S intends to produce the second-level belief, which requires S to intend u to be *prima facie* informative. It will be reasonable for H to believe that S has that intention only if u is *prima facie* informative, and so S must again at the third level intend u to be *prima facie* informative. And so on: at each level $n + 1$ S intends H to believe that S has the n :th level intention, and hence S must intend it to be *reasonable* for H to believe that S has the n :th level intention. Then, since it is reasonable to believe that S intends u to be *prima facie* informative at the n :th level only if u is *prima facie* informative, S must intend u to be *prima facie* informative at the $n + 1$:st level of insincerity as well. Hence, by induction, S must intend u to be *prima facie* informative, whatever the level of insincerity.

These cases contrast with the case where the utterance lacks *prima facie* informativeness. If the information inference is not even taken by a hearer as *prima facie* valid, so that there is nothing to overrule by further considerations, then it is not, I think, taken as an assertion. This difference comes out when comparing e.g.

⁷Grice's original account of meaning_{NN} in Grice 1957 involved the idea (in the case of assertion) that S intends: H to believe that p for the reason that S intends H to believe that p . This gricean construction does not appear in the hierarchy, neither as a sincere nor as an insincere assertion, but there is no space here to discuss this.

On related but somewhat different views on sincerity and insincerity, see Owens 2006.

- (4) a. Bill said [asserted] that Lisa had been to the office, but he is known to cover for her.
- b. Bill asked whether Lisa had been to the office, but he is known to cover for her.

The second conjunct in (4a) is natural, for reporting that Bill had asserted something *prima facie* implies that the utterance is informative, and precisely this implication is contradicted in the second conjunct. There is no such *prima facie* implication in (4b), since Bill is reported only to have asked whether the proposition is true, and consequently the second conjunct has no natural relevance to the first, and therefore appears odd.

What is going on in Moore's paradox, if the present account is correct, is that the *initial* property of the utterance of being *prima facie* informative is in conflict with the utterance of the second conjunct. The truth of the second conjunct frustrates, undercuts or nullifies the *prima facie* informativeness of the first conjunct. For if I take the Moorean utterance as a whole as informative I take it is as true, which forces me to stop taking the left conjunct as informative, even though it may be true.

Making the loss of informativeness explicit contradicts the *prima facie* validity of the information inference from being asserted to being true, and thereby frustrates the assertoric force itself. The full Moorean absurdity depends on the fact that the assertoric force primarily pertains to the conjunction, but distributes over the conjuncts. This involves the presumption of the truth of the second conjunct, which frustrates the assertoric force of the first conjunct, and indirectly of the conjunction. The resulting situation is one where the utterance both has the initial marks of being assertoric *and* further semantic properties that are in conflict and even incompatible with that. This conflict in the uptake of a Moorean statement is, I think, the correct explanation of Moorean absurdity.

4. Is the account adequate?

It has been remarked that some utterances of Moorean form escape absurdity. Wittgenstein (Wittgenstein 1980, § 486) gives the example of a railway announcer who is convinced that the announcement he must make is incorrect and says

(5) Train No ... will arrive at ... o'clock. Personally I don't believe it.

Similarly, we can think of an oracle who answers a crucial question with

(6) Your campaign will be successful but I don't believe it.

In neither case do we have the ordinary Moorean absurdity effect, and this is what the present account predicts, for in neither case is there a presumption that the informativeness of the first conjunct depends on the beliefs of the speaker. The speaker is a channel of (apparent) information that does not involve the speaker's beliefs. Such utterances should not be absurd.

The absurdity of the *commissive* Moorean cases is usually taken to be somewhat weaker. On several accounts, the commissive case implies that the speaker has contradictory beliefs, but does not imply the contradiction that the speaker both has and lacks a belief. On the present account the commissive case is also somewhat weaker: if the speaker believes that *not p*, then either this is indirect evidence that she does not believe that *p*, in which case the commissive case reduces to the omissive case, or the speaker has contradictory beliefs, in which case the *reliability* of the belief that *p* is nullified. If the speaker believes both that it is raining and that it is not raining, then the assertion that it is raining is no more to be trusted than an assertion of its negation. In both cases, then, the assertoric force is frustrated, but indirectly.

Finally, if the present account is correct, then we should get Moorean absurdity from a denial of *justification*. For instance, an utterance of

(7) It is raining but my belief that it is raining is completely unjustified.

should generate a Moorean absurdity effect.⁸ As far as I can tell, such cases are somewhat ambiguous. On one understanding, they do generate Moorean absurdity in the normal way (according to this account), by denying the informativeness of the first conjunct.

⁸This holds also on the account of Adler and Armour-Garb 2007, despite their taking Moore's Paradox to be essentially tied with (full) belief and being first-personal, since they claim (p 153) that full belief must satisfy a requirement of 'total relevant available evidence'. This leads them (p 161) to the stronger claim that we have a Moorean effect even if we substitute 'not fully justified' for 'completely unjustified'. To my mind, the absurdity effect in this case is not so obvious.

There is, however, a second way of taking such utterances, although it is not plausibly exemplified in (7). It would be better exemplified in an utterance like

- (8) He is alive but I have no justification for believing it (I just know it in my heart).

In a case like (8) what is denied is only that there is no justification in the ordinary sense, or no *rational* justification, and it is tacitly understood that the irrational belief that the speaker nevertheless has is *itself* informative. That is, the speaker believes that she *does* believe that *p* partly because it is *true* that *p*, even though she cannot rationalize her belief in the informativeness of her first belief. On this understanding, there is no Moorean absurdity according to the present account. I submit that this, too, fits our intuitions.

In examples where such interpretations are ruled out, such as in scientific or journalistic contexts, the Moorean absurdity should be straight, as in

- (9) The Etruscans were sun worshipers, but we have found no evidence.
(10) There is a tiger in the Pentagon, but we have no such report.

and again, I think it agrees with intuitions.⁹

Finally, there is the question of merely *judging* a Moorean proposition. According to Green and Williams (2007b), it is a constraint on accounts of Moorean absurdity that they explain not only the absurdity of Moorean assertions, but also that of Moorean judgments, or beliefs. The informativeness account does not, however, extend to judgment, since normally (exceptions mentioned above) a subject does not take her own belief as a source of information about the truth of what she believes. For the hearer of an assertion, the belief of the speaker is normally assumed to be part of the process that generates the utterance and also assumed to be truth-tracking. The analogy for a judging subject would involve the assumption about a state *x* that both generates the belief that *p* and is truth-tracking, and whose existence is denied in the

⁹Although belief in such propositions is theoretically irrational, it does not generate inconsistent beliefs by self-reflection principles only. If assertion of them is still Moorean, this tells against the incoherence accounts. One might, on the other hand, object that this tells against regarding such assertions as Moorean, but that would be to conflate the proposed *explanans* with the *explanandum*.

second conjunct of the Moorean proposition. Since what is denied is the belief that p , the only way a Moorean absurdity could arise in thought, on the present account, would be that the subject's belief that she does *not* believe that p contradicts a *reason* for believing that p . This would be rare.

So the information collapse account of Moorean absurdity does not apply to thought. Is this a drawback of the account? Clearly, Moorean belief is incoherent. As Green and Williams point out, an omissive Moorean belief cannot be true if judged true, assuming that belief distributes over conjunction. I think this is the correct account of the matter. But moreover, if you *try* to judge true an omissive Moorean proposition, you will be immediately struck by the falsity either of the first conjunct or of the second conjunct. The proposition may indeed *be* true, but the judging subject will deem it false. This contrasts with the position of the hearer of the Moorean assertion, for the hearer is not given any decisive reason for judging the Moorean proposition one way or the other. Contrary to what happens in judging, in the uptake of an assertion the truth value of the Moorean proposition is not at stake. Something else is. So although it is obvious that Moorean belief is incoherent, the absurdity effect seems to arise only from the hearer perspective. If this is intuitively correct, the failure to account for the Moorean absurdity of Moorean belief does not count against the information collapse account, but *for* it, since then there is none.

The incoherence of Moorean belief does add a further element of abnormality to Moorean assertion, over and above the information collapse, but it is not so clear how incoherence *alone* can generate the effect that is peculiar to Moorean absurdity. For although incoherence is usually puzzling, it is coupled with Moorean absurdity effects only in exceptional cases. This leaves an explanatory gap in most if not all main current accounts.

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