

Success Semantics and Partial Belief

Abstract:

According to success semantics, a belief's content is that which guarantees the success of the actions that the belief, in combination with the relevant desires, would cause. One worry with the view is that it seems to apply only to *full* beliefs and fares poorly in dealing with *partial* beliefs. For example, if Ida's partial belief that *p* is of strength 0.5, she may act in a way that would fulfill her desires if *p* were in fact false—assuming that she desires money, she may well accept a bet that pays her \$500 if *not-p* and costs her nothing otherwise. In response to the worry, defenders of success semantics hold that the content of a partial belief is simply that which guarantees the success of the actions it would cause *were it a full belief*. But, as I'll argue in this paper, such a response is unsatisfactory.

Success semantics, claimed to have been inspired by F. P. Ramsey, has it that a “belief’s truth condition [or content] is that which guarantees the fulfilment of any desire by the action which that belief and desire would combine to cause” (Whyte 1990, 150). On the face of it, the view seems to apply only to *full* beliefs and fares poorly in dealing with *partial* beliefs. For example, if Ida’s partial belief that *p* is of strength 0.5, she may act in a way that would fulfill her desires if *p* were in fact false—assuming that she desires money, she may well accept a bet in which she wins \$500 if *not-p* and loses nothing otherwise.

However, defenders of success semantics are unfazed by the preceding worry, even while granting that most of our beliefs are partial. Whyte writes:

A belief’s truth condition [or content] is that which suffices for the success of the actions it would cause *if it were a full belief*. It doesn’t matter that beliefs are often only partial. Since coming to England, for example, I have never fully believed (B7) that tomorrow will be sunny. And my partially believing B7 has indeed made me do things whose success condition doesn’t include the next day being sunny. But B7 is still the belief that tomorrow will be sunny, because tomorrow’s being sunny is part of the success condition of all the actions it would cause if I believed it fully. (Whyte 1990, 156-157; Whyte’s emphasis)

Other defenders of success semantics, such as Papineau 1993 and Dokic and Engel 2005, have responded to the worry in a similar manner (74; 9).

But Whyte’s response to the worry that partial beliefs pose for success semantics is unsatisfactory. The view aims to give us a naturalistic account of the

intentionality of belief—to tell us in naturalistic terms how beliefs come to have the contents they have (Brandom 1994, 174; Blackburn 2005, 22).¹ But Whyte's response leaves it unclear how success semantics may help us account for the intentionality of partial belief.

First, a naturalistic theory of intentionality should explain in naturalistic terms why certain states have any content at all. But Whyte fails to account for why a state of partial belief has content. To account for the intentionality of a partial belief, Whyte tells us to suppose that it were a full belief. Now, we are presumably meant to consider a full belief with the same content as the partial belief (whatever such content might be). For if the partial belief has content p and the full belief has a different content q , then we'll have no reason to hold that whatever guarantees the success of the actions that the full belief would cause is the content of the partial belief. However, in asking us to consider a full belief with the same content as the partial belief in question, Whyte is *presupposing* that the partial belief is contentful without *explaining* why it is so.

Second, given that success semantics applies to full belief, there is a good sense in which the content of a partial belief—or any other intentional attitude—is that which suffices for the success of the actions that a full belief with the same content would cause. But this says nothing more than the following: if we have a partial belief (or any other intentional attitude) with a certain content, success semantics can account for the intentionality of a full belief with the same content. We are still left without a naturalistic account of how the partial belief in question comes to have the content it has. We still do not know, for example, whether it has the content it has because it stands in some sort of causal connection to the world, or because of how it

is related to our desires and actions, or because of something else altogether.

Now you may think that a partial belief and a full belief that p are the same kind of belief, just as a bucket that is half-filled would remain the same bucket if filled to its brim. Suppose you're right and you've accounted for the intentionality of a full belief. Then since the corresponding partial belief is really the same belief—only weaker—you would have accounted for its intentionality as well.

However, a partial belief and a full belief that p are two different beliefs. If a degree of belief of 0.5 in p (say) and a full belief that p were the same belief, there would be a good answer to the question: what kind of belief? But there is none. The answer had better not be “binary belief,” since a degree of belief of 0.5 in p does not amount to a binary belief that p . Obviously, the answer had better not be “full belief.” Might the answer be “partial belief,” where a full belief is just a limiting case of a partial belief? No, for even if a full belief is a special kind of partial belief, a degree of belief of 0.5 in p and a full belief that p are two different partial beliefs. Furthermore, as Ramsey (1926) points out, “the degree of a belief is a causal property of it,” and “the differentia of belief lies in its causal efficacy” (65). Since a partial belief that p and a full belief that p have relevantly different causal properties, it is reasonable to hold that they are different beliefs.²

No doubt, we ordinarily say things like “His belief that God exists became stronger after recovering from cancer but wavered after a failed relationship”—as if there were a single belief that was strong at one point in time and then weak at another. And no doubt, there's a sense in which a partial belief and a full belief that p can loosely be thought of as the same belief. After all, both beliefs have the same content. But to hold for this reason that they are strictly speaking the same belief, albeit of different

strengths, is to confuse an attitude with its content, to confuse *belief* with *what is believed*.

Unfortunately, the blurring of this distinction is encouraged in the earlier quote from Whyte. When Whyte writes, “my partially believing B7 has indeed made me do things whose success condition doesn’t include the next day being sunny,” “B7” presumably stands for the proposition expressed by “tomorrow will be sunny.” Yet, when he goes on to write, “B7 is still the belief that tomorrow will be sunny, because tomorrow’s being sunny is part of the success condition of all the actions it [i.e., B7] would cause if I believed it fully,” “B7” presumably stands for his belief that the next day will be sunny. This unfortunate slide between belief and what is believed might tempt us to hold that a partial belief that p and a full belief that p are the same belief just because both have the content p . But such temptation should be resisted.

At this point, one might hold that partial beliefs are reducible to *binary* beliefs about objective probabilities.³ For example, on such a view, talk of someone having a partial belief that p of strength 0.5 may be replaced by talk of her having a binary belief that the objective probability that p is true is 0.5.⁴ If this view is right, and the content of a binary belief is that which guarantees the fulfillment of any desire by the action that the belief and the desire would combine to cause, then partial beliefs don’t pose a worry for success semantics.

There are two problems with such a position. First, the view that partial beliefs are reducible to binary beliefs about objective probabilities is implausible. Suppose you are certain that the objective probability that p is true is either 0 or 1, but you have no reason to think that it is one rather than the other. In such a case, you may have a partial belief that p of strength 0.5. In such a case, we can’t explain away your partial

belief by holding that it is a binary belief that the objective probability that p is true is 0.5.⁵

Second, let us grant that partial beliefs are binary beliefs about objective probabilities. Then, to explain the way a person acts, we will sometimes have to appeal to the latter. Now, suppose Ida has a binary belief that the objective probability of a particular coin landing heads is 0.7, and she has a choice between betting \$10 on heads for a potential return of \$20 and betting the same amount on tails for the same potential return. Presumably, given her binary belief, Ida will bet on heads, assuming that she desires money and is rational. But the truth of her belief will *not* guarantee the fulfillment of any desire by the action that her belief and desire would combine to cause. The truth of “The coin will land heads” will indeed provide such a guarantee, but the mere truth of “The objective probability that the coin will land heads is 0.7” won’t. Holding that partial beliefs are really binary beliefs about objective probabilities is not going to help the proponent of success semantics.⁶

May we account for the intentionality of partial belief directly and in a way that stays true to the spirit of success semantics? As we’ve seen, when one has a partial belief that p , the truth of p does not guarantee the fulfillment of any desire by the action which that partial belief and desire would combine to cause. But might it guarantee success in another sense? Might it guarantee the maximization of subjective expected utility by the action which that partial belief, together with the rest of one’s beliefs and desires—be they full or partial—would cause?⁷ Similarly, as we’ve seen, when one has a binary belief that the objective probability that a particular coin will land heads is 0.7, the truth of such a belief does not guarantee the fulfillment of any desire by the action which that belief and action would combine to cause. But might it

guarantee the maximization of subjective expected utility by the action which that binary belief, together with the rest of one's beliefs and desires, would cause?⁸

The answer to each of the preceding two questions is "No." First, the truth of p does not guarantee the maximization of subjective expected utility by the action which a partial belief that p , together with the rest of one's beliefs and desires, would cause. For whether subjective expected utility is maximized does not hinge upon whether p is true. Suppose, for example, that we are offered a bet that will give us a net gain of \$5 if p and a net loss of \$5 if not- p . Suppose we have a partial belief of strength 0.7 that p and utility is linear with money. In such a case, accepting the bet guarantees that we maximize expected utility even if p is false and we lose the bet. Now, suppose that p is true and we accept a bet that will give us a net gain of \$5 if p and a net loss of \$15 if not- p . In such a case, although p is true, subjective expected utility is not maximized.

Second, for similar reasons, when one has a binary belief that the objective probability that a coin will land heads is 0.7, whether subjective expected utility is maximized does not hinge upon whether the relevant objective probability is indeed 0.7. Hence, the truth of the binary belief in question does not guarantee the maximization of subjective expected utility by the action which that binary belief, together with the rest of one's beliefs and desires, would cause.⁹

¹ Strictly speaking, the account needs to be supplemented with a naturalistic account of the intentionality of desire. But I shall bracket the issue of whether such an account is at hand and focus on the problem that partial beliefs pose for success semantics.

² Why include the qualification "relevantly"? As an anonymous referee pointed out, certain causal properties of beliefs may not individuate the beliefs. For instance, a full belief that there's a cockroach in the room might cause one person to run out of the

room and another to try catching the cockroach. In such a case, the properties in question are non-individuating—just because one person’s belief that *p* has a different causal property from another person’s belief that *p* does not mean that the two beliefs are of different strengths. The relevant properties that allow us to distinguish between a partial belief and a full belief that *p* will have to be individuating properties. They are the properties that, keeping our other beliefs and desires fixed, are responsible for our behaving differently in different scenarios depending on whether we have a partial belief that *p* or a full belief that *p*. For example, a *full* belief that there’s a cockroach in the room may cause me to bet limb, life, and soul on there being a cockroach in the room, whereas, keeping my other beliefs and desires fixed, a mere *partial* belief with the same content presumably won’t cause me to make such a bet. In such a case, a full belief that there’s a cockroach in the room has a different causal property from a partial belief with the same content, and such a property is individuating.

³ Assuming that one may have a binary belief that *p* without being certain that *p* is true, binary beliefs should be distinguished from full beliefs.

⁴ For a defense of such a view, see Harman 1986, 24 and Pollock 2006, 94.

⁵ For more arguments against such a view, see Christensen 2004, 18-20 and Frankish 2009, 77-78.

⁶ I’m indebted to Jens Christian Bjerring and Ben Blumson for discussion here.

⁷ Thanks to an anonymous referee for raising both this question and the following one.

⁸ Does it make sense to speak of subjective expected utility when talking about actions that are caused by one’s binary beliefs? Yes, so long as one doesn’t deny that partial beliefs exist but merely claims that they are reducible to binary beliefs about objective probabilities.

⁹ Thanks to Jens Christian Bjerring, Ben Blumson, and Wolfgang Schwarz for reading a draft of this paper. Thanks also to two anonymous referees for their comments.

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