
NORMATIVITY IN REASONING

BY

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Abstract: Reasoning is a process through which premise-attitudes give rise to a conclusion-attitude. When you reason actively you operate on the propositions that are the contents of your premise-attitudes, following a rule, to derive a new proposition that is the content of your conclusion-attitude. It may seem that, when you follow a rule, you must, at least implicitly, have the normative belief that you ought to comply with the rule, which guides you to comply. But I argue that to follow a rule is to manifest a particular sort of disposition, which can be interpreted as an intention. An intention is itself a guiding disposition. It can guide you to comply with a rule, and no normative belief is required.

1. Reasoning

Reasoning is a mental process through which some attitudes of yours, which I call the ‘premise-attitudes’, give rise to a new attitude of yours, which I call the ‘conclusion-attitude’. (Sometimes a process of reasoning confirms an attitude you already have, rather than giving rise to a new one, but I shall ignore this complication.) Not every process that satisfies this description is reasoning, but any process of reasoning satisfies this description.

Some processes of reasoning are ‘active’, by which I mean they are done by the reasoner. Active reasoning is something we do, like eating, rather than something that just happens in us, like digesting. This article is about active reasoning only.

Also, it deals only with reasoning whose premise-attitudes and conclusion-attitude are beliefs. In this article, the word ‘reasoning’ refers specifically to active reasoning of this sort. It is one species of theoretical reasoning. My argument can be extended to other sorts of reasoning, including practical reasoning, whose conclusion-attitude is an intention, but I do not make that extension here.¹

This article investigates the role of normative beliefs in active reasoning. By ‘normative’ I mean ‘concerning reasons or ought’, and by a ‘normative belief’ I mean a belief whose content concerns reasons or ought. My conclusion will be that active reasoning does not require any normative belief. I think the role of normativity in reasoning is commonly exaggerated.

2. *Higher-order accounts of reasoning*

Some philosophers think that, in reasoning to a conclusion-belief whose content is the proposition p , you must at some point during the reasoning have the second-order normative belief that you ought to believe p . They also think this belief constitutes a premise-belief in some step of the reasoning. I call this the ‘higher-order’ account of reasoning. It makes a normative belief an essential part of reasoning.

The higher-order account is not the subject of this article. I argue against it in my book *Rationality Through Reasoning*,² and I shall not repeat the argument here. In that book, after rejecting the higher-order account I present a first-order account of reasoning instead.³ That is the subject of this article. The first-order account too can appear to give an essential role to normative beliefs. This article explains why, and then argues that the appearance is mistaken. No normative belief is required by the first-order account.

3. *A first-order account of reasoning*

I shall give no more than a sketch of the first-order account. I shall present it through an example. Suppose you are planning to go skiing today. You wake up hearing rain, so you believe it is raining. You have a standing belief that, if it is raining, the snow will melt. So you have beliefs whose contents are that:

It is raining;

and,

If it is raining the snow will melt.

But at first you are groggy with sleep and do not connect these two beliefs in your mind. As you wake up, you bring them together and, as I put it, you operate on their contents. The content of the first belief is the

antecedent of the conditional content of the second. Your operation is to derive the proposition that is the consequent of this conditional:

The snow will melt.

This becomes the content of a new belief of yours. You never form a belief that you ought to believe that the snow will melt. As you derive the proposition that the snow will melt, you simply come to believe this proposition.

I assume your operation on the contents of your beliefs is to follow the *modus ponens* rule, which may be described by the schema:

From the proposition p
and the proposition that if p then q ,
derive the proposition q .

I assume you follow this rule even though, according to Kripke's interpretation of Wittgenstein, it is indeterminate what rule you follow.⁴ For the purpose of this article, it does not matter what rule you follow. That would be an issue if I were concerned with whether or not you are reasoning correctly. To reason correctly, you must follow a correct rule. But I am concerned with whether or not you reason, correctly or not.

If, say, you follow the rule

From the proposition p
and the proposition that if p then q ,
before 2100 derive the proposition q , and after that date derive the proposition not q ,

you would be reasoning, though incorrectly. My assumption that you follow the *modus ponens* rule is convenient, but not essential. What is required for reasoning is that you follow some rule or other.

Briefly, my account of reasoning is this: you operate on the contents of your premise-beliefs, following a rule, to construct a conclusion, which is the content of a new belief of yours that you acquire in the process.

4. *Following a rule*

I claim that reasoning is something you do. How is that ensured in my account of reasoning? By the fact that in reasoning you follow a rule. The rule does not merely cause you to behave in a particular way, as a program does to a computer. The rule *guides* you and you actively follow it.

What is this guidance, exactly? Part of it is that you act because of the rule: the rule explains what you do. But it explains it in a particular way.

A perception of correctness is involved in the explanation. The rule sets up a standard of correctness. When you are guided by a rule, what you do seems to you correct relative to the rule or, if it does not, you are disposed to correct yourself. A disposition to make corrections is essential to being guided.

I have my own more detailed account of following a rule. I believe that to follow a rule is to manifest a particular sort of disposition that has two components.⁵ The first is a disposition to behave in a particular way. Here I use 'behave' very generally, to include mental processes such as reasoning and coming to have a belief. The second component is a disposition for the behaviour to 'seem right' to you, as I put it.⁶

Seeming right may be associated with a phenomenal state, but it need not be. (Compare an example of a different sort. When a proof seems right to you, you may be in no particular phenomenal state; your state may simply be that you can find no fault with the proof.) Seeming right is an attitude towards the behaviour. An essential part of it is being open to the possibility of correction. When a process seems right to you, you are open to the possibility that it may no longer seem right to you if a certain sort of event were to occur. We may call the event 'checking'.

Checking may consist simply in repeating the process, or it may consist in a different process. If you are asked 'Three fours?', you will probably spontaneously answer 'Twelve', and this will seem right to you. You may check your conclusion by calling up a spontaneous response once again, or you may do the sum by counting on your fingers.

Your openness to correction is a disposition. You are disposed to lose the attitude of seeming right in particular circumstances – specifically if checking occurs and produces a different result. This is often a counterfactual disposition, since there may actually be no checking. You may not be disposed to check, perhaps because you are confident of your conclusion. Nevertheless, you have the counterfactual disposition to change your attitude if you were to check and if the checking produced a different result.

In sum, to follow a rule is to manifest a complex disposition, part of which is to acquire the further disposition of being open to correction. That is an outline of my account of following a rule. Its details do not matter for the argument of this article.

Now the question of normativity. Some philosophers use the term 'normative' to mean 'involving correctness'. A rule is automatically normative in that sense, just because a rule sets up a standard of correctness. But I do not use 'normative' in that sense. Other philosophers use 'normative' to mean 'involving ought or reasons', and that is my meaning. A rule is not automatically normative in this sense, because there are rules you have no reason to follow. An example is the rule of not ending a sentence with a preposition.

However, when you are guided by a rule, it may seem that normativity, in this latter sense, must be involved in the process. If you are guided by a rule, and are disposed to correct yourself in accordance with the rule, does not this mean you attach normativity to the rule? Why else would you be guided by it? Only some rules guide you; you ignore many. Why are you disposed to adjust your acts to be correct according to some particular rule and not others? Is it not because you have at least an implicit normative belief that you should comply with this rule?

When you reason you are guided by a rule. So if following a rule implies a normative belief, a normative belief is required for reasoning. Moreover, the guidance afforded by a rule is what makes reasoning active – something you do. So a normative belief appears to be necessary in explaining how reasoning can be active.

I aim to show that this appearance is mistaken. No normative belief need be involved in guiding reasoning. I shall start by considering how a normative belief might guide you in reasoning, and then present an alternative explanation of guidance.

5. *Normative guidance*

There is indeed such a thing as guidance by a normative belief. When you believe you ought to do something, that belief can guide you to do it. It can explain your doing it, and it sets up a standard of correctness that you can pursue. If it does not seem to you that you are acting correctly by this standard, you will adjust your action. I call guidance by a normative belief ‘normative guidance’ for short.

I need to make two points about normative guidance in general. The first is that it requires a strong normative belief. To guide you to do something, a normative belief needs to have the content that you ought to do that thing. The weaker content that you have a reason to do it is not enough. When you believe you have a reason to do something, your belief may not explain your doing it, because you may believe you have a stronger reason not to. Normative guidance must come from an ought-belief, not a mere reason-belief.

The second is that normative guidance has a problem over end-means transmission. Guidance in general often needs to be transmitted from ends to means. Many things you do, you do by taking means to them. Part of being guided to do something is being guided to take means towards doing it, if means are required. An account of guidance needs to explain how that happens.

Can normative guidance be transmitted from and end to means? That is to say, when you believe you ought to achieve an end, can that belief somehow bring you to believe you ought to take a means to the end? It is

hard to explain how, because the content of the first belief – that you ought to achieve the end – does not plausibly imply the content of the second – that you ought to take the means. Suppose, say, that you ought to visit your mother-in-law, and a necessary means of doing so is to buy a ticket to her home town. Does it follow that you ought to buy a ticket to her home town? I think not. Suppose you are not going to visit your mother-in-law, though you ought to. Then buying a ticket is just a waste of money. It is not plausible that you ought to buy one.

Deontic logic is a contentious subject, and one example is not enough to demonstrate conclusively that ought does not transmit from end to means.⁷ I use the example only to cast doubt on this sort of transmission, not to demonstrate conclusively that it is impossible. Adding more conditions may be one way to produce a correct transmission principle.⁸ So, when you believe you ought to achieve an end, you may in some circumstances be able to derive an ought-belief that could guide you to taking a means. But end-means transmission of normative beliefs is definitely problematic. This is a difficulty for normative guidance.

6. *Normative guidance in following a rule of reasoning*

We are concerned with guidance in reasoning. When you follow some specific rule such as *modus ponens*, could you be guided by a normative belief?

One of the problems of normative guidance – the end-means problem – does not come up for reasoning. When you follow a rule in reasoning, you comply with the rule without taking any means to complying with it. So end-means transmission is not needed.

However, acquiring the necessary ought-belief in the case of reasoning is severely difficult. You need to believe you ought to comply with a rule of reasoning, but it is questionable whether you even have a reason to comply with one.

Where would the reason come from? Rationality seems the best answer. If anything gives you a reason to reason by *modus ponens*, for example, it would have to be rationality. But actually rationality does not require you to reason by *modus ponens*. To see this, think first about synchronic requirements of rationality. These are requirements that relate together attitudes that you have at a single time. It is not a requirement of rationality that you believe at one time what follows by *modus ponens* from things you believe at that time: that, if you believe *p*, and if you believe that if *p* then *q*, you believe *q*. That would be too demanding; it would require you to have a vast number of pointless beliefs. Since even this synchronic requirement does not exist, there can be no requirement of rationality to reason according to the *modus ponens* rule.

There is not even a conditional requirement that, if you reason, you should reason by *modus ponens*. For example, you might instead correctly reason by and-introduction. If you believe p and you believe that if p then q , you might correctly derive a belief in the conjunction (p and if p then q).

Rationality does not require you to reason correctly. However there are prohibitions of rationality against reasoning incorrectly. Rationality prohibits you from reasoning by affirming the consequent, for example. Conversely, when there is no prohibition, there is a permission of rationality. Rationality permits you to reason by *modus ponens*, even though it does not require you to. Rules of reasoning are made correct, when they are correct, by permissions of rationality rather than by requirements of rationality. This is the extent of rationality's support for the rules of reasoning.

Had rationality required you to comply with rules of reasoning, we might have concluded that you have a reason to comply with the rules of reasoning. But actually we cannot arrive at this conclusion that way, because rationality only permits you to comply with the rules of reasoning rather than requiring you to. Merely being permitted to reason in a particular way does not give you a reason to do so.

It could nevertheless be true that you necessarily have a reason to comply with the rules of reasoning. Is it true? If you believe it is raining and that if it is raining the snow will melt, have you necessarily a reason to derive the conclusion that the snow will melt, even if (say) you do not care at all whether the snow will melt? I do not know the answer to this question.

Even if the answer is 'Yes', we are still far short of what is needed for normative guidance. For normative guidance you need an ought-belief rather than a mere reason-belief. Even if it is true that you necessarily have a reason to comply with the rules of reasoning, it does not follow that you ought to comply with them. Suppose a great evil would result from your reasoning by *modus ponens* on a particular occasion. Then it is not the case that you ought to reason by *modus ponens* on that occasion.

Since there is no general truth that you ought to comply with the rules of reasoning, your reasoning cannot depend on your having the belief that you ought to comply with the rules of reasoning. But this is the belief you need to have if you are to be guided normatively. It follows that normative guidance is not the correct account of the way you are guided by the rules of reasoning.

7. *Intentional guidance*

Guidance can alternatively be provided by an intention rather than a normative belief. When you intend to do something, your intention can

guide you to do it. Your doing it can be explained by your intention, and your intention provides a standard of correctness for what you do. If it does not seem to you that you are acting correctly by this standard, you will adjust your action. One role of an intention is to guide you to act as you intend.⁹ An intention is a guiding disposition.

Intentional guidance can be transmitted from end to means. Rationality requires you to intend whatever you believe is a means implied by an end you intend.¹⁰ (By a 'means implied' I mean a means such that, if you were not to take this means, because you do not take it you would not achieve the end.) Like other requirements of rationality, this one may be satisfied automatically by subpersonal processes. Furthermore, on occasions when you do not satisfy it automatically, there is something you can do to bring yourself to satisfy it: you can do some active reasoning. Instrumental reasoning is a sort of practical reasoning that will take you from intending an end to intending a means.¹¹

Many philosophers assume that intentional guidance can in some way be reduced to normative guidance. This is presumably because they assume normative guidance is the only sort there is. They claim that intending to do something gives you a reason to do it, or they claim that you can intend to do something only if you believe you have a reason to do it.¹² Either way, they think you can be normatively guided to do what you intend to do. They think in particular that end-to-means transmission of intention can be explained through end-to-means transmission of normativity. Thomas Nagel writes:

Reasons are transmitted across the relation between ends and means, and that is also the commonest and simplest way that motivational influence is transmitted.¹³

An intention is a sort of motivational influence, so this remark implies that transmission of normativity is the commonest and simplest way of transmitting intention.

Reducing intentional guidance to normative guidance is a bad idea. For one thing, the reduction is unconvincing. It is not the case that intending to do something gives you a reason to do it,¹⁴ and you may intend to do something even when you do not believe you have any reason to do it. An intention is a sort of disposition to behave in a particular way. You may have this disposition independently of any beliefs you might have about reasons.

Secondly, end-means transmission is less problematic for intentional guidance than it is for normative guidance, so it is a bad idea to explain the former in terms of the latter. Furthermore, even when you do not believe you have any reason to do what you intend, nevertheless your intention can be transmitted from end to means in the way I have explained. In this case, the transmission of intention evidently cannot be explained by the transmission of reasons.

Intentional guidance cannot be reduced to normative guidance, then. It does not need to be, because intentions provide perfectly good guidance by themselves; they require no help from normativity.

On the other hand, normative guidance does need help from intentional guidance. A normative belief does not guide you directly. Suppose you believe you ought to do something. This normative belief will not directly guide you to do this thing, because you may have no intention of doing it. You will be guided by an ought-belief only if you intend to do what you believe you ought to do. In that case, the ought-belief provides normative guidance, but its guidance works through the intentional guidance provided by the intention.

Intentional guidance helps normative guidance with end-means transmission too. When you believe you ought to achieve an end, you may as a result intend to achieve it. If you do, the end-means transmission of intention can bring you to intend to take a means to the end. This intention can guide you to take the means. You need not believe you ought to take the means. End-means transmission of normative belief is not required.

There cannot be normative guidance without intentional guidance, but there can be intentional guidance without normative guidance. Here is an example. While walking down the street, you follow the rule of not treading on the lines. Sometimes you lengthen your stride a bit and sometimes you shorten it to avoid a line. You may not believe you have any reason to comply with this rule. You may even be irritated at yourself for behaving in this childish way. But despite yourself, you have the intention of complying with the rule of not treading on the lines. This intention guides your behaviour.

8. *Habitual guidance*

Habits guide us. Once you get on your bike to ride home, habit will guide you to make particular turns, to correct deviations that would otherwise take you off your path, to stop at red lights and so on. Habitual guidance is like intentional guidance. When you are guided by an intention, you are disposed to move (literally or figuratively) towards the intended end and correct deviations from the route. Similarly, when you are in the grip of a habit you are disposed to move towards the habitual end and correct deviations from the route. A habit is a guiding disposition like an intention. Indeed, we may think of a habit as a sort of intention, and habitual guidance as a sort of intentional guidance.

A habit may conflict with a deliberate intention. Michael Bratman reports that sometimes he intends to visit the bookstore on the way home, but once he is on his bike, habit sometimes takes over and he finds himself at home without having visited the bookstore.¹⁵ Habit evidently guides

him home. He is disposed to stick to the route home and to correct deviations that would take him off it. Even at the point where he intends to turn to the bookstore, habit guides him straight on. He would even correct an accidental deviation towards the bookstore. This is exactly like intentional guidance.

But in this case habit does not guide Bratman to fulfil his intention to visit the bookstore. Still, he also has a sort of disposition to turn towards the bookstore. If he were suddenly to recall his intention, he would turn in that direction. Evidently he has two opposite dispositions.

We may classify both of them under the same type. The difference is that the habitual disposition in this case is actually guiding but potentially defeasible, whereas the disposition that belongs to the deliberate intention is not actually guiding but is potentially defeating. So Bratman's story does not prevent us from treating a habit as a sort of intention, and habitual guidance as a sort of intentional guidance.

This story is not typical of habits. Habits only rarely conflict with deliberate intentions. They generally help us execute our deliberate intentions, rather than interfering with them. Large segments of our lives are guided by habits.

9. *Intentional guidance in following a rule of reasoning*

When you follow a rule, you are guided by the rule. You are always intentionally guided; you follow a rule because you intend to comply with it. The intention may not be deliberate; often it is a habit.

In some cases your following a rule may also be normatively guided: you may believe you ought to follow it. Still, even when this is so, you are also intentionally guided. You would not be normatively guided to follow the rule if you did not intend to follow it. Furthermore, the normative guidance works through the intentional guidance. The intentional guidance is therefore more direct.

All this applies to the rules of reasoning. Reasoning is intentionally guided, generally by habit. Occasionally it may also be normatively guided, because you may believe you ought to follow the rule, but normative guidance is not essential to reasoning.

When you reason, you take no means to doing so. The intentional guidance of reasoning therefore does not require end-means transmission of intention. If it did, there might be a threat of circularity. I explained that end-means transmission of intention can itself be conducted through reasoning of a particular sort: instrumental reasoning. So we might have reasoning explained by intentional guidance, which is in turn explained by reasoning. But actually there is no threat of this sort.

An intention to do something is a disposition of a particular sort to do it. It is a disposition with a guiding role; it guides you towards doing it. An intention to comply with a rule is a guiding disposition to comply. In Section 4, I described just such a guiding disposition in giving an account of what it is to follow a rule. To follow a rule is to manifest a disposition to behave in a particular way, and for this behaviour to seem right. Seeming right involves being ready to accept correction. This is just to be guided. So this disposition is nothing other than an intention or a habit. Following a rule manifests a disposition, and this disposition turns out to be an intention to comply with the rule or perhaps a habit of complying. The guidance involved in following a rule is nothing other than intentional guidance by this disposition.

Paul Boghossian denies that an intention can account for following a rule in reasoning.¹⁶ But he is thinking of an intention that embodies an explicit representation of the rule. To put into effect an intention of that sort, you would have to determine whether each particular case of potential reasoning falls under the rule. Doing so would require reasoning, which would again require following a rule. There would be a circle. But the intention or habit I am thinking of is just a disposition to behave in a particular way and for this to seem right. Which rule you follow is given by the disposition itself. It need not even be fully determinate. The disposition need not embody an explicit representation of the rule.

10. Conclusion

It turns out that, when I introduced intentional guidance in explaining how you are guided to comply with a rule, I introduced nothing new. Intentional guidance was already embodied in my account of following a rule in Section 4. Since that point I have simply placed following a rule, as part of reasoning, within the broader category of intentional guidance. I hope I have also scotched the idea that normative guidance is involved. No normative belief is needed in reasoning.¹⁷

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NOTES

- ¹ See Broome, 2013, ch. 14.
- ² See Broome, 2013, ch. 12.
- ³ See Broome, 2013, ch. 13.
- ⁴ Kripke, 1982.

⁵ This dispositional account of following a rule is set out in Broome, 2013, section 13.4. It is intended to overcome difficulties raised by Paul Boghossian in 'Epistemic Rules' (2008) and 'What is Inference?' (2014).

⁶ The phrase comes from Wittgenstein's *Philosophical Investigations*, remark 258 (Wittgenstein, 1968).

⁷ The argument is pursued in more detail in Broome, 2013, section 7.5.

⁸ Niko Kolodny offers a good one in 'Instrumental Reasons' (forthcoming).

⁹ A detailed description of intentional guidance appears in Michael Bratman's *Intention, Plans and Practical Reason* (1987).

¹⁰ This is an abridged version of the 'Instrumental requirement' set out in section 9.4 of Broome, 2013.

¹¹ See Broome, 2013, ch. 14.

¹² For instance, Christine Korsgaard in 'The Normativity of Instrumental Reasoning' (1997).

¹³ Nagel, 1970, p. 33.

¹⁴ Broome, 2013, section 10.1.

¹⁵ Bratman, 1999, p. 31.

¹⁶ Boghossian, 2008.

¹⁷ My thanks for helpful comments to Paul Benacerraf, Paul Boghossian, Stephen Finlay, Paul Horwich, Christopher Peacocke, Philip Pettit, James Pryor, Mark Schroeder and many others.

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