To be able to say what practical reasoning is, we first need to say what reasoning is and what the conclusion of a process of reasoning is. I shall do this in sections 1 and 2. We can then make a distinction between practical and theoretical reasoning. There are three main ways to do this, which I shall survey in sections 3 to 5. I shall end by suggesting that there are different kinds of practical reasoning.

1. Reasoning

As Harman (1986) has emphasised, reasoning should be distinguished from logic. Whereas logic is the study of relations of entailment between propositions, reasoning is the process of modifying one’s mental states in a rational way, either by forming additional mental states or by giving up existing ones. But this does not mean that there is no relation between reasoning and logic. For the fact that one or more propositions that we believe entail a further proposition can make it rational to reason in a certain way.

Consider a simple example. Suppose that I have the following two beliefs:

(Belief:) It is going to rain.
(Belief:) If it is going to rain, the streets will get wet.

The propositions that are the contents of these two beliefs together entail the proposition that
the streets will get wet. This fact is a reason not to retain beliefs in the former two propositions while forming a belief in the negation of the latter proposition (Streumer 2007a). Now suppose that I am planning to go outside, and that I need to decide which shoes to wear. In that case, I also have a reason to form a belief about whether or not the streets will get wet. And these two reasons together make it rational for me to engage in the following process of reasoning:

(Belief:) It is going to rain.
(Belief:) If it is going to rain, the streets will get wet.
So, (Belief:) The streets will get wet.

Of course, actual processes of reasoning are normally much more complex. Moreover, though this example may suggest that reasoning is a fully conscious processes, actual processes of reasoning are often partly or wholly unconscious. But I think this example nevertheless gives us a broadly accurate picture of the nature of reasoning, and in what follows I shall assume this picture to be correct.

2. The conclusion of reasoning

What is the conclusion of a process of reasoning? Logicians sometimes talk about the conclusion of an argument, but what they mean by this is a proposition that is entailed by the propositions that are the premises of this argument (Sainsbury 2001). The conclusion of a process of reasoning cannot be a conclusion in this sense, since it is not a proposition but a mental state.

It may instead be thought that the conclusion of a process of reasoning is the mental state that results from this process. But this cannot be right either. Suppose that I go through

1 I here use the term ‘reason’ to mean normative reason, and I take normative reasons to be facts that count in favour of, or count against, actions or mental states.

2 For a different picture of reasoning, see Broome (1999, 2002, 2009, this volume). Broome takes reasoning to be a means to bring ourselves to satisfy requirements of rationality, and takes it to be an open question whether rationality gives us reasons.
the process of reasoning that I have just described, and that this results in my being anxious about going outside. My being anxious is clearly not the conclusion of this process, since it is not a response to the reasons to which this process of reasoning was a response (that is, the reason given by the fact that the contents of the first two beliefs entail the content of the third belief and the reason given by the fact that I need to decide which shoes to wear). So perhaps we should instead say that a mental state is the conclusion of a process of reasoning if and only if it results from this process of reasoning and it is formed in response to the reasons to which this process is a response.

3. The first view: the conclusion of practical reasoning is an action

There are three main views about the distinction between practical and theoretical reasoning. According to the first view, whereas the conclusion of theoretical reasoning is a belief, the conclusion of practical reasoning is an action. Following Anscombe (1957, §33), this view is almost universally attributed to Aristotle, though some deny that he held this view (Charles 1984). Contemporary philosophers who hold this view include Dancy (2004) and Tenenbaum (2007).

Consider another example. Suppose that I have the following two mental states:

(Desire:) To avoid getting wet.
(Belief:) I will only avoid getting wet if I take an umbrella.

The first of these mental states is a desire and the second is a belief about a necessary means to achieve the thing desired. According to this view, taking these two mental states as premises, I can go through a process of reasoning that has the following conclusion:

So, (Action:) Taking an umbrella.

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3 For Aristotle’s brief remarks on this subject, see The Movement of Animals, 701a6-24, and the Nicomachean Ethics, 1141b21-22, 1147a24-b5.
Philosophers who hold this view should adopt a wider definition of reasoning and of the conclusion of a process of reasoning: they should say that reasoning is the process of modifying or acting on one’s mental states in a rational way, and that a mental state or an action is the conclusion of a process of reasoning if and only if it results from this process of reasoning and it is formed or performed in response to the reasons to which this process is a response.

The example I gave in section 1 suggested that we engage in processes of reasoning partly in response to reasons that are given by facts about relations of entailment between propositions. That seems to be a problem for this view, since actions do not seem to have propositions as their contents. Philosophers who hold this view can deal with this problem in two different ways. First, they can say that the content of an action is identical to the content of the intention with which it is done, and that the contents both of this intention and of the desires and beliefs that are the premises of a process of practical reasoning are propositions. But then they seem forced to say that the relations of entailment between these propositions are different from the relations of entailment between propositions that are the contents of beliefs. For consider the following process of reasoning:

(Desire:) To avoid getting wet.
(Belief): I will avoid getting wet if I take an umbrella.
So, (Action:) Taking an umbrella.

The second premise of this process says that taking an umbrella is a sufficient means to avoid getting wet, not that it is a necessary means. Therefore, if the propositions that are the contents of the premises of this process were the contents of beliefs, they would not entail the proposition that is content of the conclusion. But this nevertheless seems to be a rational process of practical reasoning. Philosophers who deal with the problem in this way therefore seem forced to say that the logic that applies to practical reasoning is different from the logic

They can say that these contents are propositions because they can be reformulated from, for example, ‘To avoid getting wet’ to ‘That I avoid getting wet’ and from ‘Taking an umbrella’ to ‘That I take an umbrella’. For doubts about this, see Dancy 2009.
that applies to theoretical reasoning: according to the logic that applies to practical reasoning, they seem forced to say, the fallacy of affirming the consequent (that is, the fallacy of inferring \( p \) from \( if \ p \ then \ q \) and \( q \)) is not a fallacy but a valid inference (Kenny 1966).\(^5\)

A second way to deal with the problem that actions do not seem to have propositions as their contents is to deny that practical reasoning is a response to reasons given by facts about relations of entailment between propositions, and to say instead that it is a response to reasons of a different kind (Dancy 2004). Philosophers who deal with the problem in this way usually deny that the premises of a process of practical reasoning are a desire and a belief about a necessary or sufficient means to achieve the thing desired, and claim instead that the premises are beliefs that make it rational to perform an action. For example, suppose that I have the following two mental states:

(-belief:) Getting wet will be unpleasant.

(-belief:) I will only avoid getting wet if I take an umbrella.

According to these philosophers, the content of the first belief corresponds to a fact that is a reason for action: that is, it corresponds to the fact that getting wet will be unpleasant, which is a reason for taking an umbrella. The content of the second belief corresponds to a fact that is what Dancy (2004) calls an ‘enabling condition’: a fact that is not itself a reason for action, but that must obtain for the fact that getting wet will be unpleasant to be a reason for taking an umbrella. If that is so, these two beliefs together make it rational to reason to the following conclusion:

\(^5\) Alternatively, however, they can also say that the same fact about a relation of entailment between propositions can give us different kinds of reasons, and that practical and theoretical reasoning are responses to these different kinds of reasons. For example, they can say that the fact that \( p \) and \( if \ p \ then \ q \) entails \( q \) is a reason against both believing \( p \), believing \( if \ p \ then \ q \) and believing \( not-q \), and that this very same fact is also a reason against both desiring \( q \), believing \( if \ p \ then \ q \) and failing to do \( p \). And they can say that, whereas theoretical reasoning is a response to a reason of the first kind, practical reasoning is a response to a reason of the second kind. Anscombe (1995) makes a suggestion along these lines, though she does not formulate it in terms of reasons.
So, (Action:) Taking an umbrella.

The view that practical reasoning is not a response to reasons that are given by facts about relations of entailment between propositions is sometimes expressed by saying that practical reasoning is not a form of inference or that practical reasoning is non-inferential (for discussion, see Streumer 2007b). This need not apply exclusively to practical reasoning: if practical reasoning is non-inferential, some theoretical reasoning is likely to be non-inferential as well.

4. The second view: the conclusion of practical reasoning is an intention

The second view about the difference between practical and theoretical reasoning is that whereas the conclusion of theoretical reasoning is a belief, the conclusion of practical reasoning is a desire or an intention. According to Charles (1984), Aristotle’s real view was that the conclusion of practical reasoning is a desire to perform an action. But most contemporary philosophers who hold a view of this kind, such as Broome (1999, 2002, 2009), think that the conclusion of practical reasoning is an intention.

This view is generally defended by raising objections to the view that the conclusion of practical reasoning is an action. For example, Broome writes:

Forming an intention [by reasoning] is making a decision. Making a decision is as close to acting as reasoning can possibly get you. Reasoning could not actually get you to act, because acting requires more than reasoning ability (1999: 407).

And Raz writes that the view that the conclusion of practical reasoning is an intention

allows for failure to act in the way entailed by the premises which is not a failure of

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6 Philosophers who hold this view usually also deny that practical reasoning is a response to reasons that are given by facts about relations of probabilification between propositions.

7 Harman (1999) similarly claims that practical reasoning ‘is concerned with’ intention.
reasoning but is due to inability, forgetfulness, weakness of will, etc. . . . [This] view is better able to represent the difference between non-action owing to failure of reasoning and non-action owing to other factors (1978: 5-6).

Perhaps the best way to formulate this objection is this. Suppose that a process of practical reasoning goes as well as it possibly can, except that it does not lead to the performance of an action. We would not normally describe this as a fault in one’s reasoning. Instead, we would describe it as a failure to act on one’s reasoning. This suggests that the conclusion of practical reasoning is not an action, but is instead the mental state that comes as close as possible to the performance of an action, which is an intention.8

In response to this objection, philosophers who think that the conclusion of practical reasoning is an action can admit that their view conflicts somewhat with our normal use of the term ‘reasoning’, but they can say that, all things considered, this does not mean that the conclusion of practical reasoning is not an action. For they can remind us that something is the conclusion of a process of reasoning if it results from this process of reasoning and if it occurs in response to the reasons to which this process of reasoning is a response. And since it must surely be possible for practical reasoning to be a response to reasons for action, they can say, it must be possible for the conclusion of practical reasoning to be an action rather than merely an intention. This reply is strongest if it is combined with the view that practical reasoning is non-inferential, since, on this view, practical reasoning is not even partly a response to reasons that are given by facts about relations of entailment between propositions: it is instead wholly a response to reasons for action.

A second objection to the view that practical reasoning results in an action is that practical reasoning can result in an action that is not performed immediately, but is performed much later instead. For example, I can now reason about whether I shall travel to New York next year, and such a process of reasoning seems practical even if it will only lead to my travelling to New York a year from now. But it seems implausible to say that this process of reasoning keeps going for whole year until the time at which I finally travel to New York: after all, for most of this time, I am not actively considering either the premises of this

8 This formulation of the objection was suggested to me by Joseph Raz.
process or the action that it will lead to. Moreover, if part of the criterion for whether a process of reasoning is practical is whether it results in an action, we will not know for a whole year whether this process of reasoning is really practical or whether it merely seems practical because it will not actually result in my travelling to New York. But we surely do not have to wait for a whole year to find out whether this process of reasoning is practical. In such cases, therefore, it seems more appropriate to say that the conclusion of practical reasoning is an intention.

Unlike the previous objection, however, this objection cannot show that the conclusion of practical reasoning is never an action. It can only show that the conclusion of practical reasoning is sometimes an intention, which leaves it open that, in other cases, the conclusion of practical reasoning is an action.

5. The third view: the conclusion of practical reasoning is a normative belief

The third view about the distinction between practical and theoretical reasoning is that whereas the conclusion of practical reasoning is a belief about reasons for action or about what we ought to do, the conclusion of theoretical reasoning is a belief of a different kind. This view is defended less often, but it is favourably discussed by Raz (1978) and endorsed by Audi (1989).

One reason for holding this view is that we may think that, if someone engages in reasoning about what someone else ought to do, such a process of reasoning is practical, even though its conclusion will not normally be an intention but a belief about what the other person ought to do (Raz 1978). Of course, defenders of the other two views may not be impressed by this: they may deny that reasoning that does not affect one’s own intentions or actions is practical, and they may defend this denial by saying that practical reasoning must be first-personal in some way. Another reason for holding this view is similar to the second objection that I discussed in the previous section: we may think that a process of practical reasoning can result in an intention that is not formed immediately, but that is instead formed much later, and we may think that the conclusion of such a process of reasoning is a belief about reasons for action or about what I ought to do.

As before, however, these objections cannot show that the conclusion of practical reasoning is never an intention or an action. They can only show that the conclusion of
practical reasoning is sometimes a belief about reasons for action or about what we ought to do, which leaves it open that, in other cases, the conclusion of practical reasoning is an intention or an action.

There is also a further objection to all three views about the distinction between practical and theoretical reasoning that I have discussed. In the first section, I suggested that processes of reasoning can result not only in forming additional mental states, but also in giving up existing mental states. Processes of reasoning that result in giving up mental states do not result in an action or an intention, and it is unclear what we should take their conclusions to be instead (Harman 1999). But it does seem that such processes of reasoning can be practical, as long as they result in the non-performance of an action that I might otherwise have performed, in giving up an intention, or in giving up a belief about reasons for action or about what we ought to do.

6. Different kinds of practical reasoning

The most plausible conclusion to draw from this, I think, is that there are different kinds of practical reasoning: reasoning that concludes with a belief about reasons for action or about what we ought to do, reasoning that concludes with an intention, and reasoning that concludes with an action. These processes of reasoning often succeed each other, and if they do so immediately, they can be said to form one continuous process of practical reasoning. But these processes may not always succeed each other immediately, and practical reasoning can also result in the non-performance of an action, in giving up an intention, or in giving up a belief about reasons for action or about what we ought to do.⁹

Bibliography

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Aristotle. *Nicomachean Ethics*.


Further reading

