

Some Aristotelian concepts: practical inference

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Among Aristotle's philosophical contributions that attract a lot of interest, his approach to practical inference is a prime example. Elizabeth Anscombe, one leading modern contributor on that topic, came to the conclusion that Aristotle had kept clear of confusions that still dominate this field, confusions she herself had been subject to.¹ However, Anscombe does not provide detailed representations of how the account of practical inference is supposed to work. She does not go into questions of how the central Aristotelian terms of προαίρεσις and βούλευσις are to be understood, or the interesting relations to εὐδαιμονία.

One very important point, according to Anscombe, is that Aristotle did not think formal correctness conditions were any different in the practical case than they were in the theoretical case. That means that the difference between the practical and the theoretical is to be captured in the use we make of the contents we relate to in inferring. Add to this that the conclusion in the practical case might simply be the action, and you have a challenge. It follows directly that we must see the action as a way of relating to a propositional content.

I am far from being a scholar of Aristotle, and I claim no expertise whatsoever in Aristotle scholarship. There is nevertheless a possibility that some of the things that we modern philosophers pursue might help us understand him. In this chapter I shall suggest a way of thinking about practical reasoning that satisfies the basic points identified by Anscombe as Aristotle's view. I leave it to scholars of Aristotle to judge whether this is interesting for interpreting his works.

Fregean inferential structures

I shall use the Fregean judgment stroke to represent the way we relate to a content and index the stroke so as to mark whether it is a normal theoretical judgment we are speaking about, or whether we are speaking about the Aristotelian practical way of being related to a propositional content. In the first case, I index with a 'J' for judgment; in the latter I use a 'P' for practical. To see inference as a transition from some judgments to another is the Classical way, and this was upheld by Frege but mainly lost from view in philosophy

¹ See Anscombe 1995, 21.

after him.² Let us start with a case of simple *modus ponens*, and let us also note that there are some delicate issues with how to express the propositions that describe what we do in English, issues that are less pressing in some other languages. The second premise must not be read as a habitual.

- 1a. |-J (I am driving to Stockholm)
- 2a. |-J (If I am driving to Stockholm, I am turning left at crossing X)
- 3a. |-J (This is crossing X)
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- 4a. |-J (I am turning left)

What is extra here, compared with the standard way of thinking about inference, is the presence of the indexed judgment stroke. Let us work with the aim of capturing the concept of legitimate inference, where inference is such that one reaches a conclusion legitimately when everything is correct (and thereby legitimate) in each premise. The added level brings with it the possibility that each premise is legitimately held, and also that legitimately held premises yield a legitimately held conclusion when the inference is legitimate. In that case, the inference is knowledge extending. We can therefore note the possibility of raising the issue of legitimacy on at least two levels. We can, especially if we do virtue epistemology, move further onto levels of aptness in terms of the way we relate to contents, and also in terms of inferring.

This example above is deliberately chosen because we can also use it in a case of practical reasoning. The only difference between the two cases is in the way we relate to the propositional contents or thoughts, not in the thoughts or the way they relate semantically and formally. Here is the example (with the same stipulation about premise 2).

- 1b. |-P (I am driving to Stockholm)
- 2b. |-J (If I am driving to Stockholm, I am turning left at crossing X)
- 3b. |-J (This is crossing X)
-
- 4b. |-P (I am turning left)

Most of the things said about legitimacy in the cases of the theoretical inference above carry over to this inference as well. The main difference is that here we have a practical way of relating to one premise and also to the conclusion. I

² The main conception these days starts from a notion of logical consequence, seen as holding between propositions. I will not go further into this or Frege scholarship here, and I refer to Nicholas Smith (2009) for discussions and references.

shall maintain that we need a practical way of relating to a premise in order to find a practical way to the conclusion, and I argue in some detail for this in Gjelsvik 2013.³ The richness of this quasi-Aristotelian approach becomes even more striking when one considers a practical inference on the model of the theoretical.

The practical case

Let me make some remarks about the practical case. First, the practical case as exhibited here is very close to Anscombe's late account of practical inference.⁴ In fact, or so I shall claim, the '|-P' symbol stands exactly for what Anscombe in *Intention* called *practical knowledge* – something she claimed philosophy had forgotten all about, i.e. a legitimate way of being practically related to a content.⁵ When you are thus related to a proposition, you are, in the central case, engaged in doing intentionally the propositional content to which you relate. (This is phrased awkwardly, but that should not deter us). In our example there are two such propositional contents, 'I am driving to Stockholm' and 'I am turning left'. In both cases – the practical premise and the practical conclusion – we take the whole premise to represent an intentional action. I agree with Anscombe that being so related to a propositional content, i.e. 'I am driving to Stockholm', implies an awareness of me being engaged in driving to Stockholm. This awareness is a way of knowing that I am driving to Stockholm. Doing something intentionally thus carries non-observational knowledge of what you are engaged in doing with it. This knowledge is propositional.

There are further issues here concerning the point that an intentional action exemplifies knowledge of how to do the thing in question. Such knowledge must be employed with success for the intentional action to be there. I shall not take a stand here on how to think about knowing how to x, and at this point I want to remain neutral on the contested and controversial questions about the relationship between knowledge how to something and knowledge that.⁶

Intellectualists, philosophers who advocate the reduction of knowledge how to do something to knowledge that, operate with practical ways of being related to constituents of propositions or thoughts. That is, however, not the same as the practical way of being related to the whole proposition

3 See Gjelsvik 2013. Jay Wallace made a good case for this in Wallace 2001.

4 In 'Practical Inference' (Anscombe 1995), first written for the von Wright volume of *Library of Living Philosophers*.

5 See Anscombe 1957, 57.

6 Jason Stanley (2011) is an important new contribution I shall not engage with here.

about which I am speaking. As I said, I will not be going into issues about knowledge how to do something, I just stress the need to operate with a practical way of being related to whole propositions when thinking about doing something intentionally. This illustrates some of the complexities in the relationship between Anscombe's Aristotelian use of practical knowledge and the discussion about Ryle's distinction between knowing how to do something and knowing that.⁷

Enkrasia (and akrasia)

Let me close with some detailed examples of a theoretical and a parallel practical inference, before going on to show how enkratic inference (the opposite of akratic) can be dealt with on the present approach. The first example is interesting because it shows how to extend the practical way of relating to a proposition to the case of intentions. There are no conditional actions, but there are conditional intentions. The central case, the case of doing something intentionally, thus needs to be extended to intentions and conditional intentions. A great deal of practical reasoning, as Michael Bratman has shown, concerns plans within plans, and relations between intentions. Without discussing all of that, I shall just provide an example with intentions.

5a. \neg_j (If I ought to take a break, then I shall take a break)

6a. \neg_j (I ought to take a break soon)

7a. \neg_j (I shall take a break soon)

The practical analogue to this must be reasoning between two intentions, which is shown by the way 'shall' enters the actual content. We still represent the reasoning in the same way as that of action:

5b. \neg_p (If I ought to take a break, then I shall take a break)

6b. \neg_j (I ought to take a break now)

7b. \neg_p (I shall take a break now)

The enkratic case is Broome's case, in which you move by inference from the recognition that you ought to take a break to the intention to take a break (see Broome 2013). 'B' stands for the attitude of believing by this rendering of

⁷ As discussed in Stanley 2011.

Broome's approach, and has a parallel, but not a full parallel, in the judgement stroke on my approach. The 'I' stands for the attitude of intending on Broome's approach, and has a parallel, but not a full parallel, in the practical stroke on my approach. I use the letters in this way for comparative purposes; I do not think it causes any problems. (I use the strokes to indicate legitimate ways of being related to propositions). This is the practical inference according to Broome:

8. B (I ought to take a break)

9. I (I shall take a break)

To be precise: in Broome's view this reasoning is enthymematic: I also need to believe that it is up to me whether I take a break or not. The full and correct representation of the inference is something like this:

8. B (I ought to take a break)

8*. B (It is up to me whether or not I take a break.)

9. I (I shall take a break)

According to the view I am pursuing, this is not correct reasoning, and Broome is wrong. There is a logical step from the modal verb 'ought' to the modal verb 'shall' which is not correct – satisfying the one modal predicate does not entail satisfying the other. (But there is a sense of 'shall' which is close to the predictive sense of 'will', as that notion enters first person intentions.)

This is the correct practical inference in my view:

10. |-P (If I ought to take a break then I shall take a break)

11. |-J (I ought to take a break)

12. |-P (I shall take a break)

Without the first premise being true of you, you will not reach the conclusion. We should note that it is not enough to judge the first premise to be true – you have to have adopted the practical way of relating to the first premise to be able to infer this conclusion. If you only judge the propositional content of the first premise to be true, but do not relate to it practically, then you might exhibit akrasia or weak will in this case. This shows that weak will is not typically a failure of reasoning (as it would be in Broome's account), and it also indicates why we need a practical way of relating to a premise in order to reach a practical conclusion.

We should also note that we may endorse different general truths from which different actions would follow, like ‘taking a break is good’, ‘eating something sweet is good’. It cannot be practically known that more than one of them ought to be acted upon at a particular time. And we might, in real life, be practically committed to the wrong one at one time, and at that time eat something sweet instead of taking a break when we know (theoretically) that we ought to take a break. In that case we fail to exhibit the practical knowledge of 10 above, something which is compatible with theoretical knowledge as exhibited in 5a. This distinction between ways of knowing therefore seems to do the work of Aristotle’s distinction between different ways of knowing in his account of *akrasia*.

This demonstrates the ability of the present approach to practical inference to handle some of the most contested issues in the discussion of practical inference. And there is more: in recent discussions, the role of rationality requirements in practical inference, their form, whether they are wide in scope or narrow, and so forth have been dominant.⁸ I submit from the perspective of the present approach to inference that we have all the resources we need in terms of relating to propositional content, and there is no point in going into the issue of rationality requirements when accounting for inference. Or rather, all the work that can be done by rationality requirements will be done by the resources we already have at our disposal by what goes into the legitimate ways of relating to propositional content, both practical and theoretical.

Work is also done by the interaction between judging and inferring, and the recognition that inferential connections may force us to reconsider some of the judgments to which we are committed: if a conclusion of a valid inference must be rejected, we must reject at least one premise. That goes for both theoretical and practical inference. The great virtue of the present approach is the way we get a full parallel between practical and theoretical inference in this matter, and a full parallel in the way entailment relations matter. This was indeed Anscombe’s Aristotelian aim. If we were to extend the present approach to hypothetical thinking, then we might, as an additional benefit, be able to see the structure of *reductio* arguments as fully parallel and as arising out of some hypothetical premises that lead to unacceptable conclusions. Of course, we engage in such reasoning all the time. Any full approach to inference needs to deal with that. I return to this kind of extension in the concluding overview, but let me just say that I want to remain neutral on *how* to extend to hypothetical judgments, and also that from the present perspective we start from the

⁸ There is now a huge body of literature on this topic. Important contributors are Broome 2003, 2010 and 2013, and Kolodny 2005.

categorical in both the theoretical and the practical case. The extension to the hypothetical may take quite different forms in the two cases.

This concludes the discussion of enkratic inference. Let me end by appending one further point. Keeping the practical case in sight makes it easy to see how difficult it is to think of inferring as something that we do intentionally. If we do, it will result in a vicious regress in the practical case: if we think of inferring as a way of being practically related to a propositional content, as we would be if the action was intentional, then it should also be possible for that intentional action of inferring to be able to be a conclusion of another practical inference, and so forth. The problem is not solved as long as you think of the transition as something that we do intentionally, and think of doing something intentionally along the present lines.

Upshot and some hypotheses

With this outline in mind, let me briefly indicate my current guess as to how this relates to understanding concepts like βούλευσις, προαίρεσις, and εὐδαιμονία. (Guessing is, of course, always more fun than serious scholarship!) Dogmatically put, the practical way of relating to a content stands to εὐδαιμονία as the theoretical stands to truth. Truth essentially characterizes judging something to be a certain way, as its formal end, and intentional action is similarly characterized by having εὐδαιμονία as its formal end. Virtue will then be characterized as the legitimate or right way of relating to such an end. The issue of whether εὐδαιμονία is entirely formal or also an external end in some sense of material end is not an issue which will be dealt with here – the point is that it is an end that we do pursue in some sense of pursuing.

Βούλευσις is thus seen as resulting in a theoretical way of relating to a practical issue – a theoretical conclusion about the means to the end you pursue/are pursuing. It is essentially related to truth, and is a product of inquiry (when that is needed). It is also typically what we reason about, since we reason from the point of view of the end we pursue/are pursuing. But the end we pursue is typically also a means to a higher end, and we can, therefore, relate practically and theoretically to the same propositional content at different times. We can also relate to the same content in different ways at the same time when we relate theoretically to what we are doing in being aware of what we do.

Προαίρεσις is thus seen as integrating what βούλευσις provides into a new action through practical reasoning: the conclusion as that is here conceived of (and in doing so generates a new βούλησις that makes up the motivation with which one acts in the action that makes up the conclusion). The standard translation into English of προαίρεσις is often ‘choice’. We can now see

how that translation carries with it some difficulties, since modern thinkers typically read into choice something different from this. Προαίρεσις may not, for instance, involve a choice between alternatives. On the other hand, it is an achievement in action to continue to pursue a higher end in light of the reasoning you carry out about how to do that. This achievement can also be subjected to considerations relating to virtue in how to go about it, as βούλευσις can be subjected to quite different virtue considerations. I shall not go into these here, however, or theorize about them.⁹

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