

Externalist *versus* internalist accounts of the justification of basic logical principles and Carroll's Regress

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I. Introductory Remarks

This paper concerns the relation of logic to deductive reasoning. One common view is that logic plays a justificatory role for deductive reasoning: if a basic logical principle is valid, one is justified in using it in reasoning.¹ Another common view is that basic logical principles play a normative role in that they guide deductive reasoning – i.e. they 'tell' us how to proceed given some accepted premises.

Consider the principle of Modus Ponens, the principle according to which:

P and (if P, then Q) together entail Q.²

If Modus Ponens is logically valid, you are in principle justified in using Modus Ponens in reasoning. Also, if Modus Ponens is valid, it is apt to guide your reasoning – to tell you what to do once you have accepted P, together with (if P, then Q). You might for instance think that the principle has a motivating influence such that once you have accepted the premises you are (other things being equal) drawn towards accepting the conclusion. One way of articulating this thought is by saying that there are normative principles associated with logical ones, which are what motivate thinkers who are acquainted with them in reasoning. In the case of Modus Ponens, we might think of something along the lines of NORM:

NORM: If S accepts both P and (if P, then Q), then S ought to/may/has a reason to reason to Q.³

I do not offer a precise articulation of principles such as NORM. This won't matter to our discussion. For ease of expression, I will continue to talk of the logical principle, rather than the normative one, as both justifying and guiding deductive reasoning. But if the reader prefers, they can substitute the normative principle instead. In Section III(ii), I will say something specific about NORM.

Are justification and normative guidance related features? Discussions over the nature of the justification of basic logical principles often draw on there being a tight relationship between the

¹ Three precisions. I use 'basic' in an informal way to describe logical principles that are plausibly fundamental to people's reasoning – principles such as Modus Ponens, Disjunctive Syllogism, or Universal Instantiation. Also, some might prefer to use 'rational' rather than 'justified' to describe reasoning that follows valid deductive principles. For clarity, I stay with the notion of justification. Finally, I bracket Harmanian scepticism about the relevance of logic to deductive reasoning. See Harman (1986).

² Throughout the paper, I state logical and associated principles in a lightly regimented manner, using a mixture of English and logical notation. While they are not strictly speaking well-formed, I hope they will do, as nothing more formal is required here.

³ How to tie facts of validity to normative facts is disputed. See MacFarlane (2004) and Field (2009, 2015), for canonical discussion/articulations of so-called 'bridge principles', and Steinberger (2017, 2019) for discussions of the various ways in which we might say that logic is normative.

them: accounts of justification are in part evaluated in terms of whether they can account for the phenomenon of normative guidance.⁴ This paper explores the interaction between the project of accounting for our justification for using a logical principle, such as Modus Ponens, in reasoning, and that of underwriting the idea that such a principle may normatively guide us. In particular, it addresses the question of whether different types of such justification might *preclude* or *favour* normative guidance. The types of justification at issue here are access-externalism and access-internalism. Roughly, according to access-internalism, what justifies you in believing that p is cognitively accessible to you and according to access-externalism, what justifies you in believing that p need not be cognitively accessible to you.⁵

Why think that any specific account of the justification of basic logical principles would determine whether they are guiding? One answer to this question is provided by some recent discussions of Lewis Carroll's famous regress, which suggests that elementary deductive reasoning is impossible (see Carroll 1895). The thought is that the regress mounts a successful challenge against access-internalism about the justification of such principles because access-internalism is incompatible with normative guidance. For instance, according to Pascal Engel (2016: 100), Carroll's regress targets what he calls 'reflective internalism', according to which knowing e.g. Modus Ponens, requires 'having the belief that the rule is valid' or having a 'reflective belief' about its validity; Patrice Phyllie claims that Carroll's regress 'vindicates a repudiation of internalism', which requires our reasoning with basic logical principles to be 'grounded on our knowledge of logical laws' (2006: 184); and Paul Boghossian (2001: 31) claims that, when it comes to the justification of basic logical principles 'no richer warrant – nothing that would count as a phenomenologically appreciable belief about the rule, for example – could so much as be coherent', because of Carroll's regress.

These formulations of the worry are not equivalent, and more context would be needed to explain the details of the specific views they suggest. But they all point to the thought that access-internalism leads to Carroll's regress because it requires us to have an *explicit belief* that the relevant principle is justified. This is meant to be incompatible with the principle normatively guiding us in reasoning, and ultimately what triggers a regress to the effect that no conclusion can ever be reached through deductive reasoning. Evaluation and rejection of this claim is one of the main aims of this paper.

Section II offers a discussion of access-internalism and regresses with a focus on Carroll's regress. Section III discusses and rejects the view that access-internalism is susceptible to Carroll's regress. Section IV considers and evaluates accounts of the justification of logical principles that are meant to avoid the regress. Section V propose an externalist account of the justification of the logical principles that has not received attention in the context of discussions of Carroll's regress.

II. Epistemic Regresses and Access-Internalism about Justification

⁴ While I am sceptical about this, I will not challenge here the idea that basic logical principles normatively guide us in reasoning. But see my (2019a and my ms) for discussion. Also, I remain neutral on whether what is being guided is an action or some process that falls short of being an action, so as not to preclude accounts of reasoning according to which it is not an action. (See my ms for further discussion.)

⁵ The relation of justification to guidance is receiving a lot of attention in contemporary epistemology. On the much debated 'guidance-deontological' conception of justification, justification for p should help us decide whether to believe p, in which case justifying factors should be cognitively accessible. (See Goldman 1999) Our issue is different: we are not concerned with whether justification for Modus Ponens has to be internalist because it should guide us in the question of whether to believe Modus Ponens. We are concerned with whether justification can be internalist given that Modus Ponens should guide us in *reasoning* from certain premises to a certain conclusion.

One of the most discussed forms of sceptical argument in epistemology is that of the regresses of justification that allegedly plague access-internalist accounts of justifications. I discuss these regresses briefly and explain how they differ from the way Carroll's regress is used to target access-internalism.

According to access-internalism, you are justified in believing *p* only if the cognitive factors that justify it are cognitively accessible to you:⁶ you can in principle always find out what justifies your belief, either because it is directly manifest to you or by attending to it or through reflection (e.g. reasoning, recollection or introspection). Such access requires these cognitive factors to be mental items (e.g. experiences, beliefs, intuitions, introspections or memories), or nonmental items to which you are cognitively related (e.g. believed facts or believed propositions). By contrast, externalists about justification reject that justificatory factors need be cognitively accessible: justification is compatible with lack of cognitive access. In fact, these justificatory factors may be non-mental items; for instance, a belief might be justified in terms of facts external to the subjects to which they may not have first-personal access.

Access-internalism is standardly thought to generate regresses in two ways; first, when part of an inferential model of justification; second, when part of a non-inferential – foundational – model of justification. I shall consider these in turn.

(i) Inferential Access-Internalism

Suppose that you believe that *p*. According to access-internalism, your belief is justified only if the factor that justifies it is cognitively accessible to you. According to inferential access-internalism, this factor is another belief or another proposition *q* that is believed, where the relation between *p* and *q* is inferential: roughly, what makes your belief that *p* inherit its justification from *q* is that *q* is justified and *p* is competently inferred from *q*. This raises the further question of what justifies *q*. On this model, the answer has to be that *q* is justified only if the factor that justifies it, call it '*r*', is cognitively accessible to you and the transmission of justification between *q* and *r* is inferential. But this of course invites the further question of what justifies *r*, and so on. Because it takes justification to be transmitted through *inferences between justified propositions*, this inferential model is susceptible to a regress of justification, an endless chain of justificatory inferences, whereby no proposition and so no belief could ever be justified.⁷

It is widely held that this kind of regress requires access-internalists to abandon the inferential model and move to a kind of foundationalism.⁸ Access-internalist foundationalists could block the regress by claiming that there are basic beliefs that are self-justified in a way that is first-personally accessible; all inferential chains of justification start with these beliefs.

(ii) Foundational Access-Internalism

Suppose that justification is not an inferential affair on pain of regress and that the model of justification is access-internalist foundationalism: some beliefs are basic in that they are self-justified in a way that is cognitively accessible; that is to say, that they are self-justified – the self-

⁶ See for instance Chisholm (1977), Bonjour (1985: chs 1 and 2). I follow standard characterisation in characterising access-internalism as requiring only *potential* access to justificatory factors. See Alston (1989: ch. 8) for references and a canonical discussion.

⁷ Infitists about justification claim that justification for *p* is compatible with *p* having an infinite chain of justification. See Peter Klein (1999) for a defence; see also Klein (2014) and Ginet (2014) for elaboration and discussion. I do not discuss infinitism here.

⁸ For reasons of space, I do not discuss all the different possibilities for internalists here (e.g. coherentism, mentalism), only those that are salient in discussion of Carrolls' regress.

justifying factor – is cognitively accessible.⁹ On this account, justification requires cognitive accessibility only to features that make it self-justified, and not to further beliefs. This view appears to yield the following regress, which is based on Laurence Bonjour's presentation of it (1985: 32):

- (i) Suppose that you believe that p.
 - (ii) Suppose that your belief that p is basic, i.e. justified, where the justifying factor is not another cognitively accessible proposition.
 - (iii) If your belief that p is justified, then
 - (a) there is something that justifies it: call it 'J';
 - (b) you have cognitive access to J: i.e. cognitive access to the fact that J is a justifier for your belief that p.
 - (iv) Given (ii), the fact that J is a justifier for your belief that p is cognitively accessible.
 - (v) If J is a justifier for your belief that p, there is something that makes it a justifier for your belief that p, call it J*.
 - (vi) If so, J* is cognitively accessible: you can access the fact that J* is a justifier for the fact that J is a justifier for your belief that p.
- ...

Notice that externalists can avoid this regress (and the previous one about the inferential model) because they reject (iii)(b): they agree that there is something that justifies justified beliefs but they reject that such justification requires cognitive access: it may be that J justifies your belief that P and that you do not have cognitive access to J. In particular, if J is not a mental fact that is cognitively accessible, then J does not require the further justifier J*.

Access-internalists should reject (v). Indeed, Bonjour suggests that they should pursue the following strategy (1985: 33, his italics):

What is involved [in (iv) is] cognitive states of a more rudimentary type which do not themselves require justification, despite having the capacity to confer justification on beliefs. It is these more rudimentary states which are thus, according to this position, the ultimate source of epistemic justification; although basic beliefs are indeed the most basic *beliefs*, they are thus not the most basic cognitive states. The basic states in question are described as *intuitions, immediate apprehensions, or direct awareness*; the objects of such states are usually said to be *given or presented*.¹⁰

There is thus no step (v) for this version of access-internalism because there is no J*. J is a cognitive state 'of a more rudimentary type', e.g. an immediate apprehension which can confer justification to p but does not need justification J*. That is to say, your belief that p is justified by a certain cognitive, immediate apprehension of the very fact that p.

Consider the case of the justification of Modus Ponens. Suppose that you are justified in reasoning according to Modus Ponens, and suppose that for you to be so justified, you have to have cognitive access to the fact that Modus Ponens is valid. Let us say, to simplify the discussion, that this means that you have to believe that Modus Ponens is valid. Now suppose further that your belief in Modus Ponens is a basic belief, obtained through a kind of direct experience that we might label 'rational intuition' or 'rational insight' – a kind of direct apprehension of the intellect.¹¹ Our regress can then

⁹ The kind of foundationalism standard in contemporary epistemology is what Bonjour (1985: 26-30) calls 'moderate' according to which basic beliefs, while conferring justification to other beliefs, are defeasible.

¹⁰ See also Bonjour (2014).

¹¹ We do not need to fix on a precise account. See e.g. Bealer (1992 and 1998), Bonjour (1998), Sosa (1996 and 1998) and Bengson (2015) for different elaborations of the view.

be blocked as follows:

- (i_{MP}) Suppose that you believe Modus Ponens, that P and (if P, then Q) together entail Q.
- (ii_{MP}) Suppose that your belief that P and (if P, then Q) together entail Q is basic, i.e. justified, where the justifying factor is not another cognitively accessible proposition.
- (iii_{MP}) If your belief that P and (if P, then Q) together entail Q is justified, then
 - (a) there is something that justifies it; say it is your rational insight that P and (if P, then Q) together entail Q;
 - (b) this insight is cognitively accessible; i.e. the fact that your insight is a justifier for your belief that P and (if P, then Q) together entail Q is cognitively accessible.
- (iv_{MP}) The fact that your insight is a justifier for your belief that P and (if P, then Q) together entail Q is cognitively accessible.

The access-internalist can claim that there is no further step here. In particular there is no step (v_{MP}):

- (v_{MP}) If your rational insight is a justifier for your belief that P and (if P, then Q) together entail Q, there is something that makes it so – some justification about this intuition counting as justification for your belief: perhaps that your rational insights tends to be accurate.

There is no such step because rational insight, as a default, can be taken at face value as the kind of experience that produces justification without requiring further justification – it is one of the ‘more rudimentary’ types of cognitive state. Given this, access-internalism can meet the threat of regress, provided that such notions as rational insight or intuition can be made sense of in the case of logical principles, and this of course is not a given.

However, foundationalist access-internalism is not free of regress threats as apparently it is susceptible to Carroll’s regress.

(iii) The Carrollian Regress: Explicit Representation and Reasoning

On this interpretation of Carroll’s regress, the problem appears to be that the notion of basic *belief* combined with access-internalism leads to a regress. This is because cognitive accessibility requires *explicit representation*: if the features that make basic belief in Modus Ponens justified – e.g. rational insight into its validity – have to be cognitively accessible, you need to have an explicit representation of these, which leads to Carroll’s regress. Let us see how through the following articulation of the regress:¹²

- (i_{CR}). Suppose that you accept (A) that it is day and (B) that if it is day, then it is light.
- (ii_{CR}). What, beyond accepting (A) and (B) might make you reason to (Z) that it is light?

¹² This version of the regress is meant to be faithful to the original while highlighting how it might threaten foundationalist access-internalism. It is notoriously difficult to interpret this regress and it is very unlikely that Carroll had in mind anything like access-internalism as a target. The regress as presented by Carroll suggests that one is led to a regress if one adds one’s logical principles as premises in one’s reasoning. The interpretation offered here is suggestive of the same thought, as I suggest below: if logical principles are explicitly represented as propositions, then, *eo ipso*, they will end up as premises in one’s reasoning, because if they are explicitly represented as propositions, they are not the kinds of things that can help you move from premises to conclusion – which is what logical principles should be doing – they are just further, premise-like propositions. So logical principles cannot be explicitly represented as propositions and any view that suggests that they are is false.

- (iii_{CR}). Here is a suggestion: to reason to (Z), you also need to see that that (A) and (B) together entail (Z) – that is, you need to accept the principle of Modus Ponens: that P and (if P, then Q) together entail Q.¹³
- (iv_{CR}). But this won't do because accepting Modus Ponens is just adding a further premise to your reasoning, which still won't make you reason to (Z)
- (v_{CR}). Here is then a new suggestion: to reason to (Z), you not only need to accept the premises (A) and (B) and accept Modus Ponens, you also need to accept that (A) and (B) together with Modus Ponens entail (Z).
- (vi_{CR}). This won't do either because accepting that (A) and (B) together with Modus Ponens entails (Z) is just adding yet another premise to your reasoning, which still won't make you reason to (Z).
- (vii_{CR}). Here is then yet another suggestion: what makes you reason to (Z) is your acceptance of the following:
 the original premises (A) and (B);
 Modus Ponens: that P and (if P, then Q) together entail Q;
 The further principle: that (A) and (B) together with Modus Ponens entail (Z).

And so on

Step (iii_{CR}) is the initial trigger for the regress if we understand accepting Modus Ponens...’ as involving an explicit belief about its validity. And the reason why such a belief leads to a regress concerns its perceived incompatibility with the guiding character of basic logical principles. On this way of understanding the sceptical challenge posed by Carroll’s regress, the relevant sceptic is not challenging us to provide a justification for basic logical principles but to provide a justification that is compatible with the fact that people do in fact reason according to Modus Ponens, reach conclusions using the principle. What is in doubt is not that the principle is valid, but that explicit representation of the principle as a belief, which is required for internalist justification, is compatible with the principle in fact guiding us from premise to conclusion.¹⁴ If the principle is not guiding, we are stuck. We need something else to move from premises to conclusion that better not be a further principle that is explicitly represented. But it would have to be if we are to be justified in using that principles in reasoning.

Consider the following ways of putting the worry:

[T]he regress goes through only if one *has to recognise that* the premises fulfil a certain condition (displaying a valid logical form), and then, on one’s recognition they do fulfil these conditions, one is licensed to infer the conclusion. But if it is claimed that inferring the way we do is simply a matter of recognising the truth of the premises and that the conclusion will ‘force’ itself on us because of externalist considerations (for instance, reliability), such an appeal to the required condition (the warrant) doesn’t play any role – it becomes superfluous. (Patrice Phillie 2006: 190; my italics)

¹³ How to exactly frame this crucial step in Carroll's Regress is a disputed matter which would deserve a separate paper: does one have to accept the general principle of Modus Ponens, or a corresponding rule such as NORM or simply the particular fact of entailment from (A) and (B) to Z)? I discuss this in my (2019b and ms).

¹⁴ Richard Fumerton (2015) discusses Carroll’s regress as a threat to his brand of inferential internalism where the concern is not with normative guidance. I cannot address this here for reasons of space. But see my (ms) for discussion.

[A]t some point it must be possible to use a rule in reasoning in order to arrive at a justified conclusion, without this use needing to be supported by some knowledge about the rule one is relying on. It must be possible simply to move between the thoughts in a way that generates justified belief, without this movement being grounded in the thinker's *justified belief about the rule of reasoning*.' (Paul Boghossian 2001: 26-27; my italics)

Reflective beliefs about the validity of our inferences can no more move our minds than the fact that further premises are added to the initial ones in the tale [i.e. Carroll's regress]. (Pascal Engel, 2016: 100; my italics)

We can't suppose that all the norms that an agent employs are *explicitly represented* in their heads: that would lead to a familiar regress in that we would then need policies or rules for processing the *internal representations*. (Hartry Field 2009: 282-3; my italics)

Now 'recognition' of the relevance of a principle; 'justified belief' and 'reflective belief' about a principle, or 'internal representation' of a principle, are all different. For instance, representing a principle or seeing that a principle applies need not require reflective beliefs, if that means something inferential or meta-cognitive. I do not have the space to discuss this, and I may not in what follows do full justice to the various ways of putting the problem that explicit representation is perceived to raise (which is not always raised with access-internalism specifically in mind). So I will stick with the notion of explicit representation and not use the ideology of reflective belief, which seems more demanding in being either inferential or meta-cognitive.¹⁵

These quotes suggest that explicitly considering Modus Ponens *amounts to* adding a further condition, i.e. premise, to one's reasoning. Thus, if the justification for a basic belief in Modus Ponens requires explicit representation of the principle's validity, as access-internalism holds, the principle cannot help 'move the mind'. If so, access-internalism cannot be part of the story of what justifies someone in reasoning according to Modus Ponens. Explicit representation precludes movement of the mind – deprives guiding principles of their guiding character, of their influence. We have to do either the explicit representing or the using. If we do the explicit representing, before doing the using we have to do further explicit representing about the using, and so on.¹⁶

Phillie's quote hints at the suggestion (which he does not endorse) of appealing to externalism to avoid the regress. The kind of externalism that he has in mind is one in which no explicit representation of the principle is required, only having a reliable disposition to reason using the principle in the relevant circumstances. Boghossian characterises what he calls 'Simple Inferential Externalism' in a similar way:

(Simple Inferential Externalism): A deductive inference performed by S is warrant-transferring just in case (a) S is justified in believing its premises (b) S's justification for believing its premises is suitably independent of his justification for believing the conclusion, and (c) the implicated pattern of inference is valid—necessarily such as to move S from truth

¹⁵ I do not have the space to address Hilary Kornblith's (2012) book, where he discusses the relation of reflective beliefs to regresses, where reflective beliefs, unlike the beliefs at issue here are second-order states. See my (ms) for discussion.

¹⁶ The idea that we have to choose between representing and reasoning is also part of Ryle's interpretation of Carroll's regress as targeting the view that knowing a logical principle is a kind of knowing that. According to Ryle, if knowing a logical principle were a kind of knowing that, where use of that knowledge in reasoning requires explicit consideration of the relevant principle, no reasoning would be possible: you cannot at once explicitly consider a logical principle and act on it. If you explicitly consider the principle, you will need a further principle that relates it to the reasoning from premises to conclusion. See *inter alia* Ryle (1946: 246). See my (2021 and ms) for discussions of Ryle's interpretation of Carroll's regress.

to truth. (Boghossian, 2003: 226)

Simple Inferential Externalism is framed so as to secure movement of the mind, which seems to be what we need to avoid the regress. However, as we will see in Section IV, this kind of externalism is not the dominant view of the justification of logical principles.

III. Can Explicit Representation be Guiding?

In this section, I argue against the claim that explicit representation prevents guidance or movement of the mind. If so, there is no quick objection to access-internalism on the grounds that its account of justification requires explicit representation that prevents guidance and thus invites a regress of explicit representations.

(i) *Argument in favour of explicit representation*

My argument relies substantially on Ori Simchen (2001), where he traces the claim that explicit representation precludes guidance back to an erroneous way of thinking of the linguistic distinction between use and mention. This erroneous way of thinking is what generates the view that ‘mentioning a rule’, where that means explicitly acknowledging that a rule is pertinent to a certain situation, prevents that rule from being guiding. As he puts it:

[M]entioning does not invariably exclude simultaneous use. The sceptical scenario [Carroll’s regress] depends on construing the incorporation of a rule into behaviour as proceeding via the factual claim that a certain rule is in effect, that is via mentioning the rule, which in turn is taken to prevent its simultaneous use in guiding behaviour, as it is, for example, in the following passage from Sellars:

[A] rule, properly speaking, isn’t a rule unless it *lives* in behaviour, rule-regulated behaviour, even rule-violating behaviour. Linguistically we always operate *within* a framework of *living* rules. To *talk about* rules is to move *outside* the talked-about rules *into* another framework of living rules. [I]n attempting to grasp rules as rules from without, we are trying to have our cake and eat it. To describe rules is to describe the skeletons of rules. A rule is lived, not described. [W. Sellars, 1980: 155]

This is precisely the kind of view which feeds the sceptical worry under consideration. It draws, in effect, a sharp distinction between rules as mentioned (‘described’) and rules as used (‘lived’). [R]yle’s figurative contention that ‘Rules, like birds, must live before they can be stuffed’ (Knowing How and Knowing That, p. 11), with its insinuation that citing a rule drains it of its life in practice, may attest to a similar endorsement of the idea that mentioning rules somehow conflicts with their action-guiding role.

The idea that mentioning excludes simultaneous use is a widely shared misconception of the implication of the distinction between use and mention. (Simchen 2001: 464).

The view concerning use and mention alluded to here is the classic view of quotation according to which quoting/mentioning a phrase, a sentence, or a set of sentences, detaches it from its customary meaning or reference. It effectively renders its semantic constituents semantically inert. Our problem with explicit representation seems to be a similarly *semantic* one: just like ‘talking about’ a rule deprives it of the properties that it has when it is ‘lived’, explicitly representing a principle such as Modus Ponens deprives it of the properties that it has when it is used. On this view, representing the principle is a quasi metalinguistic state that precludes its use.

The *locus classicus* for the standard view of quotation, or the so-called ‘proper name view of quotation’, is Tarski (1933) and Quine (1940):

Quotation-mark names may be treated like single words of a language, and thus like syntactically simple expressions. The single constituents of these names—the quotation marks and the expressions standing between them—fulfil the same function as the letters and complexes of successive letters in single words. Hence, they can possess no independent meaning. Every quotation-mark name is then a constant individual name of a definite expression (the expression enclosed by the quotation marks) and is in fact a name of the same nature as the proper name of a man. (Tarski 1933: 159)

[Q]uotation has a certain anomalous feature which calls for special caution: from the standpoint of logical analysis each whole quotation must be regarded as a single word or sign, whose parts count for no more than serifs or syllables. (Quine 1940: 26)

Quoted expressions function as structureless proper names standing for linguistic expressions. Such a view might account for standard examples such as:

‘Cicero’ has six letters. (Quine, 1940: 26)

Here, quotation marks are used as a device enabling us to talk about the properties of the word ‘Cicero’. Unlike in the sentence ‘Cicero was a Roman Orator’, ‘Cicero’ here does not refer to a person but to a word.

The proper name view of quotation is widely discredited and is susceptible to objections of different kinds.¹⁷ One that is particularly pertinent here, first put forward by Donald Davidson (1970), is that the theory does not account for mixed quotations, where the quoted expression retains the semantic contribution it standardly makes outside of quotation, e.g.:

Quine said that quotation ‘has a certain anomalous feature’ (Davidson, ‘Quotation’ 1970).

The phrase ‘has a certain anomalous feature’, while quoted (these are Quine’s words), is used to state Quine’s view. If so, its constituent expressions have to be taken to make their ordinary semantic contribution. If the phrase wasn’t taken to be used *as well as* mentioned, in particular, if it were taken to be a proper name, the overall sentence would be ungrammatical.

Now, importantly for us, guiding mixed quotations abound: we can cite/rehearse/explicitly quote instruction manuals, bits of the law, recipes, moral injunctions, etc., and simultaneously use them – we cite them as a way of using them, as injunctions, recommendations, instructions, that guide our actions (see Simchen 2001: 465). Here are some examples of such mixed quotation:

How many times do I have to tell you ‘Don’t do that!’? (Simchen 2001: 465)

You don’t seem to remember so let me repeat yet again that the landlady said that ‘the rubbish must be taken out on Tuesdays’.

The logic textbook says, as bizarre as this sounds, that ‘from a contradiction anything follows and so if you reach a contradiction, you should give up one of your premises’, so let’s do that.

According to the guidebook ‘the statue of Athena is on your right as you enter’.

¹⁷ See Cappelen, Lepore and McKeever (2023) for a review.

You should do as the instruction manual says and ‘press the green button until the router switches on’.

I can remember her saying ‘you can eat the last bit of cake’ and so I’m just going to do that.

What these examples suggest is that quotation is compatible with use or guidance. For instance, the first example uses a quoted phrase as a way of making a command, and in suitable contexts it would be just that. If quotation is compatible with guidance, then surely so is explicit representation, which falls way short of quotation and need be neither metalinguistic nor metacognitive: believing a logical principle, while requiring explicit representation, is not a metalinguistic or metaconceptual state.¹⁸ So it is even less clear why such explicit representation would prevent the explicitly represented content from being guiding. Also, if explicit representations can be guiding, there is no reason to think that what would be required to explain such guidance are further and further representations meant to help us ‘process’ such explicit representations (see again Field 2009: 282-3): the guidance is immediate in that it leads to action in the relevant context. If the manual tells you to ‘press the green button’, there is no further instruction that you need to process this instruction. It tells you what to do, and you can *directly* follow this instruction, you can *directly* use this instruction in acting. There is not further processing to do.

These considerations should be enough seriously to cast doubt on the idea that a *general* argument is available for the view that you cannot simultaneously have an explicit representation of a proposition or principle or rule and be guided by it. In particular, claiming that explicit representation of Modus Ponens precludes it from retaining its guiding character is treating explicit representation like quotation on the proper name theory of quotations: it is treating explicit representation of Modus Ponens like ‘Cicero’ in “‘Cicero’ has six letters’. But the proper name theory of quotations is not in general true of quotations. So the onus is now on those who reject that explicit representation is compatible with guidance to explain why it is appropriate to treat an explicit representation of Modus Ponens like ‘Cicero’ in “‘Cicero’ has six letters’, as a principle deprived of its ordinary influence.

(ii) Some objections

I now consider three objections to the argument just put forward, suggesting that explicit representations can be guiding.

(a). An objection from semantics: what prevents an explicit representation of Modus Ponens from guiding reasoning is that it is stated as a non-normative fact; only normative facts or attitudes to those can guide reasoning.

This objection does not have much force here. For one thing, it is in general not obvious that non-normative facts or propositions cannot be guiding. You might for instance think that when the weather forecast reads ‘showers throughout the day’, that guides your action. For another, instead of Modus Ponens, we can take a normative principle related to it as the content explicitly represented by someone who has the relevant belief. Indeed, consider again NORM:

NORM If S accepts both P and (if P, the Q), then S ought to/may/has a reason to reason to Q.

¹⁸ To be clear, my statement of Modus Ponens is metalinguistic in that ‘entails’ has names of propositions as arguments (and so does NORM). This is a different matter from that discussed here which concerns the status of the whole principle if it is explicitly represented – whether or not it contains metalinguistic parts.

There is no reason to think that a principle like this could not be both explicitly represented and action-guiding. Moreover, to return to foundational access-internalism, there is no reason to think that rational insight would have to operate on a fact of entailment rather than such a kind of normative fact – it does not seem part of the view that it would. Thus, a principle along the lines of NORM can be explicitly represented while retaining its guiding character and be part of the foundationalist access-internalist picture.

(b) An objection from the metaphysics of mental states: what prevents an explicit representation from guiding is its propositional nature – the fact that it is belief-like.

One way of articulating this objection is through the Humean theory of motivation (see Hume 1982: 458), which roughly says that cognitive states, such as beliefs and propositional knowledge, cannot motivate on their own, while pro-attitudes, desires, conative states or dispositions, can. If this theory is true, no propositional state can ever provide the kind of guidance that is at issue here – its only job is to represent the way things are; it doesn't have any guiding or motivational character.

That it is not merely *representation* but *propositional representation* that is really the problem is unconvincing – a bit thin – as an objection to the argument of the previous section, which seems to concern explicit representation in general. For one thing, the Humean theory of motivation flies in the face of the data from mixed quotations, which suggests that quoted propositional clauses can be guiding. For another, a defender of the theory would have to explain why even belief in a principle along the lines of NORM, which clearly contains instructions about what to do, could not ever help motivate you to act.

Concerning the relevance of the Humean theory of motivation to foundational access-internalism, proponent of rational insight may of course reject it. While it sometimes feels that it is taken as a truism about the properties of mental states, it has its critics.¹⁹ Alternatively, they might argue that rational insight can operate on non-propositional items. For instance, they might articulate the content of someone's acceptance of Modus Ponens as acceptance of an imperative; that is, not a proposition:

(!) In case you accept P and (if P, then Q): accept Q!

They might then claim that accepting such an imperative is justified through rational insight as an obvious proper injunction that mandates reasoning from P and (if P, then Q), to Q. Yet another option would be to argue that a principle containing deontic operators, such as NORM, does not express a proposition because 'ought' and 'may', for instance, do not take propositional complements. 'Ought' and 'may' principles should be given an expressivist semantics, whereby it expresses a pro-attitude towards reasoning to Q once P and if P, then Q have been accepted.²⁰ There is thus no reason to think that access-internalism could not accommodate worries coming from the Humean theory of motivation, however thinly motivated they are when it comes to the guiding character of explicit representation.

(c) An objection from the psychology of mental states: explicitness destroys adherence to a guiding principle by creating a reflective distance between the represented principle and its guiding influence.

¹⁹ The Humean theory of motivation has famously been rejected by e.g. Thomas Nagel (1970), John McDowell (1979), Jonathan Dancy (1993), Thomas Scanlon (1998), and Russ Shafer-Landau (2003).

²⁰ See for instance Allan Gibbard (2003) who argues that normative claims containing 'ought' do not express beliefs but pro-attitudes, further analysed as complex intentions, such as acceptances of plans or norms.

Simchen (2001) considers this objection and articulates it by building on a line of thought that goes back to Bernard Williams (1985: 167-9) according to whom ‘reflection can destroy knowledge’. While Williams articulates this idea mostly for the domain of ethics and focuses on knowledge (see Moore 1991 for discussion), here are other examples of how reflection might create some kind of doubt or hesitation:

Too much reflection on whether I really know I have hands might make me doubt that I do;

Thinking too much about how to do reverse parking might impair my reverse parking;

Too much attention to whether Modus Ponens is valid might make me reluctant to reason according to Modus Ponens.

This objection has no force once we note again that explicit representation is not the same as reflection: it may offer the possibility of reflection in a way in which non-explicit or lack of representation does not, but we obviously do not reflect on everything that we explicitly represent. As I have stressed before, reflective beliefs are not required on the foundationalist access-internalist picture under consideration, according to which we have direct (non-reflective, non-inferential) insight into the validity of principles such as Modus Ponens.

Concerning reflective distance more generally, it is notoriously hard to have reflective distance with logical principles, such as Modus Ponens, which we tend to find compelling, at least in simple cases. Such principles can of course be doubted, indeed rejected – every logical principle, however seemingly obvious has been challenged. While I can’t go into details here, this is often the result of sophisticated argument, ingenious counterexamples or *recherché* theoretical considerations. It is doubtful that casual reflection about Modus Ponens would lead to systematic doubt about its validity.²¹ Notice that reflection can also foster guidance or adherence to a principle as opposed to isolating us from it (see Simchen 2001: 471): rehearsing to myself that eating meat is wrong, that Modus Ponens is valid, that perception is trustworthy, might tighten the grip of these thoughts on me, and incentivise me to adhere to them. So it is unclear that there is something straightforward and systematic to be said here about reflective distance here.

The considerations put forward in this section mean that there is not enough of a case against access-internalism on the ground that that explicit representation precludes guidance. Indeed, there is evidence that explicit representation can be guiding. If so, there is no straightforward argument from Carroll’s regress against it or any view on which logical principles are explicitly represented by those using them. Again, there is evidence that use and explicit representation can coexist, and unless we are given an argument as to why this could not happen in the context of deductive reasoning, we can assume that explicitly represented logical principle can guide reasoning. Returning to my statement of the regress, whatever problems there might be with step (iii_{CR}), they are not tied to the question of whether the principle is explicitly represented. So, it might indeed be that the suggestion made in step (ii_{CR}) is a good one, contrary to what is claimed in step (iv_{CR}). If step (iv_{CR}) is false, we have no regress: you in fact reason from premises to conclusion because you are in fact guided by the principle of Modus Ponens that you are explicitly representing as a belief. If so, that justification for reasoning according to Modus Ponens requires a basic belief about it need not preclude it from being what makes your mind move. This means that, is not in general true that: if a principle, rule, injunction, norm, policy or decision procedure, is explicitly represented as a belief, then we need a further principle, rule, injunction, norm, policy or decision procedure

²¹ What is the case for Modus Ponens, which most people find obvious, might not be the case for other logical principles. For instance, someone who endorses Graham Priest’s paraconsistent logic LP (Priest 1979), might find it obvious that *ex falso quodlibet* is not valid, when *it* its validity might be obvious to a classical logician.

about securing/processing/enforcing/implementing compliance with it; it is not in general true that explicitly represented logical principles end up as premises in one's reasoning.

IV. An Internalist Middle-Ground

(i) *A sample Account*

While many philosophers think that access-internalism cannot be the right view of the justification of basic logical principles, externalism has not been favoured either. The kind of externalist position that is typically considered is the 'Simple Inferential Externalism' I alluded to before. A general worry with externalism is that it appears to allow for justification and blameworthiness to coexist. This worry has famously been raised by Laurence Bonjour (1985: 38-45), with his example of clairvoyant Norman: suppose that, without knowing it, Norman has a cognitive ability for clairvoyance and reliably forms beliefs on that basis but has no accessible evidence for or against such beliefs. One might think that while Norman is externally justified in holding those beliefs, he is blameworthy in a way that defeats his justification, because these beliefs are not subjectively reasonable: from a first-person perspective, he has no reason to hold them. Boghossian (2001) offers a structurally similar example that specifically targets Simple Inferential Externalism. Suppose that I reliably reason from the belief that, for particular x , y , z and n :

x , y , z , and n are numbers and n is greater than 2.

to the belief that:

$$x^n + y^n \neq z^n.$$

Suppose also that I have no cognitive access to the principle(s) that I am reliably disposed to use here. Then I would have reasoned to a proof of Fermat's Last theorem without having any cognitive access to the principle(s) followed in this reasoning process or subjective reasons to believe that I have followed any. Boghossian thinks that, while by the lights of Simple Inferential Externalism I would be externally justified in holding the belief that $x^n + y^n \neq z^n$, I would be blameworthy in a way that defeats this justification because there is no sense in which I am being guided by the relevant principle.²²

If access-internalism allegedly won't do – because explicit representation supposedly precludes guidance – and if Simple Inferential Externalism won't do either – because it not internalist enough – then is there an account that avoids Carroll's regress while retaining an internalist element? An influential answer is offered by Paul Boghossian who aims to strike a kind of middle ground.²³ According to him, justification for Modus Ponens is internalist in that it should be articulated in terms of *epistemic responsibility*, but in a way that does not require cognitive access and explicit representation. As Boghossian puts it, logical reasoning can be 'blameless but blind' (2003): it can be the manifestation of knowledge of a logical principle, i.e. epistemically responsible, where that knowledge is not explicitly articulated.

To account for such blamelessness, Boghossian develops a kind of understanding-based account (see in particular 1996, 1997), whereby knowledge of basic logical principles is grounded in semantic or conceptual understanding. According to him, these principles are 'epistemically analytic' in that they fix the meanings of the logical constants that occur in them, such that

²² See for instance Crispin Wright (2001) for discussion.

²³ I focus here on sketching Boghossian's account of blamelessness as an alternative to access-internalism (see *inter alia* 2001, 2003, 2008), an account which he has since then substantially modified (see footnote 31). See also Phillie (2006) and Engel (2016) for similar attempts to strike a middle ground.

understanding these principles is sufficient for knowing them a priori.²⁴ These principles are the introduction and elimination rules for the logical constants, which are taken to be implicit definitions: they are principles in which a logical constant occurs (is used) and which collectively define that constant. Given that Modus Ponens is epistemically analytic, we are ‘entitled’ to ‘rely’ on it in reasoning ‘... independently of having supplied a justification for the general claim that that rule is truth-preserving, so that we are able to use that reliance to supply that justification. [T]hat entitlement is precisely what flows naturally from a conceptual-role account of the meanings of our logical words.’ (2000: 250).²⁵

Boghossian’s notion of blindness, goes back to Wittgenstein (1958: §219): ‘When I obey a rule, I do not choose. I obey the rule blindly’ (see Boghossian (2003: 236ff)). Reasoning according to Modus Ponens can thus be blind because to count as knowing Modus Ponens, it is sufficient to have a disposition to reason according to Modus Ponens. One need not have any kind of belief about Modus Ponens, be able to state it, let alone be able to explicitly justify it: one needn’t ‘see’ that one has an (MP)-disposition or that one is reasoning according to (MP).

As was noted in my brief discussion of Simple Inferential Externalism in Section II.(iii), dispositions have a nice process-oriented dimension, which seems apt to capture the idea that logic moves the mind. As Boghossian puts it: ‘[d]ispositions grounded in understanding make this movement possible.’ (2001: 2). Such well-founded dispositions, that secure blamelessness and movement of the mind, explain at once what justifies reasoning according to a logical principle and that this reasoning occurs. What makes these dispositions well-founded, and so apt to count as understanding, is that they characterise a genuine logical constant; they are dispositions for patterns of reasoning that are genuinely valid or truth-preserving, a fact that is *not* internal to thinkers. These well-founded dispositions differ from other ill-founded ones such as a disposition to reason according to the principles governing Prior’s ‘TONK’ (Prior: 1960), or the Dummettian principles governing ‘Boche’ (Dummett 1973: 454) or any simple principles that we could use to characterise the reasoning required to prove Fermat’s last theorem (see Boghossian 2001: 241 ff).²⁶

Thus Boghossian’s overall picture is this: to count as knowing Modus Ponens in any way whatsoever, it is necessary to have a disposition to reason according to Modus Ponens. Having this disposition is not having a propositional attitude: the disposition is had independently of having any (explicit) belief about Modus Ponens, or any kind of intuition, e.g., that it is truth-preserving. Such a disposition can yield knowledge of Modus Ponens, because it is required to count as understanding ‘if, then’. Given this, reasoning according to Modus Ponens is blameless: one is epistemically responsible in reasoning in this way.

Then, Carroll’s regress is addressed as follows. Well-founded dispositions to reason according to basic logical principles have an internal normative dimension: they make reasoning according to these principles blameless. Such dispositions are at the ground floor of the epistemology of logic: they alone confer justification to our reasoning with these principles and they alone explain the movement of the mind. We may of course come to form explicit beliefs about the validity of logical principles over and above having these dispositions. But these beliefs are justified insofar as the dispositions are well-founded and these beliefs are idle when it comes to guiding reasoning. It is because it is the ground floor dispositions, rather than the belief, which ensure that reasoning can actually occur that we avoid the regress:

²⁴ Notice that an important aim of Boghossian’s account is to underwrite the fact that logic is a priori. I do not discuss this here.

²⁵ For defences of this kind of inferentialism or conceptual role semantics, see inter *alia* Tennant (1978), Prawitz (1985), Brandom (1994, 2000), Peacocke (1987), Boghossian (1996), Kalderon (2001).

²⁶ I do not pursue here the question of whether Boghossian’s account succeeds in distinguishing between these types of dispositions, but see Williamson (2003) for a critical discussion.

In addition to this disposition to reason [according to MPP], it can also be a fact about S that he has the full-blown *belief* that MPP is necessarily truth-preserving [.]. As a number of considerations reveal [note: e.g. Carroll's regress] S's disposition to reason in accordance with MPP and his belief that MPP is truth-preserving are distinct kinds of state. (Boghossian 2000: 230)

(ii) Discussion

There is a lot to say about this account, which has already been much discussed in the literature – see Williamson (2003, 2007), Wright (2001) and Zalabardo (2011) for excellent extensive discussions. Some question Boghossian's reliance on epistemic analyticity, and meaning-constitution or inferentialism;²⁷ others argue that his notion of blameworthiness is of little epistemic significance;²⁸ others claim that dispositions to reason are ill-suited to provide a foundation for logical knowledge;²⁹ others deny that all interesting epistemology is done through the articulation of these dispositions.³⁰

Given the dialectic of this paper, which focuses on the contrast between internalism and externalism in light of Carroll's regress, it is worth stressing how thinly internalist Boghossian's proposal is: what makes using Modus Ponens epistemically responsible is the fact that it is meaning-constituting for a *bona fide* concept, which is an external fact that might not be cognitively accessible. If you have a disposition to reason according to Modus Ponens you are blameless, but you might have no access to the externally determined fact that makes it well-founded. While such dispositions can be meaningfully distinguished from those one might have with respect to TONK and the like, they constitute little advance over externalism concerning the question of blameworthiness that exercises BonJour through cases such as that of Norman: from a first-person perspective, there is no reason to draw the conclusion (Z) from (A) and (B). Blindness might secure reasoning, but at the cost of bringing the latter too close to a merely causal occurrence.³¹ Without the belief in Modus Ponens to guide reasoning, it is harder to account for the way the reasoning is rational from a first-person perspective.

It thus appears that not a lot has been gained in terms of internality over Simple Inferential Externalism: where this externalist grounds justification in the validity of Modus Ponens plus reliable cognitive mechanisms, the understanding-based account grounds it in the validity of Modus Ponens plus the fact that Modus Ponens is meaning-constituting. Both yield a kind of blind

²⁷ See Williamson (2003, 2007) and Casalegno (2004), who argue against the very ideas of inferentialist implicit definitions and epistemic analyticity. See Wright (2011) who argues meaning constitutive dispositions are not sufficient for blamelessness. See Besson (2009) who argues that understanding-based accounts are susceptible to Gettier cases.

²⁸ See Zalabardo (2011: 136), who claims that the epistemological relevance of blamelessness is unclear. See also Wright (2001), who argues that the absence of epistemic irresponsibility is not sufficient for warrant (2001: 55ff) by offering a Bad Company Objection, contrasting Hume's Principle with Basic Law V. See Wedgwood (2002) for arguments that the rationality of a belief must require more than its cognitive blamelessness.

²⁹ See Besson (2010, 2012) for a defence of this claim.

³⁰ See Wright (2001) who argues against Boghossian (2001) that it is not obvious that explicit justification does not add to the justification of implicitly had inferential practices.

³¹ Boghossian's more recent work on logical knowledge is meant to be responsive to these kinds of considerations. In his (2014), he takes our capacity to be guided by rules in reasoning to be a primitive fact that is not open for analysis. It is, according to him, the only way to avoid both the Carroll-style regresses that plague access-internalism and to attempt to 'account for our mental lives without something that looks like the traditional notion of person-level reasoning' in the way suggested by Simple Inferential Externalism. (2014: 17).

reasoning whose justification is essentially externally determined. So it is no surprise that meaning-constitution does not yield any kind of substantive epistemic responsibility nor any notion of guidance proper.³² In this respect, access-internalism fares much better, and given that it appears not to be susceptible to Carroll's regress, it might start to look like an attractive option.

V. Guidance and Justification

The following accounts have been considered so far: foundationalist access-internalism, Simple Inferential Externalism and Boghossian's understanding-based account. In my view, none of these accounts of the justification of basic logical principles is threatened by Carroll's regress, in particular, as I have argued, access-internalism isn't. So, there is no need to endorse Simple Inferential Externalism or the understanding-based account for fear of Carroll's regress.

One might of course worry about access-internalism for other reasons. For instance, in the case of rational insight, one might find it mysterious how we could come to know a priori that an instance of Modus Ponens is valid simply through such insight – how we could grasp the necessity of the entailment in a way that is direct – i.e., does not involve any reasoning or discursive process- (see Boghossian, 2001) or how we could really be in a state with a distinctive phenomenology, of direct apprehension of abstract properties such as that of entailment. Perhaps these worries can be answered (see BonJour ms) but rather than going into whether they can, I propose, in closing, to sketch another, externalist, view that has been neglected in the literature on the nature of logical knowledge, and which becomes attractive in light of our discussion of blamelessness and guidance, and of the fact that that belief in the logical principle makes reasoning according to that principle reasonable from a first person perspective.

On this externalist view, your justification for reasoning according to Modus Ponens requires you to have a justified basic belief in Modus Ponens, where its justification is externally construed in that the factors that justify this it might not be cognitively accessible to you. This belief in Modus Ponens, if justified, is what justifies your reasoning according to Modus Ponens. It is also what guides you in your reasoning according to Modus Ponens.

Unlike Simple Inferential Externalism, this sort of externalism is more apt properly to rationalise or guide your reasoning, as on this view, there is a belief or a belief's content that does the guiding: your belief's justification might be an external affair; but the reasoning from premises to conclusion can in part be explained in terms of the fact that you have this belief. With Simple Inferential Externalism, it seemed that you could be blameworthy because you could be justified in reasoning according to a certain logical principle while there is no sense in which you are being guided by that principle. It was just that the relevant disposition has been activated. This is not the case with the externalist position advocated here because you would believe the relevant principle that guides your reasoning. So the Norman-style raised against Simple Inferential Externalism does not arise here. If your reasoning is guided by your belief in the relevant logical principle, that you follow this principle in reasoning is neither arbitrary nor mysterious.

Concerning the nature and status of this belief, a natural externalist view here is that it is just an ordinary belief about what seems to follow from what, as would for instance be the case in a kind of Williamsonian epistemological framework (see Williamson 2000, 2004, 2007). Thus, you might find Modus obviously correct or 'primitively compelling' and so you believe it or are inclined to believe it.³³ You might not be in a position to know that your belief is in fact justified – that it is

³² See here Wright (2001): 54.

³³ This characterisation follows roughly some of his remarks on safe knowledge of mathematical axioms in his (2016).

might not be cognitively accessible to you. You then count as knowing Modus Ponens if your belief is in fact safe: you could not easily have been wrong about this. What this means here (given that Modus Ponens is necessarily true), is that you could not easily have formed a different belief from the belief that P and (if P, then Q) together imply Q – in relevantly similar circumstances. We might think of a relevantly similar circumstance here as an incorrect principle that is similar but discriminably different from Modus Ponens (see Williamson 2016: 245 ff). Such a circumstance might be, for instance, the principle of asserting the consequent. Thus, you count as knowing Modus Ponens, if, for instance, you could not easily have believed Asserting the Consequent.

What makes it the case that you could not easily have been wrong about Modus Ponens has to do with how skilled you are in applying the concepts involved in it: e.g. the material conditional and entailment. Such kind of skill is likely a function of some cognitive ability for pattern-recognition – for recognising basic patterns such as Modus Ponens,³⁴ and of immersion in a linguistic/cognitive community (in particular encounters with cases of material conditional and cases of (relevant) lack of material conditional, and cases of entailment and cases of (relevant) lack of entailment). Thus, if you are skilled enough, you cannot easily imagine cases in which P, and (if P, then Q) are true but not Q and so you know Modus Ponens.³⁵

This is a very rough sketch of how to apply standard externalist views to beliefs about basic logical principles. But such an externalist proposal is worth having on the table because it has all the virtues that access-internalism has over Simple Inferential Externalism and the understanding-based account which I have discussed in the paper, and it does not appeal to a faculty for rational insight, which many find problematic.

Concluding Remarks

Let us come back to Carroll's regress, as stated in Section II(iii). What allegedly triggers the regress is the suggestion made in Step (iii_{CR}), that what makes one reason from (A) and (B) to (Z) is one's acceptance of the principle of Modus Ponens. I have argued that this is incorrect on the ground that the content of a basic belief about Modus Ponens can guide reasoning. Given this, we can resist the suggestion made in Step (iv_{CR}) that this belief would not help make one reason from premises to conclusion. Your belief in Modus Ponens helps enabling your reasoning and while it is explicitly represented, it retains its guiding character.

Of course, saying that there is no tension between explicit representation of Modus Ponens and guidance is not saying that Modus Ponens is in fact guiding, nor is it giving a complete explanation of how someone gets to reason from premises to conclusion on a particular occasion. This is an investigation for another paper. But it at least shows that there is no incompatibility between explicitly representing a logical principle and that principle being guiding, something that is often taken as a truism in discussions of Carroll's Regress. If so, there is no straightforward argument to the conclusion that a view that entails that logical principles are explicitly represented will fall foul of Carroll's regress.

This paper considered four accounts of our justification for using logical principles, such as Modus Ponens, in reasoning – Bonjour's development of access-internalism, Boghossian's internalist view articulated around the idea of blameless but blind reasoning, Simple Inferential externalism, and

³⁴ See my (2019b) for a discussion of pattern-recognition in the context of knowledge of logical principles.

³⁵ For Williamson, this kind of exercise of the imagination is voluntary (2016); it is a 'cognitive' use of the imagination – a case in which one deliberately uses imagination in order to learn about some fact. When this use is underpinned by sufficient skill in applying the relevant concepts, it is a reliable way of forming beliefs, i.e. it produces knowledge.

the Williamson inspired externalist view sketched in the last section. None of these views in my mind falls foul of Carroll's regress. Of course, there are many more accounts of the matter, but this at least suggests that the significance of Carroll's regress for the epistemology of logic is perhaps less than is usually thought. In particular it doesn't decide between access-internalism and access-externalism.³⁶

³⁶ Ancestors of this paper were presented at the Arché Epistemology Group in St Andrews, the Philmath-EXPRESS Seminar in Paris, the Visiting Speaker Colloquium in Southampton and the European Network for the Philosophy of Logic (Euphilo). I am immensely grateful to the audiences on these occasions for their questions and comments. Special thanks to Ulf Hlobil for fantastic careful written comments on an earlier version of the paper, and to the editors of this collection for their helpful feedback. Thanks also to Andrew Hudson, and Timothy Williamson for invaluable discussions.

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