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Logical Expressivism and Carroll's Regress

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Abstract. In this paper, I address a key argument in favour of logical expressivism, the view that knowing a logical principle such as Modus Ponens is not a cognitive state but a pro-attitude towards drawing certain types of conclusions from certain types of premises. The argument is that logical expressivism is the only view that can take us out of Lewis Carroll's Regress – which suggests that elementary deductive reasoning is impossible. I show that the argument does not hold scrutiny and that logical cognitivism can be vindicated. In the course of the discussion, I draw substantially on a comparison with a similar argument in meta-ethics, for moral expressivism.

Key Words. Moral and Logical Expressivism; Carroll's Regress; Motivational Internalism; Moral and Logical non-cognitivism; Moral and Logical Cognitivism.

The aim of this paper is to explore and discuss an argument in favour of logical expressivism, the view that knowing a logical principle such as Modus Ponens is not a cognitive state but a pro-attitude towards drawing certain types of conclusions from certain types of premises. This argument is similar in structure to one that has been put forward in favour of non-cognitive moral expressivism, and it originates in an influential interpretation of the Regress that Lewis Carroll offers in his 1895 *Mind* paper entitled 'What the Tortoise Said to Achilles'.[1] Roughly, the argument is that a form of logical non-cognitivism, further articulated in expressivist terms, is the only view that can get us out of Carroll's Regress. I show that the argument does not hold scrutiny and that logical cognitivism can be vindicated.

[1] Lewis Carroll, 'What the Tortoise Said to Achilles', *Mind*, 4 (1895), 278–280.

In section 1, I sketch a standard argument for moral expressivism. In section 2, I present Carroll's Regress. In section 3, I sketch what I call the 'two-fold proposal': my reconstruction of what I take to be a standard way to try blocking the Regress. In section 4, I show how the two-fold proposal relates to logical non-cognitivism and logical expressivism. In section 5, I argue that this solution should be rejected, in part drawing from a comparison with the moral case. Finally, in section 6, I sketch how a cognitivist account of logic might address Carroll's Regress.

Given that I am comparing two complex discussions – one in meta-ethics, the other in the philosophy of logic – in a relatively short space, the discussion will be inevitably broad-brush. But I hope that it will serve to show the similarities and differences between the moral and the logical cases.

1. Moral Expressivism

A key argument for non-cognitivism in meta-ethics starts with the combination of the Humean theory of motivation and moral motivational internalism:

> ***Humean Theory of Motivation***
> Cognitive states, such as beliefs, cannot motivate on their own.
> Pro-attitudes, such as desire states or dispositions, can motivate on their own.
>
> ***Moral Motivational Internalism***
> There is an internal or necessary link between moral judgment and motivation to act in accordance with that judgment.

The Humean theory of motivation is taken as an analytic claim about the nature of cognitive states and non-cognitive pro-attitudes, paradigmatically about the nature of belief and desire. Beliefs represent the world but on their own do not lead to action; desires are non-representational states that lead to action. The Humean theory of motivation is deeply entrenched. For instance, it underpins the idea that beliefs and desires have different directions of fit: the first have a world to mind direction of fit (they aim to 'fit' the world by representing it), whereas the latter have a mind to world direction of fit (they aim to make the world 'fit'

them by changing it).[2] It also underpins the Davidsonian account of intentional action-explanation in terms of beliefs and desires.[3]

Moral motivational internalism is a theory about the role played by moral judgments in our mental and practical lives. It starts with the observation that people are motivated to act according to their moral judgments and results in the idea that it is their moral judgments themselves that motivate them in acting.[4] That we are motivated to act according to our moral judgments – in a strong, reliable or stable fashion – is taken to be a robust datum; and according to many, moral motivational internalism is the best explanation of this datum. If you judge that you ought not to eat meat, then the fact that you are motivated not to eat meat should be explained in terms of your judgment itself, rather than further desires you may or may not have with regard to eating meat. In a slightly regimented form, this can be put as follows:

> *Simple Internalism*: Necessarily, if a person judges that she morally ought to φ, then she is (at least somewhat) motivated to φ.[5]

The people at issue here are intended to be rational and strong-willed; those whose motivation is not defeated by mental illness, apathy, or akrasia. The moral judgment only 'somewhat' motivates because it can be defeated by competing demands or norms that override motivation in a particular context. For instance, my motivation not to eat meat might be defeated by a desire not to starve or not to break norms of etiquette.[6]

One key piece of evidence for motivational internalism is the fact that people undergo a change in their motivation if they change their moral views even when all other motivational states are

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[2] The distinction was made popular by Elizabeth, G. M. Anscombe, *Intention* (Oxford: Basil Blackwell, 1957). See Michael A. Smith, *The Moral Problem* (Oxford: Basil Blackwell, 1994) for its connection to the Humean Theory of Motivation. See Lloyd Humberstone, 'Directions of Fit', *Mind* 101(401) (1992), 59–83 for a discussion of its role in various philosophical contexts.

[3] See Donald Davidson, 'Actions, Reasons and Causes', *The Journal of Philosophy* 60 (1963), 685–700.

[4] Smith, op. cit. note 2, 60ff. I set aside the view according to which it is a desire-like state necessarily connected to the judgment that motivates but not strictly speaking the judgment itself. I also set aside the issue of whether it is really moral judgments rather than the moral facts those judgments are about that ultimately motivate. These won't matter for our discussion.

[5] Gunnar Björnsson *et al.*, 'Motivational Internalism', Gunnar Björnsson, Caj Strandberg, Ragnar Francén Olinder, John Eriksson, and Fredrik Björklund (eds), *Motivational Internalism*, (Oxford: Oxford University Press, 2015), 1.

[6] There is a plethora of formulations of internalism, many of which are weaker or conditional, so as to allow for proper qualifications as to the kinds of agents (rational, psychologically normal, morally perceptive, etc. that are at issue). These need not concern us here but see op. cit. note 5.

kept equal.[7] While motivational externalists, who believe that the link between judgment and motivation is extrinsic or contingent, could explain this in terms of a change of view causing a change of desire and motivation, internalists think that the link has to be more direct.[8]

By contrast, one key argument against motivational internalism, discussed in section 5.4, concerns the possibility of amoralism. The amoralist is someone who endorses a moral judgment, is rational and strong-willed, but does not feel motivated in the least to act according to that judgment, even when other things are equal. Internalists are committed to saying that the amoralist is a kind of conceptual impossibility: the amoralist is ultimately irrational or incompetent (in lacking mastery of key normative concepts), or insincere in their moral judgments.[9] Someone who judges that they ought not to eat meat but, other things being equal, is not motivated not to eat meat is either irrational or insincere or incompetent. Externalists by contrast can explain the amoralist as someone who, while competently making the relevant normative judgment, simply lacks the desire to act accordingly.

Given Humean theory of motivation and moral motivational internalism, an argument for moral non-cognitivism might go as follows:

(a) Beliefs on their own cannot motivate agents to act. (Humean theory)
(b) Moral judgments on their own motivate agents to act. (Motivational internalism)
Therefore:
(c) Moral judgments are not beliefs.
Therefore:
(d) Moral judgments are non-cognitive pro-attitudes. (Non-cognitivism)

There are different ways in which non-cognitivists might articulate what moral judgments are: 'pure' non-cognitivists take them to be not at all cognitive, containing no belief element, as stated in (d).[10] 'Hybrid' non-cognitivists take them to be partly cognitive, comprising both a

[7]Smith, op. cit. note 2, 71-77.
[8] For this argument see *inter alia* Smith op. cit. note 2, 75-76. For discussion, see David Copp, 'Belief, Reason, and Motivation: Michael Smith's *The Moral Problem*', *Ethics*, 108 (1997), 33–54.
[9] David Brink, *Moral Realism and the Foundation of Ethics*. (Cambridge: Cambridge University Press, 1989), argues for the possibility of amoralism. On the internalist side, for instance, Smith, op. cit. note 2, 68–71, argues for the incompetence claim. See also James Lenman, 'The Externalist and the Amoralist', *Philosophia* 27 (1999), 441–457.
[10] For classical defenses of pure non-cognitivism, see Simon Blackburn, *Ruling Passions: A Theory of*

cognitive and a non-cognitive element. Thus, hybrid variants of (d) might be obtained as follows from (a) and (b):

(c*) Moral judgments are not fully cognitive – merely belief states.
(d*) Moral judgments comprise pro-attitudes.

Expressivism is a thesis about the semantics for natural language, according to which the role of language is essentially that of expressing mental attitudes. Some statements are descriptive in that they express cognitive states such as beliefs; others are prescriptive, in that they express non-cognitive states such as desires, intentions, praises or disapprovals.[11] Expressivism can serve to articulate moral non-cognitivism as follows.[12] Your judgment that you ought not to eat meat is conventionally tied to a non-cognitive attitude. A standard expressivist view identifies the content of 'ought' with the mental state of intending. Thus your judgment that you ought not to eat meat is tied to your intention not to eat meat; and this attitude should be appealed to in order to articulate its meaning, which then serves to explain why the moral judgment motivates: intentions are motivating. For instance, on Allan Gibbard's non-cognitive expressivist semantics, 'ought' picks out a state of intending or planning.[13] On his view, your judgment that you ought not to eat meat expresses a 'hyper plan' not to eat meat: roughly, a plan to reject eating meat in all circumstances in which the issue arises.[14]

Hybrid versions of non-cognitive expressivism can also be developed so as to articulate the kind of hybrid non-cognitivism sketched above. On these semantics, moral statements are partly descriptive and partly non-descriptive: moral terms, such as 'ought', express both descriptive

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Practical Reasoning, (Oxford: Oxford University Press, 1998) and Allan Gibbard, *Thinking How to Live*. (Cambridge, Mass.: Harvard University Press, 2003)

[11] Notice that there are global expressivists, such as Hugh Price, *Expressivism, Pragmatism and Representationalism*, (Cambridge: Cambridge University Press, 2013), who hold that language is never descriptive and do not tie expressivism to normative language in particular but to a general commitment to naturalism.

[12] There are of course other ways of being a non-cognitivist than expressivism – e.g. emotivism (Alfred Ayer, *Language, Truth and Logic* (New York: Dover, 1936)) and prescriptivism (Richard M. Hare, *The Language of Morals* (Oxford: Oxford University Press, 1952)). However it is typically thought that non-cognitive expressivism ties in nicely with motivational internalism: motivation seems to require pro-attitudes such as desires.

[13] Op. cit. note 10.

[14] For discussion, see Mark Schroeder, *Being For: Evaluating the Semantic Programme of Expressivism* (Oxford: Oxford University Press, 2008), ch. 3.

concepts or properties and pro-attitudes.[15]

This sketch of moral motivational internalism, moral non-cognitivism and the kind of non-cognitive expressivism (henceforth: 'expressivism') that can be tied to them, will suffice as background to our discussion of Carroll's Regress and logical non-cognitivism and logical expressivism.

2. Carroll's Regress

Carroll's Regress seems to suggest that elementary deductive reasoning is impossible: we cannot reason from premises to conclusion of simple valid arguments. This is plainly absurd. Below is a version of the Regress that Carroll offers in a letter to the Editor of *Mind*, George Stout, dated August 25 1894.[16] Carroll had submitted his article and Stout had asked for clarifications. Carroll offers a brief statement of the Regress, which is helpful for the present discussion because it ties it clearly to normative notions and in particular to that of obligation. It helps make perspicuous why Carroll's Regress might be interpreted as a regress that supports a kind of non-cognitive logical expressivism. Here is what Carroll writes:

> For instance if I grant:
> (1) All men are mortal, and Socrates is a man, but not
> (2) the sequence 'If all men are mortal and if Socrates is a man, then Socrates is mortal' is valid.
> Then I do not grant:
> (3) Socrates is mortal.
> Hence before granting (3), I must grant (1) and (2).
> We may write this a fortiori (viz. 'Before granting (3) I must grant (1) and (2)')
> in the form:
> (4) 'If (1) and (2) be true, then (3) is true'

[15] For a critical survey of hybrid expressivism, see for instance Michael Ridge, 'Ecumenical Expressivism: Finessing Frege', *Ethics* 116 (2006), 302–36; and Mark Schroeder, 'Hybrid Expressivism: Virtues and Vices', *Ethics* 119 (2009), 257–309.

[16] See William W. Bartley III, (ed.), *Lewis Carroll's Symbolic Logic: Part I, Elementary, 1896, Fifth Edition; Part II, Advanced, Never Previously Published: Together with Letters from Lewis Carroll to Eminent Nineteenth-Century Logicians and to his "Logical Sister," and Eight Versions of the Barber-shop Paradox* (New York: Clarkson N. Potter/Hassocks, Sussex: Harvester Press, 1977. [2nd ed., 1986]).

> Now suppose I deny this last sequence is a valid one? Suppose I say 'I grant (1) and (2) but I do not grant that I am thereby obliged to grant (3).'
> Surely my granting (3) must wait until I have been made to see the validity of this sequence: i.e. in order to grant (3), I must grant (1), (2), and (4)!
> And so on.
>
> (emphases in the original)

We can then interpret Carroll's Regress, as a regress about normativity, as follows.[17] Suppose that I am a rational agent considering an obvious, simple, argument in Modus Ponens, whose premises and conclusion are neither wrong nor repugnant, in a transparent context, etc. To make it clearly an argument in Modus Ponens, rather than an argument in Universal Modus Ponens, as in the letter, consider the following, as our sample argument:

> (i) If it is day, it is light;
> (ii) It is day
> Therefore:
> (iii) It is light.

What is assumed in the Regress is that, given the validity of this argument, the normative situation is the following: if I grant (i) and (ii), I am *thereby obliged* to grant (iii).

The puzzle seems to arise from the fact that I fail to recognize, and be moved by, this obligation because there is something that I fail to see or accept that would enable me to do so. On this interpretation, the challenge is to articulate what a subject who recognises this obligation – and is moved by it – sees or accepts, that makes them reason from (i) and (ii) to (iii).

The Regress appears to offer a suggestion about this: what someone sees or accepts that makes them reason from (i) and (ii) to (iii) is a conditional proposition (a 'sequence'), such as (Cond):

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[17] There are as many interpretations of Carroll's Regress as there are interpreters. For detailed discussion of key interpretations, see my 'Norms, Reasons and Reasoning: a Guide Through Lewis Carroll's Regress Argument', in Daniel Star (ed.), *The Oxford Handbook of Reasons and Normativity*, (Oxford: Oxford University Press, 2018), 504–528; and *Logic, Reasoning and the Tortoise*, (Oxford: Oxford University Press, forthcoming).

(Cond) If ((If it is day, it is light), and it is day), then it is light.[18]

It is widely agreed amongst commentators that this suggestion is a bad one – and rightly so.[19] It triggers the Regress: adding (Cond) as a premise is an invitation to add yet another conditional as a premise with (i), (ii) and (Cond) as antecedents and (iii) as consequent.

More precisely, it is widely agreed that Carroll makes two mistakes: first, he suggests that this conditional (Cond) would be the right sort of thing to consider for someone who is not moved by the obligation to reason from (i) and (i) to (iii); second, he invites us to add (Cond) as a premise to the original argument. Thus it seems that to block Carroll's Regress we should appeal to something different from the conditional (Cond), which merely states a logical fact. We should appeal to something that cannot become a premise in one's reasoning and that has the right kind of relation to our obligation to reason from (i) and (ii) to (iii).

3. A Two-Fold Proposal to Block Carroll's Regress

How do we move beyond this negative diagnosis and block Carroll's Regress? A natural thought is to replace (Cond) with a principle that would tell thinkers what to do with their premises; let us call it a 'logical principle of reasoning'.[20] The normative undertone of the Regress in terms of obligation invites us to state this principle in terms of *ought*. A candidate that flows from the structure of Regress is (Ought):

(Ought) If S accepts P and (if P, then Q), then S ought to accept Q.

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[18] It is clear that Carroll takes conditionals to be propositions, but there are of course dissenting views. See for instance Dorothy Edgington, 'On Conditionals', *Mind* 104 (1995), 235–329.

[19] This point has been made by pretty much every commentator on the Regress in one form or the other. To my knowledge George E. Moore, 'Experience and Empiricism', *Proceedings of the Aristotelian Society* 3 (1902–1903), 80–95, is the first to make it in print. For extended discussion, see also Gilbert Ryle, 'Knowing How and Knowing That', *Proceedings of the Aristotelian Society,* 46 (1945–1946), reprinted in *Collected Papers*, vol. 2, (London: Hutchinson, 1971), 212–225; and Gilbert Ryle, 'If, So, Because' (1950), reprinted in his *Collected Papers*, vol. 2. (London: Hutchinson 1971), 244–260.

[20] Sometimes commentators suggest that Carroll is mistaken in taking his rules of inference to be premises. But of course (Cond) is not what philosophers mean by a rule, as it is not about how to reason.

The thought is that if someone accepted (Ought), they would be better placed to reason from (i) and (ii) to (iii) than if they accepted (Cond).[21]

Why is that? After all, (Ought) is just another conditional. Why then isn't it just like accepting another premise? Here, a thought that has attracted many can be put in a slogan: Logic Makes the Mind Move. Roughly, the thought is that my accepting or *knowing* a principle such as (Ought) is having a type of knowledge that encompasses the idea that my accepting the premises: makes me 'move' or 'travel' to the conclusion; or 'generates' my acceptance of the conclusion; or 'guides' me to the conclusion; or 'compels' me to accept the conclusion.[22]

While I will discuss below whether (Ought) is the right principle to invoke, to fix ideas, consider now a few examples of the Logic Makes the Mind Move view as it has been articulated within discussions of Carroll's Regress.[23]

This view is prominent in Gilbert Ryle's writing on Carroll's Regress, and his interpretation of the Regress as showing that knowing a basic logical principle such as (Ought) is a case of *knowing how* rather than *knowing that*: of practical knowledge rather than theoretical knowledge.[24] (Cond)-as-a-granted-premise is merely a 'railway ticket': you can possess one but never travel – i.e. never travel from premises to conclusion. Knowing a logical principle of reasoning should be understood as a kind of knowledge that makes one travel from premises to conclusion. Thus, knowing a logical principle is, for Ryle, knowing how to reason from a certain set of premises to a conclusion, and this knowledge is ultimately to be construed as a set of dispositions. Such dispositions are not candidates to be the sort of things that can figure as

[21] There is a tradition of thinking of logical principles of reasoning as imperatives, rather than using 'ought', with the intention of capturing obligation. See Ryle (op. cit. note 19). For the idea that rules are commands, see Ludwig Wittgenstein, *Remarks on the Foundations of Mathematics*, G. E. M. Anscombe *et al.* (eds), trans. G. E. M Anscombe. (Oxford, 1956 [1978]: Blackwell). For a recent defence of the claim that logical norms are imperatives see Hartry Field, 'Epistemology from an Evaluativist Perspective', *Philosophers' Imprint* 18(12), (2018), 12ff. The difference between these two ways of thinking about logical principles of reasoning will not matter here.

[22] Many philosophers think that we can know logical principles such as Modus Ponens, or, at any rate, they take themselves to be specifying the conditions for knowing a logical principle, or the form that such knowledge would take. I will thus follow the orthodoxy in focusing on knowledge.

[23] I can only really sketch these views here and cannot do justice to their sophistications and differences. Slogans are convenient, but simplifying, and I hope that this one is not so simplifying as to misrepresent any of these views. See op. cit. note 17 for a fuller discussion of some of them.

[24] Op. cit. note 19.

premises in reasoning and they get us out of Carroll's Regress: in the relevant circumstances, when you have accepted the premises, you will simply reason to the conclusion.

More recently, some have appealed to the slogan as part as a discussion of the justification of basic logical principles. The thought here is that Carroll's Regress shows that justification for reasoning according to Modus Ponens cannot be inherited from explicit, cognitively accessible, propositional knowledge of Modus Ponens. Thus Boghossian writes: 'It must be possible simply to move between thoughts [W]ithout this movement being grounded in the thinker's justified belief about the rule used in the reasoning'.[25] He suggests that: '[d]ispositions grounded in understanding make this movement possible. [R]ule-following [i]s a disposition to rule-conform under appropriately idealized circumstances'.[26] That logic makes the mind move also underpins Boghossian's idea that reasoning can be blind in that someone may follow a logical principle in reasoning that they do not explicitly represent. This idea goes back to Wittgenstein, whom Boghossian refers to: 'When I obey a rule, I do not choose. I obey the rule blindly'.[27] Boghossian thinks we can articulate the right kind of internalism that underpins logical knowledge in terms of blindness.[28]

Also concerned with the issue of justification, Patrice Phillie takes Carroll's Regress to be about 'whether (or how) logic can make the mind move' and, like Boghossian, he takes Carroll's Regress to be about the fact that certain internalist accounts of justification, whereby one has to have cognitive access to such propositional justification, cannot explain how logic makes the mind move.[29] Rather, according to him, an internalist account of knowledge of Modus Ponens should be articulated in terms of the fact that the principle is constitutive of our 'practice of inferring' and so 'it is impossible to reject it on rational grounds'.[30] Logic makes the mind move on this picture because this movement is constitutive of rationality.

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[25] Paul A. Boghossian, 'How are Objective Epistemic Reasons Possible?', *Philosophical Studies* 106 (2001), 26–27.
[26] *Ibid*, 2.
[27] Ludwig Wittgenstein, *Philosophical Investigations*, G. E. M. Anscombe *et al.* (eds), trans. G. E. M Anscombe, (Oxford: Blackwell, 1953), §219.
[28] See Paul A. Boghossian, 'Blind Reasoning', *Aristotelian Society Supplementary Volume* 77 (2003), 236ff.
[29] Patrice Phillie, 'Carroll's Regress and the Epistemology of Logic', *Philosophical Studies* 134 (2006),183–210, 186.
[30] *Ibid*, 206–7.

In his recent commentary on Carroll's Regress, Pascal Engel suggests that one key question posed by the Regress is that of 'how can logic move the mind?'.[31] This question should be understood as that of how normative reasons are 'able to move the mind in a particular way',[32] and so as that of how logical principles of reasoning can motivate. Although he does not settle on a precise account of logical knowledge, he suggests that the Regress shows that knowledge of logical principles of reasoning cannot be propositional, if it is to be fit for this job; hence that it has to involve either logical concepts conceived as dispositions or some dispositional knowledge.[33] Only then can logic make the mind move and get us out of Carroll's Regress.

Simon Blackburn takes the problem raised by the Regress to be about whether logic can 'make the mind move', or how to describe someone who always has 'space to refrain from drawing the conclusion'.[34] His view, explicitly presented as Humean, is that there has to be a movement of the will, which is not 'under the control of fact or reason, [it] has to be given as a brute extra, if deliberation is ever to end by determining the will'. Blackburn is more interested in addressing issues to do with practical reasoning – the 'Practical Tortoise' – rather than theoretical reasoning, but I take it that, by reasonable extrapolation, we can understand him to offer the following kind of diagnosis of the Regress: the failure to reason from (i) and (ii) to (iii) (plus all the extra premises one might wish to add) is a form of akrasia and so judgments such as (Ought) must essentially be tied to desires to reason in certain ways.[35]

Let me elaborate on three aspects concerning the two-fold proposal just sketched – involving (Ought) and Logic Makes the Mind Move – that are important for the ensuing discussion.

First, one theme is that what is required to block the Regress is that logic makes the mind move, where that means that there is no space for reflection or judgment between accepting the premises and drawing the conclusion: the movement is immediate. There is no gap between the relevance of the principle being salient (once the relevant premises have been accepted) and the

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[31] Pascal Engel, 'The Philosophical Significance of Carroll's Regress', in Francine Abeles and Amirouche Moktefi (eds.) *'What the Tortoise Said to Achilles': Lewis Carroll's Paradox of Inference, The Carrollian* 28 (2016), 92.
[32] *Ibid*, 96.
[33] *Ibid*, 104.
[34] Simon Blackburn, 'Practical Tortoise Raising', *Mind* 104 (1995), 695.
[35] For an extended and helpful discussion of Blackburn's Practical Tortoise, see John Broome, 'Normative Requirements', *Ratio* 12 (1999), 398–419.

issuing of the conclusion.[36] While this is the case, the Logic Makes the Mind Move view is not one that says that such processes are sub-personal or sub-conscious. The Logic Makes the Mind Move slogan might suggest lack of agency, but this is not how the view is to be taken: reasoners know normative principles and it is these principles that guide or move them to intentional, reasoned, actions of reasoning; however this knowledge is such that the movement is immediate or unreflective. This latter requirement is what gets us out of the Regress.

Second, as some of the views sketched above suggest, it is widely thought that the best way of articulating knowledge of logical principles of reasoning is by construing it as a disposition, where that disposition does not comprise a propositional state – since propositions will end up as premises in our reasoning. For instance Boghossian writes: 'In addition to this disposition to reason [according to Modus Ponens, 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'.[37] The Regress demands knowledge of Modus Ponens to be a different state from belief, not requiring explicit representation, if Modus Ponens is to make the mind move; dispositions seem to be apt to articulate such knowledge.[38]

Third, let us turn to the question of how to formulate logical principles of reasoning. Philosophers worried about Carroll's Regress think that such principles should be articulated in terms of obligation, and (Ought) can almost be read off the Regress. However there are good reasons for thinking that (Ought) is in general too strong. These in part go back to Harman's discussion of deductive reasoning, where he expresses skepticism about the relation of logic to reasoning, and particularly his discussion of belief revision.[39] According to him, a principle such as (Ought) ascribes too strong a role to logical implication in deciding what to believe.

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[36] There are intricate issues here concerning what is exactly involved in applying a *general* logical principle of reasoning to one's reasoning, which I do not have space to address. For discussion, see my 'Knowledge of Logical Generality and the Possibility of Deductive Reasoning', in Timothy Chang and Anders Nes (eds), *Inference and Consciousness*, (Cambridge: Routledge, forthcoming).

[37] Paul A. Boghossian, 'Knowledge of Logic', in Paul Boghossian and Christopher Peacocke (eds), *New Essays on the A Priori* (Oxford: Oxford University Press, 2000), 230.

[38] It is widely presupposed that if logical principles are explicitly represented they cannot be, as such, action-guiding. However, for original and compelling arguments against the presupposition that explicit or metalinguistic representation is sealed from action – i.e. not action-guiding – see Ori Simchen. 'Rules and Mention', *The Philosophical Quarterly* 51 (2001), 455–473. According to him, the Regress asks what it is for a rule to be 'action-guiding' (456) and wrongly suggests that explicit representation cannot be action-guiding.

[39] Gilbert Harman, *Change in View* (Cambridge, Mass.: MIT Press, 1986).

Sometimes it is better to revise antecedent beliefs rather than draw the conclusions that follow from these beliefs. Thus suppose that I am doing my ironing with the radio in the background. Very absorbed in my task, I pay no attention to the radio and lose track of time. Suddenly I look at my watch and come to believe that it has just gone 6pm. I realize that if it has just gone 6pm, then the news is on. I pay attention to the radio and hear that it is not the news at all but already the programme that follows it. Here, it would not be rational for me to conclude that the news is on. Rather I should either revise my view that it has just gone 6pm or that the news is at 6pm. However, if I do this, then I am violating (Ought) so (Ought) cannot be the right principle associated with Modus Ponens.

While Harman's point is widely accepted, few share his skepticism about the project of articulating logical principles of reasoning associated with logical principles such as Modus Ponens. A standard way of accommodating change in view is to go for something roughly along the lines of the weaker wide-scope principle (Ought*):

(Ought*) S ought to make it the case that [If S accepts P and (if P, then Q), S accepts Q].

(Ought*) allows for the case of change in view: revising my 'premises' rather than reasoning to the conclusion does not violate it. It is thus admittedly a better candidate to articulate the kind of obligation associated with Modus Ponens.[40]

Now, in a case of change in view, other things are not equal – a bit of evidence is acquired that defeats the appropriateness of the reasoning. However, the case that interests us is the case when other things are equal, that is to say, when nothing defeats your acceptance of the premises. What (Ought*) tells us is that in this case you are strictly required to accept the conclusion. This is the scenario that underpins the Logic Makes the Mind Move view. In a different context, this is what Broome refers to as the Strictness Test for normative requirements.[41] According to him, the relation between believing the premises of a valid argument and believing its conclusion is strict when other things are equal and provided the logical entailment is readily recognizable.

[40] For instance, Boghossian (op. cit note 37, 229; note 24, 2) explicitly adopts such a wide-scope principle. The difficult question of how to tie facts of validity to facts of obligation, or normative facts more generally – how to formulate so-called 'bridge principles' – is currently receiving a lot of attention. I cannot do it justice here. See e.g. John MacFarlane, 'In What Sense (If Any) is Logic Normative for Thought?', Unpublished (2004) for discussion.

[41] Op. cit. note 35, 405.

This gives rise to normative requirements (rather than weaker 'normative recommendations'), such that if you believe the premises and not the conclusion, 'you are definitely not entirely as you ought to be'; perhaps you are irrational.

In light of these remarks, the two-fold proposal, then, is this. First, what a subject who reasons from (i) and (ii) to (iii) relies on is their knowledge of (Ought*): when they have accepted (i) and (ii) and, other things are equal, they are strictly required to accept (iii). Second, Logic Makes the Mind Move: logical principles of reasoning such as (Ought*) are accepted or known in such a way that, when the premises have been accepted and other things are equal, one seamlessly, unreflectively, moves to the conclusion. This requires the acceptance or knowledge not to be a propositional state; a proposal that has been favoured is to construe such acceptance or knowledge as a disposition. Thus, if logic makes the mind move, then once I have accepted the premises, I will never be stuck, wondering which conditional of the form of (Cond) to accept as a premise to my reasoning. I will just reason to (iii).

4. Logical Expressivism

A natural way of articulating the two-fold proposal is in terms of motivational internalism: it is my very knowledge of (Ought*) that motivates me to reason to a conclusion (iii), once I have accepted (i) and (ii). My knowledge of (Ought*) is in this sense intrinsically motivational. If so, this puts us in the territory of the argument (a) – (d) of section 1, and it is then relatively easy to see how such logical motivational internalism leads to a kind of logical expressivism. So let us state the argument for logical non-cognitivism as follows, in a way that parallels the argument (a) – (d) for moral non-cognitivism:

(e) Cognitive states cannot motivate agents to act. (Humean theory)
(f) Knowing (Ought*) is intrinsically motivational. (Motivational internalism)
Therefore:
(g) Knowing (Ought*) is not a cognitive state.
Therefore:
(h) Knowing (Ought*) is a non-cognitive pro-attitude. (Non-cognitivism)

I state claim (e), which flows from the Humean theory of motivation, in terms of cognitive states – rather than belief as I had done with argument (a) – (d) – since Carroll formulates his Regress in terms of 'granting' (Cond), and philosophers of logic typically focus on knowing logical principles of reasoning: granting a proposition and propositional knowledge are cognitive, representational states.

While commentators on Carroll's Regress rarely explicitly pledge allegiance to the Humean theory of motivation (Blackburn being an exception), it is clearly there in the background as an implicit assumption: cognitive states are isolated from action in that they cannot motivate on their own. The assumption seems to be that cognitive states could not ever be anything else but premises in one's reasoning, or at any rate attitudes to premises in one's reasoning. This seems clearly to be Ryle's position and also Boghossian's, who rejects an articulation of knowledge of logical principles in terms that entail beliefs. Also, as I have stressed in section 3, sometimes Carroll's Regress is discussed in the context of internalist accounts of epistemic justification and the question of whether these accounts could apply to the justification logical principles of reasoning. The issue is often presented as a stark choice between internalist accounts, whereby we have explicit propositional justification for logical principles (on which regresses arise, and so action is impossible); and forms of reliabilism, on which justification is merely a matter of having reliable dispositions to reason (which make action possible but which fail to do justice to the way that knowing logic is meant to be rational or reasonable or epistemically responsible). Again, it is clearly presupposed that we need to rely on other states to explain the possibility of justified reasoning: cognitive states are not suitably related to action.

With the Humean Theory in place in (e) and Logical motivational internalism in (f), logical non-cognitivism follows. As with the argument (a) – (d), (e) – (h) can be rephrased in terms of mixed cognitive and pro-attitude states so as to accommodate mixed views, whereby knowing (Ought*) is partly descriptive and partly having a pro-attitude:

(g*) Knowing (Ought*) is not fully cognitive.
(h*) Knowing (Ought*) comprises a pro-attitude.

Non-cognitive expressivism is now one step away as the natural semantic way of articulating the non-cognitivism at issue. Conclusions such as (h) and (h*) can be tied to a theory of meaning for 'ought' or even 'valid'. The thought would be that 'ought' should be given a non-

descriptive semantics: perhaps tied to types of mental states such as intending or planning, which can then be thought of as kinds of dispositional state. This 'ought' is a logical or epistemic or rational 'ought' that concerns how to police logical transitions between beliefs. While we might think of this 'ought' as expressing a theoretical ought, there is a sense in which both the argument (a) – (d) and the argument (e) – (h) are about action, as (e) – (h) concerns actions of reasoning. So there is further commonality between the two kinds of motivational internalism.

On this interpretation then, Carroll's Regress is an instance of a puzzle about motivation against logical cognitivism. Logical cognitivism is here represented by the view that what I need to know to reason from (i) and (ii) to (iii) is a conditional such as (Cond), which I have to add as a premise to my argument.[42] The key problem is that my acceptance of (i) and (ii) together with my acceptance of (Cond) cannot be what moves or motivates me to accept the conclusion in (iii). The expressivist solution is to replace (Cond) by (Ought*); and rather than add (Ought*) as a premise, think of it as a principle, knowledge of which motivates me to accept (iii) once I have accepted (i) and (ii). Such knowledge is non-propositional otherwise, given the Humean Picture, knowing (Ought*) would not be intrinsically motivational. That it is not fully propositional can perhaps be traced back to the concept *ought*, which should be given a non-descriptive semantics.

Non-cognitivism and expressivism are widespread views in the epistemology of logic. Many of their proponents are motivated by Carroll's Regress, but some are not. And not all so motivated also draw on worries to do with making the mind move and the kind of logical motivational internalism that I have outlined in section 3. Let me briefly mention three prominent views of this kind that ought to be set aside.

First, it is important to distinguish the logical expressivism at issue here from another view that is widespread in logic, which is tied to the semantics for the logical constants (e.g. 'if, then'). On this kind of expressivism (which originates in Wittgenstein's *Tractatus*, and has recently been developed by Robert Brandom), the logical constants do not simply represent (e.g. truth-functions) but are records of practices of reasoning – i.e. the meanings of the logical constants

[42] There is more to be said about this characterization of logical cognitivism to which I come back in section 6.

are given in pragmatic terms.[43] This kind of expressivism has little to do with the Humean theory of motivation and motivational internalism, which here are tied to expressions such as 'ought'; it also has little to do with Carroll's Regress but rather springs from specific semantic claims about the logical constants.

Second, according to Hartry Field, Carroll's Regress concerns the justification of basic logical principles, and shows that justification for the reasoning from (i) and (ii) to (iii) cannot come from (Cond) – or objective facts of validity.[44] Justification for logical principles comprises normative, perspectival features, and indeed the mistake behind Carroll's Regress is to presuppose factualism about validity, which somehow will transmit objective justification to our logical beliefs. Generally, the aim of epistemology is not to transmit (objective) justification, but to *evaluate* methods of forming and retaining beliefs. The view, then, is anti-realist, and articulated as expressivist, although Field prefers to call it 'evaluativism'. However, while it partly springs from an interpretation of Carroll's Regress, it is not driven by the concern to articulate how logic might make the mind move.

Crispin Wright also advocates a form of logical non-cognitivism, in part as a reaction to Carroll's Regress, which he takes to presuppose logical cognitivism: the view that we possess basic logical knowledge that can be given factual justification.[45] His key thought is that we do not *know* basic logical principles because they are presupposed in – are a precondition of – any epistemic inquiry; we are simply rationally entitled to believe in basic logical principles. It is a mistake to try to justify putative propositional knowledge of such principles since we are pragmatically entitled to these prior to knowledge acquisition.[46] Again, this form of non-cognitivism is not motivated by worries about making the mind move but more purely with the nature of justification of basic logical principles.

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[43] Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. C. K. Ogden (London: Routledge and Kegan Paul, 1922); Robert Brandom, *Making It Explicit* (Cambridge, Mass.: Harvard University Press, 1994).
[44] Hartry Field, 'Epistemology without Metaphysics', *Philosophical Studies* 143 (2009), 249–290; op. cit. note 21.
[45] Crispin Wright, 'Logical Non-Cognitivism', Cory Juhl and Jushua Schechter (eds), *Philosophy of Logic and Inferential Reasoning, Philosophical Issues* (2018): 425-450.
[46] Wright is not an anti-realist about logic, unlike Field, and also, as he stresses, unlike Wittgenstein (op. cit. note 27).

5. Against Logical Motivational Internalism

One way of attacking the argument offered in (e) – (h) is to argue against the Humean Picture of Motivation: it is to argue that fully cognitive states can be motivational, and are not isolated from action in this way. Indeed there are many accounts of belief or cognitive states according to which beliefs are intrinsically characterised in term of their connection to action.[47] However, tempting as this is, I do not here attack the Humean theory of motivation. Nor do I criticise specific articulations of non-cognitive logical expressivism or discuss how the semantics of *ought* might work in the context of a principle such as (Ought*).

I focus instead on attacking the logical motivational internalism that is informed by the Logic Makes the Mind Move view – the very motivation for logical non-cognitivism that I have canvassed. I show that the case for logical motivational internalism is less compelling as that for Moral motivational internalism. I first show that logical motivational internalism gets the source of motivation in reasoning wrong. I then restate the point in terms of motivating/explanatory reasons. Thirdly, I revisit the grounds for adopting (Ought*) as a logical principle of reasoning. Finally, I briefly discuss the logical analog of the amoralist – the alogicalist – and compare them to the akratic.

5.1 The source of motivation in reasoning

Moral motivation is taken to be a robust, reliable phenomenon that needs to be explained. It is typically taken as a given that moral judgments motivate us or have a hold on us in a different way than non-normative ones. This is the case even though, for various reasons, we do not always act according to them. Other things being equal, your judgment that you ought not to eat meat reliably motivates you not to eat meat. Thus, other things being equal, if you hold the judgment, you will be motivated, and if you no longer hold the judgment, you will no longer be

[47] Classic defenses in the specific case of moral cognitivism are e.g. Thomas Nagel, *The Possibility of Altruism* (New York: Oxford University Press, 1970); John McDowell, 'Are Moral Requirements Hypothetical Imperatives?', *Proceedings of the Aristotelian Society Supplementary Volume* 52 (1978), 13–29; and David Wiggins, 'Moral Cognitivism, Moral Relativism and Motivating Moral Beliefs', *Proceedings of the Aristotelian Society* 91 (1991), 61–85. Functionalists about mental states (e.g. Robert Stalnaker, *Inquiry* (Cambridge MA: MIT Press, 1984) can also develop resources to essentially relate belief to action. Furthermore, intellectualists about knowing how have argued that knowing how can be construed as a kind of propositional knowledge with a special relationship to action. See in particular Jason Stanley and Timothy Williamson, 'Knowing How', *The Journal of Philosophy* 98 (2001), 411–444; and Jason Stanley, *Knowing How* (Oxford: Oxford University Press, 2011).

motivated. This requires explanation and opinions diverge on how to give one. But there is general agreement that moral judgment is a strong and stable source of motivation for moral action.

Does the same hold of logic? If logical motivational internalism is correct, my knowledge of (Ought*) plays an essential role in motivating my reasoning from premises such as (i) and (ii) to conclusions such as (iii). But are we reliably motivated to act by the logical principles that we accept or know? Is logic in this sense a source of motivation for action? We know that a positive answer may offer the prospect of blocking Carroll's Regress. But is this view in general true? I am inclined to respond negatively on the grounds that, typically, motivation for reasoning has its source in our cognitive and practical goals, and not in the methods we use to reach them. In the case of logic: motivation is not essentially or internally tied to logical knowledge.

Consider an example. Suppose that I want to surprise Lucy with presents on her birthday tomorrow. Suppose also that I believe that Lucy is about to come home and that if she is about to come home, I had better hide the presents now; otherwise the surprise will be ruined. From this I conclude that I had better hide the presents now. It seems that what drives me to the conclusion here is that I want to surprise Lucy on her birthday. It is not my knowledge of Modus Ponens, or of a principle such as (Ought*), as the Logic Make the Mind Move view would predict.

I submit that this case is typical. In general what motivates us to draw conclusions from premises of valid arguments is not the fact that these arguments are valid but the fact that we are interested in the conclusions of these arguments or that these conclusions have practical or theoretical value for us – typically related to *truth* or *knowledge* or the *best/right* course of action to take in given circumstances. Moreover, how we engage in reasoning is responsive to tits *specific* contents, as well as to other beliefs and bits of evidence we might have, and not so much to us knowing general patterns of reasoning sanctioned by logic. Principles such as Modus Ponens and (Ought*) are *general* principles and perhaps this is part of the reason why it is hard to see them as playing the key role in a story about motivation in a particular case of logical reasoning. In this, Modus Ponens and (Ought*) are very different from *specific* moral principles such as that one ought not to eat meat.

There are of course cases in which the goal itself is to reason logically or to prove something, as in the logic class. There, the point is to reason with logical principles, perhaps so as to learn how to better use them. But in most contexts what motivates us in engaging in deductive reasoning is other practical or theoretical goals.[48] For instance, in the ironing example used in the discussion of Harman in section 3, it seems that the reason why I refrain from reasoning to the belief that the news is on is my desire not to form a false belief: I have evidence that this belief would be false and so I do not want to use a method of reasoning that leads me to this false belief. As we saw, this case is one in which other things are not equal. But in the example of hiding Lucy's presents, other things are equal, and it does not seem that we should think of logic as playing the motivating role.

It thus seems that the motivating role of logical 'judgments' such as (Ought*) is nothing like the motivating role of moral judgments such as that one ought not to eat meat. What about the argument offered by moral motivational internalists in favour of their view: change in moral judgment directly (not through a change of desires) entails change in moral motivation? It is true that change of logical beliefs will entail change in ways to reason: classical logicians, dialethists and intuitionists reason in different ways and this is because they hold different general principles to be valid. It is in general true that if you take different facts or norms to hold, you will revise your actions accordingly. In the case of logic, as in the case of rain, I take it that this can be in large part explained in terms of our epistemic goals: we want to arrive at truth and knowledge and we will take the method that is the most conducive to these goals. It is thus apt, if anything, to attach motivation to these goals rather than to the methods used to attain them.

5.2 Motivating/explanatory reasons

We can expect that what motivates us to reason, just like what motivates us to act more generally, will figure in spelling out motivating/explanatory (M/E) reasons for reasoning or action. It is standard to appeal to (M/E) reasons to explain how a given action is rational or reasonable from the agent's point of view, i.e. to offer a psychological explanation of rational

[48] I will not settle here for one specific characterization of such goals as this would require a paper in itself.

action, of why an agent acted the way they did.[49] Such M/E reasons are contrasted with normative reasons – considerations that favour or objectively justify an action. These two types of reasons come apart: e.g. the fact that I have a normative reason to take the rubbish out (the bin is full) might not be what motivates me to take the rubbish out (to avoid a scene with my partner).

While agents might not always be clear as to what their M/E reasons are, it is reasonable to expect M/E reasons to figure in (first- or third-personal) answers as to why someone performed such-and-such action. For instance, we expect someone who does not eat meat because eating meat is wrong to rationalise their action in terms of this judgment, and to think of this judgment as an answer to the question why they are not eating meat. The judgment looms large in the calculation of reasons why not to eat meat.[50] However, again, the situation appears to be different in the case of logic. In the example about Lucy's birthday presents, if asked to rationalise my belief that I better hide the presents now, it would be odd to do it in terms of (Ought*): to think of (Ought*) as my/ a key M/E reason for why I reasoned to this conclusion. The rationalisation would rather be in terms of a story about surprising Lucy on her birthday. Of course, if in the course of a logic class you are asked why you arrived at a certain conclusion, you may say that this is because Modus Ponens is valid and that given your starting point, you had to use that principle. But in this case, your goals are explicitly logical ones.

Thus, knowledge of (Ought*) is typically not an M/E reason for reasoning according to Modus Ponens; it is rather presupposed by those reasons. While there might be strong reasons to think that someone's judgment that they ought not to steal typically explains why they refrain from stealing, someone's knowledge of (Ought*) does not typically explain why they draw particular conclusions from particular premises.

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[49] Maria Alvarez ('Reasons for Action, Acting for Reasons, and Rationality', *Synthèse* 195 (2018), 3293–3310) persuasively argues that, contrary to orthodoxy, we should distinguish between motivating and explanatory reasons. As nothing turns on their differences here, I will however lump them together.

[50] The matter is more delicate than I can do justice here, for four broad reasons. First, M/E reasons might not be transparent to agents. Second, agents might have different modes of presentation for the judgment that they ought not to eat meat – some normative ('it's wrong') some not so ('I was raised vegetarian'). Thus, the normative judgment might not always be the primary answer to the why question, even though it is the ultimate or one of the ultimate M/E reasons. Third, there might be other norms (perhaps conversational norms, norms of politeness, propriety, etc.) in place in a given context that do not permit asserting the normative judgment as an answer to the why question. Fourth, the interaction between normative reasons and M/E reasons is complex (For discussion, see Smith op. cit. note 2, ch. 4).

5.3 More thoughts on ought

I have suggested that what motivates us in reasoning are our cognitive and practical goals, not the principles that we use in order to reach these goals. What does this tell us about logic and its normativity? Of course, the fact that logic is not typically motivational for reasoning does not say much about logic's normativity and is compatible with logic being normative. Many who think that logic is normative for reasoning are not really concerned with the phenomenon of motivation or psychological questions to do with reasoning; they hold the view for different reasons.[51] However, if what motivates me in reasoning are my cognitive and practical interests, one attractive avenue is to think of the normativity of logic, and any motivational character it might have, as derivative of the normativity of something else, which logic is a means to: our cognitive or practical goals. On this view logic would be normative only in an external or derivative way.

With this in mind we can revisit the remarks made about Carroll's Regress in connection with the Strictness Test in section 3. When all is well (I see the argument is valid, am interested, I have time, I have no countervailing evidence, etc.), I ought to reason from premises to conclusion. Why? Not because logic makes the mind move, but because, if conditions are ideal for me to e.g. gain a true belief or a bit of knowledge, then I ought to try to gain them; I ought to take the means to my end. From this perspective, the real normative drive does not come from logic; rather, why we sometimes feel that there is a strict ought in place, or that it would be irrational not to reason from premises to conclusion, comes from epistemic or practical norms. From this standpoint, then, a logical principle of reasoning derived from Modus Ponens need not be articulated in terms of obligation or indeed be intrinsically normative: normativity comes from our cognitive and practical goals, not so much from logic.

5.4 Amoralism, alogicalism and akrasia

Let us consider the figure of the amoralist, who is at issue between moral motivational internalists and moral motivational externalists. The amoralist would be someone who is rational, strong-willed, sincerely and competently makes the judgment that, e.g. they ought not to eat meat, but is not in the least inclined not to eat meat. If amoralists are possible, we have an

[51] See for instance, Graham Priest, 'Logical Disputes and the A Priori'. *Logique et Analyse* 59 (2016), 347–366; Field, op. cit. note 21. For discussion, see for instance MacFarlane, op. cit. note 40.

argument against moral motivational internalism; we have someone who makes a moral judgment but is not in the least moved to act accordingly.

An alogicalist would be someone who is rational, strong-willed, e.g. knows Modus Ponens, but is not in the least motivated to reason from premises to conclusion (of simple, clear instances of Modus Ponens), even when other things are equal. For instance, they see, e.g. that (iii) follows from (i) and (ii), or see that if they believed (i) and (ii) and other things were equal, they would be required to believe (iii), but are not in the least motivated to engage in reasoning from (i) and (ii) to (iii).

Here is a way of thinking of the alogicalist. Some scenarios seem unproblematic: e.g. accepting (Ought*), being agnostic about (i) and (ii) and not reasoning to (iii); or: accepting (Ought*), believing (i) and (ii), things are not equal, and not reasoning to (iii). Others seem problematic: accepting (Ought*), believing (i) and (ii), things are equal, and not reasoning to (iii). Thus, there is no expectation that accepting (Ought*) should motivate in the absence of a certain type of attitude taken to particular instances of its antecedent: e.g. that (i) and (ii) are true, justified or known. It is only once such attitudes have been taken – which then perhaps hold the promise of further truths or knowledge – that the issue of motivation arises. Alogicalism becomes on issue only in specific epistemic contexts, when potential epistemic/practical goods are on the horizon. This in turn suggests that the case of the alogicalist should be explained against this epistemic backdrop: as representing an epistemic failing, rather than a logical one. The logical motivational internalist would need to appeal to the motivational character of having accepted (Ought*), which is implausible given that this motivational character only comes to salience against the background of further epistemic commitments. This very fact suggests that this motivational character is extrinsic to the logical judgment.

(Ought*) is about logic but it is also about belief. It is thus in principle an open question whether its normative component should be read off facts of validity or epistemic facts, or both. The view taken here is that it should not be read off facts of validity.

It thus seems that the alogicalist does not pose the same challenge to logical motivational internalism that the amoralist poses to moral motivational internalism. But this does not speak in favour of internalism, because the case of the alogicalist makes salient the extent to which any phenomenon of motivation in the context of logic is inherited from matters external to logic.

Some commentators on Carroll's Regress connect the Regress with the phenomenon of akrasia, rather than amoralism.[52] Crudely, the difference is this. The amoralist is strong-willed, even thought they are not motivated to act on their (moral) judgment. The akratic is weak-willed: they make the (moral) judgment, have the relevant desire to act on that judgment, but fail to act. Where the amoralist is not motivated at all (but would act if motivated), the akratic is motivated but fails to do what, all things considered, they wish to do: amoralism is indifference; akrasia is incontinence. Thus our moral akratic would be someone who judges that they ought not to eat meat, are motivated not to eat meat, all else is equal, but nonetheless eat meat; similarly, our logical akratic would be someone who knows (Ought*), has accepted (i) and (ii), is motivated to reason to (iii), all else is equal, but nonetheless does not reason to (iii).

It is common to think of akrasia as a form of irrationality, and for brevity I will stick to this interpretation.[53] We have noticed before the possibility of thinking of the agent who does not reason from (i) and (ii) to (iii) in the scenario offered by Carroll as irrational, as suggested by Broome's Strictness Test. Perhaps, then, this form of irrationality can be explained in terms of akrasia.

In the moral case, internalists and externalists might say different things about the amoralist and the akratic. But, as with the amoralist, internalists have a *prima facie* difficulty handling the akratic: if the link of judgment to motivation is internal, one must be somewhat motivated when one sincerely judges; if the link of judgment to motivation is internal, then, when all else is equal, one's motivation ought to issue in action. But this is precisely what does not happen with the akratic. If Carroll's Regress is about akrasia, then again logical motivational internalism seems to have less conceptual space to articulate an irrationality of this sort than its rival: it seems harder to articulate how it could exist. A motivational externalist view, whereby logic does not play a motivational role, where the connection between knowing (Ought*) and action is only contingent, is better equipped to address logical akrasia. In the same way, the externalist is *prima facie* better equipped to address akrasia in the moral case: if the connection of moral judgment to motivation is not internal, there is more conceptual space to articulate the possibility of akrasia.

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[52] See e.g. Blackburn (op. cit. note 34), Engel (op. cit. note 31), Phillie (op. cit. note 29)
[53] Donald Davidson, 'How Is Weakness of the Will Possible?', in Donald Davidson, *Essays on Actions and Events* (Oxford: Clarendon Press, 1980), 21-42.

6 Logical Cognitivism and Carroll's Regress

It seemed that logical non-cognitivism coupled with logical expressivism offered an attractive picture of what it is to know a logical principle of reasoning – a picture that afforded a solution to Carroll's Regress construed as a puzzle against logical cognitivism. The key view underpinning this picture was logical motivational internalism, or the Logic Makes the Mind Move view, one of the two components of the two-fold proposal. This proposal is incorrect. As I have argued in section 5, logic does not make the mind move and so logical motivational internalism is not required to articulate that it does. If so, logical non-cognitivism and logical expressivism are unmotivated as ways of blocking the Regress. As I have argued, logical motivational internalism rests on the wrong account of the *role* that logical knowledge plays in our cognitive economies, as what moves us to draw conclusions from premises. This argument for logical motivational externalism is not yet an argument for logical cognitivism, but it paves the way for one.

Besides showing that logical motivational internalism is incorrect, the discussion also reveals the following about interpreting Carroll's Regress as a regress concerning normativity, motivation and cognitivism. First, the Regress operates with the wrong normative undertone if it suggests that we articulate the normativity of logical principles of reasoning in terms of (Ought). At least (Ought*) is required and, as I have suggested in section 5, it is an open question whether we should really think of logic as itself normative or only so by association with epistemic notions such as belief, truth or knowledge.

Second, the Regress wrongly invites us to seek a solution *internal to logic* as it were. This is initially manifest with the appeal to (Cond). If someone does not reason from (i) and (ii) to (iii), it is first suggested we add (Cond) as a premise – we appeal to a further logical fact to address our logical problem, thus seeking a solution internal to logic. In this sense, appeal to (Ought)/(Ought*), together with the Logic Makes the Mind Move view, is still seeking a solution internal to logic: through appealing to normative and psychological facts of motivation essentially tied to those logical facts.

Not only is it mistaken to seek a solution internal to logic, but there is also a simpler picture available, which brings in factors external to logic, such as our cognitive and practical goals. It seems that a proper explanation of why we engage in reasoning has to factor these in. This in itself makes the logical case quite different from the moral one, as, crudely put it is natural to think of morality not as a means to an end, but as an end in itself. Carroll's Regress as a puzzle about motivation might thus be better interpreted as a problem of failure to act on one's practical or theoretical goals.

Finally, let me sketch a cognitivist way to address Carroll's Regress. At the end on section 2, I alluded to the fact that it is widely agreed that Carroll makes two mistakes. First, he suggests that the conditional (Cond) would be the right sort of thing to consider for someone who is not moved by the obligation to reason from (i) and (ii) to (iii). Second, he invites us to add (Cond) as a premise to the original argument from (i) and (ii) to (iii). While this diagnosis is right, this should not lead us to make the presupposition that *any proposition offered as the right thing to consider* would *eo ipso* act as a premise in one's reasoning. We can agree that (Cond) is not the right thing to consider, because it is neither about entailment nor about reasoning or norms. But the failure of (Cond) as the right thing to consider should not be taken to signal the failure of any proposition to be the right thing to consider. This would require further argument. Furthermore, from the mistaken proposal of adding (Cond) as a premise we should not infer that any acceptance (knowledge, belief) of a proposition is to be characterised as acceptance of a premise. This too would require further argument. To my knowledge these arguments have not been properly articulated, and Carroll's Regress has simply been taken as having provided that argument or as having been suggestive enough. But I do not see that it has.

The case for logical cognitivism crucially rests on there being propositional knowledge of logical principles where these are not premises in reasoning, but rather play another role in our cognitive economies. In the example of Lucy's birthday, I could not reason the way I do if I did not know Modus Ponens. Yet, Modus Ponens is not a premise in my reasoning, nor is it what motivates me to reason. What then? In that example, I conclude the true proposition that I had better hide the presents now. Knowing this truth is useful to me. My knowledge of Modus Ponens enables me to arrive at that truth. This suggests that the best way to think of knowledge of Modus Ponens is as knowledge that enables reasoning, or enables reaching certain goals, rather than as knowledge that motivates to reason. This does not require non-cognitivism about Modus Ponens unless we insist that all cognitive states inevitably turn out to be premises or

attitudes to premises. But more importantly, once this knowledge is not tied to action in the way the view that logic makes the mind move seemed to require, but is recognised to have this different role in our cognitive economies, there is less pressure to go non-cognitivist.[54]

Finally, then, I suggest the following articulation of logical cognitivism: knowing that P, and if P, then Q together entail Q, is knowing a proposition that enables reasoning.[55] This knowledge is necessary for reasoning – it makes it possible for reasoning to occur – but is (typically) not part of it; it is (typically) not a premise in reasoning. More precisely: knowing Modus Ponens requires being acquainted with a fact of entailment, a fact that enables us to engage in certain actions of reasoning, namely those that suit our epistemic and practical goals.[56]

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[54] Again, this is presupposing the Humean theory of motivation.

[55] For more details on how to articulate this cognitivist enabling view of knowledge of logical principles see my forthcoming paper (op. cit. note 17).

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