

- Adoption problem.

The issue is that it seems that certain basic logical principles cannot be adopted by an agent. On the one hand, if a subject *already* infers in accordance with them, no adoption *is needed*. On the other hand, if a subject does *not* infer in accordance with them, no adoption *is possible*.

Adoption of a basic logical principle is meant to involve two stages: (i) acceptance of the principle itself; (ii) development, on the basis of (i), of an inferential practice that accords with the principle. In a wide range of cases, such as Universal Instantiation and Modus Ponens, recognizing that a particular situation requires the application of the principle (say, for the first time in phase (ii)) would involve already inferring in accordance the rule in question.

The issue relates with the Quinean picture, which may be seen to “presuppose that, at some point, probably very early on (and probably due to practical and empirical considerations), we adopted the principles of (classical) logic. Because we have chosen to make them part of our web of belief, we are committed to them and their consequences. But our commitment is optional: we could choose to drop them or adopt other principles and then we would no longer be committed to those consequences.”

If the adoption problem is real, the Quinean picture is in trouble.

This stuff is important with respect to the Quinean brand of scepticism about the a priori (to which we haven't probably given the attention it deserves), and it sets the stage for the issue of accounting for the basic a priori.

- Hypothesis V: we have done lots of reading on this (Burge, Hawthorne, Williamson, Casullo, Bonjour,...), and we should have enough material to support the conjecture. All of the debates on the difference between enabling and evidential role of experience and what exactly epistemic reasons are (including the debate on what it is to infer and the basing relation) are relevant here.
- Hypothesis VI: maybe we haven't produces a clear positive proposal, but some of the stuff we have read (e.g. on the role of memory) lead to the conjecture. I have a work in progress (which has been untouched for a while) that attempts to characterize a priori warrants in terms of immunity from brute error.
- Hypothesis VII: we have done some readings on Quine (Devitt, Carrie's reply, Crispin's Inventing Logical Necessity), and we should have material to defend the conjecture. Yet, it would be good to have something to say on the adoption problem, which is relevant for Quine and, thanks to Kripke and Devitt (together with Crispin and Boghossian) is gaining popularity. Papers by Devitt, Finn, and others.
- Hypothesis VIII: can easily be supported by the work done on hypothesis VII, plus Ichikawa and Kasaki, Casullo, and Melis – Wright against Williamson. May be worth reading Sgaravatti's defence on Williamson “Experience and reasoning: challenging the a priori/a posteriori distinction”, forthcoming in *Synthese*.
- Hypothesis IX: maybe this is where we are weakest, although we have engaged with a work in progress by Crispin that is relevant for the issue, as well as with the second part of “Inventing Logical Necessity”.
- Hypothesis X: we have loads on this.

- Hypothesis XI: Need to improve on this. Reading on the Adoption problem, default-reasonableness and entitlement may help (readings by Field, and Crispin).

Other stuff not in the original project:

- The relevance of the cognitive capacities of the agent, and the significance of the example of the unjustifiedness of the inference from PA axioms to FLT, and how that is important to understand the justification of the rules of basic logic]. This relates on the issue of understanding warrants for mathematical claims *as they are actually achieved by the ordinary subjects*. A good reading for this may be Joshua Schechter, "Small Steps and Great Leaps in Thought: The Epistemology of Basic Deductive Rules", forthcoming in Balcerak-Jackson M. and Balcerak-Jackson B. (eds.), *Reasoning: Essays on Theoretical and Practical Thinking*.
- More on what it is to infer, and how to understand an epistemic warrant in general. I wouldn't mind going through the recent Kornblith/Boghossian exchange, although this might be a bit broad (if surely relevant) at this stage of the project where we need to draw conclusions specific on the a priori.
- Do we want to go back to the suggestion of anaphoric reasoning made in defence of Burge by Lawlor 2002? We thought we were going to read Campbell 1987 on this...the idea being that that would have helped to defend the role of preservative memory—that is, memory that delivers beliefs for use in inference without adding to the justificational demands on the inference. That memory can work in this way is crucial if we want to allow that there are any a priori warrants based on inference.

CW, KBNS APriori stream, Autumn 2019

Handout — Further reflections on the stock characterisation of a priori justification (knowledge, warrant) as "justification independent of experience"

(1) We have encountered three distinct worries about the stock characterisation:

(i) The proper characterisation of "experience".

(ii) The Hawthorne worry that, even in prototypical 'bottom-up' cases of a priority, it does seem to matter what the thinker's collateral sense experience is like.

(iii) The Williamson worry that "enabling" and "evidential" do not exhaust the ways in which experience features in the acquisition of justification, and that a third role it characteristically plays in a wide class of cases — the 'intermediate', or imagination-honing role — makes for a kind of justification that cuts across the a priori/a posteriori distinction as drawn 'bottom-up'.

We haven't addressed (i) but there is no reason to assume that it cannot be addressed— that there is no explaining in generic terms what sense experience is. (But NB the worry about what permissible role may be played by *inner* experience.)

I think we answered— or at least fended off— (iii).

But what about (ii)?

The natural answer is that, while it may be quite true that the overall character of one's collateral experience may make the difference between having a (presumptively) a priori warrant and lacking it, the important question arises after that is acknowledged: are the accompanying experiences playing an *evidential* (justificatory) role or not? It is only if they are that a priority is compromised.

(2) However that answer brings with it a fourth worry: it emerges when we ask, how exactly do we characterise this "evidential" role that, it is agreed on all hands, experience plays in a posteriori cases and may not play in cases properly regarded as a priori?

To see the concern, ask how, in general, should we conceive of the terms of the justificatory relation? The second term is presumably a belief. But what about the first — what does the justifying? There seem to be two options:

(i) We can conceive of *facts*, or *states of affairs*, or *situations* as the justifiers. In that case, the "evidential" role of experience in obtaining a posteriori justification will presumably be that of enabling the agent to *be aware* of the fact(s), etc., in question.

But: that proposal will have the effect that whenever an agent's apprehension of a fact is *in any way* furnished by his sensory faculties, — bracketing any concern about how to demarcate those — we will be committed to assigning to experience an 'evidential role'. Result: justification acquired by looking at proofs or calculations on paper, listening to spoken reasoning, construction of visual diagrams, or 'heuristic' handling of 3-D solids, e.g., will all count straight off as generating a posteriori justification if any justification. Yet the impression remains strong that this will be to miss a distinction — that the notion that these forms of justification can, in certain cases, be somehow special, in contradistinction to ordinary observation of contingencies of the local environment, remains powerful. Surely experience isn't playing the *same* epistemic role in these cases. So what are we missing?

(ii) What if we say instead that the justifiers *are* the very states of awareness of the evidential facts/states of affairs? Well, essentially the same problem arises! However we characterise "experience", many of the states of awareness involved in what rank as 'bottom-up' cases of a priori justification will be states of awareness given in a modality, or compound modalities, of (uncontroversially so classified) sense experience— vision, hearing, and touch. So once again we will wind up classifying a large class of 'bottom up' a priorities as non- a priori, so shrinking the intuitive extension of the notion.

(3) Directions of response:

(i) (Boghossian) — go for strictness: reserve "a priori" for the justification provided by *purely intellectual* seemings that P. This will presumably confine the extension of the notion to the (strictly) epistemically analytic (supposing that category is in good standing): cases where assent is triggered purely by reflection on content, without any intrusion of externally perceived aids (or the sensuous imagination?) So judgements about e.g. basic logic, and the marital status of bachelors, and the transitivity of 'taller than', . . . maybe get to count as a priori. The rest are excluded.

Problems: (a) The epistemological status of these allegedly analytic cases is anyway contested and unclear. (But we had that problem already, independently of the Characterisation issue.

Maybe we will be able to shore things up.)

(b) We are left with no insight into what, if anything, is epistemically distinctive about the excluded class of traditional 'bottom-up' cases.

(ii) Try to make something of the *sensory deprivation* approach to the idea of experience - independence — a justification is a priori if, even if actually accessed by means involving the senses, it could in principle be accomplished without any form of sensory input — e.g. in a sensory insulation tank (and a state of amnesia?) This will allow experience-prompted cases to count as a priori nevertheless if *in principle* the proof or warrant thereby accomplished could be achieved purely by an exercise of thought, assisted by the sensuous imagination, in Anscombe's tank.

Problems: (a) What is the notion of *sameness* of procedure that allows that one and the same justification may be accomplished both by working through a proof on paper, e.g., and vividly imagining the same construction?

(b) Merely generalising the application of the term, 'a priori' in this way does nothing to address the concern that the epistemic status of the justification may change, depending on whether the process is worked through on paper or "in the head"?

(c) Worries about the meaning here of "in principle", and about the role of non-episodic memory.

(d) The worry that we are merely replacing outer experience by inner and that if the former is playing an illicitly evidential role in the cases concerned, so will the latter be after the 'internalisation' of the relevant processes.

(e) Worries about how the approach can exclude irrelevant forms of psychological self-knowledge provided by routine self-awareness.

(iii) *Experiential but hallucination-proof* justification — try to make something of the thought that, when bottom-up a priori justification is accomplished via externally perceived processes and constructions, the role of sense experience is different in this way: that provided the phenomenology is lucid and stable, it does not matter if the perceptual processes involved are *illusory*

I think there is something right about this for cases when conviction is secured by a single gestalt — say

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for '2+3=5'. But it doesn't seem right when e.g. the force of a proof rests on an external realisation of it of which a check may properly be demanded

(iv) A priori justification as not as non-experiential but as *supra-experiential*.

I think that, assuming we want more than (i), there may be value in thinking through (ii) and (iii). But I am inclined to suggest a more radical adjustment: that the whole generic idea of a priori justification as justification achievable *independently* of experience is a misstep — (even if some classic epistemically analytic cases do turn out to warrant that description, when appropriately clarified.) What is intuitively characteristic of a great range of core bottom-up cases is the role played by the intellect *on top of* experience: we should be thinking about modes of justification that, if experiential, are *more than experiential*, where experience may play a role — even an indispensable role — in the

accomplishment of the justification, but where it cannot take one all the way, and an extra intellectual feat is needed. (One use for the notion of the synthetic a priori?)

(4) So what are the allowable role(s) of experience in the conferral of A Priori warrant?

Let's stay with the experience-independent conception as the overall motif, characterised for working purposes as follows:

A priori warrant:

A warrant, w, for P is a priori just in case

(1) It is bestowed on a subject S by S's completing a process of investigation, I, and

(2) The course of S's experience in I, or earlier, does not provide/contribute to the resulting justification for P (or for any lemma on which the justification for P rests.)

(Note 1: We continue to bypass issues to do with how experience *qua* experience should be characterised.

Note 2: clause (1) is intended to exclude entitlements (in CW's sense) from the scope of a priori warrant — which seems best.)

What roles can experience play consistently with clause (2)?

I think there may be at least **five**:

Admissible roles for background experience:

(a) As was agreed on all hands from the start, experience may play a role in the generation of relevant aspects of the subject's conceptual repertoire.

(b) Experience may play the imagination-honing role stressed by TW. (To allow this is not, of course, to accept TW's suggestion that Norman's warrants for *Crimson/Square* and *Who's Who* have no important differences.

Admissible roles for experience in the course of I:

(c) (A required role) S's experience must not justify any defeaters (pull out any Props)— so has to be *good* in Hawthorne's sense. (No threat to the stability of A priori warrant in granting this unless one has adopted a viewpoint from which the distinction between an experience's contributing to the justification of P and its merely not getting in the way has become invisible.)

(d) Experience may be needed to *bring objects to S's attention* that the relevant I involves reflection on and reasoning about, and which otherwise could not be made salient or surveyable to S. Example: counting brackets in a formula, checking substitutions, or conveying the physiognomy of a solid.

(e) (Controversially, but crucially importantly) Experience may be involved in e.g. the verification of properties of a construction, insofar as it is (merely) *causally* implicated in suggesting P and or/ in triggering the act/process of intellection that confers an a priori warrant for p. Here the crux is that the

experience that teaches me that e.g. this wire cube has 12 edges may *suggest* the relevant generalisation—that any cube has twelve edges—and also may be necessary to get me to 'see' that any cube has twelve edges, but it contributes no *evidence* (save irrelevantly maybe weak inductive evidence) for the generalisation. The evidence for the suggested generalisation is given wholly by the intellectual process, I, (whatever it is) that the perception triggers. (Supra-experiential warrant.)

If (e) is allowed, there need be no compromise of a priority in our reliance on processes of verification in mathematics and logic involving routine empirical judgements. The crucial watershed is whether the totality of judgments empirically so supported in a particular case do or do not compose a contribution to the justification for P. (When they do, the verification, even if of something necessary, is not a priori.)

Attending: Indrek Lobus, Peter Sullivan, Sonia Roca Royes, Giacomo Melis, Xintong Wei, Carrie Jenkins, Jonathan Ichikawa, Crispin Wright, Paul Conlan, Giovanni Merlo, Josh Thorpe.

Planning session

The A Priori as Generalisation

- **Jonathan** wondered about hypotheses 5 and 6 (see handout 1) – it is not clear to me what the 'classic' characterisation in hypothesis 5 is supposed to aim at. **Crispin** suggested that we encountered two problems from Hawthorne which suggested that there is no good characterisation of 'independent of experience', so a classic characterisation would need to answer this challenge. Hypothesis 5 is suggesting that this challenge is not answerable satisfactorily.
- **Giovanni** suggested that one way of making good on hypotheses 5 and 6 is; knowledge independent of experience might not be 'knowledge had with no input from experience' but rather could mean 'knowledge which exceeds the input of the experience'. Further we might consider the role the a priori plays; what job is a priori doing? For example generalisation from an example. **Crispin** responded Why might this not be an inductive inference? An inference from data? **Peter** suggested that there is intuitive force in the idea that there are some claims that go beyond the evidence of experience, but we might not want to use that as a category – the evidence from my eyes falls short of the claims I might make regarding the number of chairs in a room. **Crispin** replied that this is true, but in the case of the a priori the shortfall is not known, and when one makes a generalisation in the a priori case one 'sees through' the case to a general claim. However rich the conceptual content of perception, it stops short of generalisation.
- **Paul** suggested that if we focus the a priori on generalisation then we run the risk of turning the a priori into a form of inductive knowledge. **Crispin** replied that induction from only one case is a very poor induction, whereas it seems like a priori knowledge is on a very good basis. **Jonathan** suggested that the notion of conjunction is essential to scientific reasoning, before even we make a scientific generalisation.

Regarding the Role of Experience

- **Giovanni** wondered whether the roles that Crispin suggests experience could play on handout 2 are exhaustive, and whether an exhaustive list could be given – if so, we then have a negative characterisation of the a priori. **Crispin** replied that the list was not exhaustive and that would be a way to characterise the a priori, but might not be possible, and even if so, satisfactory.
- **Carrie** suggested that (b) on the handout might allow for more justification than Crispin envisages experience playing. One could construct a version of (b) which is inconsistent with clause 2, and (b) should be hedged to avoid this.
- **Giovanni** wondered whether the argument that experience provides no evidence for a generalisation could be fleshed out.

On Future Sessions

- **Crispin** and **Giacomo** suggested that we should engage with the ‘adoption problem’ from Kripke, and we should consider Lewis Carroll problems more carefully.
- There was a general thought that we should engage with inductive generalisation in mathematics.
- **Giacomo** suggested that we should read Schechter on the cognitive abilities of the agent.