Fixing Bogossian on the Epistemology of the Analytic

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1 Introduction

Fifty years after Quine's 'Two Dogmas'[1], it's not too controversial that we do draw some distinction between analytic and synthetic claims. The controversial question, is whether the kinds of sentences that are typically called 'analytic' share some kind of distinctive epistemology, or other philosophically interesting feature.

In 'Analyticity Reconsidered'[2], Paul Bogossian proposed an account of how these sentences might, indeed, have a special epistemic status. On his account, analytic claims are special, in that we can learn them 'merely in virtue of our understanding of language', by deriving them as follows:

- (p1) If "bachelor" is to mean what it does, then "all bachelors are unmarried" expresses a truth.
- (p2) "Bachelor" means what it does.

Therefore "all bachelors are unmarried" expresses a truth. But, this account immediately raises some questions: how can we learn the premises? And in what sense are these premises learned 'merely in virtue of our competence with

[1]The Philosophical Review 60 (1951): 20-43
[2]Nous August 1996

language?' And, indeed, some serious objections have been raised in the literature.

Timothy Williamson objects that a philosopher with suitably perverse views on logic, might understand all the relevant words perfectly well, while denying that paradigmatically analytic sentences like 'all vixens are vixens' express a truth, so understanding analytic sentences can't require assent to premises like (p1) [3]. And Carrie Jenkins, a recent advocate of Bogossian's approach, considers it a serious open research project to say how the "concept inspection" which is supposed to give us knowledge of claims like (p1) could work [4].

Also, various people have emphasized that acquiring a combination of putatively meaning-fixing stipulations, which genuinely correspond to a meaningful word (rather than merely expressing an incoherent jumble like the inference rules for Pryor's defective connective 'tonk'), is by no means a trivial task. So, there's a serious question about how we can learn statements like (p2), which seem to entail substantive mathematical consistency statements (e.g. that 0=1 cannot be derived from any of the claims which, like p1, must be true if "bachelor" is to mean anything).

In this essay, I'm going to suggest a middle route between Bogossian's story, and the Quinean view that analytic sentences have no interesting epistemological role, which fixes all these problems, while preserving the intuitive feeling that appeals to analyticity can serve some epistemic role (e.g. "How do I know that murder is wrong? Well, that's just part of what what I mean by the word murder means. Perhaps you mean to ask, how I know that this particular instance of killing is wrong? ")

[3] Timothy Williamson (2007) Philosophy of Philosophy, Blackwell

[4] Carrie Jenkins (2009) Grounding Concepts: An Empirical Basis for Arithmetic Knowledge, Oxford University Press

2 Analyticity and Justification

On this moderate view, analytic sentences will turn out to be sentences which one feels entitled to assert, without giving any real justification (though not, necessarily entitled to dogmatically preserve in the face of any criticism) , plus any sentences which can be derived from them via inferences which one feels similarly entitled to make without giving any justification. Correspondingly, one will turn out to actually have (defeasable) warrant for asserting anything that feels like an analytic truth, and this process will turn out to be a reliable one.

(If you don't like the hyper-internalist claim that you have prima facie warrant for believing any proposition which feels as obvious to them as 2+2=4, see the second to last section in this paper for an externalist variant.)

I will say that a sentence S feels *analytically obvious* for a subject X, iff they feel brutely entitled to assert S, a) without having to give any justification for it, or b) without having to give any justification beyond the (rather philosophically mysterious) claim above, that the truth of S is 'just part of what [some relevant word in S] the word means'. In such circumstances a person is disposed to assert X, but this doesn't mean it's impossible to change their mind. For example it might feel analytically obvious for a subject that a) 0 grains of sand is a heap b) a million grains of sand isn't a heap and c) removing one grain can't change a heap into a non-heap. And yet, this person could easily be persuaded to deny one of these statements, by pointing out the way that these three claims they want to accept are incompatible with one another. Similarly, I'll say an inference feels analytically obvious to someone, iff they feel brutely entitled to make the inference, without having to give any justification for it beyond, perhaps, the claim above, that the truth of S is 'just part of what [some relevant word in S] the word means'. Finally, I'll say a statement X feels analytic for S, if X can

be derived from premises that feel analytically obvious, via inferences that feel analytically obvious.

Now, I'm going to claim that people do indeed, have prima facie warrant to assert and believe whatever feels analytically obvious to them in this way, and derive whatever consequences feel analytically obvious to them, but that this warrant can be easily defeated in various ways.

I take it that that this proposal fits with any plausible internalist constraints about justification supervening on experience. We are after all, saying that whether or not someone has justification depends on they have a certain kind of (intellectual) experience, of feeling that the relevant statement/inference is obvious. Also, adopting this story seems to remove the need for any story about how "concept inspection" works. People just get trained in the use of a language, and the result of that training is to make them have a certain phenomenological feeling (of obviousness) and a certain disposition (to assert a sentence, without waiting for any further justification). There's nothing philosophically mysterious about that.

The really interesting worry comes up, when we ask about the reliability of the process of making these inferences - inferences which I am claiming are default warranted. Why should there be any match between what feels analytically obvious to you,and what's actually true? Intuitively, one expects that there should be some such connection. Otherwise, it would seem like we are being epistemically irresponsible in trusting these intuitions, or in taking someone's claim that the truth of 'murder is wrong' is 'just part of what they mean by the word' as any kind of evidence to the effect that this sentence really does express a truth in their idiolect.

But, why should our feelings of analytic obviousness reflect objective facts about which propositions are actually true at all? Certainly, the proposition that

bachelors are unmarried doesn't exert some kind of magical causal influence on me, to get me to find this proposition obvious. Nor would this proposition come down and kick me if I were (per impossible, perhaps) to start to find its negation obvious. Given all this, what can explain the reliability which we can't help but attribute to our judgements of analytic obviousness?

This is (I think) the real heart of the puzzle of a priori knowledge in general, and the epistemology of the analytic in particular. Here's what I want to suggest.

3 Analyticity and Reliability

Like Bogossian, we can appeal to meta-semantic facts, about how our use of a word helps determine its meaning. But, rather than saying that the analytic sentences are a class of sentences which a) are accepted by everyone who counts as knowing the words in that sentence, and b) are bound to express a truth, if the words in that language are meaningful, we take a less demanding, Davidsonian view of the relationship between individual use and meaning. In order to count as meaning the same thing as everyone else by the word "vixen", there only needs to be a general match between how you use the word and how others do. And, when you feel that a sentence is analytically obvious (as in the Sorieties case above), this doesn't ensure that if the word in the sentence are to mean what they do, this sentence must be true. Rather, via the principle of charity, there's a *correlation* between the sentences which an individual is accepts, and those which express truths.

Furthermore, (and this is one of the novelties of my proposal, so wake up if you were dozing though the paragraph above!) insofar as the the principle of charity requires us to maximize a sum of things which includes epistemic rationality, to the extent that someone feels very strongly inclined to accept S, (almost) whatever other information comes in, interpretive charity leads us to

make this sentence S come out to have a sense which necessarily determines truth conditions for itself, in such a way that it comes out asserting a truth.

So, the sentences which feel analytically obvious for a given subject are especially likely to express truths, even relative to other sentences which they merely accept. And ditto for the inferences that feel analytically obvious to the subject, and hence for any conclusions that are arrived at by applying the one to the other. Thus we can back up the previous section's hyper-internalist claim that sentences which feel analytically obvious to a subject, are prima facie warranted for him (I mean, you can't do better than reason from premises which feel obviously true, via inference methods which feel obviously justified), with the externalist fact that such sentences are, in fact, particularly likely to express truths in his language!

However, we aren't yet done, because we still have the worry about 'tonk', and how we manage to avoid accepting inconsistent statements as analytic truths - or at least to do this often enough that the process of believing whatever feels analytically obvious to you isn't wildly unreliable. However charitable your Davidsonian interpreter is, he can't do much for someone who is disposed to make the inferences characteristic of 'tonk'! Here's where we bring in a second ingredient - causal (though this is not to say empirical) interaction with the world. And (as it happens) here's where we also get a nice explanation for how analytic truths could be concretely helpful in building bridges, and predicting the behavior of computers or whatnot.

Analytic-feeling reasoning is 'plugged in' to our practical decisions and behavior in the world, in the sense that going through chains of analytically-obvious-feeling reasoning can have a systematic effect on what actions they perform. If you stop someone who is playing a strategy game, or designing a bridge mid-reasoning, and give them a fake memory of what sentences they pre-

viously arrived at (or, if you want to economize, just sneakily erase and rewrite their notes on paper), this is likely to change what they will do, generally in a way that has a bad results for their overall score. Think of these connections as the way that a subject is inclined to use their analytic-feeling reasoning.

Now, note that given this, the pattern of inferences characteristic of 'tonk' is poisonous to the success of any of these projects. Were you to accept the introduction and elimination rules for the word 'tonk', (and to accept any other one sentence in your language), you could easily be prompted to accept any other sentence, and hence (presumably) take the actions which would be appropriate for that sentence. If tonk inferences came to seem obvious to you (and kept seeming obvious to you after the first few times that you derived that the sky was pink, or crocodiles were pacifists) the practical consequences would be dire. Similarly, if you were to accept any combination of syntactically inconsistent claims, together with the usual ex nihilo quod libit of classical logic.

Thus, it's fortunate for us, (but not surprising) that nature hasn't made us inclined to persevere in the face of logical explosion of apparent analytic truths. As we see in the case of the sorieties, when faced with unexpected consequences of apparently analytic reasoning, which (when combined with our usual methods of application, and the rest of our beliefs) leads to conflict with experience, we are perfectly willing to revise our beliefs. Similarly when certain deeply entrenched applications of a priori reasoning fail to match with suitable experience (e.g. a priori reasoning about the structure space pre-einstein fails to match with experiments with light, or the fallacious reasoning about probability which says you shouldn't switch doors in the monty haul problem fails to match with the results of millions of runs of a computer simulation) we are willing to revise our beliefs. So, there's a sense in which Quine was right, about the revisability of apparently a priori obvious truths, in response to recalcitrant

experience.

4 Quinean mechanisms without Quinean baggage

But, there's also an important sense in which Quine was wrong, and we should also note that this theory doesn't commit us to any of the unattractive epistemic and scientific consequences attached to his theory. For, note that saying that experience causally prompts revision of those patterns of analytic feeling reasoning which are beyond Davidsonian charity, does not commit one to saying that experience justifies the resulting beliefs. On the view advocated here, one has antecedent warrant for believing whatever feels analytically obvious, and all recalcitrant experience can do is defeat this warrant. And, indeed, this seems a much more natural thing to say, than the Quinean conclusion that experience figures in the justification of these beliefs - when we consider the kind of encounters with experience that can prompt revision. Think about Frege's rejection of Basic Law 5. This was clearly causally prompted by experience; if he had received Russell's letter a day later, he would have believed Basic Law 5 a day longer. Before seeing Russell's letter, he would have predicted that he was good at recognizing inscriptions of proofs in his formal system, and his system was consistent, so he would never see what looks like a formal proof of inconsistency in his system, then he had the surprising experience of seeing just that, and this causally prompted him to revise. Nonetheless, he certainly would not have said that the experience of seeing the letter on a piece of paper in front of him, was what justified the change in his theory. Rather, he would have said that he was unjustified all along in accepting that reasoning. And the same thing would seem to apply to the other large-scale revisions of apparently analytically

obvious claims

Thus, what emerges is a distinctively un-Quinean picture of how these revisions work. Revision to statements which are analytically-obvious feeling, is like ordinary scientific revision, with Stockholm Syndrome. In both cases, recalcitrant experience causally prompts revision But, in the scientific case, we often say that our initial non-experience matching beliefs were justified (though false). Whereas, when the sentences in question were ones that felt analytically obvious to us, we say that we should have known all along, we should never have accepted these sentences in the first place!

Also, note that the kind of applications which we are confident enough of, that they might motivate revision of apparently analytic feeling claims, are quite limited. We expect arithmetical facts about sums to match up with logical facts about the number of F-or-Gs when there are n Fs and m Gs, and for these facts to match up with the results of various kinds of counting procedures. But it would take a very stealthy, simultaneous, change in the results of counting of all kinds, to have a chance of getting us to revise way we calculate sums. So, its not surprising that we could have come to accept principles of analytic feeling reasoning which correctly track certain of these facts about how many fruit 2 apples and 2 oranges make in the mists of pre-history.

This is significant, because it gives a nice explanation for why these revisions of apparent analyticities should be so relatively infrequent, in comparison to scientific revisions. Most applications of math, say in physics, are well described by the positivist idea, that we see some physical phenomenon, and then empirically determine what (if any) bridge laws, connecting some portion of mathematics to the this phenomenon, to accept. Such applications fail all the time, and all this leads us to do is change our bridge laws. In contrast, a few core applications, like the application of arithmetic to the claim that when there are 2 apples and

2 oranges there are 4 fruit - and thence (in combination with our other beliefs) to predictions about the empirical results of counting procedures - don't fit this model at all well. If facts about arithmetic failed to fit with apparent logical facts about how many fruit n apples and m oranges make, who knows what we would do! We certainly wouldn't just cheerfully revise our bridge laws, or change our logic. With regard to these limited applications (e.g. of arithmetic to logic) it's plausible that causal interaction could have produced a correct fit between these two theories long ago. So it's not surprising that we seldom revise our arithmetical beliefs about sums to match newly arrived at logical truths, (or to make any other such special core application work) for the same reason that it's not surprising that we don't often revise our basic biological theories about whether rocks are edible, or the life-cycle of cows. These subjects aren't too hard to get a theory about which gets things right (and hence matches all future experience). At some point in prehistory, we did get a theory which got things right, and now we find no occasion to tamper with what's already a success.

5 Externalist Variant

It's an admittedly odd consequence of the above proposal for fixing up Bogosian, that it turns out to be possible to have prima facie warrant for almost any proposition. For, imagine a person who finds all the kinds of propositions about arithmetic that we do analytically obvious, but also some other proposition - say the claim that there are 9 planets, equally epistemically obvious. Plausibly (if such deviance is rare enough), a person like this is best interpreted as meaning the same things as ordinary english speakers do by their numerical vocabulary. And the theory here presented would count such a person as having just as much prima facie warrant for believing this, as they have for believing any of

the other claims, e.g. when there are 9 planets, and 3 moons, there are at least 12 celestial bodies.

Even worse, this kind of liberality about prima facie warrant threatens to destroy major epistemic distinctions. For example, surely we want to say that the pair of propositions P1 'There are two apples in the bowl' P2 'There are two oranges in the bowl' justifies the conclusion C 'There are at least 4 fruit in the bowl', whereas the single proposition P1, on its own, does not justify C on its own. But, surely it's psychologically possible that both of these inferences could feel equally compelling to a given subject, and (as Williamon emphasized) just one deviant judgment doesn't suffice to change the reference of someone's words.

Now, one thing to note is that often that the prima facie warrant for accepting such deviant judgements will not translate into justification-full-stop for believing that P, because the speaker's other, non-deviant judgments would conflict with them. In some cases the proposition itself will cohere (as above). In other cases, the sentence itself might perfectly cohere with the rest of your beliefs, but other propositions which go along with finding something analytically obvious (e.g. when you feel that P is analytically obvious, you often feel that P expresses a necessary truth) might not. So, for example, if I deviantly came to feel that the proposition 'there are buildings' is analytically obvious, my warrant for believing this might be defeated by my other beliefs to the effect that a world without buildings is metaphysically possible, which put pressure on the former belief that there are buildings indirectly, via its association with the believe that it's a necessary truth that there are buildings.

However, Williamson's example of philosophers' disagreement over whether all vixens are vixens, makes it plausible that some deviant intuitions can cohere just as well with our general intuitions as many non-deviant intuitions which

we intuitively want to say are justified.

The internalist view I have advocated above, would simply accept that people with such deviant but coherent feelings of analytic obviousness are justified (though likely wrong) in believing what they do. You have default warrant for believing what feels analytically obvious. Most of what feels obvious will be correct, and most of your warrant for believing what's incorrect will be defeated by your acceptance of other correct, and conflicting beliefs (and inference method). But, should some such prima facie warrant slip through undefeated, you can indeed be a priori justified in believing falsehoods, or in making inferences that are not truth-preserving.

Here, my internalist is threatened with having to admit that, what seems like a completely obvious truth 'thinking there are 2 apples in the basket doesn't justify thinking there are 4 fruit in the basket', might actually be false - depending on how all kinds of meta-semantic subtleties (how deviant can someone's feelings of analytic obviousness could be, while they would still count as talking about numbers and fruit?) work out. However, there is a perfectly viable response - to simply reject the strong the connection between propositional justification and person justification, which is being used here. Must the assumption 'there are 2 apples in the basket, therefore there are 4 fruit' count as justified, simply because someone with suitably minor deviant intuitions could be a priori justified in making it?[5]

Note also, that these worries about about justification, don't come from the account I have proposed for how get access to analytic truths. Rather, they are generated immediately by the claim that propositions which feel equally analytically obvious must be equally prima facie warranted, plus the Williamsonian point that people can have deviant judgments in almost any area, but while still

[5]Of course, this brings up a significant open question - what IS the relationship between individual justification in accepting proposition, and relationships of justification between sets of propositions? - which I won't try to answer here.

meaning the same thing as we do by their words.

Thus, if you don't accept the internalist principle just mentioned, you can simply replace the claim that one is justified in believing everything that feels analytically obvious, with something more restrictive. An externalist version of my account could keep exactly the same naturalistic account of how our feelings of analytic obviousness came to be reliable, but say that one has default warrant for believing those specially-obvious-feeling propositions which are both true and analytic, in the philosophical-presumption-less sense of analyticity, argued for by X and Y, and alluded to at the beginning of this article.

Or, if you want a more principled distinction, you might say that we are only justified in accepting analytically-obvious feeling sentences, whose Stalnacker-diagonals are true at all sufficiently close possible worlds. (Recall that the Stalnacker-diagonal of an utterance S is true at a given world w iff, S would express a truth at W). This fits nicely with the idea, currently rising in popularity, that we have default warrant to assume certain the falsehood of certain contingent scientific statements, like 'bread will appear to nourish people up until next tuesday, at which point it will start poisoning people, with no other apparent changes' or 'the world came into being with massive apparent archeological and memory traces as if of being much older' will cash out 'in all sufficiently close possible worlds' in the ordinary way.

6 Conclusion

In this paper, I have proposed a way of fixing up Bogossian's account of analyticity, which addresses criticisms in the literature, by toning down - though not abolishing- the extent to which analytic claims are supposed to have a distinctive epistemic status. The account proposed appeals to purely naturalistic mechanisms of the kind Quine and Mill propose, together with popular notions

of the relationship between use and meaning, and interpretive charity, to explain how we could have gotten into a position where saying what feels analytically obvious reliably leads us to say what's true. (This naturalistic story can then be supplemented with either an internalist or an externalist doctrine, with regard to when beliefs acquired in this way are to count as justified). Thus, I think, it has all the benefits which positivists had traditionally hoped to obtain from claims about analyticity (you can explain how someone knows something a priori without positing any kind of occult faculty), while avoiding the myriad problems that have been pointed out for such accounts, by Bogossian and his opponents.