

Iffy Knowledge and Iffy Existence

December 9, 2021

Themes From Yablo Conference
Collège de France

Seth Yalcin
yalcin@berkeley.edu

1. *Yablo on negative existentials*

Explain, Millian: How are these true, and what are they about?

(1) Holmes doesn't exist.

(2) Vulcan doesn't exist.

Kripke [2011]: "I wish I knew exactly what to say" (71). Maybe: no propositions are expressed, but these are yet somehow ways of denying that there exist true propositions of certain forms.

Stalnaker [1977, 1978]: These express true propositions. There isn't a big semantic problem getting that result. 'Holmes' doesn't refer; *a fortiori* its referent is not in the extension of 'exists' (at *any* world); so it's (necessarily) true that it's not so that Holmes exists. (1) is tantamount to: nothing there is is Holmes. Denying existence is not the same as ascribing a property of non-existence; there is no property of nonexistence.

Yablo [2020]: Good—it's right that (1) is in a sense a claim about EVERYTHING.¹ This begins to give a handle on why we find *Holmes exists* false, rather than broken: it mischaracterizes US. But we have a lingering problem about the difference in **cognitive significance** between (1) and (2):

To learn that Holmes does not exist gives us one sort of information about EVERYTHING. To learn that Vulcan does not exist tells us something quite different. *Holmes exists* thus apparently misdescribes EVERYTHING in one way, while *Vulcan exists* misdescribes it in another. (88)

Yablo observes that there seem to be distinct bodies of nontrivial knowledge frameable with the help of these two empty names:

You might think it a priori, for instance, that Holmes, if he exists, is not a black and white dog born in 2005. (92)

I appear to know that if Holmes exists, he lived in the 19th century, and hence that he is not one of us, since none of us was alive back then. (92)

I appear to know that if Vulcan exists, then there are planets closer to the Sun than Mercury. (92)

¹ "To the extent that we have an analysis of *n does not exist*, it is the one given long ago by Stalnaker: EVERYTHING has $\lambda x \neg(x = n)$. It is the same analysis whether we are talking about Neptune or Vulcan." (94)

Yablo introduces the notion of an indicative implication:

n exists **indicatively implies** *Q* relative to knowledge state *i* just in case *i* supports *If n exists, then Q*.

Idea: "One learns *n does not exist* by learning that some such indicative implication is false" (93). More generally:

... the cognitive cash value of *n does not exist* lies in its indicative implications. These will typically be different for distinct empty names. (93)

E.g., (2) conveys that everything has the property:

λx if Vulcan exists, then $x \neq \text{Vulcan}$ ²

At one point, Yablo writes:

"But what is your semantics for indicative conditionals?" I am tired of ducking this question... (93)

² What makes the information distinctive is that the properties militating against an identification of *o* with Vulcan, if Vulcan exists, are nothing like the properties militating against an identification with Holmes, if Holmes exists. (94)

This story leans in important part on states of what I call **iffy knowledge**—states described via knowledge ascriptions embedding indicative (epistemic) conditionals (*A knows that if P, then Q*).

My question: How do these ascriptions in general work—what do they say? Yablo's discussion focuses attention in particular on cases where:

A knows that $\neg P$

A knows that if *P*, then *Q*

For me these raise an immediate question: if *A*'s knowledge state rules out *P*, what could we mean by *A knows that if P, then Q*, if the embedded *if* is epistemic, not counterfactual?

I will make a suggestion, but I want to come at it by first considering some puzzles about these ascriptions. *Inter alia* the puzzles nudge in the Ramseyan direction Yablo favors.

2. Puzzles of iffy knowledge

2.1 Cafe

My two favorite cafes are across the street from one another. I want to take you to one of them but don't care which, so I pick one at random and off we go. Sitting in the cafe, I can say (3) but not (4):

(3) If we weren't at this cafe, we'd be at the one across the street.

(4) ??If we're not at this cafe, we're at the one across the street.

Now Bill glances into our cafe but fails to spot us. He then goes looking for us in the cafe across the street. I might explain as follows: "I told him we'd be in this cafe or that one, so..."

(5) Bill knows that we're either at this cafe or at the one across the street.

I also could have said:

(6) Bill knows that if we're not at this cafe, we're at the one across the street.

But this is puzzling:

- i. **Failure of entailment?** Apparently, (6) \neq (4). We can take (6) for granted without being under any rational pressure to accept (4).
- ii. **Failure of factivity?** (6) doesn't seem to presuppose the conditional it embeds. In general, it's hard to understand what it would be to presuppose this conditional.

Philosophers often use *factive* to talk about a category of attitudes. Linguists usually use it to pick out a category of presupposition triggers. I'm using it in the latter way.

2.2 Marbles

We randomly put a marble under one of three cups—A, B, and C. It ends up under cup A. We make Jane guess where it is, telling her it is under one of the cups. She guesses C. We say "Nope, it's not under C. It's either under A or B. Guess again!" We can say:

Thanks here to discussion with Kai von Fintel.

(7) Jane knows that if it's not under A, it's under B.

But we wouldn't be disposed to say this is true:

(8) If it's not under A, it's under B.

—though, since it's under A, I think we can agree:

(9) It's under A or B.

2.3 Epistemic Sly Pete

We can turn this now into something like a Sly Pete-style case.³ Let Carl play the game too, in isolation from Jane. The marble is still under A. We make Carl guess. He picks B. "Nope, it's not under B. It's either under A or C. Guess again!"

³ Gibbard [1981]. See also Stalnaker [2014], Perl [forthcoming].

(10) Carl knows that if it's not under A, it's under C.

Perhaps surprisingly, speakers judge the following to be an acceptable description of the situation:

(11) Jane knows that if it's not under A, it's under B, and Carl knows that if it's not under A, it's under C.

Like Yablo, we're talking about cases where it is known or assumed that P is false, and yet someone is said to know if P , then Q . But I am keying into these points:

- We can accept *A knows that if P, then Q* without accepting *if P, then Q*.⁴ ${}^4 K_A(P \rightarrow Q) \neq P \rightarrow Q$
- We can accept *A knows that if P, then Q* and *B knows that if P, then $\neg Q$* .⁵ ${}^5 K_A(P \rightarrow Q) \wedge K_B(P \rightarrow \neg Q) \neq \perp$
- It can be true that *A knows B knows that if P, then Q*, even when it would be wrong to say that *A knows that if P, then Q*.⁶ ${}^6 K_A K_B(P \rightarrow Q) \neq K_A(P \rightarrow Q)$

This draws out a kind of relativity in iffy knowledge.

These data are not super easy to understand on the hypothesis that iffy knowledge ascriptions relate their subjects to conditional propositions. I'll cut to a better idea.

3. A basic Ramseyan picture of iffy knowledge

(10) Carl knows that if it's not under A, it's under C.

Represent Carl's epistemic state as a set of worlds. A candidate procedure for interpreting (10), along the Ramseyan lines Yablo favors:

Take Carl's epistemic state, and temporarily add to it the information that it's not under A. Ask: Does the resulting state of information nonvacuously entail that it's under C? If so, then (10) is true.

Ramsey [1931]. I'm pursuing the essentially dynamic or local-context-based semantic implementation of the idea as in, e.g., Gillies [2004], Yalcin [2007].

Here we consider Carl's epistemic state as 'temporarily updated' by the antecedent. This picture suggests what we want is something like:

Basic Ramsey truth-condition for iffy knowledge.

(10) is true just in case there are worlds where the marble is not under A among Carl's epistemic alternatives, and all of these are worlds where it is under C.

This is the sort of picture one naturally gets in dynamic/local context-based approaches to modals, conditionals, and attitudes.

Pair this with a matching picture of what it is to accept an indicative conditional in conversation:

Cf. Stalnaker [1975], Heim [1983], Gillies [2004], etc.

Conversational acceptance condition for indicatives.

An indicative conditional is accepted/presupposed relative to the context set of a conversation just in case there are open antecedent worlds in the context set, and all of these are worlds where the consequent is true.

The *context set* of a conversation is the set of possibilities compatible with what is being presupposed by the interlocutors.

This package can predict the entailment failures noted. E.g., we can take (10) for granted in conversation without also taking for granted the conditional it embeds.

4. Problem: indicatives are not mighty

The story just told kept insisting that if a state of information i accepts $\phi \rightarrow \psi$, then i must leave ϕ -worlds open.⁷ Call this **antecedent compatibility**. It's motivated by the thought that we don't want:

Triviality 1. $\neg\phi \models \phi \rightarrow \psi$

Inter alia this would trivialize the sort of iffy knowledge Yablo relies upon to distinguish the cognitive significance of (1) and (2). Given:

(12) Steve knows that Holmes doesn't exist.

We don't want to get close to deriving, e.g.,

(13) Steve knows that if Holmes exists, there are planets closer to the Sun than Mercury.

The basic Ramseyan story I've sketched does block this. But it leads to a different sort of trivialization, owing to its support for:

Triviality 2. $\neg\phi, \phi \rightarrow \psi \models \perp$

Triviality 2 would be supported by **Mighty indicatives**:

Mighty indicatives. $\phi \rightarrow \psi \models \diamond\phi$

—which is assumed on many theories (including Yalcin [2007]). If this is right:

Epistemic contradiction. $\neg\phi, \diamond\phi \models \perp$

Then **Mighty indicatives** implies **Triviality 2**.

But Ciardelli [2020] persuades me that **Mighty indicatives** is wrong. Consider e.g.:

(14) A: Shakespeare wrote *Hamlet*.

B: Agreed. But if he didn't, did someone else?

A: Well, obviously. But I'm sure it was Shakespeare.

Arguably it's common ground here that Shakespeare wrote *Hamlet*, and that if he didn't, someone else did. But it's not common ground that it might be someone else who wrote it.⁸

Ciardelli does not directly discuss knowledge ascription, but the failure of **Mighty indicatives** is if anything *more* obvious in epistemic contexts, and particularly so in connection with Yablo's kind of examples. These are both true:

⁷ See Stalnaker [1975], von Fintel [1998], Yalcin [2007], Gillies [2009], Starr [2014], Willer [2014].

⁸ Another example from Ciardelli: "If we win this match, we might win the World Cup. But that's not gonna happen."

- (15) Steve knows that Holmes doesn't exist.
 (16) Steve knows that if Holmes exists, he's not one of us.

But we don't we want the latter to make for an easy step to:

- (17) Steve knows that Holmes might exist.

5. *The Ramsey picture of iffy knowledge, graded*

Idea: it must be that a state of knowledge fixes not just a set of worlds, but something more structured, like a Lewisian system of spheres—a set of worlds plus some ordering.⁹

We could say: there's the elite "best" epistemic alternatives, which settle your outright factual knowledge, and which settle what you know *might* be the case. But the alternatives to this elite class are not all on epistemic par. And iffy knowledge ascriptions can be ways of expressing things about how things are with an agent's less-than-elite epistemic alternatives.

This is just to extend Ciardelli's proposal about conversational states to knowledge states. So here's an adjusted picture, illustrating with:

- (18) Steve knows that if Shakespeare wrote *Hamlet*, someone else did.

Graded Ramsey truth-condition for iffy knowledge.

(18) is true just in case when we update Steve's knowledge state with the information that Shakespeare wrote *Hamlet*—when we restrict attention to the (as it happens, non-best) epistemic alternatives where that is so—the best of *these* are worlds where someone else did.

Now we finally have a basic picture of how nontrivial iffy knowledge that if P , then Q is possible, even when $\neg P$ is known. Much remains to be explored about the epistemology of this iffy knowledge.¹⁰

Alas, on the semantics side of things, the Millian of course still has a serious problem with (16): on that view its antecedent looks either impossible, or not propositional at all. This threatens to trivialize the robust iffy knowledge Yablo points to. As he says:

Names have got to make a non-referential contribution in indicative conditionals, or else the Ramsey test is completely confused. Though not a semantic contribution if Mill is right, it is a contribution nevertheless. (93)

It remains to work out that non-referential contribution. Maybe it will help to have seen how iffy possibilities might not even be epistemically possible.

⁹ E.g.: A graded knowledge state is a pair $s = \langle D_s, \leq_s \rangle$ where $D_s \subseteq W$ and \leq_s is a total pre-ordering over D_s . $\text{Best}(s)$ is the set of \leq_s -minimal elements in D_s . See Grove [1988], Lewis [1973], Ciardelli [2020].

¹⁰ The project is continuous with Moss [2018].

References

- Ivano Ciardelli. Indicative conditionals and graded information. *Journal of Philosophical Logic*, 49(3):509–549, 2020.
- Kai von Fintel. The presupposition of subjunctive conditionals. *The Interpretive Tract*, 25:29–44, 1998.
- Allan Gibbard. Two recent theories of conditionals. In W. Harper, R. Stalnaker, and G. Pearce, editors, *Ifs: Conditionals, belief, decision, chance, and time*, pages 211–47. D. Reidel, 1981.
- Anthony Gillies. Epistemic conditionals and conditional epistemics. *Noûs*, 38(4):585–616, 2004.
- Anthony S Gillies. On truth-conditions for if (but not quite only if). *Philosophical Review*, 118(3):325–349, 2009.
- Adam Grove. Two modellings for theory change. *Journal of Philosophical Logic*, pages 157–170, 1988.
- Irene Heim. On the projection problem for presuppositions. In Michael Barlow, Daniel P. Flickinger, and Michael T. Wescoat, editors, *Proceedings, Second West Coast Conference on Formal Linguistics*, pages 114–25, Stanford, California, 1983. Stanford Linguistics Association.
- Saul Kripke. Vacuous names and fictional entities. In *Philosophical Troubles: Collected Papers*, pages 52–74. Oxford University Press, 2011.
- David K. Lewis. *Counterfactuals*. Blackwell, Malden, 1973.
- Sarah Moss. *Probabilistic Knowledge*. Oxford University Press, 2018.
- Caleb Perl. How to outfox Sly Pete. In William Dunaway and David Plunkett, editors, *Meaning, Decision, and Norms: Themes from the Work of Allan Gibbard*. Maize Books, University of Michigan, forthcoming.
- Frank Ramsey. General propositions and causality. In *The Foundations of Mathematics and Other Logical Essays*. Routledge and Kegan Paul, London, 1931.
- Robert Stalnaker. Indicative conditionals. *Philosophia*, 5(3):269–286, 1975.
- Robert Stalnaker. Complex predicates. *The Monist*, 60:327–339, 1977.
- Robert Stalnaker. Assertion. In Peter Cole, editor, *Syntax and Semantics 9: Pragmatics*, pages 315–332. Academic Press, 1978.
- Robert Stalnaker. *Context*. Oxford University Press, Oxford, 2014.
- William B Starr. A uniform theory of conditionals. *Journal of Philosophical Logic*, 43(6):1019–1064, 2014.
- Malte Willer. Dynamic thoughts on ifs and oughts. *Philosophers' Imprint*, 14(28):1–30, 2014.
- Stephen Yablo. Nonexistence and aboutness: The bandersnatches of dubuque. *Crítica. Revista Hispanoamericana de Filosofía*, 52(154):77–100, 2020.
- Seth Yalcin. Epistemic modals. *Mind*, 116(464):983–1026, 2007.