

Deconstructing the Adoption Problem; or, the Possibility of Logical Theory Choice

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Abstract:

This paper seeks to formulate a novel account of the Adoption Problem in the philosophy of logic, which holds that “certain basic logical principles cannot be adopted because, if a subject already infers with them, no adoption is needed, and if the subject does not infer in accordance with them, no adoption is possible” (Padró 2015, 41–42). I focus on the most prominent argument in favour of this thesis, namely the “Harry Hypothetical” presented by Padró (2015, 2020).

In section 2, I introduce the Adoption Problem in the context of Saul Kripke’s (2022) arguments against logical theory choice, and I present the Harry Hypothetical alongside its common interpretations. In Section 3, I provide a generalization of the Harry Hypothetical, and show exactly how the result of any such hypothetical will depend on one’s theory of reasoning—including, crucially, what one means by “logical inference.” In Section 4, I use the observations from Section 3 to provide a new interpretation of Padró’s argument: I show that there is a fundamental incompatibility between the Inferential Cognitivist account of inference and her account of rational adoption, and that *this incompatibility* is what makes adoption impossible in the Harry Hypothetical. In Section 5, I conclude that, despite its divergence from Padró’s original intentions, this interpretation of the Harry Hypothetical teaches us an important lesson about logical theory choice, namely the epistemological fundamentality of one’s reasoning practice.

1: Introduction

A central debate within contemporary philosophy of logic concerns whether logic is, in some metaphysical or epistemological sense, “exceptional” (Hjortland & Martin, 2022). In the epistemological realm, the question applies to the ways that logical principles and theories are known, justified, or used in reasoning—and, significantly, whether such principles or theories can be “rationally chosen.” *Choosing a logical theory* here is not meant as a mathematical problem—we’re not picking our favourite formal system with which to fiddle—but rather a normative one: our chosen logical theory would *describe, govern*, or relate in some other way to our reasoning practice¹. Certainly, it would be an exceptional attribute of logical theories and principles, compared to scientific ones, if choosing to adopt or abandon them were not a rational possibility.

Logical abductivists, such as Graham Priest (2015; 2020) and Gillian Russell (2015), and logical predictivists, such as Ben Martin and Ole Hjortland (2021), believe in the possibility of logical theory choice—by abductive or predictive reasoning, respectively. Other philosophers of logic, however, resist this possibility. Saul Kripke (2022), for example, believes that which inferences one “sees” as valid depends on one’s “intuitive” reasoning (20), which is epistemologically fundamental. Logic is therefore not a matter of rational choice; rather, logic *creates the possibility* of rational choice.

At its core, this debate—between the logical choosers (LCs), let’s call them, and the logical non-choosers (LNCs)—is grounded in philosophers’ understanding of the relationship between inference and logic. Both sides agree that reasoning and logic are intimately linked; some inferences, if not all, are *logical* inferences, in that they bear some important relationship to the basic principles of one’s logical theory. When one infers from *The streets are wet* and *If the streets are wet, then it’s raining* to *It’s raining*, one is making an inference that bears *some* (as yet unspecified) relationship to Modus Ponens (MP), and it is in virtue of this relationship that it can be described as a logical inference. Typically, in this case, we say that one has “inferred in accordance with” MP.

Where LCs and LNCs don't agree is on the epistemological status of logical inferences. If all reasoning necessarily contains logical reasoning—if the basic inferences one must perform in order to be considered a “reasoner” include logical inferences in the sense just described—then rationally choosing a logic requires using logic to justify logic, and we are stuck in vicious circularity. Kripke (2022) sees things in roughly this way, and he concludes that, because logical inference is fundamental, logical theory choice is impossible. LCs, on the other hand, typically argue for the possibility of choice by separating “basic” reasoning from logical reasoning. Russell (2015) argues for the epistemological fundamentality of abductivist principles of theory choice, which allow one to reason about logic without using logic. On the standard LC picture, logical reasoning takes place only after a logical theory has been chosen via more basic (abductivist or predictivist) reasoning.

Understood in this way, the divide between LCs and LNCs can be captured at least in part by their respective answers to a question about reasoning: Can someone infer without inferring *logically*? If yes, then logical theory choice may be possible; if not, then circularity seems to get in the way.

Recent work by Romina Padró has given this issue concrete shape in the form of a problem about logical adoption. The Adoption Problem (AP) (Padró 2015, 2022) holds that “certain basic logical principles cannot be adopted because, if a subject already infers with them, no adoption is needed, and if the subject does not infer in accordance with them, no adoption is possible” (2015, 41–42). The first part of the AP is uncontroversial: if someone already infers in accordance with a logical principle, then they do not need to adopt it². The second part, however, is anathema to LCs: if adoption of certain logical principles were impossible, then a certain kind of logical theory choice would be impossible, too. LCs therefore typically maintain that second part of the Adoption Problem is wrong (e.g., Williamson 2020; forthcoming).

In support of the AP, Padró (2015; 2022) presents a hypothetical about someone who tries to “adopt” the principle of Universal Instantiation (UI), but finds it impossible to do so; she concludes

that, given certain standard assumptions about inference, “basic” logical principles such as UI and MP can’t be rationally chosen. The resulting debate among philosophers has centered around analysis of Padró’s Harry Hypothetical, as I call it, and the division of roughly two camps: those who argue for the possibility of logical adoption and therefore aim to identify the flaw in Padró’s reasoning (Besson 2019; Besson & Hattiangadi forthcoming; Devitt & Roberts 2022; Sultanescu 2021; Williamson 2020) and those who argue against such a possibility and therefore aim to understand the nature and consequences of logic’s unadoptability (Boghossian & Wright 2022; Buacar 2021; Cohnitz & Nicolai unpublished; Finn 2019).

Anyone interested in arguing for or against logical theory choice is thus tasked with explaining the source of the impossibility in Padró’s Harry Hypothetical. If adoption is possible, where in the hypothetical did Padró go wrong? And if it is in fact impossible, what about inference makes it so? In this paper, I address these two questions in turn—first, by pointing to a unacknowledged flaw in Padró’s Harry Hypothetical, and second, by explaining how her argument can nevertheless be used against certain accounts of logical theory choice.

Padró sees her argument as a *reductio* against Inferential Cognitivism, the theory (widely accepted in philosophical circles) that logical inference is made possible by the reasoner’s acceptance of logical principles. She concludes from Harry’s failed adoption of UI that Inferential Cognitivism cannot be correct, and that logical inference must be governed by something like Kripke’s “intuition”, rather than theoretical choice or acceptance. In other words, logical theory cannot be the sole basis for logical practice. I will argue that this conclusion is for the most part correct, but that the way Padró gets there is flawed. On my account, the reason that Harry’s adoption fails is not the exceptional unadoptability of basic logical principles, but rather the unadoptability of *any* reasoning principle. On my view, Inferential Cognitivism is an incorrect account not just of logical inference, but of *all* inference: no inference of any kind, logical or not, can be adopted by rational choice.

Padró's Harry Hypothetical therefore shows that, when it comes to reasoning, rational theory can never be the sole basis for rational practice. This takeaway marries some of the insights of the LCs with those of the LNCs: although some reasoning may be epistemically "prior" to logical reasoning, it is not (abductivist or predictivist) reasoning about theory choice; it is reasoning *tout court*.

In this paper, I will come to these conclusions first by deconstructing the Adoption Problem into its basic elements, and then by reconstructing Padró's argument piece by piece, thus showing how everything fits together. In §2, I present Kripke's arguments against logical theory choice and Padró's Harry Hypothetical alongside its common interpretations. In §3, I provide a generalization of the Harry Hypothetical, and show exactly how the result of any such hypothetical depends on one's theory of reasoning—including, crucially, what one means by "logical inference." The generalized version of the Harry Hypothetical, in my view, is not simply an argument against the possibility of adoption, but rather a dialectical tool: it exposes the incompatibility of certain accounts of inference and logical theory choice. As proof of concept, I show how existing disagreements about adoption boil down to disagreements about the nature of logical inference. This point serves as a foundation for the rest of the paper, because it unveils the importance of one's understanding of logical inference in determining one's view on logical adoption.

In §4, I provide a formal reconstruction of Padró's Harry Hypothetical. I then use the observations about logical inference from §3 to show that there is a fundamental and previously unacknowledged flaw in the Inferential Cognitivist model that she presents, and that this flaw is what makes adoption impossible for Inferential Cognitivists. In Section 5, I show how this conclusion can be understood in the context of debates about logical theory choice. I conclude that this interpretation of the Adoption Problem teaches us an important lesson, namely the epistemological fundamentality of one's reasoning practice.

2: The Adoption Problem in Context

Padró's Adoption Problem was inspired by an (unpublished) argument against logical theory choice made by Saul Kripke in the 1970s. In this section, I will outline Kripke's original ideas, which he recently revisited (Kripke 2022), and explain how they led to Padró's Harry Hypothetical against adoption. I will then give a brief overview of Padró's argument and its standard interpretations.

2.1: Historical Context

For decades, Kripke has criticized the idea that a thinker might "choose their logic." In the 1970s, his principal objection was directed toward Hilary Putnam (1969), who had suggested that we "adopt the heroic course of changing our logic" (222), from classical to quantum logic, as a response to recent advances in quantum mechanics. Kripke saw Lewis Carroll's (1895) dialogue between Achilles and the tortoise as providing the most important objection to this view: if someone cannot plainly see that X follows from Y, where X and Y stand in logical relation to one another, then making such a logical relation explicit cannot help them to "see" it. For Kripke, this demonstrated the impossibility of someone ever deciding to change the logical connections they recognize—and therefore of ever rationally changing their logic.

Like many LCs today, Putnam (1969) compared the possibility of logical theory choice to that of scientific theory choice. He claimed that logicians could rationally revise classical logic in the same way that mathematicians had rationally revised Euclidian geometry, when they had been convinced by empirical considerations to "throw intuition to the wind" (Kripke 2022, 6). Putnam's idea, as Kripke puts it, was that "once alternative logics are under consideration, we abandon any near intuitive preference for a particular system of logic" (6). We could then, say, adopt quantum logic instead of classical logic despite our intuitive acceptance of the distributive law. And we would be revising our logic in the same way we revise any other theory based on recalcitrant evidence.

Kripke (2022) still firmly rejects this view. Firstly, he objects to the conception of logical laws as propositions—as hypotheses that can be true or false, and from which one draws consequences.

We need logic in order to *draw* consequences (20); logic is a tool for performing valid inferences, not the content of true statements. Second, even if we bypass this first issue by understanding logic as codifying correct inferential behavior, not truths, it remains the case that we cannot reason about such behavior without simultaneously perpetuating it. Regardless of what we are reasoning about—geometry, chess, or logic—the tool we use to do so is reasoning (what Kripke calls “intuition” (20)), and so reasoning about reasoning is more problematic than any other exercise of the sort.

This, it seems to me, is the main lesson that LNCs have drawn from Kripke’s writing (Berger 2011). When it comes to revising mathematics or physics, Kripke seems to be saying, we change our theory first (perhaps based on empirical considerations), and our practice follows. But when it comes to logic, this order of explanation cannot hold; what we can debate, reason about, and revise rationally is our logical theory and mathematical models, *not* our logical practice. Logical reasoning cannot be changed by a purely rational process, since it essentially *constitutes* rationality.

It is in support of this argument that Kripke introduces the hypothetical that is the basis of Padró’s AP. “Let’s try to think of someone,” he proposes, “who somehow just doesn’t see that from a universal statement each instance follows.”

He is quite willing to accept my authority on these issues – at least, to try out or “adopt”, or use provisionally, any hypotheses that I give him. So, I say to him, ‘Consider the hypothesis that from each universal statement, each instance follows’. Now, before being told this, he believed me when I said that all ravens are black, but he was unable to infer that *this* raven, which is locked in a dark room where he can’t see it, is therefore black. He doesn’t see that this follows and that this is actually true. So, I say to him, ‘Oh, you don’t see that? Well, let me tell you, from every universal statement each instance follows’. He says, ‘Okay, yes. I believe you’. Now I say to him, “‘All ravens are black’ is a universal statement, and “‘This raven is

black” is an instance. Since all universal statements imply their instances, this particular universal statement, that all ravens are black, implies this particular instance’. He responds: ‘Well, hmm, I’m *not entirely sure*. I don’t really think that I’ve got to accept *that*’. (15)

This is the punchline: if someone does not already infer in accordance with UI, then “telling him that it was true would do him no good,” Kripke writes (15). Any reasoner trying to adopt a basic logical principle is faced with an epistemological problem: that, according to Kripke, reasoning about consequence presupposes logical reasoning. Thus, logical adoption (and so logical theory choice) is impossible.

2.2: The Harry Hypothetical

Padró (2015; 2022)’s Adoption Problem is inspired by Kripke’s raven scenario from above. For clarity, it is helpful to begin by distinguishing between the AP, below, and the Harry Hypothetical, which is one argument Padró provides in support of the AP.

Adoption Problem (AP): Certain basic logical principles cannot be rationally adopted because, if a subject can already infer in accordance with them, no adoption is needed, and if a subject cannot infer in accordance with them, no rational adoption is possible.³

Padró’s Harry Hypothetical is structurally similar to Kripke’s raven scenario. She writes about a boy named Harry, whom she describes as follows:

[Harry is] a ‘thinker’ with the following peculiarities: (1) He has never inferred an instance from a universal statement, and thus never made an inference that conforms to the UI pattern (and is not refraining from doing so); his inferential practise is otherwise unremarkable. (2) He

has no notion of the UI principle itself, no one has ever stated or written it for him, let alone has it occurred to him. (Padró 2022, 3)

Padró is interested in the possibility of Harry's rational adoption of UI based on the theory of Inferential Cognitivism (IC), which is the view that one's capacity to perform inferences in accordance with logical principles is determined by one's acceptance of those principles. She takes IC to be the implicit opponent in Kripke's writing about logical theory choice. Rational adoption, according to Padró's model of IC, is a "two-phase process" (3): first, Harry accepts UI, and second, Harry develops, *in virtue of his acceptance of UI*, a practise of inferring in accordance with UI. The "in virtue of" clause is meant to capture the kind of reasoning that is necessarily involved in an Inferential Cognitivist account of logical theory choice.

So we imagine that Padró asks Harry to adopt UI, and Harry says he is willing to try; she tells him that "All universal statements imply each of their instances," and he responds, "Fine... you seem to know a lot about this stuff. I'll accept your principle" (4). According to Padró's definition of rational adoption, above, this acceptance is sufficient for adoption to begin. *Because* Harry has accepted UI, he should now, when presented with a universal statement, infer one its instances.

To test whether this is actually the case, Padró tells him (with respect to the film *Madagascar*) that "All animals in *Madagascar* talk" and asks him to infer "Alex the lion talks." Since Harry did not previously infer in accordance with UI, this is an inference he could not previously perform. Now, however, his acceptance of UI should provide him with reason to believe that "Alex the lion talks" *does* follow from "All animals in *Madagascar* talk." As Padró puts it, the UI principle will "guide Harry's inferential acts" (7).

The problem is that in order for the UI principle to serve this guiding role, Harry needs to recognize its relationship to the statement "All animals in *Madagascar* talk"—he needs to recognize

that statement as a *universal* statement, i.e. a statement to which the principle “All universal statements imply each of their instances” applies. However, Padró writes, for Harry to recognize it as such is for Harry to perform a further UI inference, from “All universal statements imply each of their instances” to “*This* universal statement implies each of its instances.” This is where Harry gets stuck—just as he could not previously infer “Alex the lion talks” from “All animals in *Madagascar* talk,” he still cannot now generate the connection between the UI principle and the desired conclusion about Alex; he is stopped in his tracks at the first step, before UI has the chance to guide him toward any particular conclusion. Therefore, even after accepting UI, Harry is unable to perform inferences in accordance with UI.

Here is how Padró (2022) puts the point: “Harry, who has never performed UI inferences, would not benefit from our telling him that ‘all universal statements imply each of their instances’ because he would need to instantiate the UI principle to get it moving.” (6). So Harry cannot adopt UI, and we conclude that rational adoption of UI is not possible.⁴

2.3: Standard Interpretations of the Adoption Problem

To some philosophers, Padró’s Harry Hypothetical suggests a clear exceptionalist lesson: UI and MP are in some sense “self-governed” principles (or rules) of inference (Finn 2019, 248). The source of Harry’s troubles, according to this interpretation, is the form that logical principles take: they are universalized conditionals. (Our statement of UI, for example, can be reworded as “All statements, if they are universal, imply each of their instances.”) This means that both UI and MP are prior requirements for someone being able to use *any* logical principle as a guide for performing a particular instantiation of it—and since this is what rational adoption requires, UI and MP in particular cannot be adopted.

Other philosophers present alternative explanations for the failure of Harry’s logical adoption: Corine Besson and Anandi Hattiangadi (2022), for example, focus on problems with the “rule-

following model” of inference, while Paul Boghossian and Crispin Wright (2022) explain why adoption is impossible according to a “metatheoretic” account of logical inference. Yet others purport to present “solutions” to Padró’s AP by explaining how Harry might go about nevertheless successfully adopting UI. Timothy Williamson (forthcoming), for example, suggests that Harry commit to a process of “self-training” in logical inference, while Michael Devitt and Jillian Rose Roberts (2022) propose his hiring an “inference coach.”

Padró, however, interprets the result of her hypothetical differently: she takes her Harry Hypothetical to be a “*reductio*” (2022, 3) against Inferential Cognitivism. “Appealing though [IC] may be,” she writes, “the AP forces us to take a closer look at IC, questioning whether the fundamental role that it assigns to the logical principles could in fact be upheld” (8). The implication is that Harry’s adoption of UI in her hypothetical scenario is impossible precisely *because* his adoption was modeled after IC. We should consequently expect anyone interested in defending adoption to reject IC, whereas anyone interested in defending IC must instead admit the impossibility of adoption⁵.

Padró sees her argument as building on the one provided by Kripke (2022): setting aside the difference in subject matter between ravens and *Madagascar*, their setup of the problem is the same, their dialectical opponent (Inferential Cognitivism) is the same, and they both conclude that adoption is impossible. The only difference, she holds, is in the role that she and Kripke see the logical principle playing in Harry’s reasoning—as an extra premise or an extra meta-premise.

However, I think there is a more fundamental difference between the two hypothetical scenarios: Padró’s understanding of logical reasoning, for the sake of the *reductio*, is informed by IC, whereas Kripke’s is based on his account of “intuitive” reasoning. Their hypotheticals therefore purport to show the impossibility of logical adoption (and, consequently, the incoherency of IC) according to two different models of logical reasoning: one based on intuition, the other based on theoretical acceptance. This means that although Padró’s hypothetical looks especially similar to

Kripke's, it is not the same—a point I want to emphasize from the start, since it is not typically acknowledged. I will elaborate this idea in §3.

If Padró presents her hypothetical as related to Kripke's, I think it's because she takes them to lead to the same conclusion—and, consequently, the same objection against logical theory choice. Padró understands IC as a particular theory about the relationship between the *logica utens*, which is “the voluntary and rational practise of logic that a subject or community of subjects use or display when performing inferences,” and the *logica docens*, which is the theory of logic that is “essentially critical and reflective... and is generally taken to be normative” (2022, 9).

Now, when it comes to the UI principle, Harry lacks both. Our attempt to remedy his inferential gap comes from the *logica docens*. We set out to tell him the logical principle that he should accept, hoping that it would help him pick up the inferential practise, the *logica utens*, that he lacks. The AP, in turn, may (at least for now) be seen as a way of clarifying the relation between the *logica docens* and the *logica utens*, challenging a characterization of the *logica utens* as consisting in the (tacit) use or application of logical principles or rules of inference (*logica docens*) in our inferential practises (as opposed to a more neutral characterization as, say, exhibiting a pattern of inference which conforms to the MP rule of inference). What we have been saying so far suggests that the role of the *logica utens* cannot be easily obliterated. (9)

The conclusion, for Padró, is that we must find a theory of inference (and specifically *logical* inference) that explains the sense in which *logica utens* has priority over *logica docens*. Our logical practice cannot be governed by theory; it is, instead, a “condition of possibility for the formulation and acceptance of the rules and principles our inferential acts are said to conform to” (20).

This idea does indeed sound familiar from Kripke’s writings, and it is a conclusion for which I have great sympathy—in fact, I agree that Padró’s argument proves exactly this. However, I will show in the next two sections that it does not do so in quite the way she takes it to. One important step is to realize the importance of form in the performance of inferences, which allows us to see that no performance of an inference can be guided by on one’s prior acceptance of an inferential principle that governs it. Once this is acknowledged, we can see that it is not the self-governing nature of logical principles, but rather the fundamental epistemological status of inferential practice, that makes adoption impossible for Harry in Padró’s hypothetical.

3: Deconstructing the Adoption Problem.

Having provided an overview of the logical-adoption debate, I will now articulate my own view on the issue, beginning by deconstructing the AP into its basic elements. I previously noted that Kripke’s and Padró’s hypothetical scenarios are importantly different, despite their notable similarities: both agree that logical practice precedes logical theory, and they reject Inferential Cognitivism—but whereas Kripke’s hypothetical argument establishes the impossibility of adoption based on a practice-first model of reasoning (what he calls “intuitive” reasoning), Padró’s hypothetical establishes the impossibility of adoption based on IC, which takes logical theory to come before practice.

In this section, I will argue that what Kripke’s and Padró’s arguments have in common is their general structure. This hypothetical structure is not by itself a proof for or against adoption, but rather a tool that allows one to determine, given a particular theory of inference, whether logical adoption according to that theory is possible. I will show how understanding the hypothetical in this way can help one to make sense of the divergent literature on adoption and logical theory choice.

3.1: The Generalized Adoption Problem

Here is a generic version of the hypothetical argument used by both Kripke and Padró:

Generalized Harry Hypothetical: Let Harry be a person who cannot infer in accordance with a logical principle. Imagine that Harry does whatever rational adoption of that logical principle requires them to do. Next, the success of Harry's adoption is tested by seeing whether they now infer in accordance with that principle. If Harry still cannot do so, then no rational adoption is possible.

This is the structure that any hypothetical regarding adoption, set up à la Padró and Kripke, will take. Note that this generic form of the argument does not tell us in advance whether or not rational adoption of a logical principle is possible; it tells us only what elements we would need in order to investigate the question. Certain blanks need to be filled in—for example, what it would mean for Harry to “rationally adopt” a logical principle in the first place.

Presenting the hypothetical in this way allows us to isolate the parameters that truly matter to discussions about logical adoption and theory choice. The third sentence of the Generalized Harry Hypothetical, for example, is concerned with testing Harry's performance of a logical inference. It's clear that if we want to investigate the possibility of adoption, we need some way of assessing whether it has succeeded—we need to know what *inferring in accordance with a logical principle* looks like.

The Generalized Harry Hypothetical thus immediately brings our attention to an important problem: neither Kripke nor Padró spend much time discussing what logical inference *is*, or what they mean by Harry's inferring “in accordance with a logical principle.” This is by no means particular to their work; I haven't read anyone who addresses the issue explicitly in the context of the AP, likely because of the extraneous philosophical issues that doing so would raise. Attempting to formulate a precise description of logical inference means entering territory rife with objections.

Some assumptions are generally taken onboard by everyone engaging in the logical-theory-choice conversation, namely that inference is something we do when we reason, that reasoning is somehow related to logic, and so that at least *some* inferences are somehow related to logical principles. For defining inference generally, Paul Boghossian (2014) has proposed the “Taking Condition,” which tells us that “inferring necessarily involves the thinker *taking* his premises to support his conclusion and drawing his conclusion *because* of that fact” (5). Although this condition is not universally accepted, it provides a reasonable starting point for discussion. Yet things become more complicated if one tries to pinpoint *logical* inference, i.e., inference that “accords with” logical principles. In attempting to spell out the details of this relationship between inference and logic while accommodating the Taking Condition, we find it nearly impossible to avoid objections of over- or under-intellectualization (Wright 2018), rule-following problems (Miller & Wright 2002), normativity-related concerns (MacFarlane 2004; Russell 2020; Steinberger 2019), and other issues.

It would certainly be a flaw of my account if I held that the problem of logical inference needed to be entirely solved before the AP could be addressed. That is not what I mean to imply. What I do think the Generalized Harry Hypothetical shows, however, is that we need some way of assessing whether and when Harry is inferring in accordance with the principle we’re hoping he will adopt. Otherwise, it’s difficult to get conversations about adoption off the ground. Yet even this much has unfortunately never been made explicit in the adoption conversation.

An important first step toward rectifying this problem is to isolate the aspects of logical inference that one needs to understand for the sake of discussing adoption, while setting aside the extraneous questions about logical inference that would lead one too far astray (such as, say, rule-following considerations). In the next subsection, I will show how a thorough analysis of the Generalized Harry Hypothetical allows us to do exactly this.

3.2: Three Conditions for Logical Adoption

Three parameters related to logical inference emerge from an analysis of the Generalized Harry Hypothetical. First, it is stipulated that Harry is someone who *cannot* infer in accordance with a logical principle—not simply someone who *does not* do so. I think this is an important distinction. Someone who is capable of inferring in accordance with UI might nevertheless never exercise that capacity: they may never be presented with the opportunity to do so, or never feel the urge to. That person would therefore be *capable* of a logical inference without ever actually *performing* that logical inference. That’s clearly not the kind of situation Padró and others are interested in, however, when it comes to adoption⁶. In order for adoption to be interesting, it needs to entail a transition from *incapacity* to *capacity* for performing certain logical inferences, not merely from inaction to action.

Nevertheless, the Generalized Harry Hypothetical is not concerned only with Harry’s inferential abilities. As I already noted above, Harry’s *performance* of inferences also plays a role—not during the adoption phase, but afterward, when the success of adoption is tested. We ask him to infer in accordance with the principle—to prove that he has gained the capacity to do so—and in order to evaluate his efforts, we need to know what to look for. To build an argument based on the Generalized Harry Hypothetical, we therefore need to know (1) what makes the performance of a logical inference *possible*, and (2) what the performance of a logical inference necessarily *implies*.

The third parameter of the Generalized Harry Hypothetical is concerned with the *rationality* of Harry’s adoption of a logical principle. If one’s “adoption” of UI is understood as a change in one’s capacity to infer with UI, as I argued above, then it follows that not just any instance of adoption will do for the purposes of rational theory choice. Padró, for example, explicitly excludes the possibility of Harry ingesting a psychoactive drug that subconsciously changes the principles in accordance with which Harry can infer. She insists that there must be something rational—however one chooses to understand such a requirement—about Harry’s change in inferential capacity.

Based on these observations, I argue that the conclusion of any particular version of the Generalized Harry Hypothetical depends on the author's answers to three questions:

1. **Inferential-Performance Condition (IPC):** What determines whether someone has inferred in accordance with a logical principle?
2. **Inferential-Capacity Condition (ICC):** What determines whether someone *can* infer in accordance with a logical principle?
3. **Rationality-of-Adoption Condition (RAC):** What would make a change in someone's inferential capacity *rational*?

In order to make the Generalized Harry Hypothetical concrete, a philosopher needs to answer these three questions, and fill in the blanks of the hypothetical accordingly. Then, they can determine the possibility of adoption according to their own theory of inference.

The Inferential-Performance Condition (IPC) and Inferential-Capacity Condition (ICC) are closely related, but they are not equivalent, as I explained above. The IPC tells us what Harry has never done which allows one to say that he has never inferred in accordance with UI. The ICC, on the other hand, tells us what makes it the case that Harry *cannot* do that thing. Adoption is concerned with a change in capacity (ICC), not with a change in mere performance (IPC). One's answer to the ICC therefore determines one's understanding of straightforward adoption. The Rationality-of-Adoption Condition (RAC) is concerned with isolating what would make any such transition *rational*.

Note that, by differentiating between the IPC and the ICC, I'm already departing from the informal description of the hypothetical in Padró's and others' work, which tends to run the two conditions together⁷. I find it helpful to think of the ICC as the *necessary (but not necessarily sufficient) condition* for inferring in accordance with a logical principle; on the other hand, the IPC is the *success condition* for inferring in accordance with a logical principle. I think there is good reason to separate things this way: it allows us to avoid extraneous rule-following considerations and to flesh out only

the aspects of logical inference that are directly pertinent to the AP. We do not need to debate the over-intellectualization of logical inference, for example, if we are concerned only with what the performance of a logical inference *looks like*; the IPC is a necessary consequence of the successful performance of a logical inference, but not a complete description of the inference itself. Of course, providing clarity on these issues may be a virtue of certain answers to the IPC and ICC over others. But even if we don't know quite what logical inference is, we know that *only if* the ICC holds, *then* Harry can logically infer—and *if* Harry logical infers, *then* the IPC holds. This distinction between the IPC and the ICC allows us to focus on the relationship between theories of logical inference and adoption, and will therefore be especially important for the arguments presented in this paper.

Each of these conditions (IPC, ICC, and RAC) can be elaborated differently based on one's philosophical theory of logic. We can now see more precisely where Kripke and Padró diverge. Padró's version of the Harry Hypothetical is informed by Inferential Cognitivism; Kripke's is informed by a theory of inference based on "intuition" or "seeing." Padró's and Kripke's hypotheticals therefore agree on their RAC (since they both constrain rational adoption in the same way), but disagree on their ICC. Indeed, I think that most debates regarding logical adoption revolve around philosophers' filling out the Generalized Harry Hypothetical differently. In general, any proponent of the possibility of logical theory choice, when presented with a version of the Harry Hypothetical that claims to disprove it, has two options: either concede defeat, or contest the validity of the hypothetical's IPC, ICC, and/or RAC. In the next section, I will show how recent work on the AP can be understood according to this model. I will then argue that the impossibility of adoption in Padró's Harry Hypothetical turns on her choice of RAC and IPC.

3.3: Understanding the Adoption Debate

In this section, I will show how disagreements among philosophers about the possibility of logical adoption boil down to disagreements about how to answer the ICC and the RAC in the

Generalized Harry Hypothetical. This demonstrates the explanatory power of the Generalized Harry Hypothetical format I have proposed.

Padró's hypothetical is a *reductio* against Inferential Cognitivism, the view that one's capacity to perform inferences in accordance with logical principles is "accounted for merely in virtue of [one's] acceptance of the [principle]" (Padró 2022, 3). She does not actually hold that this model is correct; rather, she assumes it for the sake of her argument. Her Inferential Cognitivist answer to the ICC is therefore based on acceptance: in order for someone to be able to infer in accordance with a logical principle, it is necessary and sufficient for them to accept that principle. Padró's two-phase account of adoption, as outlined in §2.2, constitutes her Inferential Cognitivist answer to the RAC: Harry's adoption of a logical principle is rational only if his inferential performance post-adoption is *guided* by his acceptance of the principle. We can therefore present Padró's working ICC and RAC like so:

ICC-InfCog: Harry is able to infer in accordance with a logical principle iff Harry accepts⁸ the principle.

RAC- InfCog: Harry's adoption of a logical principle is rational iff (i) he accepts the principle and (ii) his acceptance *guides* his performance of particular inferences in accordance with it.

It's possible to similarly extract and compare the ICCs and RACs of philosophers who have written about logical adoption in response to Padró's Harry Hypothetical (see the chart below). Having done so, we see two general positions emerge: the *rationalist position* and the *dispositionalist position*. Rationalists, following Padró's model, understand inferential capacity as being a matter of some kind of rational insight. Their ICCs vary according to how this notion of "insight" is fleshed out—in terms of acceptance, understanding, cognitive representation, or otherwise—while their RACs stay close to Padró's original. Dispositionalists, on the other hand, understand inferential

capacity in terms of dispositions, and they typically have a broad view of “rational” adoption. They therefore reject Padró’s ICC and RAC, replacing them with disposition-based alternatives.

We can see from the chart below that dispositionalists (in green) tend to conclude that adoption is possible, while rationalists (in blue) tend to conclude the opposite.

	ICC: Harry is able to infer in accordance with a logical principle iff...	RAC: Harry’s adoption of a logical principle is rational iff...	Is adoption possible?
Padró (Inferential Cognitivism) (2022)	Harry accepts the logical principle	Harry is guided by his acceptance of the logical principle	Not for UI and MP
Finn (2019)	Harry accepts a metatheoretical rule of inference based on the principle	Harry is guided by his acceptance of the logical rule	Not for UI and MP
Boghossian & Wright (2022)	Harry understands the principal logical vocabulary involved in the principle	Harry is contentually guided by an explicit statement of the logical principle	Not for “basic” logical principles
Besson & Hattiangadi (forthcoming) 9	Harry is able to represent instances of the conclusion as following from instances of the premise(s)	Harry is guided by his acceptance of the logical principle	Only if Harry has the more general capacity to recognize certain patterns in particular inferences
Devitt & Roberts (2022)	Harry is disposed to infer from instances of the premise(s) to instances of the conclusion	Harry rationally decides to change his inferential dispositions	Yes
Williamson (2020)	Harry is disposed to take instances of the conclusion as following from instances of the premise(s)	Harry rationally decides to accept the logical principle	Yes, with some caveats

For the sake of space, I will not discuss these examples in detail. What I hope to emphasize is only that, although it may seem like many philosophers are arguing about the possibility of the adoption of logical principles *according to a common understanding of inference*, what they are really arguing about is their respective theories of inference and rationality, which by themselves determine whether or not adoption is possible. The Generalized Harry Hypothetical is not a proof for or against adoption, but rather a tool that allows us to determine, when given a particular trio of IPC, ICC, and RAC, whether adoption according to the resulting theory of inference is possible.

Note that, in the literature survey I provided above, the IPC was not mentioned. Indeed, it is rarely addressed in work on the AP, and few philosophers seem to voice explicit disagreement about what it would take for someone to infer in accordance with a logical principle, nor do their disagreements about the possibility of adoption seem to hinge on that fact. This may lead us to conclude that the IPC is inconsequential—that it makes no difference to the logical-theory-choice debate. However, I will argue that the IPC holds the key to understanding where Inferential Cognitivism goes wrong. Once Padró’s IPC is made explicit, it is easy to see why Harry’s rational adoption of logical principles is impossible in her hypothetical. It is the same reason why Harry’s rational adoption of *any* inferential principle, whether logical or not, is impossible according to Inferential Cognitivism: no performance of an inference should depend on explicit guidance from an inferential principle. If it did, it would no longer be an instance of that very principle.

4: Explaining Padró’s Harry Hypothetical

In this section, I will argue that, once Padró’s working IPC, ICC, and RAC are laid out, we can see exactly what about Inferential Cognitivism (IC) makes Harry’s adoption of UI impossible. The answer lies in our identifying an important incompatibility between Harry’s rational adoption of UI and his subsequent (attempted) performance of a UI inference. From this observation, I will extract an important criterion for any account of rational adoption, which Inferential Cognitivism does not satisfy, namely that the guidance one receives from a logical principle should not affect the form of subsequently performed inferences.

4.1: Padró’s ICC, RAC, and IPC

As already mentioned in the previous section, Inferential Cognitivism (IC) informs two out of the three background commitments on which Padró’s Harry Hypothetical is based:

ICC-InfCog: Harry is able to infer in accordance with a logical principle iff Harry accepts the principle.

RAC-InfCog: Harry's adoption of a logical principle is rational iff (i) he accepts the principle and (ii) his acceptance *guides* his performance of particular inferences in accordance with it.

What IC does not give us is the IPC in operation in Padró's Harry Hypothetical; this is because IC is a theory about the *capacity* conditions for inference, not about *performance* conditions, so it tells us nothing about how to assess Harry's performance of inferences in accordance with UI. In other words, IC does not give us the "success conditions" under which we would consider Harry to have genuinely adopted a logical principle. It tells us only what Harry needs in order to be able to perform the inference, namely his prior acceptance of the logical principle.

By reading through Padró's work on the AP, however, I think it's possible to extract a bare-minimum condition that operates in the background of most versions of the Harry Hypothetical: in order for someone's inference to count as being "in accordance with a logical principle," its logical form must reflect the form of the principle in question. That is, given premises of the appropriate logical form, the reasoner must reach a conclusion of the appropriate logical form *without relying on any additional premises*. Indeed, throughout Padró's 2022 paper, descriptions of Harry *conforming to an inference pattern* and *performing an inference in accordance with a logical principle* are used interchangeably.

Padró's original thesis on the AP (2015) also contains more detail in this vein:

I tell my seven year-old nephew, Matías, that if Sunday is a sunny day, I will take him to the zoo. On Sunday he wakes up at 6 a.m., checks the sky (which turns out to be unmistakably sunny) and proceeds to wake me up demanding to be taken to the zoo. Matías inferred in accordance with Modus Ponendo Ponens (MPP), a very familiar pattern of inference." (1)

[Matías] has come to judge that (3) I will take him to the zoo because he has accepted my assurance that (1) I will take him to the zoo if Sunday is a sunny day, and because he has become aware of the fact that (2) Sunday is a sunny day... He of course won't have the concept of logical entailment. Notwithstanding this, his coming to believe that (3) is not the result of an arbitrary string of acceptances or thoughts; he establishes relations among (1), (2), and (3), and he appears to consider (1) and (2) to be his reasons for concluding (3). (13–14)

We can conclude from these quotes that Padró considers it to be a requirement of “inferring in accordance with a logical principle” that the thinker’s inference conform to the principle’s logical form—more specifically, that they took premises with the appropriate logical form as sufficient reason for a conclusion with the appropriate logical form. In the case of MP, Matias’s inference is:

P1: If Sunday is a sunny day, I will take him to the zoo.

P2: Sunday is a sunny day.

[P1, P2] **C:** I will take him to the zoo.

And this consists in his inferring in accordance with MP, for Padró, *because* it has the same form as an MP-inference:

P1: If p , then q

P2: p

[P1, P2] **C:** q

It follows that Padró will consider Harry to have inferred in accordance with UI if he took a universal premise (and an instance of the domain, since we’re actually working with the universalized conditional¹⁰) as sufficient reason for one of its instantiations, i.e. if his inference took the form:

P1. For all x , if Fx then Gx

P2. Fa

[P1, P2] **C.** Ga

Harry is not allowed to use an extra premise in his reasoning, and he must use every premise given; if the logical form of his inference changed, it would not be a UI inference. This gives us enough material to formulate a tentative version of Padró's IPC, as based on logical form:

IPC-Padró: If Harry infers in accordance with a basic logical principle, then he takes premises of the appropriate logical form as sufficient reason for a conclusion of the appropriate logical form.

Again, this is an admittedly unsatisfying account of logical inference for anyone who aims to fully explain the nature of the phenomenon, including the special kind of “taking” that is meant to guide an inferential act, and the degree of logical self-consciousness a reasoner would need to exhibit. But I suggest that we set these concerns aside for now. Indeed, although we likely want our account of inference to tell us *more* than this, I don't think anyone would reject the inclusion of logical form in any credible account of logical inference. IPC-Padró is a bare-minimum condition for describing logical inference. It is also sufficient for the purposes of the point I'm about to make.¹¹

4.2 “Guidance” in Padró's Two-Phase Model

The question we're interested in answering, for the sake of the logical-theory-choice debate, is: What, if anything, makes logical adoption impossible? Why can't Harry adopt UI? Now that we have broken the Harry Hypothetical down into the IPC, ICC, and RAC, we can begin to answer this question. But one final thing needs to be clarified before we have a full picture of the situation according to Inferential Cognitivism: how to understand the “guidance” relation in RAC-InfCog.

According to Padró, the two-phase process specified in RAC-InfCog is the only way of capturing the kind of decision-making that Inferential Cognitivism attributes to rational adoption. Harry's logical inference needs to be *guided* by his acceptance of the logical principle in question; this

acceptance needs to be his “reason” for inferring in accordance with the principle post-adoption (Padró 2015, 6). Padró doesn’t provide a formal reconstruction of Harry’s inference to show us what this might mean, but one thing she is clear about is that the UI principle is not used *directly* as a new premise in Harry’s reasoning (Padró 2022, 12). How, then, should the guidance in Inferential Cognitivism be understood? In this section, I will provide my own reconstruction of Padró’s argument in order to answer this question.

Recall that this is the inference Harry is asked to perform, and which, by assumption, he could not perform pre-adoption:

P1. All animals in *Madagascar* talk.

P2. Alex is an animal.

[P1, P2] **C.** Alex talks.

After adoption of UI, his knowledge of UI should guide him to “see” that **C** *does* in fact follow from **P1** and **P2**. This new insight is given by the conclusion of an inference that takes the UI principle as a premise:

P10. All universal statements imply each of their instances.

P20. “All animals in *Madagascar* talk” is a universal statement.

[P10, P20] **C0.** “All animals in *Madagascar* talk” implies each of its instances.

There are therefore two inferences asked of Harry, the “meta-inference” (from **P10** and **P20** to **C0**) actually leading to the main inference (from **P1** and **P2** to **C**). On Padró’s account, the meta-inference is impossible for Harry to perform even post-adoption, which is why he never gets to the main inference, and we conclude that adoption is impossible.

But why can’t Harry perform the meta-inference, and if he can’t, why does that mean he can’t perform the main one? Although this is where interpretations in the literature have diverged¹², I think Padró’s writing on the issue is clear: the conclusion of the meta-inference is meant to show

Harry that (C) “Alex talks” *does* follow from (P1) “All animals in *Madagascar* talk” and (P2) “Alex is an animal,” a fact which Harry could not “see” before adoption. Since Harry never performs this meta-inference, he is never provided with the insight he requires to perform the main inference.

Here is Padró’s (2022) description of the guidance that UI is supposed to provide:

It is clear that the problem [for Harry] is not lack of information, but that to apply the principle he has to perform a universal instantiation, something that by hypothesis he doesn’t do.... He must now pick, “all the animals in the movie *Madagascar* talk” as an *instance* of a universal statement and infer from “all universal statements logically imply each instance” that “all the animals in the movie talk implies each instance;” then, assuming he remembers that Alex the lion is said to be an animal in the movie (otherwise we would need another inference here), pick up “if Alex is an animal in the movie *Madagascar* then Alex talks” as an instance of the universal statement; and finally infer “Alex the lion talks.” (5)

In a footnote on the same page, Padró makes it clear that it is Harry’s “picking up” of the conditional statement “if Alex is an animal in *Madagascar* then Alex talks” that is essential for his reaching the desired conclusion:

We are thinking here in terms of a subject trying to figure out where and how to apply the principle. And in Harry’s case, no immediate application seems possible. He will need to identify “all the animals in the movie *Madagascar* talk” as a *particular universal statement* in the first place, and then infer his way to the principle’s application approximately as follows: ‘If this is a universal statement, according to the principle it implies each of its instances. I think it is a universal statement. So I should go ahead and infer each of its instances’ (and again for the UI

statement itself and the instance). So MP seems to be needed to unpack the content of the universal statements. (5, fn. 10)

These elaborations are, I think, crucial. Note the role of MP in her descriptions of Harry’s reasoning: MP is needed to “unpack” the content of the universal statement, Padró writes, so that Harry “picks up” the additional statement “if Alex is an animal in *Madagascar*, then Alex talks.” This implies that what is meant by using UI as a “guide” is that Harry is meant to infer from it that “All animals in *Madagascar* talk” implies each of its instances, and from that conclusion, extract¹³ a *conditional statement* that will serve an additional premise in the main inference, thereby allowing him to conclude that “Alex the lion talks.” Harry’s inference would be reconstructed like so:

P10. All universal statements imply each of their instances.

P20. “All animals in *Madagascar* talk” is a universal statement.

[P10, P20] **C0.** “All animals in *Madagascar* talk” implies each of its instances.

P1. All animals in *Madagascar* talk.

[P1] **P11.** *If Alex is an animal in Madagascar, then Alex talks.*

P2. Alex is an animal.

[P11, P2] **C.** Alex talks.

So Harry’s ability to deduce the conclusion, **C**, rests on his acquiring the additional premise **P11**, which has been provided to him by his acceptance of UI—and which is a necessary consequence of the UI principle’s (**P10**) real “guiding” work. Following the description in Padró’s quotes from above, the conclusion of the first inference, **C0**, provides Harry with the information necessary to “pick up” the new premise **P11** (from **P1**) and subsequently conclude that Alex talks.

Padró argues that the inference from **P10** to **C0** requires Harry to perform a UI inference, and this is where he gets stuck. Since he therefore cannot reach the conclusion **C0**, he cannot generate the conditional **P11** that he needs to reach the desired conclusion. This conditional would have allowed Harry to see explicitly what he couldn't see before: what follows from what. Since he cannot reach it, he is unable to infer the desired conclusion, that (**C**) Alex talks. This is why adoption is impossible, according to Padró: Harry never receives the inferential guidance that he would need, in the form of a conditional statement, in order to reach his conclusion.

4.3 The Problem with Inferential Cognitivism

Having clarified the specifics of RAC-InfCog, we can now summarize the parameters of her Harry Hypothetical as follows:

IPC-Padró: If Harry infers in accordance with a logical principle, then he takes premises of the appropriate logical form as sufficient reason for a conclusion of the appropriate logical form.

ICC-InfCog: Harry is able to infer in accordance with a logical principle iff Harry accepts the principle.

RAC-InfCog: Harry's adoption of a logical principle is rational iff (i) he accepts the principle and (ii) his acceptance guides his performance of particular inferences in accordance with it, *where this means that he picks up an additional premise telling him that the given conclusion follows from the given premises.*

The elaboration of RAC-InfCog from above explains why Padró thinks that adoption is impossible on the Inferential Cognitivist model. But it also exposes another important problem with Inferential Cognitivism: it is incompatible with Padró's (reasonable) model of inferential performance. Indeed, rational adoption as the Inferential Cognitivist understands it doesn't just change Harry's inferential capacities, as I've claimed it should; it also imposes a requirement on

every particular inferential performance, since the UI principle provides Harry with a conditional statement from which to infer. This will consequently change the logical form of each one of Harry’s inferences from a universal statement. This, I argue, is a fatal mistake: RAC-InfCog prevents Harry from inferring in accordance with the logical principle he hopes to have adopted.

Recall that the inference Harry is asked to perform post-adoption is:

P1. All animals in *Madagascar* talk.

[P1, C0] **P11.** *If Alex is an animal in Madagascar, then Alex talks.*

P2. Alex is an animal.

[P11, P2] **C.** Alex talks.

Should we consider Harry to have adopted UI even if he *had* been able to perform the inference suggested here? IPC-Padró itself tells us *no*, since the inference no longer conforms to the logical form of UI. The additional premise **P11**, which is meant to facilitate Harry’s performance of a UI-inference, in fact prevents him from doing so. If Harry needs additional premises in order to infer from a universal statement to its instantiation, then Harry is simply not inferring in accordance with UI. The second part of RAC-InfCog, namely that Harry must be guided explicitly by the UI principle, is therefore independently problematic: even if adoption *had* succeeded according to Padró’s model, it would have failed, since Harry’s consequent inference would still not have been a UI inference—it would be closer to a Modus Ponens inference.

This observation makes any version of Inferential Cognitivism that relies on a notion of “guidance” such as Padró’s problematic. UI is not MP in disguise, and an inference such as the one from **P1** and **P2** to **C** is not enthymematic. Someone who is capable of reasoning in accordance with UI and is presented with a universal statement should not have to pick up a conditional before instantiating. Regardless of the nature of **P11**, or how exactly it is “picked up,” it does not belong in Harry’s inference; in fact, its inclusion defeats the purpose of the whole adoption enterprise.

To underline this point, let me present a different hypothetical, which I take to have the same structural problem as RAC-InfCog, but in a more visible way. Say we want Harry to “adopt” something other than a logical principle—maybe we want him to play the first aria of Bach’s Goldberg Variations on the piano. We could reasonably hold that doing so would entail playing the right notes in the right order at the right speed; these are the performance (or success) conditions for playing (analogous to IPC-Padró). And we could add that being able to do so requires having internalized or understood the piece in some way; these are the capacity conditions for playing (analogous to ICC-InfCog). Now let’s stipulate that “rational” adoption of the aria (according to, say, RAC-Goldberg) requires (i) learning to play the piece (thereby gaining the necessary capacity) and (ii) playing an extra C# at the start of every performance. We ask Harry, who has not yet learned the aria, to go through a process of rational adoption; Harry agrees, and he learns to play the piece. Harry has everything he needs to play the aria now—yet he will never be able to *actually* play it, because due to RAC-Goldberg, whatever aria-like piece he plays will also include an extra C# at the beginning. We conclude that rational adoption of the aria is impossible for Harry.

No doubt, this is a ridiculous example; readers will protest that the C# clause doesn’t belong in RAC-Goldberg! And that is certainly true. Similarly, I argue, the second half of RAC-InfCog has no place in our account of Harry’s rational adoption of a logical principle. Both adoption models are structurally defective in the same way, because they problematically allow a change in capacity conditions to affect the form of subsequent inferential performances. It follows that Padró’s Inferential Cognitivist model of rational adoption is not a convincing model at all—regardless of one’s position about logical theory choice—since it requires Harry to treat every instance of UI as an enthymeme that requires an additional premise. Any convincing version of the Generalized Harry Hypothetical needs to clearly differentiate between performance and capacity conditions for inference in accordance with a logical principle, which Padró’s Inferential Cognitivism does not do.

This problem exists regardless of how we model the guidance condition proposed by Padró. In §4.2, I reconstructed it as the addition of an explicit additional premise in Harry’s reasoning, which I think is the most faithful interpretation. But the more general lesson to be learned is that, if one treats logical inferences (such as the one from “All animals in *Madagascar* talk” to “Alex the lion talks”) as enthymemes that require *any* kind of additional guidance—whether explicit or implicit, meta-logical or logical—then one is failing to perform those logical inferences at all. Nothing else should be required for drawing the conclusion of a logical inference than the premise(s) of that inference. The premises are, on their own, necessary and sufficient for the conclusion; this is, in fact, what the principle governing that inference dictates. If a reasoner requires something—anything—in *addition to* the premises in order to draw the conclusion, then they are not inferring in accordance with the principle in question.

Could an opponent save (Padró’s version of) Inferential Cognitivism from this objection by eliminating the second phase of RAC-InfCog, which requires Harry’s acceptance of UI to “guide” his future inferences in this problematic way? Doing so would mean reducing RAC-InfCog to the first phase, namely Harry’s accepting the logical principle:

RAC-Alt-Padró: Harry’s adoption of a logical principle is rational iff (i) he accepts the principle and (ii) his acceptance guides his performance of particular inferences in accordance with it, *where this means that he infers from the principle that the given conclusion follows from the given premises.*

This, however, would resolve nothing, since it would make Padró’s ICC and RAC equivalent: instead of telling us anything about how adoption might take place, the new RAC would stipulate that Harry should adopt UI by accepting UI. (This would be analogous to RAC-Goldberg requiring that Harry internalize the aria by internalizing the aria, instead of by learning how to play it.) The problem is that we’re trying to investigate exactly *how* such adoption might happen successfully—so

whatever we consider rational adoption to be, it must be more specific than a simple change in inferential capacities. RAC-InfCog is therefore doubly flawed: part (ii) makes rational adoption impossible, while part (i) on its own makes rational adoption trivial.

4.4: Some Lessons

If my argument is correct, then most philosophers have misidentified the reason why adoption is impossible in Padró’s Harry Hypothetical: the issue is not that certain rules are “self-governing,” but rather that the “guidance” relationship between a logical principle and logical inferences according to Inferential Cognitivism prevents any reasoner from performing those inferences.¹⁴

The standard “self-governing” description may generally be true of UI and MP, but it doesn’t seem to be the cause of Harry’s problems unless we commit ourselves to a certain description of the relationship between capacity and performance conditions. Without further detail, it’s not clear to me why, if someone is truly committed to the idea that inferring in accordance with a logical principle requires only *accepting* that principle, Harry’s acceptance of a new principle wouldn’t allow him to start inferring in ways he couldn’t before.¹⁵ If the answer to that question is that it is because he must use the principle to make new implications explicit in his reasoning, then there is another problem to deal with first, namely that of logical form. And *that* problem applies to all logical principles, not just UI or MP.

Take, for example, the case of conjunction. Suppose a general statement of the conjunction-elimination principle is that “All conjunction statements imply each of the two statements they conjoin,” and that a general conjunction-elimination inference has one of these two forms:

<p>P1: p and q</p> <p>[P1] C: p</p>	<p>P1: p and q</p> <p>[P1] C: q</p>
---	---

Then Harry’s requested inference would look like so:

P10. All conjunction statements imply each of the statements they conjoin.

P20. “I am alive and I am breathing” is a conjunction statement.

[P10, P20] **C0.** “I am alive and I am breathing” implies each of the statements it conjoins.

P1. I am alive and I am breathing.

[P1, C0] **P11.** *If I am alive and I am breathing, then I am breathing.*

[P11, P2] **C.** I am breathing.

And, again, the second inference would not have the same form as conjunction-elimination.

This underlines the fact that Inferential Cognitivism (at least on Padró’s model) makes Harry’s adoption of *all* logical principles impossible, even if those principles are not “basic” in the way that many people have argued is key to the AP.

One final point to make about Padró’s Harry Hypothetical before moving on is that, despite our differing analyses of the impossibility of adoption according to IC, I think the general conclusions Padró draws about inference and reasoning continue to hold. The conclusion, for Padró, is that we must find a theory of inference (and specifically *logical* inference) that explains the sense in which *logica utens* has conceptual priority over *logica docens*. The logical-form objection made in this paper supports this conclusion. We can now say, more precisely, that the *logica docens* cannot be prior to the *logica utens* if this priority means that one’s acceptance of a logical principle would provide one with a new premise with which to reason, or would otherwise change the logical form of the inferences one subsequently performs. One’s *logica utens* must be independent of one’s *logica docens* in the sense that one’s acceptance of logical principles must not affect the way that the inferences those principles are said to govern are performed.

This conclusion supports Padró’s (and Kripke’s) insight that logical inference cannot be a simple matter of theoretical acceptance. In order for someone to perform a logical inference, they

need to “see” what follows from what, without their being guided (by their acceptance of a principle or otherwise) in a way that would tangle capacity and performance conditions for logical inference.

5: Conclusion

In this paper, I deconstructed Padró’s and others’ arguments about logical theory choice, and I showed how disagreements between philosophers about the adoption of logical principles boil down to disagreements about how to fill in at least one of the three conditions (IPC, ICC, or RAC) involved in the Generalized Harry Hypothetical. I then argued for a new understanding of Padró’s Harry Hypothetical, according to which logical adoption is impossible not because certain rules are “self-governing,” but rather because of the problematic inferential “guidance” relationship between a logical principle and logical inferences.

The argument rested, crucially, on my distinction between performance and capacity conditions for logical inference. These two conditions allowed us to discuss adoption without being mired by extraneous questions about the nature of logical inference. One lesson is that, even if one sets aside rule-following considerations surrounding logical inference, there remain substantial issues surrounding logical adoption. A clear requirement for any convincing account of logical adoption is that it maintain a separation of the *process* of adoption from the subsequent *performance* of inferences.

I will conclude by situating these reflections within the debate about logical theory choice. The above considerations allow us to formulate a convincing objection to certain LC views, namely those inspired by Inferential Cognitivism, which rely on one’s supposed ability to select a logical theory based on principles of theory choice (such as predictivism or abductivism), and then consequently bring one’s practice into alignment with it via reasoning. Any account of this sort would run into the same objection as Padró’s Harry Hypothetical, namely the problematic modification of the logical inferences one is hoping to perform. A reasoner cannot start to perform new logical inferences

simply by accepting propositional statements of the relevant logical relations; they need, instead, to see the conclusions as following from the premises on their own.

It turns out that this form-based objection applies to more than just logical inference. Kripke (2022) argues that if someone cannot plainly see that X follows from Y, where X and Y stand in logical relation to one another, then making such a logical relation explicit will not help them to see it. Indeed, doing so *cannot* help them, for the reasons outlined above. I think the point stands even if we take out the logical descriptive: if someone cannot plainly see that X follows from Y, where X and Y stand in *any* relation of consequence, then making such a relation explicit cannot help them to “see” it. If I am unable to infer from *It’s raining* to *The streets are wet*, I may nevertheless infer from *It’s raining* and *If it’s raining, then the streets are wet* to *The streets are wet*—but this is not the same inference as before, since it is now an instance of Modus Ponens. Taking that second inference as correct does not entail that I will now take the original inference from *It’s raining* to *The streets are wet* as correct. The best I could do is to treat it as an enthymeme, requiring an additional premise in order to hold.

Unless we are prepared to say that every inference I perform involves a conditional premise telling me that the conclusion follows from the premise(s)—which would entail a substantial intellectualization of inferential practice—the enthymematic conception of inference cannot be right. It must be the case that inferring directly from *It’s raining* to *The streets are wet* is not only correct, but *fundamentally* correct. This, in the same way that inferring directly from *All ravens are black* to *This raven is black* is not only logically correct, but *fundamentally* logically correct. Referring back to Boghossian’s Taking Condition, which says that “inferring necessarily involves the thinker *taking* his premises to support his conclusion and drawing his conclusion *because* of that fact,” we can formulate this insight as the idea that that the *because* involved must be external, not internal, to the inference.

From this insight, we might conclude, against the anti-exceptionalists, that there is nothing special about logic. Rather, it is *inference* that is special, for precisely the reasons outlined here: the

fundamental priority of rational practice over rational theory—including, but not limited to, that of *logica utens* over *logica docens*. Presenting inference as fundamental in this way is a new formulation of the idea, mentioned in §1, that one’s reasoning practice is more “basic” than one’s logical theory. According to this idea, any implication relation, whether logical or other, needs to hold separately from and prior to the explicit formulation of the implication itself. What makes logic special is therefore not the fact that its consequence relations can (or need) be made explicit, but rather the fact that logical vocabulary is used in the explication of *any* consequence relation, logical or not.

Although the AP was initially formulated to prove something about logical inference, I have now used it to expose something more general, about the relationship between logic and reasoning *tout court*. There is something basic and fundamental about the relation of implication, something that logic does not *enable*, but only *expresses*. This view of the epistemic priority of reasoning over logic is not the one proposed by logical abductivists or predictivists, who prioritize principles of theory choice, but it’s closer to the one proposed by Robert Brandom (1994), who spells out the relationship between logic and reasoning in terms of expressivity.

According to Brandom’s Logical Expressivism, logical vocabulary allows one to reflect on one’s reasoning by making explicit, in the form of declarative sentences, the inferential relationships that already govern one’s reasoning. Logical vocabulary, what makes it logical vocabulary, is that it provides us with expressive resources; and logical principles, such as UI or MP, tell us how to use this logical vocabulary for expressive ends. In the context of the AP, the Logical Expressivist therefore holds that Harry will accept a logical principle only if he has an antecedent grasp of the goodness of the pattern of reasoning it represents—i.e., if he already reasons in accordance with it. Incidentally, this position lines up quite nicely with Kripke’s view on the issue.

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¹ Of course, if it turns out that logic is not at all related to our reasoning practices, then the logical-theory-choice question is uninteresting. This paper assumes some relationship between logic and reasoning.

² I say this because, as I explain in §3, I understand logical adoption to be a change in inferential *capacity*, not inferential performance.

³ I present the Adoption Problem here in slightly different wording than in Padró (2022) and other work for reasons that will soon become clear. The usual wording is that “certain basic logical principles cannot be *adopted* because, if a subject *already infers* with them, no adoption is needed, and if the subject *does not infer* in accordance with them, no *adoption* is possible” (2015, 41–42; I have italicized the relevant changes).

⁴ Padró presents her Harry Hypothetical as a more detailed version of Kripke’s raven scenario, which was in turn inspired by Carroll’s regress. But it’s worth noting that there are important differences between Harry and the tortoise. Harry does not require the general logical principle to be included as a premise in his reasoning; rather, UI serves as a “meta-premise” (Padró 2022, 12), and it is a particular conclusion derived from UI that Harry requires to guide his reasoning—namely, that “All animals in *Madagascar* talk” implies each of its instances. What’s more, unlike in the tortoise case, if this conclusion were reached by Harry, he would have no further problem accepting the original inference presented to him. As Padró has pointed out, Harry and the tortoise also differ in their inferential goals: whereas the tortoise demands an infinity of additional premises to justify an inference, Harry is simply stuck at the first step, unable to perform the single (finite) inference that would guide his transition from “All animals in *Madagascar* talk” to “Alex the lion talks.”

⁵ This idea—that any Harry Hypothetical gives us a choice, between rejecting adoption or rejecting a certain background theory of inference—is an important one, which I will flesh out in §3.

⁶ In fact, Padró and Kripke have explicitly noted that rational adoption of a logical principle would likely succeed on someone who already has *some* capacity to infer in accordance with it, even if they only do so rarely or sometimes make mistakes (Padró 2022, 10).

⁷ Hence my rewording of the AP at the start of §2: Harry is someone who *cannot* infer in accordance with a logical principle, not someone who *doesn't*. The other change I made was to add *rational* before *adoption*.

⁸ Where, to be clear, acceptance is something weaker than explicit belief (Padró 2022).

⁹ Besson & Hattiangadi (forthcoming) are more open to the possibility of adoption than their rationalist peers, though their ICC imposes a stronger cognitive condition than anything proposed by the dispositionalists. On their view, Harry has the capacity to infer in accordance with basic logical principles if Harry has the “capacity to represent instances of the conclusions of basic principles as following from the appropriate instances of their premises” (41). They conclude, pace Padró, that rational adoption is possible for anyone who has the fundamental capacity to recognize patterns in reasoning.

¹⁰ In fact, we’re always working with the universalized conditional in the Harry Hypothetical, not just UI. This has been mentioned in many other papers, and the convention is to keep writing about UI, so for the sake of space, I will do so here as well without discussing the point. See Devitt & Roberts (2022), Finn (2019), and Padró (2022) for more discussion of this point.

¹¹Another option for an IPC, which I find to be independently more convincing, is this one:

IPC-Alt: If Harry’s inferential practice is governed by a logical principle, then he should consider it incorrect to assert premises of the appropriate logical form and deny a conclusion of the appropriate logical form.

This alternative IPC highlights the normativity underlying Harry’s inferential practice. When Padró tests Harry’s ability to infer in accordance with UI, the “inference” is presented to Harry as a question: “All animals in *Madagascar* talk; does Alex the lion talk?” (Padró 2015). This reframing of inference as *recognition* allows Padró to avoid clutter problems in the Harry Hypothetical, since if she really gave Harry a universal statement and told him to simply “infer,” he would have an infinity of possible conclusions available to him. As Kripke’s (2022) writing makes clear, what we are interested in—and what we can capture

unproblematically in a Harry Hypothetical—is the broader normative notion of which logical inferences Harry recognizes; we consider it *incorrect* for him to deny the implication presented to him. Since this alternative IPC is more complicated than the one proposed above and not necessary for the purposes of this paper, I will relegate it to a footnote. But my argument in this section would hold just as well if we used IPC-Alt as Padró’s IPC instead.

¹² Besson (2019), Devitt & Roberts (2022), and Finn (2019), for example, all provide different reconstructions of Padró’s argument.

¹³ What this “extraction” is, exactly, is not so clear. (Thank you to Jillian Rose Roberts for pointing this out.) One way to understand it is as a further inference, using additional premises that Padró left implicit in her writing, which would take Harry from (C0) “All animals in *Madagascar* talk’ implies each of its instances” to (P11) “If Alex is an animal in *Madagascar*, then Alex talks.” Another way to understand the transition is as a jump from the meta language to the object language: once Harry has concluded that (C0) “All animals in *Madagascar* talk’ implies each of its instances,” he can now “pick up” this kind of conditional for all appropriate instances without needing to do anything further; perhaps that is just what it means for him to know that “All animals in *Madagascar* talk.” Since this interpretive detail doesn’t matter much for my argument, I will not take a stand on the issue here.

¹⁴ This logical-form-focused objection applies to other accounts of rational adoption as well, including that of Devitt & Roberts (2022), who think that Harry can learn logical inference by being told by a coach when to infer what from what.

¹⁵ I understand Boghossian & Wright (2022) to be making a similar point about the “Already Assumption” in their own paper on the AP.