Kripkean Necessities and Imaginative Transfer

James R. Shaw †

In *Naming and Necessity*, Kripke argues that proper names and certain general terms are rigid designators. Identities between these designators, or predications of essential properties to them, accordingly give rise to a class of 'Kripkean necessities' many of which appear to be a posteriori.

This paper explores an unusual technique for learning these necessities through imagination, and draws two lessons. The first lesson is that there are only two options for accommodating Kripkean necessities consistent with learning them in the imaginative way I describe. And while one of these options is known and thoroughly explored, the other has not (to my knowledge) received any attention at all. The second, probably more significant lesson is that from an informational point of view, Kripkean necessities are not what they initially appear to be. In particular, all types of Kripkean necessities can be learned in ways that make them seem trivial. This strikes me as undercutting the central motivations for considering these necessities to be a posteriori. And it raises the stakes for learning what lies down the second, unexplored route for accommodating them.

1 Preliminaries

Let me get some terminology and working assumptions on the table.

Draft of June 2, 2025

✉: James.A.R.Shaw@gmail.com

† I give thanks for helpful feedback to Martín Abreu Zavaleta, Josh Armstrong, Derek Ball, David Braun, Dmitri Gallow, Saul Kripke, Elliot Michaelson, Bryan Pickel, David Plunkett, Brian Rabern, Erica Shumener, W. Starr, Patrick Todd and to audiences at the 2019 Philosophy Desert Workshop, the University of St. Andrews, the University of Edinburgh, the City University of New York, MIT, and the University of Texas at Austin.

To say that a name is a rigid designator is to say that this name refers to a single object at any metaphysically possible worlds at which the object exists, and refers to that object or nothing at other worlds. Kripke extended the terminology of rigid designation to certain general terms like the physical kind terms "water" and "gold", the biological kind terms "tiger" and "cow", terms for natural phenomena like "heat" and "light", and phenomenal terms like "pain".[1] While Kripke never gave an account of what it is for such terms to designate, this won't matter tremendously for the general points to follow, and I follow Kripke in his usage.[2]

Kripke himself conscientiously avoided talk of propositions—that is, of mind- and language-independent truth-evaluable objects of cognition and speech. But a prominent interpretive tradition that I will follow here is happy to reframe Kripke's conclusions in terms of propositions, including those expressed by sentences in assertion.[3] On the resulting view, when we assert a sentence with an unembedded name like "*N* is *F*", we semantically express a proposition whose truth-conditions at metaphysically possible worlds are determined by how things stand with one and the same object—the actual referent of "*N*"—at those worlds. Analogously for rigidly designating general terms. Bundle these ideas together as the thesis of Assertoric Rigidity.

The imaginative technique I'll soon describe springboards from the idea that we can understand the meanings of words we imagine in use. So it will be useful to lay out two assumptions about linguistic understanding that I'll be leaning on.

The first assumption is that, bracketing context-sensitivity, the linguistic meaning of a whole declarative sentence is determined by the linguistic meanings of its parts and how they are syntactically composed, and that linguistic meaning in turn determines a proposition that the sentence expresses.[4]

---

[1] Kripke (1980, 127–8,136).

[2] See Salmon (1981, 52–4, 69–75), Soames (2002, chs. 9–11), and Salmon (2003, §2) for discussions of how to extend a definition of rigidity to general terms. I am broadly sympathetic with Salmon's proposal, which allows us to apply Kripke's definition of rigidity unmodified to general terms. Nothing in what follows really hangs on this though.

[3] Kripke did speak of "statements" that seem to fit all the job descriptions of propositions: these statements could be known, knowable a priori, true, or necessary, and are expressed by sentences (see Soames (2011, 78)).

[4] From here on out, I largely ignore the issue of context-sensitivity. The determination thesis is of course an assumption of compositionality, though I don't think we need to take a stand on the nuances of

The second assumption is that there is a cognitive relationship that an agent can in principle bear to the meaningful parts of a sentence that positions the agent to know what proposition the sentence expresses (in an ordinary, propositional sense of "know"). Given the assumption that sentences can express propositions, it is natural to think that we can at least sometimes get cognitively related to the meanings of meaningful sentence parts in ways that enable us to *think* the proposition the sentence expresses when it is written or spoken. That's just what it would be to gain a full understanding of the sentence by exploiting one's linguistic competence. But then any agent with that full understanding and a modest amount of reflection can step back to form the belief that *this* proposition they are thinking is what the sentence expresses. The second assumption I'm making is that such a belief could rise to the level of knowledge. So, for example, someone might get into a cognitive relation to the French words "neige", "est", and "blanc", and exploit those relations to come to know that "neige est blanc" expresses the proposition that snow is white.

When one bears this cognitive relation to a word I'll say that one has *informational competence* with it. I want to remain neutral about what this cognitive relation is. For example, some might find it natural to think it would have to be a further bit of propositional knowledge (about a word and its meaning, for example). Others might think it would have to be something more like a Russellian acquaintance relation. And still others might think it would ordinarily not even be a representational state.[5] I don't see a need to take a stand on the nature of the relation for the arguments to come.[6]

---

its proper formulation for my arguments here. For discussion see Szabó (2022). I say that a sentence *determines* the proposition it expresses, rather than is *identical* with it, since the compositional effects of a sentence may not be read off of its propositional content. For discussion see Dummett (1959), Lewis (1983), Stanley (1997), and Ninan (2010).

[5] Compare the relation of 'cognizing' taken to hold between agents and whole languages in Yalcin (2014), riffing on Chomsky (1980).

[6] I'm supposing informational competence with meaningful sentence parts enables one to know 'what proposition the sentence expresses.' This is a kind of question-taking knowledge, like 'knowing who someone is,' that is notoriously context-sensitive. A slightly more careful characterization might be that if one is informationally competent with all the meaningful parts of a sentence S (and recognizes how those parts are syntactically arranged) then there is some name n of the proposition expressed by S such that one is in a position to know that S expresses n. Alternatively: there is a proposition expressed by S such that one is in a position to know S expresses it. I suppress these refinements here, though I believe the arguments to follow apply just as well under them.

It's important to note that there is no presumption that informational competence is identical with, or is a granted by, other forms of linguistic competence (such as the competence needed to use words with the meanings they have in speech acts). There is also no presumption that it coincides with whatever cognitive relation is reported by ordinary language talk of 'knowledge of meaning.' It is a technical relation defined in terms of the technical notion of a proposition, and non-technical notions like that of knowledge.

2 Semantic Imaginative Transfer

When Kripke discusses the fact that philosophers have tended to conflate necessity and apriority, he considers and rejects one reason for thinking all necessities should be knowable a priori.

> [I]f something not only happens to be true in the actual world but is also true in all possible worlds, then, of course, just by running through all the possible worlds in our heads, we ought to be able with enough effort to see, if a statement is necessary, that it is necessary, and thus know it *a priori*. But really this is not so obviously feasible at all.
>
> (Kripke, 1980, 38)

I agree that this is not so obviously feasible, even for an ideal reasoner. But you don't need to check all worlds to establish the necessity of the kinds of claims Kripke discussed. It's enough to check *one*. Kripke recognized this. After all, he thought we could learn that Hesperus and Phosphorus are identical at all worlds where they exist just by checking whether they are identical at one world: the actual world.

How? Well, Kripkean necessities arise from the attribution of modally essential properties: properties such that if an object has them at any metaphysically possible world where they exist, they have them at all such worlds.[7] Identity and non-identity with an object are especially clear examples. But Kripke extended these ideas to other

[7] Cf. Soames (2003, 346). I borrow the terminology of "modal essence" from Robertson Ishii (2024) and Robertson Ishii & Salmon (ms.)—a notion that should be sharply distinguished from the more metaphysically loaded notion of a 'nature.'

properties such as *being human*, *being a table made of molecules*, and so on. Provisionally bracketing issues of non-existence, by arguing for Assertoric Rigidity, Kripke argued that attributions of modally essential properties to the referents of names and certain general terms would express propositions satisfying the following schema.

$$p \supset \Box p$$

The thought then goes as follows. We can know ahead of time that certain properties are modally essential ones, and so know that relevant attributions of such properties in a proposition p would satisfy the above schema. But it's compatible with this that one could only know p itself a posteriori. Then even though p would be necessary, we could not establish its necessity until we first established its truth at one world—the actual world—by empirical means, thereby enabling us to detach the conditional antecedent. This situation would result in the existence of necessary a posteriori truths.[8]

Now, what Kripke established is in fact a little stronger than revealed in the above schema. He established that relevant attributions of modally essential properties satisfy the schema's *necessitation*.

$$\Box(p \supset \Box p)$$

For example, what Kripke uncovered for the behavior of identities is not a contingent fact about those identities at the actual world. If an identity holds at any metaphysical possibility, it holds at all. This strengthening matters because it opens up an avenue to learn a Kripkean necessity merely by knowing its possibility through the following inference pattern.

$$\frac{\Box(p \supset \Box p) \quad \Diamond p}{p}$$

The second premise says p is true at some metaphysically possible world, let's say w. The first premise says that at any metaphysical possibility (including w) p is necessary if it is true. So at w, p is necessary. But then p is just plain true. And, incidentally, if it's

[8] See Kripke (1971, 152–3).

true, it's necessarily true. So in other words: establish *p*'s truth at *any* world, and you can establish its truth at *all*.

As the last step of the informal argument to *p* helps make clear, the above inference pattern is valid in modal logics, such as KB, that treat modal accessibility relations as symmetric. (That is, if everything happening in some world *w* counts as being 'metaphysically possible from within our world' then everything happening in our world counts as being metaphysically possible from within *w*.[9])

This would seem to make knowing a Kripkean necessity an easy matter! We don't need to know the proposition in question is actually true. It suffices merely to know it is metaphysically possible. So why can't we learn a Kripkean necessity just by seeing if we can coherently imagine it?

The familiar problem is that when we try to imagine a Kripkean necessity, there is a tension between achieving two goals that must be accomplished simultaneously to use the above inference pattern. The first goal is to imagine *that* the proposition we are investigating is true, in such a way that we know that proposition is what we are imagining. The second goal is to make sure we can know that what we are imagining is metaphysically possible.

It is easy for anyone to imagine a metaphysically possible world where water is H_2O, even before learning that water *is* H_2O. Just imagine a world where there is water, and stop there. In doing this you've clearly imagined a metaphysically possible scenario, and one in which water is H_2O. (After all, water is H_2O at all metaphysical possibilities.) The problem is that in so imagining you haven't imagined *that water is* H_2O in a way that you can recognize that's what you've imagined. You can only tell you've imagined water.

So to get the deduction going we need to imagine *that* water is H_2O. While it certainly seems that in some sense we can imagine this before knowing that water is H_2O,

[9] This is a generally accepted inference pattern in the logic of metaphysical modality, but I should flag that my argument doesn't depend on its being logically valid, which has been doubted. For example, Salmon (1989b) presents an argument that calls into question whether the system KB is a proper *logic* for metaphysical modality. But even he concedes that he "believe[s] that the characteristic B principle may well have no…counterexamples" (Salmon, 1989b, 4). Indeed, all I presuppose is that the individual conditionals "if it is possibly necessary that *p*, then *p*" are true in the particular cases of interest to me. I don't know of any reason to doubt this.

it only seems to be possible in the very same sense that we can also imagine that water has other chemical compositions. At least one of these ways of imagining has to be a way of imagining a metaphysical *im*possibility. And nothing in the act of imagining seems to distinguish between them. So we're not in a position to know that what we've imagined is metaphysically possible, which is of course essential to exploiting the above inference pattern.

The technique I'll be exploring in this paper is effectively a trick to get around the foregoing tension.[10] To exploit the trick, rather than 'directly' imagining the proposition that we want to know, we instead imagine conditions under which the proposition in question would be truly *expressed*, and in which we can *understand* the proposition thereby expressed. Sometimes a thinker can do this while keeping track of the fact that what they've imagined is metaphysically possible, and so put themselves back in a position to use inference pattern I've been discussing.

I call this unusual technique "*Imaginative Semantic Transfer*" (or sometimes "Transfer" for short). We employ semantic capacities—the capacity to understand what is expressed by some words—to transfer information about a necessity from an imagined possibility to actuality. It can be exploited in the following conditions.

> There is some proposition p such that a reasoner A imagines a scenario w in which a sentence S is used, in such a way that A can know…
>
> (i) that w is metaphysically possible,
>
> (ii) that S expresses something necessary, if true, at w,
>
> (iii) that S expresses a truth in w, and
>
> (iv) that S expresses p in w.

If a reasoner can satisfy conditions (i)–(iv), then they would be in a position to know the following conjunction by reasoning (where "EXP" relates sentences to the propositions they conventionally express).

[10] Soames also recognizes the possibility to try to circumvent this tension in imagination (though: only given assumptions about the nature of propositions I will not be making, and only for a very limited class of such propositions). See his argument that for true, contingent p, "in actuality, p" generally expresses an a priori proposition in Soames (2005, 2007).

$$\overbrace{\Diamond[\underbrace{\forall q[\mathrm{EXP}(S,q) \supset (q \supset \Box q)]}_{\text{(ii)}} \wedge \underbrace{\forall q[\mathrm{EXP}(S,q) \supset q]}_{\text{(iii)}} \wedge \underbrace{\mathrm{EXP}(S,p)}_{\text{(iv)}}]}^{\text{(i)}}$$

By knowing (i), the agent knows they imagine a genuine metaphysical possibility. By knowing (ii), they know that in that possibility S expresses something necessary if true. By knowing (iii), they know whatever S expresses is true in the imagined scenario. Finally, by (iv)—which is the key ingredient—they know what proposition is expressed by S, namely p. The whole modalized conjunction, which they accordingly know, entails p (in logics like KB), for essentially the reasons we've gone over. (Note that what is scoped under the possibility operator above entails $\Box p$.)

Is it really possible to use this technique to learn a Kripkean necessity 'for the first time?' I think so. In fact, I'm tempted by the thought that perfectly ordinary persons like you or I could sometimes do this. But in this paper I want to focus on a highly idealized case just to establish the *mere possibility* of using the technique. I do this for two reasons. First, the idealized scenario is one where there are vanishingly few resources to resist the availability of Transfer. And second, in spite of its idealized qualities, the scenario will still allow us to establish some very important general conclusions about *non*-idealized settings.

Let's consider the following set up.

> Angelica is a god living in a world consisting only of particles (that make up people, tables, and so on). The physical laws at this world are mildly indeterministic: every century an indeterministic effect occurs, but otherwise the future is in-principle predictable from the past.
>
> Angelica now knows (by whatever means, including empirical ones):
>
> – every position of every particle, *de re*,[11] at an earlier time t_0,
>
> – the physical laws, and

[11] By this I just mean: Angelica has, say, 'seen,' interacted with, and named each individual particle, knows all of its physical properties, and so on, and draws on that acquaintance in her knowledge of the distribution at t_0.

– all general supervenience relations between particles and macroscopic facts (e.g. how particles make up dogs and trees, etc.).

But due to a one-off indeterministic effect after t_0, the world could have evolved in one of exactly two maximally precise ways. In both possibilities a masked vigilante dubbed "Batman" by the media fights crime. But in each possibility a different individual takes up that role.

In w_1,[12] "Batman" refers to billionaire Bruce Wayne.

In w_2, "Batman" refers to circus acrobat Dick Grayson.

Angelica is a competent user of the name "Batman" and has even seen the caped crusader in action several times. But since she's not in a position to say which of w_1 and w_2 is actual, she cannot assert either "Batman is Bruce Wayne" or "Batman is Dick Grayson". One day, she receives a note under her door that reads: "Batman is Bruce Wayne". Call this sentence token "U". Let's suppose Angelica has no special reason to trust the veracity of U.

Using her god-like powers of intellection Angelica imagines both scenarios compatible with the laws and the distribution at t_0 particle for particle. She 'surveys' them in imagination and notes that in both worlds a note is slipped under her door reading "Batman is Bruce Wayne". Now she focuses on w_1 in particular (unbeknownst to her, a scenario whose description perfectly matches actuality) and asks herself "*what does that note mean in* w_1"?

She feels she understands it perfectly well. She can 'see' "Batman" introduced in this world to refer to Bruce Wayne, and so on. She knows what proposition it expresses as well as anyone in that world (including Bruce

[12] In spite of my notation and terminology, I don't presume that "w_1" names a possible world. It suffices for the argument if it names a class of worlds. Shortly, when we discuss Angelica imagining 'this world,' it will be fine if what she imagines fails to distinguish between several worlds in a class, as long as the same relevant propositions hold at all those worlds.

> Wayne). Let's call this proposition "Q". She sees Q is true in w_1, and that it is necessary if true. Accordingly she infers: Q. But, by hypothesis, Q is what is *actually* expressed by U. So she thereby comes to know the proposition that happens, at actuality, to be expressed by the token of "Batman is Bruce Wayne" that she sees.

Provided the initial description of this case is even coherent, Angelica essentially satisfies conditions (i)–(iii) on Transfer by stipulation. Angelica knows that the scenario she imagines when she imagines w_1 particle for particle is metaphysically possible. In fact, she knows it is *physically* possible, by knowing it is compatible with all the physical laws.[13] And by imagining it in such extraordinary detail, she can certainly tell that in the imagined scenario "Batman is Bruce Wayne" is used to express a true identity between referring names, and so that it expresses a true Kripkean necessity.

Moreover Angelica should satisfy condition (iv). After all, *she has access to all possible information* that could bear on the meanings of the names "Batman" and "Bruce Wayne" in the scenario she imagines. She knows how the names were introduced, the person that they were introduced to name, and the history of the further use of the names, including every context in which they are used. She knows (via supervenience relations) every relevant fact about mentality—the intentions of speakers, their qualitative mental states, and so on—that could possibly bear on the name's meaning.[14] In short, there is no fact at w_1 that someone at w_1 could discover that is relevant to the meaning of "Batman is Bruce Wayne" that Angelica does not already know. If *anyone* could *ever* know what proposition this sentence expresses, and understand it, Angelica should be able to.

[13] Had Angelica imagined facts other than the qualitative physical facts, or *de re* facts about particles of her acquaintance, then there could have been trouble. For example, if she imagined facts 'about Batman' then she may end up imagining in ways that some theorists would be tempted to say require her to represent a metaphysical impossibility in imagining at least one of her scenarios, even if that impossible scenario shares its qualitative features with a metaphysical possibility. But we are simply assuming that Angelica is *not* imagining in those ways.

[14] I've assumed the mental supervenes on the physical at this world. If one denies this is possible, simply add to the case relevant facts about irreducible mentality and have Angelica be aware of them. All we assume is that it is possible for Angelica to be aware of two possible distributions of these properties, determined by a prior single distribution of such properties by natural laws and a chance event, each of which helps determine a different referent for the name "Batman".

There are two reasons one could hesitate to accept this conclusion, one of which is based on a misunderstanding, and one of which calls for more commentary. Let's start with the misunderstanding.

One could be tempted to object as follows: "We can see ahead of time that Angelica could not come to know the proposition expressed by "Batman is Bruce Wayne" by this strategy. If she could do that by imagining w_1, then she should also, by imagining w_2, come to know what is expressed by "Batman is Dick Grayson" at w_2, which is not true for her. So even if it is tricky to identify exactly what has gone wrong in the original argument, we already know by parity of reasoning that something must have."

Readers of Kripke will quickly see what is wrong with this assessment. A key statement of our imagined interlocutor—the statement that what is expressed by "Batman is Dick Grayson" at w_2 is not true for Angelica—is false. The sentence "Batman is Dick Grayson" expresses a *different* proposition at w_2 than it expresses at w_1, owing to a different referent for the name "Batman" at w_2. As such it expresses a truth, and so a necessary truth, at w_2 all the same. Since both w_2 and w_1 are metaphysical possibilities (and all relevant parties exist at both worlds), what "Batman is Dick Grayson" expresses at w_2 is true at w_1 and so true 'for Angelica.' It is accordingly something she could in principle know. (The objection thus not only fails, but arguably backfires: intuitively we *want* it to be possible for Angelica to be able to learn the things that are true at her world. If she *can* learn this truth, why *not* think she can learn it through imagination?)

The objector is conflating the proposition expressed at w_2 by "Batman is Dick Grayson" (which is true at w_1 and w_2) with the proposition expressed at w_1 by "Batman is Dick Grayson" (which is false at w_1 and w_2). We are not saying that Transfer is giving Angelica any knowledge of the latter proposition. So there's no reason to worry that parity of reasoning forces us to give Angelica knowledge she could not have.

Still, there is a deeper worry in the vicinity here. The foregoing reply carefully distinguishes which propositions are expressed by sentences in different scenarios. But there is still something funny going on with the sentences themselves. I claim Angelica knows the proposition that happens to actually be expressed by "Batman is Bruce Wayne". Even so it is clear that she is not in a position, by any amount of mere reasoning, to be able to sincerely and justifiably assert the sentence that expresses that proposition.

Staring at the note slipped under her door, for example, there is clearly an important sense in which she cannot tell whether it is true or not. How could that be?

3 Kripke Puzzles

Here we should again turn to Kripke for illumination—this time to consider his introduction of what are now sometimes called "Kripke puzzles".[15]

Roughly, a Kripke puzzle is a case where an agent engages with two word instances that intuitively share the same meaning (either because they are direct translations of one another or simply two tokens of the same word type), the agent is intuitively linguistically competent with both words, and yet the agent is not in a position to tell that the words denote the same thing.

One of Kripke's examples came in the form of Pierre, a monolingual French speaker who is inclined to assert "Londres est jolie" on the basis of what he has heard about the city of London from fellow Frenchmen. Pierre moves to an unattractive part of London, not associating it with the city he called "Londres", and there learns English by immersion. On the basis of his experience he is disposed to sincerely assert "London is not pretty". Thus Pierre is disposed to sincerely assert one sentence and the denial of its straightforward and direct translation, without any introspectively detectable incoherence.

In another version of the puzzle, Kripke imagined a character, Peter, who hears of a pianist named "Paderewski" and a statesman of the same name. Reasonably presupposing they are not identical, Peter is disposed to sincerely assert "Paderewski has musical talent" intending to refer to the first and "Paderewski has no musical talent" intending to refer to the second—again without any introspectively detectable incoherence in his attitudes. In each of these cases, just as with Angelica, an otherwise linguistically competent character intuitively assents to a claim given to them in one setting, but then withholds or rejects the same claim given to them in another, without their being in a position to detect any incoherence in their attitudes by introspection or reasoning.

Kripke used these kinds of scenarios to cast doubt on the use of apparent failures of

[15] Kripke (1979).

substitutivity in attitude reports against Millian views, and more generally to emphasize caution in how to approach the lessons of Frege's puzzles. He did this by using his cases to construct a puzzle that appealed to no substitutivity premises, and whose salient resolutions seemed liable to resolve Frege's puzzles while leaving substitutivity intact.

Even though my interests here are slightly different,[16] it might be helpful to see the puzzling features of Angelica's example as a kind of extreme version of the cases Kripke devised. Pierre engages with two inter-translatable word types and Peter with two word tokens of the same type. But Angelica actually engages with a *single* word token, just in two different ways: perceptually and imaginatively.[17]

Whether or not there are genuine continuities here, the main reason I mention the connection between Angelica's case and those of Pierre and Peter is that it opens up an unusual space to resist the arguments I am making. To my knowledge, this space is not officially occupied by any theorist, but it is at least mentioned sympathetically by Kripke himself. Kripke often speaks as if in Kripke puzzles and even Frege puzzles, talk of propositions may simply break down. Kripke felt the puzzles he uncovered were so severe that this option should be kept on the table.

> When we enter into the area exemplified by… Pierre, we enter into an area where our normal practices of interpretation and attribution of belief are subjected to the greatest possible strain, perhaps to the point of breakdown. So is the notion of the content of someone's assertion, the *proposition* it expresses.

[16] This particular difference may be worth stressing: though Kripke formulated his puzzles using claims about ordinary language attitude ascriptions, my puzzles will not. I will get some related claims by helping myself to the existence of propositions as objects of attitudes. But beyond that I will be able to bypass some of controversies connected with ordinary language ascription. Because of this, I will also not be in a position to draw the same morals Kripke does. Nor will I ultimately give (or presuppose) a resolution to the puzzle about ordinary language ascription that Kripke articulates—that puzzle will remain outstanding.

[17] Probably one can get this phenomenon in more realistic cases by other means: seeing a written sentence reflected in a mirror, hearing an echo, or interpreting Braille both by sight and by touch. Incidentally, if one doesn't think Angelica has really narrowed her imaginative worlds down to two precise cases one could perhaps claim that the token she imagines is strictly speaking different than the one she sees. If so, I wouldn't put up much resistance. The claim about a single token doesn't play any significant role in the arguments to come. It is more of a passing curiosity that helps to see this case on a continuum with other Kripke puzzles.

(Kripke, 1979, 269)

I share Nathan Salmon's views (expressed in a review of Soames (2002)) that this remark represents at best a position only loosely favored by Kripke, and taken up by virtually no one in reaction to his puzzles.

> I interpret Kripke as favouring (without officially endorsing) the conclusion…that 'Pierre believes that London is pretty' is neither true nor false in his example, and likewise that ["Lois Lane believes that Clark Kent can flies"] is neither true nor false in the comic-book fiction. *Ignoring Kripke's advice (as has virtually every writer on the topic, other than Kripke)*, Soames endorses Millianism.
>
> (Salmon, 2003, 476, my emphasis)

Though Salmon was commenting on the state-of-play twenty years ago. I think his sociological observation remains largely true today. We do, of course, have many variations and modifications of the general framework of attitudes and propositions. For example, some take attitudinal relations to propositions to be, or to be grounded in, ternary cognitive relations rather than binary ones.[18] Some take propositional attitude ascriptions to be context-sensitive.[19] And so on. But Kripke's idea goes well beyond these and suggests that there is something fundamentally misguided about appealing to the idiom of attitude and proposition in these cases.

It is not surprising that few have taken up Kripke's radical suggestion. Kripke's puzzles look a lot like variants of Frege's puzzles, just as Kripke stressed. And claiming that propositional language simply collapses in all such cases feels like a kind of uninformative defeatism. There is a great deal of systematicity in these cases, and we should really exhaust all alternatives before simply throwing up our hands.

Even so, it is worth flagging that it is an assumption of my arguments that Kripke's threat of breakdown doesn't hold.

> No Breakdown: In otherwise typical Kripke and Kripke-like Puzzles, like those involving Pierre, Peter, or Angelica, sentences continue to express propositions which can be the objects of attitudes like belief.

[18] Salmon (1986), Schiffer (1992), Crimmins & Perry (1989), Crimmins (1995).
[19] In addition to some of the 'ternary relationalists' just mentioned, Stalnaker (1988).

Given Assertoric Rigidity and No Breakdown, I see little room to resist the conclusion that Angelica knows a Kripkean necessity expressed by "Batman is Bruce Wayne" by Imaginative Transfer.[20] Once there is a proposition expressed by that sentence,[21] the first three conditions on Transfer are straightforwardly satisfied by stipulations of the case. To deny the final condition, one would have to say that Angelica is missing some information about what proposition is expressed by the sentence when she imagines its use. But since she knows everything possible about its history and use, down to the minutest detail, I can't imagine what relevant information she could be lacking.

So, given Assertoric Rigidity and No Breakdown, we should accept that Angelica knows what proposition is expressed by the token sentence that she imagines, Q, well enough to think and so (by Transfer) come to know it. The key question now is: what follows from this?

We can divide the options in two, based on what one says about the further matter of whether Angelica knows 'what proposition is expressed by the token sentence that she sees before her.' Of course the token sentence she sees before her *is* the token sentence she imagines. But the descriptions "the sentence token Angelica imagines" and "the sentence token Angelica sees" are not rigid. Though they pick out the same token at w_1 they do not pick out the same token at w_2 (where we may suppose Angelica is also imagining w_1). So it is possible for Angelica to associate Q with the token under the first description but not the second.

A first option is to say that Angelica knows what proposition the sentence token she sees expresses as well, and well enough to think it. That is, she can associate the token of "Batman is Bruce Wayne" that she sees slipped under her door with Q, and know this to be the proposition it expresses. This route leads directly to the denial of

[20] Though, depending on the underlying view of attitudes, the conclusion may be slightly qualified: she knows it relative to at least one guise, or relative to at least one context, etc.

[21] One could deny that there is just one proposition expressed, and insist that Angelica knows one but not some of the others. (Alternatively, one might claim that there are different believing-relations here, each of which may take different propositional objects—see, e.g. Grzankowski & Buchanan (forthcoming).) This doesn't really change matters unless it explains why any of the several propositions expressed that happen to be necessary are not understood by Angelica. Again, she has as much information as possible that bears on that question.

the following intuitive principle.[22]

> Contradiction Detection: An agent that consciously and directly entertains a contradiction of the form $p \wedge \neg p$ is in a position to know by reasoning that one of the conjuncts contradicts the other.

To see this, we can slightly alter Angelica's case to give her strong, though not dispositive evidence that w_2 is actual. For example, we can suppose that the chancy event in the physical laws leading to the split possibilities w_1 and w_2 happens to favor w_2 with arbitrary strength. Then Angelica (at w_1) should obviously think that the sentence she sees expresses a falsehood. If she can recognize, and think, Q in association with that sentence, this means she should believe $\neg Q$. None of this interferes in the slightest with the arguments in favor of her being able to learn, and know, Q by Transfer. Angelica will then be able to consciously, directly, and simultaneously believe Q and its negation—a simple and straightforward contradiction—with not the slightest indication of any irrationality in her attitudes. It is clear that this is because even in thinking Q and its negation, she cannot tell by any amount of reasoning that the second thought negates the first.

To those who haven't encountered the idea of rejecting Contradiction Detection before, it may appear radical. Even Kripke expressed his sympathy for such a principle when discussing his puzzles about belief: "surely anyone, leading logician or no, is in principle in a position to notice and correct contradictory beliefs if he has them."[23] But this is in fact the route I alluded to before that has been extremely well explored, and happily endorsed by many philosophers. To deny Contradiction Detection is simply to strip propositions of one of their characteristic roles: that of rationally regulating cognition. And a natural way to do *that* is to say that our relation to propositions is *rationally mediated* by something else—something we can call a "guise". Perhaps when one and the same proposition is entertained under two different guises, one

[22] The following formulation talks of propositional form in ways that may not make immediate sense for unstructured theories of propositions, such as that advocated by Stalnaker (1984). That of course does not allow the view to escape the counterintuitive consequences here—though I won't explore the proper way to formulate them for the unstructured view.

[23] Kripke (1979, 257). Of course, this is not said fully in Kripke's voice. He is merely trying to explain the intuitive principles that end up leading to contradiction in his puzzles.

cannot be rationally faulted for failing to know one entertains the same proposition twice over. The idea that rational relations once reserved for propositions should in fact be taken over by mediating guises in this way is a prominent commitment of so-called Naïve Russellians.[24] Indeed, Kripke puzzles provided a key impetus for the resulting framework.

We're in tough territory, so that route should certainly remain a live option. But before making any rash decisions, we should remember that there is a second option here, and one that allows us to preserve Contradiction Detection. This is made salient by a feature of Angelica's case that also serves to distinguish it from those Kripke raised: its heavily *asymmetric* character. Angelica engages with the token U in two ways. But one of them is significantly more informative than the other regarding the meaningful properties of the token and, indeed, *as informative as it possibly can be*. The imaginative route gives her *all* information about the token that could bear on its interpretation as imagined, and its meaning-related properties including its truth and truth-conditions. Perceptually, it is clear she lacks some such information, which is partly why she can't tell if the sentence itself is true. If we are to retain Contradiction Detection, we cannot give Angelica knowledge that Q is expressed both by the token she sees and the token she imagines. And we must give her knowledge that Q is expressed by the token she imagines (as I say, no more information relevant to Q's being expressed is possible to give her). So we must conclude that Angelica does not know what proposition the sentence she sees expresses—she is not yet in a position to know it expresses Q.

This tells us something about the nature of the cognitive relation of informational competence which I introduced in my preliminaries. For if Angelica is not in a position to know that the sentence she sees expresses Q, and she has informational competence with "is", then it follows that she does not have informational competence with both of the names "Batman" and "Bruce Wayne" insofar as they are the token names she sees before her.

This claim likely feels shocking—probably about as shocking as the denial of Contradiction Detection once felt. Nothing short of a fully developed framework

[24] Braun (1998, 2000, 2001b,a), Richard (1983, 1986), Salmon (1986, 1989a), Schiffer (1978, 1987), Soames (1987, 2009, 1995) .

for language and thought that makes coherent sense of the alleged obstacles to informational competence should make us accede to it. But since we hardly have space for that here, let me pump intuitions just a little to give a flavor for the view's motivations.

Consider the following off-hand remark Kripke makes in trying to elicit rigidity intuitions for the name "Aristotle":

> A proper understanding of [the statement made with "Aristotle was fond of dogs"] involves an understanding both of the (extensionally correct) conditions under which it is in fact true, and of the conditions under which a counterfactual course of history, resembling the actual course in some respects but not in others, would be correctly (partially) described by [it].
>
> (Kripke, 1980, 6)

This sounds reasonable. But then, shouldn't we say: to understand the statement made by an instance of "Batman is fond of dogs" or "Batman is Bruce Wayne" one should understand the conditions under which a counterfactual course of history, resembling the actual course in some respects but not in others, would be correctly (partially) described by *them*? But wouldn't that have to mean Angelica in fact doesn't have a 'proper understanding' of the statement made by "Batman is Bruce Wayne" (as she sees that sentence)? After all, she can't tell whether it (partly) describes w_2 correctly or not—a (recognizably metaphysically possible!) total counterfactual course of history, resembling her own world history in some respects and not others. That possibility is given to her as clearly as any counterfactual possibility could ever be, in the minutest detail, built using elementary particles from the ground up. How could it be compatible with her understanding the statement that she can't tell if it would be true in metaphysically possible circumstances (and known to be such!) given so vividly and directly? (Note that she has no such problem understanding the truth-conditions of the token as imagined: she knows well that the statement it makes is true at w_1, w_2, and the 'actual world' whatever it may be.)

As I say Kripke's remark is off-hand—he is not articulating a developed theory of linguistic (let alone propositional) understanding in this passage. He was merely informally trying to build a case for rigidity intuitions. Not to mention, we're in the hard

cases Kripke explicitly flagged for propositional breakdown. That said, Kripke is giving voice to a natural version of the popular idea that sentence understanding comes with a grasp of truth-conditions. It's interesting that his articulation of this idea suggests that Angelica may lack the very understanding that the current proposal claims she lacks.

Let me elaborate the situation a little more by appeal to a natural idea that probably all theorists should accommodate: that one can approach or approximate (full) informational competence in degrees.

It seems like Angelica has full informational competence with "Batman" and "Bruce Wayne" inasmuch as she imagines those names in use—or at any rate, she approximates that informational competence as much as she is probably ever able to. The view we are considering is forced to say that Angelica only has some lesser approximation of informational competence insofar as she sees or hears the names used. But, isn't it clear that as she sees the names, and we contrast what she knows about the imagined names, that Angelica does not know *as much* about the meaning of the seen names as she could? That is, doesn't she know *more* about the meaning of the imagined names? After all, she knows what they would refer to at various metaphysical possibilities—where those referents help settle the truth-conditions that would be expressed with those names, and so would settle which propositions the names help to express. And as just noted above, she doesn't appear to know that yet about the names she sees.

Also, Angelica seems like she has to be able to grasp the propositions expressed by the imagined uses of "Batman is Bruce Wayne" at each of w_1 and w_2. If you asked Angelica which of those two propositions the note she sees expresses, she would naturally say that she couldn't tell yet and that she would need to know more to find out. Isn't that the intuitive description of the case, notwithstanding frameworks that enable us to say she really already knows, just under a very unhelpful guise? (And when we reflect, isn't the case precisely analogous to this one, involving persons and not propositions: Batman himself stands before Angelica, without her knowing which world she is in. In this case, wouldn't the natural *starting point* for exploration be that she does not know the truth of the proposition expressed by "Bruce Wayne stands before me"—rather than that she knows the truth of that proposition, just under an unhelpful Batmanish guise?)

These questions are, again, only serving to pump intuitions a little—I don't mean them too seriously. Let's set them aside for now and explore a different issue: If we deny Angelica informational competence with at least one of the names she sees, how far will that commitment generalize?

Well, first consider how much information Angelica can have about the token as she perceives it while allowing us to run the argument again. It should be clear we can rerun the case giving Angelica any amount of information as long *as Angelica can't tell that the names she sees corefer*. Anything short of that, and we can generate the conditions pressuring a rational contradictory belief in Q and its negation. This means that in order to get informational competence with the seen names in our puzzle, Angelica must be in a position to tell they corefer by reasoning.

The conclusion should obviously also generalize to other agents. We've seen that (given our assumptions) even with Angelica's vast stores of knowledge, she isn't in a position to know what proposition is expressed by the sentence token she sees in front of her, in spite of being a competent user of the words that figure in it by normal standards. It seems like anyone else who lacks Angelica's god-like powers of intellection should be in the same boat. After all, how could knowing strictly less put one in a position to understand a sentence better?[25] This is of course one of the points of considering such a highly idealized case, and the reason it has importance in spite of its idealization.[26]

Finally, we should recognize that everything that has been said about the identity "Batman is Bruce Wayne" could have equally been said about a non-identity like "Batman is not Dick Grayson" with a suitably modified case. Also, we could have devised another case to show that Angelica could know kind identities, and many kinds of modal essence attributions, ahead of time. For example, perhaps there is a substance in a god's

[25] I'm open to the idea that sometimes learning more things can defeat existing knowledge. Perhaps one can know p, but upon learning of the existence of true but highly misleading evidence against p, cease to count as knowing p. But not only does Angelica's case not have the structure in which more information is giving misleading evidence of any kind, but what has to be denied as she acquires more information is her ability to exercise a linguistic *capacity*. The thought would have to be that before imagining, Angelica can exercise a capacity for understanding a seen sentence well enough to associate it with the proposition it expresses—Q—and then somehow upon imagining the sentence lose that very capacity, even as she exercises it to know the meaning of the sentence she imagines.

[26] Cf. the use of the 'Two Gods' thought experiment in Lewis (1979). I think that Lewis's use of that particular thought experiment misfires, but I approve of the general strategy—see Shaw (2019).

surroundings that could either be made of more fundamental molecular structure abbreviated *ABC* or *DEF*. We can concoct a case where the god knows it must be one of these two, imagines the correct one (say that the substance is made of *ABC*), and learns the necessary connection between the substance and its constitution through Imaginative Transfer.

Putting all these generalizations together, the possibility of Imaginative Transfer seems to give us a method of arguing from Assertoric Rigidity, No Breakdown, and Contradiction Detection to various instances of the following transparency principle.[27],[28]

> Referential Transparency of Modal Essence: If *A* is informationally competent with both a referring rigid designator "*N*" and a predicate "*P*" expressing a modal essence property, then
>
> (i) if the referent of "*N*" satisfies "*P*", *A* is in a position to know by reasoning that the referent of "*N*" satisfies "*P*", and
>
> (ii) if the referent of "*N*" fails to satisfy "*P*", *A* is in a position to know by reasoning that the referent of "*N*" fails to satisfy "*P*".

This appears to make all true attributions of modally essential properties to rigid designators a priori.[29] After all, if you can even entertain a true attribution of this kind, you could introduce words to express it, and be informationally competent with them.[30]

[27] The following formulation is a little incautious in two respects. First, it brackets the contingent existence of objects or properties. A more careful formulation would involve conditional existence hedges of various kinds. Second, it doesn't take into account whether the attribution of modally essential properties is knowable *at all*, and would be need to be restricted only to knowable cases.

[28] There is one class of instances not covered by the foregoing argument form. This class involves the Kripkean necessities which concern metaphysically basic entities. For example, it's not clear one could run a version of Angelica's case for named elementary particles at her world. Even if Referential Transparency is qualified by a restriction to non-basic elements of reality, I find it hard to see how an adequate explanation of a pervasive lack of informational competence with terms not designating metaphysically fundamental entities would not carry over to require a pervasive lack of informational competence with terms that do designate them.

[29] Or, more cautiously, they should be knowable a priori if they are knowable at all.

[30] There is a little room here to try to resist the conclusion of apriority. One could maintain that it is possible to grasp a proposition without being in a position to know which proposition you grasp.

But then by the above transparency principle, you would be in a position to know its truth merely by reasoning. Of course the apriority of Kripkean necessities is taking on a rather unusual character here: these necessities are a priori, but *much* harder to entertain (or perhaps: much more unusual to entertain) than one would have expected!

Let's pause here to state our first moral of Imaginative Transfer. Given No Breakdown, we have only two routes for accommodating Kripkean necessities. The first is to deny Contradiction Detection (a route that at this juncture has been quite thoroughly explored). The second is to embrace Referential Transparency of Modal Essence and therewith the apriority of Kripkean necessities—a position that, as far as I know, wants for a single adherent.

4 Epistemic Illusions of Aposteriority

Imaginative Transfer presents us with a choice: salvage the aposteriority of Kripkean necessities via the denial of Contradiction Detection or embrace their apriority through Referential Transparency of Modal Essence. Put in those terms, it may seem like we are stuck sacrificing one intuitive claim (the idea that when we think a contradiction, we can at least in principle tell) or another (the aposteriority of attributions of modal essence). And this may lead one to think: better to stick with the devil we know and set aside the second, less familiar option.

But I think Imaginative Transfer does a little more than land us at this frustrating fork in the road. It strikes me as undercutting some of the key positive motivations for the path that was historically explored in the analytic tradition. In particular, it casts doubt on the reliability of the intuitions that Kripke's necessities are a posteriori to begin with.

Kripke took for granted that his necessities were only knowable a posteriori. And this was entirely reasonable. Intuitively, if you want to figure out whether Hesperus is Phosphorus, or whether water is H_2O, you need to investigate the world around you. But note that there is a clear confounding factor here. When an ordinary person discovers 'that Hesperus is Phosphorus' or 'that water is H_2O,' while they might thereby

I find this position a little hard to think through, especially outside the context of something like a guise-theoretic position, which we are by assumption setting aside here.

learn a metaphysical necessity they will always simultaneously be learning noteworthy contingencies. For example, as soon as someone learns that Hesperus is Phosphorus in the ordinary way, she might learn that a first and a second heavenly body pointed out to her (under those descriptions) are identical. She might also learn that "Hesperus" and "Phosphorus" corefer. And so on. The contingencies learned in this way may vary from person to person, and from necessity to necessity. But that some such contingencies are learned alongside the necessity, when it is learned by ordinary means, seems unavoidable. When one does whatever empirical work is needed to allegedly uncover the necessity, that empirical work will rule out contingencies in the process. That is just the nature of empirical discovery.

What this tells us is that is that pure Kripkean necessities, when we think them 'in the wild,' are inevitably *encrusted* in our thought with non-identical contingencies. For this reason, it would be nice to have some kind of method to separate out the pure necessity itself in thought from the inessential and variable contingencies that are typically attached to it in our thinking. That would give us a way to see the necessity more clearly on its own.

Semantic Imaginative Transfer is a bizarre technique in many ways. But for all its idiosyncrasies, it does *precisely* what we want in this context. While the use of the method may (as in Angelica's case) let an agent appeal to earlier learned empirical information, the technique can be exploited at a point where an agent has yet to learn or reflect on the Kripkean necessity that Transfer will teach them. And the use of Transfer at that juncture proceeds entirely by imagination and reasoning. Angelica doesn't learn any noteworthy contingencies while she engages in Transfer beyond perhaps the unavoidable contingencies that she is presently engaged in certain forms of imagination and reasoning. In this way, Transfer gives us the ability to strip a pure Kripkean necessity of any associated contingencies.

So although Imaginative Transfer may appear artificial, its artificiality is precisely what we want and need. It is like the artificiality of the laboratory setting, in which we are able to isolate or distill a substance which otherwise only appears in admixtures in the natural environment. In other words, it is the very artificiality of the case which gives us a method to disentangle a Kripkean necessity from the knot of distinct contingencies

it is typically bound up with. In this way, it allows us to see more clearly what that necessity is, and what it would be to *merely* come to know it, without the contingencies that everyone agrees are not identical to it, and that could easily obscure its nature.

Once this is seen, I think it is clear that merely learning the necessity is hardly what we expected it to be. *Merely* learning the necessity expressed by "Hesperus is Phosphorus" is not the sort of thing that would satisfy an astronomer seeking to know about the heavens. *Merely* learning the necessity expressed by "Water is H_2O" is not the sort of thing that would satisfy a scientist seeking to learn about the chemical composition of the clear drinkable liquid in their environment.

What the astronomer and the scientist would want know, and what it would take for us to say they had finished learning, was to learn the contingencies that would ordinarily accompany their learning the relevant necessities. Perhaps (as on our first path) this is because these characters would seek to learn the necessity under a guise that would inherently come along with learning those contingencies. Or perhaps (as on our second path) this is because these characters only care for the contingencies, and not for the necessity at all—except perhaps insofar as learning the necessity is a *byproduct* of learning the contingencies. Either way, the contingencies are what would matter to them. To merely learn the necessity, including to learn it under a guise separated from the acquisition of contingencies, would be of interest to practically no ordinary investigator. I must stress: this conclusion about the nature of Kripkean necessities depends only on the mere possibility of Transfer, which in turn depends merely on the existence of such necessities and No Breakdown. It holds on *either* of the only two paths left open by the mere possibility of Transfer.

This all reveals that the intuitions underlying the aposteriority of Kripkean necessities should be highly suspect, and are hardly the sorts of things that can be taken at face value. When we ask whether the proposition expressed by "water is H_2O" is a posteriori, it is natural to think of this as asking: could the ordinary person who we would describe as 'trying to find out whether water is H_2O' ever be satisfied in their search without empirical inquiry? The answer to this question is "no". But the reason for this negative answer is that anything short of acquiring some of the contingent information that would typically accompany learning the necessity would not satisfy such an

inquirer. And that contingent information will of course be a posteriori. Accordingly, answering this question doesn't tell us anything about the necessity in question, and in particular doesn't provide reason to think it is a posteriori. That would be to confuse the necessity with contingencies that typically come alongside it. To check whether the necessity itself can only be known a posteriori, we would have to isolate it in our thinking from any of the contingencies that come alongside it. Imaginative Transfer enables us to do this. And when we do, the necessity is revealed to be a highly unusual piece of 'information' (if we even want to call it that). It could play no interesting role in the inquiry of the kinds of characters that form our basis for intuitive judgments of aposteriority.

Perhaps this result shouldn't come as such a great surprise. What we are uncovering might be termed an 'epistemic illusion of aposteriority' that would directly parallel modal illusions of contingency that Kripke recognized and discussed at some length in *Naming and Necessity*. Not only do the two illusions run parallel, but they seem to have exactly the same source. They are two sides—epistemic and metaphysical—of the same illusory coin.

Just to remind of the context: Kripke felt the need to explain why, even after uncovering an identity, we have a persistent intuition that 'things could have turned out otherwise' in a specifically metaphysical sense. He puts the concern here in the mouth of an imagined interlocutor who grasps the distinction between metaphysical and epistemic possibility, and yet continues to feel something is missing from Kripke's account.

> Nor can you evade the difficulty by declaring the "might have" of "might have turned out otherwise" to be merely epistemic, in the way that "Fermat's Last Theorem might turn out to be true and might turn out to be false" merely expresses our present ignorance … In these mathematical cases, we may have been ignorant, but it was in fact mathematically impossible for the answer to turn out other than it did. Not so in your favorite cases of essence and of identity between two rigid designators.
>
> (Kripke, 1980, 141)

Kripke makes a partial concession to this imagined interlocutor. He maintains that, metaphysically, Hesperus could never have been other than Phosphorus. But he grants

that there is nevertheless a genuine metaphysical possibility on which a thinker would have had the same qualitative evidence even though the heavenly body named "Hesperus" wouldn't have been that named by "Phosphorus". This possibility creates a kind of illusion of metaphysical contingency: there is a metaphysically possible world where "Hesperus is Phosphorus" expresses a falsehood, even if that is not a world at which Hesperus is not Phosphorus (since it is a world at which at least one of "Hesperus" and "Phosphorus" must mean something different).

Note that for this to work as an explanation of our intuitive judgments, it must be that when we are asked whether the proposition expressed by "Hesperus is Phosphorus" is metaphysically necessary or contingent, we can easily be misled into thinking it is contingent by becoming confused about what proposition it expresses or what its truth-conditions are. After all, as just stressed, Hesperus remains Phosphorus at the kind of world Kripke described. So merely noting that we are attending to this possibility is unhelpful as an explanation of our judgments unless those judgments are also that the proposition (actually) expressed by "Hesperus is Phosphorus" is false in this scenario.

How does our confusion arise? Well, we could simply confuse the proposition actually expressed by "Hesperus is Phosphorus"—a necessity—with a different proposition which is false at the relevant possibility (for example, the proposition that "Hesperus is Phosphorus" expresses a truth). Or, perhaps, we somehow think of the proposition actually expressed by "Hesperus is Phosphorus" that it has the truth-conditions of such a contingency. These are just a few options among many that are broadly compatible with Kripke's explanatory strategy. The point is that Kripke recognized the need to supply some explanation of an illusion of metaphysical contingency that went beyond a simple conflation of epistemic and metaphysical modalities. And Kripke supplied that explanation in an eminently reasonable way: by showing how the illusion could have resulted from confusing his necessities with certain contingencies.

But if this explanation is roughly on the right track, then several questions immediately arise. If many of our intuitive judgments of contingency are revealed in these cases to be the product of an illusion, what reason do we have to trust our judgments of aposteriority? Shouldn't we expect any tendency of ours to misattribute contingency to the proposition expressed by "Hesperus is Phosphorus" to come along with parallel

misattributions of aposteriority?

Imaginative Transfer confirms suspicions along these lines, by showing us just how unusual a piece of information a Kripkean necessity is when fully freed from the contingencies it can easily be confused with. Indeed, I think it shows us something more. When Kripke engages with the phenomenon of modal illusion he strikes me as displaying a tendency to think that this involves a simple confusion or conflation, and that once we draw the relevant distinctions and describe the relevant possibilities with suitable clarity, our confusion dissolves and we get a clearer grip on the necessary proposition and its associated properties. Imaginative Transfer, however, shows that getting a firm grip on a Kripkean necessity, independently of any confounding contingent information that would typically be learned alongside it, is in fact an extremely unusual cognitive task. This means that entertaining the right proposition, or the right proposition in the right ways, while forming a judgment of aposteriority may be a much more delicate matter than Kripke supposed.

This, then, is the second moral I want to draw from Imaginative Transfer: that the judgments that underlie our intuitions that Kripkean necessities are a posteriory are inherently unreliable. They are subject to a form of epistemic illusion of aposteriority that parallels more familiar metaphysical illusions of contingency.

This does not, of course, constitute an argument that Kripkean necessities are a priori. It at most points out a need for argument which has not been supplied, and gives grounds for suspicion. Still, that suspicion takes on a special character given our first moral. We have only ever explored one of two sound paths for accommodating Kripkean necessities. But we explored that path out of a felt need to respect intuitions that it turns out are unreliable. If the unreliable intuitions prove to be outright false, we would be driven down the alternate path which, oddly, has not been explored at all. And what lies down that path? It would seem foolhardy of us not to check.

References

Braun, David. 1998. "Understanding Belief Reports." *Philosophical Review*, vol. 107 (4): 555–595. [17]

—. 2000. "Russellianism and Psychological Generalizations." *Noûs*, vol. 34 (2): 203–236. [17]

—. 2001a. "Russellianism and Explanation." *Noûs*, vol. 35 (s15): 253–289. [17]

—. 2001b. "Russellianism and Prediction." *Philosophical Studies*, vol. 105 (1): 59–105. [17]

Chomsky, Noam, editor. 1980. *Rules and Representations*. Columbia University Press, New York. [3]

Crimmins, Mark. 1995. "Contextuality, Reflexivity, Iteration, Logic." *Philosophical Perspectives*, vol. 9: 381–399. [14]

Crimmins, Mark & John Perry. 1989. "The Prince and the Phone Booth: Reporting Puzzling Beliefs." *Journal of Philosophy*, vol. 86 (12): 685. doi:10.2307/2027014. [14]

Dummett, Michael. 1959. "Truth." *Proceedings of the Aristotelian Society*, vol. 59 (1): 141–62. [3]

Grzankowski, Alex & Ray Buchanan. forthcoming. "Content Pluralism." *Inquiry: An Interdisciplinary Journal of Philosophy*. [15]

Kripke, Saul A. 1971. "Identity and Necessity." In *Identity and Individuation*, Milton Karl Munitz, editor, 135–164. New York University Press. [5]

—. 1979. "A Puzzle About Belief." In *Meaning and Use*, A. Margalit, editor, 239–83. Reidel. [12], [14], [16]

—. 1980. *Naming and Necessity*. Harvard University Press. [2], [4], [18], [25]

Lewis, David K. 1979. "Attitudes de Dicto and de Se." *Philosophical Review*, vol. 88 (4): 513–543. doi:10.2307/2184843. [20]

—. 1983. "Individuation by Acquaintance and by Stipulation." *Philosophical Review*, vol. 92 (1): 3–32. doi:10.2307/2184519. [3]

Ninan, Dilip. 2010. "Semantics and the Objects of Assertion." *Linguistics and Philosophy*, vol. 33 (5): 355–380. [3]

Richard, Mark. 1983. "Direct Reference and Ascriptions of Belief." *Journal of Philosophical Logic*, vol. 12 (4): 425–52. [17]

—. 1986. "Attitude Ascriptions, Semantic Theory, and Pragmatic Evidence." *Proceedings of the Aristotelian Society*, vol. 87: 243–262. [17]

Robertson Ishii, Teresa. 2024. "Two Senses of 'Essence' and a Straw Man." *Critica*, vol. 56 (168): 3–27. [4]

Robertson Ishii, Teresa & Nathan Salmon. ms. "Modal Essence and Whatness Essence." [4]

Salmon, Nathan U. 1981. *Reference and Essence*. Princeton University Press, Princeton. [2]

—. 1986. *Frege's Puzzle*. Ridgeview. [14], [17]

—. 1989a. "Illogical Belief." *Philosophical Perspectives*, vol. 3: 243–285. [17]

—. 1989b. "The Logic of What Might Have Been." *Philosophical Review*, vol. 98 (1): 3–34. [6]

—. 2003. "Naming, Necessity, and Beyond." *Mind*, vol. 112 (447): 475–492. doi:10.1093/mind/112.447.475. [2], [14]

Schiffer, Stephen. 1978. "The Basis of Reference." *Erkenntnis*, vol. 13 (1): 171–206. [17]

—. 1987. "The 'Fido'-Fido Theory of Belief." *Philosophical Perspectives*, vol. 1: 455–480. [17]

—. 1992. "Belief Ascription." *Journal of Philosophy*, vol. 89 (10): 499–521. [14]

Shaw, James R. 2019. "De Se Exceptionalism and Frege Puzzles." *Ergo: An Open Access Journal of Philosophy*, vol. 6: 1057–1086. [20]

Soames, Scott. 1987. "Direct Reference, Propositional Attitudes, and Semantic Content." *Philosophical Topics*, vol. 15 (1): 47–87. [17]

—. 1995. "Beyond Singular Propositions?" *Canadian Journal of Philosophy*, vol. 25 (4): 515–549. [17]

—. 2002. *Beyond Rigidity: The Unfinished Semantic Agenda of Naming and Necessity*. Oxford University Press, New York. [2], [14]

—. 2003. *Philosophical Analysis in the Twentieth Century Vol. 2: The Age of Meaning*. Princeton University Press. [4]

—. 2005. *Reference and Description: The Case Against Two-Dimensionalism*. Princeton University Press, Princeton. [7]

—. 2007. "Actually." *Aristotelian Society Supplementary Volume*, vol. 81 (1): 251–277. [7]

—. 2009. "Belief and Mental Representation." In *Philosophical Essays, Volume 2: The Philosophical Significance of Language*, Scott Soames, editor, 81–110. Princeton University Press. [17]

—. 2011. "Kripke on Epistemic and Metaphysical Possibility: Two Routes to the Necessary Aposteriori." In *Saul Kripke*, Alan Berger, editor, 167–188. Cambridge University Press. [2]

Stalnaker, Robert. 1984. *Inquiry*. MIT Press. [16]

—. 1988. "Belief Attribution and Context." In *Context and Content*, 150–167. Oxford. [14]

Stanley, Jason. 1997. "Rigidity and Content." In *Language, Thought, and Logic: Essays in honor of Michael Dummett*, 131–156. Clarendon Press, Oxford. [3]

Szabó, Zoltán Gendler. 2022. "Compositionality." In *The Stanford Encyclopedia of Philosophy*, Edward N. Zalta & Uri Nodelman, editors. Metaphysics Research Lab, Stanford University, Fall 2022 edn. [3]

Yalcin, Seth. 2014. "Semantics and Metasemantics in the Context of Generative Grammar." In *Metasemantics: New Essays on the Foundations of Meaning*, Alexis Burgess & Brett Sherman, editors, 17–54. Oxford University Press. [3]