

The Meta-Problem of Consciousness is the Problem of Acquaintance

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Abstract

Studying the meta-problem of consciousness has many advantages in getting to understand the hard problem. However, the science on the meta-problem is arguably very pre-mature. A lot of philosophical work on clarifying the problem needs to be done before we can come up with promising theories to solve it. Especially what exactly the central explanandum of the meta-problem is, is yet unclear. I argue that every meta-problem theory needs to account for (I) the uniqueness of the meta-problem, (II) needs to be in line with empirical data, and (III) must be susceptible for topic-neutral explanations. By using a problem-intuitions oriented approach, investigation on (I) reveals that the only explanation for the uniqueness (and the very existence) of the meta-problem is acquaintance, since our immediate epistemic access to our conscious experiences is just what makes our problem intuitions about consciousness what they are, i.e. uniquely puzzling. However, if acquaintance is the main explanandum of the meta-problem, we must expect acquaintance to be the source of all problem intuitions. This then, must be manifested in a very high degree of universality of knowledge intuitions (to which acquaintance intuitions belong). Luckily, this is exactly what we seem find when consulting current empirical data and what can strongly be expected to be revealed by future studies from X-Phi. The problem of topic-neutrality poses no objection to acquaintance being the main explanandum, since it just formulates the underlying problem of the meta-problem: Explain acquaintance in topic-neutral terms or explain why this can't be done.

1. Introduction: From the Hard to the Meta-Problem of Consciousness

The hard problem of consciousness is the problem of explaining how and why subjective experiences can arise from objective neural brain processes. Despite similar formulations can be found throughout the history of philosophy¹, it wasn't until the 1990s that the problem was coined by David Chalmers in his seminal paper „Facing Up to the Problem of Consciousness“ (1995). It has kicked off extensive research in and outside of philosophy trying to get a grip on one of the greatest mysteries of (not only) human history. Over 25 years later, philosophers and scientists working collaboratively in the field of «Consciousness Studies» have made progress in trying to understand consciousness, e.g. in gaining greater understanding of the connection between cognition (awareness) and consciousness or in trying to find a neural cor-

¹ Most famously in Descartes' (1641) *Meditations*, in Leibniz' (1714) *Monadology* and in Huxley's (1866) *Lectures in Elementary Physiology*. It's interesting to note that the history of the hard problem parallels the history of the humanities. Conceptions of both can be found throughout the history of philosophy but it wasn't until the 19th century that in response to the rapid development of natural sciences formulations similar to the hard problem suddenly appeared much more frequently (see Chalmers 2020a, 230-36).

relate of consciousness (NCC). Unsurprisingly though, the hard problem still remains as mysterious as ever; there are still wide ranging disagreements even on the most basic matters about consciousness (e.g. if consciousness even exists). However, with the publication of Chalmers' (2018) „The Meta-Problem of Consciousness“, recent research (especially among philosophers) seems to have turned a considerable part of its interest to another aspect of consciousness. The issue that is now primarily of concern is not the holy grail of directly trying to explain how and why brain processes give rise to subjective experiences but to understand how our *judgments* or *intuitions* about these subjective experiences come about (cf. *ibid.*). In a sense, the explanatory strategy has turned upside down: since the hard problem seems to be too hard of a problem to tackle directly, we dispense from starting „at the bottom“ by first explaining consciousness and then its ramifications (i.e. our intuitions about consciousness) but instead proceed „top-down“ by first explaining these ramifications and then work our way „down“ to the root of the problem, i.e. the hard problem.²

What are the reasons for this shift of interest into the opposite explanatory direction? At least three main reasons come to mind: *First*, explanatory power: a solution to the meta-problem will explain much (or even all) of the hard problem (cf. Chalmers, *ibid.*. However, see White 2020). If you're a realist, solving the meta-problem will most likely tell you something crucial about the hard problem, since intuitions about consciousness seem to be strongly intertwined with consciousness itself. If you're an illusionist, solving the meta-problem will dissolve the hard problem because then all there is to consciousness are the judgments we make and the intuitions we have about it and no further mystery remains. And if you're neutral on that, solving the meta-problem will nevertheless constrain your theory in one way or another. *Second*, explanatory susceptibility & falsification: as Chalmers points out, the meta-problem is subject to *functional* explanations as it seems as if judgments and intuitions about consciousness don't presuppose non-functional consciousness in its explanations. In effect, the meta-problem can be considered an easy problem (*ibid.*). Thus, in contrast to the hard problem, the meta-problem is much more susceptible for (scientific, functional) explanations. This also causes meta-problem theories in principle to be much easier falsifiable (or falsifiable at all) by empirical data than most theories of the hard problem. And *third*, culminating the

² It's important to note, as Chalmers (*ibid.*, 8f.) does, that the meta-problem is not a new way to address the hard problem. Similar to the hard problem, Chalmers coined the term but the idea is much older. Especially eliminativists, but also important figures throughout the history of western philosophy have argued for a long time for something which is very close to Chalmers' meta-problem.

first two reasons, unification of research: while there is much disagreement on the nature and the scientific status of the hard problem, the meta-problem unites much more research interests than the hard problem. Where on the level of the hard problem it is still debated what the explanandum of the problem is (consciousness or merely our judgments about it), on the level of the meta-problem this is not the case. Thus, Chalmers (ibid., 11) writes „The meta-problem is a problem for scientists and philosophers alike, reductionists and non-reductionists alike, dualists and physicalists alike, illusionists and non-illusionists alike“. At the end of the day, whatever the nature of consciousness turns out to be, what no one can deny is the obvious fact that, day-to-day, we make judgements about our experiences and have intuitions about them.³ Explaining this is therefore the least common denominator in the study of consciousness.

Due to these reasons, one might expect the meta-problem research programme to be sufficiently elaborated. However, this is not yet the case; the study of the meta-problem is arguably very pre-mature. Apart from the very general framework in which research on the meta-problem takes place, as set forth by Chalmers' article, many basic things on which substantial progress relies are yet unclear. Most strikingly, the question on what exactly needs explaining in the first place, i.e. the question of an appropriate *explanandum*, is still open to debate. Of course, problem intuitions are the main explanandum. But since they significantly vary with respect to crucial explanatory dimensions of the meta-problem (e.g. regarding their degree of universality), merely pointing to problem intuitions seems to be insufficient to progress on the meta-problem. That's why in this paper, I'm trying to clarify the meta-problem with regards to its explanandum. More precisely, what I'm asking is: in light of the complex nature and variation found among problem intuitions, what property of problem intuitions is it that primarily needs to be explained in order to progress on the meta-problem?

My method attempts to pose constraints on possible explananda (sect. 2) and then discusses what explanandum is apt for explanation on the basis of these constraints (sect. 3-5). I'll argue that any theory has to account for the fact that (I) the meta-problem of consciousness is unique which is the reason why there even is a meta-problem of consciousness in the first place. While being neutral on realism and illusionism, I'll argue that something like acquaint-

³ In line with Chalmers (ibid. 11) terminology, in the following I will use „problem intuitions“ to refer to our judgements and intuitions about consciousness. Furthermore, if not stated otherwise, when speaking of problem intuitions, this must always be taken to refer to problem intuitions *about consciousness* (later on, I will sometimes use «PIC» to refer to problem intuitions about consciousness). Likewise, when speaking of the meta-problem, I always refer to the meta-problem *of consciousness*.

tance seems to provide the only candidate explanation for (I) and thus for the occurrence of the meta-problem (sect. 3.1). However, every theory that seeks to explain our problem intuitions have also to account for the fact that (II) some problem intuitions are probably (nearly) universal⁴, i.e. every theory has to respect empirical data (are problem intuitions universal, and if so, which ones are and why are others not?). And last (but probably not least) meta-problem theories must also factor in (III) that problem intuitions obviously require topic-neutral explanations as put forward by Chalmers (2018, 16ff.) Based on the argument that only acquaintance can account for (I), I'll investigate if it aligns with (II) and (III). (II) poses a general problem for the meta-problem, but, as I'm going to argue, there are currently no empirical reasons to dismiss the universality of at least knowledge intuitions. Rather, based primarily on a priori considerations, the empirical landscape is likely to suggest the opposite and point into a direction that will reveal an immediate epistemological relation as the source of all problem intuitions (sect. 3.2 & 4). The matter is less clear with (III) and future research has to do more work on that, but, as I will eventually put forward, thinking about how acquaintance might be compatible with topic-neutral explanations is exactly what the meta-problem is in its core (sect. 5). This reveals acquaintance (or something in the vicinity of it) as the main explanandum of the meta-problem. Either way, so is the underlying claim of this paper, understanding the way in which we introspectively *access* our phenomenal states is key to get any way near an explanation of why and how our problem intuitions about consciousness arise the way they do and thus to solve the meta-problem.

An important final note: throughout this paper, I'll use acquaintance as placeholder for our immediate epistemic relation that we maintain to our own phenomenal states, whatever the nature of this relation eventually turns out to be. So acquaintance must *not* be read, as it is frequently done, as some kind of mysterious relation that contradicts physicalism from the outset, but rather as synonymous with a loose (*de re*) understanding of strong, direct awareness relation to the felt quality of one's own subjective experience.⁵ My thesis doesn't require

⁴ Though universality is stronger than mere widespreadness, in the following I'll use „universality“ and „widespreadness“ interchangeably. It's unclear how much widespreadness problem intuitions need to have in order to count as genuinely widespread. For now it's sufficient for problem intuitions to count as widespread if a good majority of people share the respective problem intuition (see Chalmers 2020a).

⁵ We can stick roughly to the definition of Thomas Raleigh in his 2019 collection of essays on acquaintance. There, he characterizes acquaintance generally as „[...] a relation of conscious awareness that is fundamentally distinct from thinking a true thought or forming an accurate judgment, in which the mind has some kind of unmediated confrontation with some portion of reality.“ (Raleigh 2019, 7).

to define acquaintance more precisely than that, as this is exactly the very question at hand. I'll return to that issue in the final section (sect. 5).

2. The Meta-Problem Research Programme Revisited

The meta-problem is the problem of explaining what Chalmers calls „problem intuitions“ about consciousness. By this he understands „[...] dispositions to make specific reports and judgments [about consciousness] [...]“ (ibid., 11). Such intuitions include, e.g., modal intuitions like the possibility of zombies (ibid., 13). This is the general *explanandum* of the meta-problem.

Though this is already an arguably part of the discussion on the meta-problem, most agree that in order for the meta-problem not to break down into the hard problem, what is needed are *topic-neutral* explanations of problem intuitions, i.e. explanations in functional terms that do not mention consciousness. And if you think this to be impossible, e.g. by arguing that intuitions about consciousness necessarily involve phenomenal beliefs which can only be cast in non-functional phenomenal terms, then you have to explain why this is so (ibid., 15ff.). So the *explanans* of the meta-problem (whatever that may be) has to be constrained by topic-neutrality (cf. Kammerer 2019a, 9f.). Together with the explanandum, this renders the general research programme of the meta-problem.

On the basis of Chalmers' sketch of the meta-problem research programme, one could hold that while the explanans is unknown, what is known is the explanandum of the debate, viz. our problem intuitions about consciousness. This is true but must be considered as no more than the very *general* explanandum that outlines the explanatory framework for research on the meta-problem, parallel to phenomenal experience which represents the general explanandum of the hard problem and which only serves to mark the theoretical borders of possible explanans of consciousness. Similar to experience-oriented phenomenological approaches of solving the hard problem (see e.g. Gallagher 2017), it therefore seems appropriate to adopt a problem intuition-oriented approach which focuses on the essential properties of problem intuitions and their variations in greater depth and then attempts to construct a satisfying theory in accordance with these properties and variations.

In my view, this problem intuition-oriented approach has been neglected so far. Though everyone wants to explain problem intuitions, barely anyone gets to consider them in much detail. This, however, is necessary, since, when following the problem intuition-oriented approach, we find them differing on at least three for the meta-problem highly important dimensions:

- a. Form: problem intuitions take many different forms, including knowledge intuitions, modal intuitions, metaphysical intuitions, etc.⁶ They represent *classes* of problem intuitions under which *subclasses* of problem intuitions fall.
- b. Degree of universality: these different forms of problem intuitions significantly vary in terms of how widespread they are. And also, even within a specific class of problem intuition (like metaphysical intuitions), single subclasses of problem intuitions vary in their degree of universality (like anti-physicalist intuitions in contrast to physicalist intuitions).
- c. Degree of explanatory interdependence: problem intuitions significantly vary in terms of how much they contribute to the generation of other problem intuitions downstream from them. Metaphysical intuitions, for instance, are arguably heavily influenced by one's having (tacit) knowledge intuitions prior to them, as intuitions about Mary indicate (cf. sect. 3.2).

Thus, some problem intuitions carry significantly more explanatory power for the meta-problem than others and hence prove more explanatory relevance for research on it. That's why it's not sufficient to rely just on problem intuitions in general as explanandum in order to progress on the meta-problem. Rather, it seems as if this explanandum has to be narrowed down in accordance with what a satisfying solution to the meta-problem must take into account on the basis of a more in-depth analysis of problem intuitions, which is to say, by following a problem intuition-oriented approach.

2.1 Constraining possible explananda

Meta-problem theories have to be constrained by the following three aspects:

- (I) Uniqueness of the meta-problem
- (II) Empirical evidence

⁶ See Chalmers (ibid., 12f.). Cf. sect. 3.2 of this paper, where I discuss different forms of problem intuitions and their explanatory relation to each other.

(III)Topic-neutrality

While (II) and (III) are obvious constraints for meta-problem theories, (I) is a little more controversial (see the objection in sect. 3.1). However, (I) is key in solving the meta-problem. In the following, I'll briefly discuss (I), (II), and (III) in turn.

Ad (I): First of all, we can observe that for all mental phenomena we *could* ask the meta-problem question (i.e. the question of how we come to have the problem intuitions about the respective mental state), but for none but consciousness we actually *do* so. Thus, it seems as if any meta-problem theory has to account for the fact that the meta-problem of consciousness is in some essential sense unique. Why is it unique? Since the meta-problem is the problem of explaining problem intuitions, it has to be some property of our problem intuitions that renders the meta-problem unique. That is, there must be some property P that distinguishes our problem intuitions about consciousness (PI_C) from problem intuitions about other mental phenomena (PI_M). What P seems to be, is laid out at length in the next section (3.1). For now, to make the point that (I) is a necessary requirement for possible explananda, it suffices to demonstrate briefly *that* PI_C are in fact unique. This can be done in various ways. But I think it's fully adequate to simply recognize the minimal fact that, *prima facie*, PI_C very plausibly carry deep puzzlement which is *prima facie* very plausibly not found with PI_M (for paradigmatic examples, see the next section). So, minimally, there is a strong *prima facie* difference between PI_C and PI_M, and this difference needs to be accounted for in some way by meta-problem theories.⁷ By that, explanations of PI_C must in some way substantially differ from explanations of PI_M.⁸ And since this substantial difference in explanation, necessarily, there is some feature of the meta-problem of consciousness which is not to be found with other alleged „meta-problems“. This highlights the uniqueness of the former.

Ad (II): If problem intuitions aren't universal, the meta-problem won't tell us anything about consciousness, since then problem intuitions are caused by varying, consciousness-independent factors and a universal basis of these intuitions is not existent. This is a general requirement of the entire meta-problem as commonly acknowledged. But apart from that, meta-problem theories must also take into account empirical evidence for the *varying widespreadness* of specific problem intuitions (cf. Irvine 2019). If it turns out that people have varying

⁷ This might be referred to as the «meta-meta-problem»: We have the intuition that PI_C (i.e. PI_C *as such*) are puzzling, which we don't have when considering PI_M.

⁸ This causes theories that (mostly unwillingly) explain *both* PI_C and PI_M at once insufficient. And this is actually what we find with most current meta-problem theories. See Chalmers (ibid., sect. 2).

problem intuitions about consciousness, then the meta-problem won't make us proceed on the hard problem. If most people share some specific problem intuitions about consciousness, but this doesn't align with what the theory suggests which problem intuitions are more universal, then the theory also falls short of accounting for a satisfying explanandum. Thus, (II) requires meta-problem theories to respect two empirical constraints: *Universality* of problem intuitions and *variation* across them.

Ad (III): Meta-problem theories have to be constrained by topic-neutrality (Chalmers, *ibid.*, 16). In order not to break down into the hard problem and thus not to shift the explanandum back to where we started, *viz.* consciousness itself, we have to give an explanation of the explanandum that doesn't presuppose consciousness, but can in principle be stated in non-phenomenal, functional terms.⁹

Each of (I) to (III) is a necessary explanatory condition for meta-problem theories. And taken together, they might even be sufficient. By imposing explanatory constraints on meta-problem theories, we thereby imposed constraints on possible explananda. More precisely, by explicating what meta-problem theories necessarily need to account for in their explanation, many possible explananda of the meta-problem (apart from just problem intuitions in general) are excluded from consideration. In fact, as we will see in the next section, only one explanandum seems to be able to cover the explanatory constraints given by (I).

3. The Case for Acquaintance

3.1 What property makes PI_C unique?

As explained in the last section, there has to be a property of PI_C which is the main reason the meta-problem of consciousness being unique. That's why, in this subsection, I'll start by zooming in on a specific subclass of problem intuitions in order to find that property. I'll zoom in on anti-illusionist or realist intuitions about consciousness, as these problem intuitions demonstrate most vividly what property makes PI_C so special. For this purpose, I dig into

⁹ As Chalmers (*ibid.*, 17) makes clear, this does not require consciousness to be causally, explanatorily, or justificatorily irrelevant for our problem intuitions.

the debate about consciousness realism and illusionism.¹⁰ In the second part of this subsection, I will zoom out and apply the discussion to PIC in general to underpin the case for acquaintance.

There's a lot of back and forth between illusionists and realists about consciousness.¹¹ However, most arguments (at least within the „first-order“ debate) always seem to break down into what Chalmers (2018, 53) coined the „Moorean argument“ after G.E. Moore's famous argument to conclusively reject external world skepticism. Chalmers argument runs as follows:

1. If illusionism is correct, no one ever feels pain.
2. I feel pain.
- C. Illusionism is false.

Moorean arguments can be mounted in favor of many sorts of claims we think we know for sure (e.g. I know that the sun goes in fact *up*, as might be claimed by a pre-copernician). But this obviously doesn't refute scientific reasoning. Moorean arguments are by itself therefore too weak to refute scientific-cum illusionisms (Kammerer 2022a, 2856). However, the Moorean argument for realism about consciousness is different from that. As Kammerer (ibid.) pointed out, the Moorean argument for consciousness realism involves premises that are true with „super-Moorean certainty“, which can't be questioned by even the most rigorous scientific reasoning. This „super-Moorean argument“ is the one that Chalmers actually has in mind:

1. If illusionism is correct, no one ever feels pain.
2. I FEEL PAIN!¹²
- C. Strong illusionism is false.

Though this argument is purely philosophical and not to be found among laypeople, it rests on premise (2) which covers a very basic and widespread problem intuition about consciousness. So what is the assumption behind this premise? What is the reason the realist so stub-

¹⁰ Note that, throughout the remainder of this paper, when I speak of illusionism, this must be taken to refer to what Frankish (2016) calls „strong illusionism“, i.e. the view that consciousness, conceived of as the entity in virtue of which there is something it is like to be us, does not exist.

¹¹ See the fictitious dialogue between a realist and an illusionist in Chalmers (2018, 54f.). See also Chalmers (2020b). It's helpful to distinguish between two levels on which the debate takes place: The *first-order debate* is about whether or not illusionism can even be pre-theoretically formulated without heading into contradictions. Arguments include the Moorean argument presented here and incoherence arguments as put forward, e.g. by Nida-Rümelin (2016). On the level of the *second-order debate*, it is granted that illusionism is coherent and cannot pre-theoretically be rejected. Instead, its correctness must be post-theoretically evaluated when investigating the theories which are supposed to explain the illusion of consciousness. For this distinction, cf. Kammerer (2018, 50).

¹² To highlight the fact that this premise obtains with super-Moorean certainty and thus substantially differs from standard Moorean premises, it's written in capital letters.

bornly insists that SHE IS CONSCIOUS? The realist typically argues that we bear an epistemologically direct access to our phenomenal states that *presents* a subject with her experiences in a way that seems to reveal their nature (cf. Chalmers 2018, 25). This makes it that we can impossibly err neither about their presence, nor about their qualitative character. In other words, the realist holds that we are *acquainted* with our experiences which seems to validate the claim that SHE IS CONSCIOUS. Thus, it is acquaintance which is the assumption on which the contentious second premise of the super-Moorean argument relies and hence which forms the strong realist intuition.

In opposition to that, illusionists deny premise (2) by making this apparent acquaintance relation part of the very illusion at hand. Illusionism thereby *predicts* this way of arguing by the realist. However, illusionism is faced with the „illusion problem“, which is the problem of explaining how consciousness could be an illusion (Frankish 2016). More precisely, illusionism is faced with what François Kammerer (2018) calls the „illusion meta-problem“, i.e. the problem of explaining our strong resistance to the idea that consciousness only *could* be an illusion, or, put in terms of the super-Moorean argument, the problem of explaining our (apparent) *super-Moorean certainty* that we are consciousness.¹³ As Kammerer nicely pointed out in various papers (e.g. Kammerer 2016, 2018, 2021a) it is the illusion meta-problem which is „the hardest aspect of the illusion problem“ (Kammerer 2016), since in contrast to, e.g. perceptual illusions like the well-known Müller-Lyer illusion, in the case of consciousness we cannot even coherently *conceive* how consciousness might be an illusion; in contrast to other mental phenomena (like non-phenomenal beliefs) there is absolutely no way for me to non-contradictorily imagine how it can appear to me to experience something while actually experiencing nothing, since the appearance of experience is just experience (this line of thought is often appealed to by incoherence objections). This makes the illusion of consciousness (if it is one) an illusion *sui generis* (Kammerer 2016, 127), and by that unique. Since the illusion meta-problem is based upon the anti-illusionist intuition, which is exactly the realist intuition behind the super-Moorean argument, we must conclude that what the illusion meta-problem shows is that it is this very realist intuition which is *sui generis* here and by that unique. And because, as explained above, this realist intuition rests on our super-Moorean certainty about our experiences, which in turn rests on our acquaintance with them, it is precisely acquaintan-

¹³ Cf. Chalmers (2018, 27) who speaks of the „resistance problem“.

ce (or the illusion of it) which is the reason for the realist/anti-illusionist intuition being unique. Even more, this is to which the entire battle between realists and illusionists (both on the first- *and* second-order level) seems to come down to at the end of the day: While realists must rely on our super-Moorean certainty for their super-Moorean argument to go through, illusionist must rely on an explanation of our apparent super-Moorean certainty when faced with the illusion meta-problem. Since super-Moorean certainty is entailed by acquaintance, it is acquaintance to which the realism/illusionism debate can be broken down.

As the realist/anti-illusionist intuition is unique, it follows that the meta-problem of consciousness, dealing with these kinds of intuitions, must be unique. So the preceding is already sufficient to show why (I) is a necessary constraint for a possible explanandum and also to show why acquaintance seems just to take up the role of accounting for that. However, at this point one might try to undermine that (I) is actually a necessary constraint for whatever explanandum of the meta-problem by arguing (as was suggested to me) that the illusion meta-problem is not *sui generis*. There are only two ways that I can see in which this objection can be argued for: (a) arguing that illusionism is not incoherent or (b) arguing that illusionism about consciousness is in fact incoherent but other illusions are so as well. Both ways are doomed to fail for a quite obvious reason. Let's briefly follow (a) by assuming that internal world skepticism is coherent, as might be taken from Dretske (2003) and Bernecker (2000) who argue that, since content externalism is true, we only can have introspective knowledge of the *contents* of our mental states but never of their *presence itself* which makes us unable to determine whether or not we are zombies.¹⁴ This line of objectioning can easily be dismissed as it simply misses Kammerer's illusion meta-problem (and in fact, misunderstands the entire meta-problem). Of course, internal world skepticism might not *be* incoherent; Kammerer explicitly states that it is coherent, otherwise his illusionism obviously can't be upheld. But that's not what the (illusion) meta-problem is aimed at. Even if, after heavy philosophical theorizing, we're convinced that illusionism *is* coherent (as Dretske and Bernecker seem to be), it still strongly *seems* to us that it is not, and this is everything the (illusion) meta-problem claims. Thus, objections along the lines of (a) miss the (illusion) meta-problem since their objecting is solely directed at how things *are*, based on heavy philosophical reflection, not at how things *seem*, based on little to no reflected problem *intuitions*. The same is true for (b):

¹⁴ See Grundmann (2005). See also Grundmann (ibid.) for a criticism of Dretske's and Bernecker's thesis.

other illusions might actually *be* as incoherent as consciousness illusionism, but they don't *seem* to us as incoherent as consciousness illusionism (at least not without deep philosophical reflection). And the latter is what it's all about with the (illusion) meta-problem.

However, even after having dismissed this objection, it must be admitted that it's still a somewhat weak underpinning of my thesis to make the case for (I) and for acquaintance by examining only one single problem intuition, for this problem intuition could well be problematized by other reasons (e.g. by empirical data). That's why it's best to zoom out of the realism/illusion debate and take the discussion to a more general level making the case for (I) on the one hand, and for acquaintance on the other, waterproof.

As I said in the last section, *prima facie* no other mental phenomenon but consciousness generates such puzzlement about our respective problem intuitions. This is due to the fact that only with consciousness the residual question remains why our problem intuitions have (or appear to have) the special epistemic status they possess. If we want to explain how we come to generate our intuitions about our (non-phenomenal) beliefs, say, all we have to do (roughly) is explicating an introspective mechanism by means of which the contents of our beliefs are represented in a certain way and nothing more substantial is left open. In contrast, when being given the task of explaining how we come to intuit that consciousness is mysterious, say, explicating an introspective mechanism similar to that of the non-phenomenal belief case isn't sufficient, because then it's still unclear why this intuition is so pervasive and strikes many of us so puzzling (Kammerer 2016, 2018, 2021a, 2021b; Chalmers 2018, sect. 2). This has been highlighted above by exploring the realist/anti-illusionist intuition. However, plenty more examples can be found throughout the literature who vividly illustrate that. Consider, for instance, the type-identity claim between pain and c-fibre firing and in contrast to that the identity claim between water and H₂O. What most philosophers (including a significant amount of physicalists) agree to is that when it comes to the former claim but not the latter, we are faced with what Levine (1998) calls „gappy-identities“: even when having explained the identity between pain and c-fibre firing (but not when having explained the identity between water and H₂O), we still wonder in a non-trivial, substantial way how pain could possibly be that brain state (or any brain state at all). Put in terms of the meta-problem: our non-identity intuition is epistemologically robust in a way that even the most convincing and correct scientific explanations won't make it disappear and something that we don't seem to find (at least in

this degree) with other mental phenomena.¹⁵ Further examples are easy to find (think, e.g. of the non-reductionist intuitions that many have), but it's not required to explore them since I think the case is clear: what all of these instances indicate is that more than anything else in the world, consciousness so strongly seems to be like *that*. So this demonstrates quite clearly that, even if most problem intuitions beside realist intuitions don't hold with super-Moorean certainty, they still bear a special *epistemic robustness* which is the distinguishing property P of PI_C and which demarcates them from PI_M . And since this epistemic robustness makes PI_C exactly what they are, i.e. uniquely puzzling, it is this what makes the meta-problem of consciousness unique.

But as the distinguishing property of PI_C is exactly what makes the meta-problem occur in the first place, we can further hold that this epistemic robustness is the very reason for the meta-problem to *exist*. The reason is this: The meta-problem wouldn't exist if we don't wonder about PI_C . But we do, this is why the meta-problem is a problem. However, given the facts that we don't wonder about PI_M and that there are no proper meta-problems as to other mental phenomena respectively, we must conclude that what generates our wondering about PI_C is precisely what makes the meta-problem of consciousness occur in the first place. Since what generates our wondering about PI_C is their special epistemic status, it is this status that is the reason for the meta-problem to exist! This makes it that (I) cannot be denied without denying the existence of the meta-problem. Its uniqueness is the very reason for its existence.

What would in principle be able to explain this unique epistemic robustness? I think, like in the case of the realist/anti-illusionist intuition, the only explanation seems to be acquaintance (again, keep in mind how I use the term as explained in the introduction). For what else if not some especially direct, epistemic awareness relation to our phenomenal states could cause such unique confidence in many of our problem intuitions we have about them? If that's true, – if the unique epistemic status of our problem intuitions holds in virtue of acquaintance – it follows that acquaintance *is the very reason* for the existence of the meta-problem. Based on this, it's a necessary, trivial truth to claim that explaining acquaintance explains the meta-problem and therefore to think of acquaintance as the true explanandum of the meta-problem research programme.

To summarize this subsection, we can set up the following argument:

¹⁵ We might thus say that (some) intuitions about consciousness are cognitively impenetrable in an extraordinary way. See Kammerer (2022b).

1. The meta-problem of consciousness is unique, since PI_C are distinguished from PI_M by their special epistemological status, i.e. their unique epistemological robustness.
2. The property that is the reason for the meta-problem's uniqueness is the reason for its very occurrence.
3. The epistemological status of PI_C is the reason for the meta-problem's occurrence.
4. This epistemological status can only hold in virtue of acquaintance.
- C. Acquaintance is the very reason for the meta-problem's occurrence.
5. If something is the reason for a problem's occurrence, then this is the explanandum of the problem.
- C. Acquaintance is the explanandum of the meta-problem.

Premises (3), (5) and both conclusions (C) are uncontroversial as they either conditionally follow from other premises or, in the case of (5), are obviously true. By what has been said, I think premises (1) and (2) are also very plausible. The argument relies on the tacit assumption that the meta-problem exists, though. This is empirically objected. I'll deal with it in section 4. One might also worry about acquaintance in premise (4). This, I'm going to discuss in section 5. But first, we need to investigate if acquaintance aligns with empirical data.

3.2 The case for knowledge intuitions

Whereas the last sections were concerned with rather foundational issues on the nature of the meta-problem and our problem intuitions, most of the second half of this paper focuses on empirical issues concerning problem intuitions and their implications on the meta-problem. In this subsection, I'll deal with the question if acquaintance passes both requirements of (II), i.e. if acquaintance is compatible with the *universality* of problem intuitions as well as with *variation* across them. If acquaintance is actually the reason for why the meta-problem exists in the first place, as argued for in the last section, then we must expect it to perfectly align with what empirical data show with regards to our problem intuitions.¹⁶ So what do these data show? In the following I'll start by showing why X-Phi seems to reveal (or is expected to do so in future studies) that knowledge intuitions are the most central and widespread of all problem intuitions and carry thus much explanatory power when it comes to the generation of most (or even all) other problem intuitions. So if acquaintance is to be the main explanandum of the meta-problem, it must be compatible with the universality of knowledge intuitions. I'll argue

¹⁶ Thus, my thesis that acquaintance is the main explanandum – call it the «acquaintance hypothesis»–has the great virtue that it can be tested empirically.

that, since, notably, acquaintance is just a knowledge intuition itself (set. 3.2.1), the fact that knowledge intuitions are the most widespread is precisely explained by the fact that acquaintance is the main explanandum. Although the arguments in this section will mainly be a priori, I think my analysis will show that neither does these a priori considerations are contradicted by current empirical data, nor that they are to be contradicted by future data. Rather, we can expect them to be confirmed by future studies.

Chalmers (2018, 12, 2020a, 227) provides a rough taxonomy of problem intuitions. He describes knowledge intuitions (e.g. intuitions about Mary), modal intuitions (e.g. intuitions about the possibility and conceivability of zombies), explanatory intuitions (e.g. intuitions about reductive explanation), and metaphysical intuitions (e.g. anti-physicalist intuitions). This is, of course, (as Chalmers himself mentions) not meant to be exhaustive, but it provides a taxonomy which at least covers the most important problem intuitions that are concerned with nature of consciousness and works well enough to see that they vary according to their content.¹⁷ Although Chalmers (2018, 12) explicitly states that he takes explanatory and metaphysical intuitions to be core intuitions, I think we have good reasons to reject that (and in his 2020a, Chalmers seems to back off from that a little). Instead, I think we have to take it that metaphysical intuitions, explanatory intuitions, and modal intuitions are all downstream of knowledge intuitions, with metaphysical intuitions probably being the most downstream.¹⁸ This is quite clearly indicated on two levels:

First, a priori reasons: Let's consider the structure of most arguments found in the metaphysics of consciousness (see Chalmers 2003). In general, we find that arguments start off by claiming that there is an epistemic gap between the physical and the phenomenal (first premise). Then the conditional is set up, that if there is such an epistemic gap, then we must conclude that we're faced with an ontological gap which renders physicalism false (second premise), so that we end up with the conclusion of physicalism being false. The epistemic gap (first premise) is usually argued for by referring to the conceptual differences between the pheno-

¹⁷ Chalmers (2020a, 227-29) further distinguishes between different kinds of intuition universality. He distinguishes between *population-level intuition universality*, where problem intuitions can be counted as universal if a good majority of people in every population shares a specific intuition, and *source universality*, which says there's a universal source for problem intuitions. The following makes the case for a weak version of population-level intuition universality and especially for source universality.

¹⁸ It is not clear what it means for some class of intuitions to be „downstream“ of other classes of intuitions. Chalmers is not explicit on what it means to be a „core intuition“. But I think we can take it to refer to how close they are to source universality. By saying that all other problem intuitions are downstream of knowledge intuitions, this, then, means that knowledge intuitions are the closest to source universality while the others are further removed from that source.

menal and the physical, or by referring to hypothetical scenarios like Mary's. The conditional (second premise) is usually argued for by installing conceivability arguments or explanatory gap arguments. This straight forwardly indicates that metaphysical intuitions are downstream from knowledge intuitions, with modal and explanatory intuitions taking place in between. While the first premise is cast in terms of our intuitions about what we know our could know about the phenomenal and the physical (knowledge intuition), the second premise is cast in terms either of what is possible e.g. concerning zombies (modal intuitions), or cast in terms of what is explainable by physics e.g. concerning reductive explanations (explanatory intuitions). The conclusion then is obviously cast in terms of our metaphysical intuitions. Of course, since these kind of arguments concern the metaphysics of consciousness with metaphysical intuitions occurring only in the conclusion of the arguments, it's clear that metaphysical intuitions are the most downstream. However, even when looking beyond the metaphysics of consciousness, we rarely find arguments that contain metaphysical intuitions as premises while making conclusions on, say, explanatory matters. Even outside the metaphysical framework it's strange to use a dualist intuition as a premise to underpin the conclusion that consciousness is hard to explain physicalistically, for example. If one argues like that, one is immediately accused of begging the question. So metaphysical intuitions very plausibly are very downstream intuitions. Also, it's very rare to find arguments that do not include knowledge intuitions as the main and first premise of their argument. Again, the structure just sketched is paradigmatic for arguments concerning the ontological nature of consciousness and it starts off by relying on knowledge intuitions. Furthermore, this order of hierarchy is also supported by the fact that many philosophers start by having more or less the same knowledge intuitions but at the end of arguing differ in their metaphysical intuitions. This is vividly illustrated by the disagreement between most non-physicalists and a posteriori („Type-B“) physicalists, who make up the vast majority of philosophers in the field: while they disagree on their metaphysical conclusions, they agree upon the first premise that there is an epistemic gap between the phenomenal and the physical and upon the underlying epistemic situation with regards to our phenomenal experiences. In other words, they share more or less the same knowledge intuiti-

ons but differ in their metaphysical (and also explanatory and modal) intuitions.¹⁹ So we have good a priori reasons to hold that knowledge intuitions are the most upstream of all problem intuitions since they serve as basic premises in all sorts of arguments on the nature of consciousness. That's why we must also hold that they are the most widespread.

Second, a posteriori reasons: Empirical data seem to suggest that knowledge intuitions are particularly widespread. Gottlieb & Lombrozo (2018) conducted a study on people's intuitions on the limits of science. They found out that people have the intuition to regard psychological phenomena beyond the scope of science when they support *privileged introspective, first-person access*. This seems to provide empirical evidence that at least explanatory intuitions are downstream of knowledge intuitions, since the explanatory intuition on the limits of science is *cast in terms* of the knowledge intuition on privileged introspective, first-person access. A further study, conducted by Gregory et al. (2022) on peoples's intuitions about Mary, showed that over 82% of participants share the intuition that Mary does not know what is it like to see red before leaving her room (in the study, Mary's leaving her black and white room was substituted with a neurological operation). And around 90% of participants responded that Mary learns something new upon leaving her room (or after her operation), viz. what it is like to see red. This can be taken to prove that knowledge intuitions are in fact very widespread, and, when comparing these to the data from Díaz (2021) on peoples metaphysical and explanatory intuitions on the reduction of pain to c-fibre firing, far more widespread than metaphysical and explanatory intuitions.²⁰ Eventually, I think we must follow Chalmers when he says „[p]erhaps the most promising intuitions to study experimentally are knowledge intuitions. This both because they are especially easy to state in plain language, and because they are among the more promising candidates to be universal intuitions.“ (Chalmers 2020a, 242). Though empirical data of problem intuitions are delicate, which I will address below, we can

¹⁹ This is to say, where the starting point of knowledge intuitions is rather little theoretically reflected, explanatory, modal and metaphysical intuitions rest more on theoretical reflection which makes room for their diverging. One might say the latter „intuitions“ don't count as proper intuitions, since they are the conclusions of theoretically heavily reflected arguments. On the basis of this, it might then be objected that it is plausible that even metaphysical, modal and explanatory intuitions are widely shared if they are stripped off this theoretical reflection. This, in fact, seems to be true, since many physicalists state that they share the same intuitions as dualists. Still, knowledge intuitions seem clearly to be more widespread when considering their role and their widespread approval in many disputable arguments and also empirical data.

²⁰ To get reliable data, it's not only crucial to recruit participants from different ages, gender and educational degrees but also from different cultures. Gottlieb & Lombrozo and Díaz recruited participants from Amazon MTurk and thus their study can be said to be rather cross-cultural. Gregory et al.'s study, despite being very cross-demographic, only recruited people „representative of the US population“ and thus might be said to be less cross-cultural. Gregory and colleagues are aware of this limitation though.

agree to Chalmers that knowledge intuitions are the most likely to be widespread probably because they are the closest to the *source* of problem intuitions while modal, explanatory and metaphysical intuitions are farther removed from that (cf. Chalmers *ibid.*, 241f.).

Thus, we seem to have both a priori and a posteriori reasons for why knowledge intuitions are upstream from all the other relevant problem intuitions and should therefore be considered as the closest to source universality as well as population-level intuition universality (though admittedly, the empirical basis is quite thin. See sect. 4). Simplified, it is primarily the *epistemic situation* we find ourselves in when experiencing the world and our thinking about this situation in contrast to the external world which makes us wondering about consciousness and thus have intuitions like „zombies are conceivable“, „consciousness is hard to explain“ or „physicalism can’t be correct“. Hence, knowledge intuitions prove considerable explanatory power when it comes to the generation of all the relevant problem intuitions (i.e. explanatory, modal, and metaphysical intuitions).

3.2.1 Acquaintance intuitions

What do knowledge intuitions encompass? Of course this is an empirical matter, but it certainly involves third-person intuitions (such as solipsist intuitions) and first-person intuitions (Chalmers 2018, 12f.). Among first-person knowledge intuitions there are intuitions concerning the kind of knowledge that we gain when being in phenomenal states (cf. *ibid.*). The study by Gregory et al. on intuitions about Mary, for example, deals with these kind of first-person knowledge intuitions. However, among first-person knowledge intuitions there are arguably also intuitions concerning the kind of *access* we have to our phenomenal states. This is where acquaintance comes into play.

Our special epistemic access to our experiences seems to play an important role for knowledge intuitions. Consider the knowledge intuitions regarding Mary. What is the reason that most people think that Mary does not know what it is like to see red before leaving her room? An option to comment on the given answers in the study of Gregory et al. indicates that people seem to respond negatively to the Mary question because they treat the state of what it is like to see red as more *intimate* and *directly* than the knowledge one could get of physical processes (Gregory et al. 2022, 532f.). This very loosely could be taken to indicate that knowledge intuitions (at least regarding Mary) are rooted in acquaintance. However, as I said befo-

re, the empirical issues on people problem intuitions is a delicate matter and the few responses we get from the study by Gregory et al. are obviously anything but sufficient. More data (and studies that conduct interviews rather than just questionnaires) are required to find out why many people have the knowledge intuitions they have. So, for now, we simply cannot draw upon empirical data. But I think a priori considerations still strongly suggest that knowledge intuitions are mainly generated by acquaintance. More precisely, it seems as if the reason why knowledge intuitions are so important for the generation of most other problem intuitions is *just that* we have this kind of immediate access to our phenomenal states. If we unpack problem intuitions people have about consciousness, I think we plausibly end up with *intuitions about acquaintance*. This was already demonstrated by the realist/illusionist debate in section 3.1, where the realist/anti-illusionist intuition is rooted in our intuition that we are acquainted with our experiences. And it is further demonstrated by Liu (2021) who provides convincing arguments for why the metaphysical intuition of dualism is rooted in the revelation intuition (which is an acquaintance intuition) and which is featured in in our basic conception of experience and serves thus as a crucial source for many problem intuitions.

This is important to dwell upon. What most philosophers seem to have neglected so far is the fact that *acquaintance is a problem intuition itself*. Not only is the acquaintance-relation we entertain to our conscious experiences plausibly crucial for the generation of most knowledge intuitions, but evidently, it is the object of a problem intuition itself (e.g. „I have the strong intuition that I’m acquainted with my experiences“). More precisely, since the intuition of acquaintance covers a range of intuitions including infallibility intuitions, revelation intuitions or immediacy intuitions, one should rather consider acquaintance intuitions as constituting a *subclass* of knowledge intuitions.²¹ As far as I can oversee it, there is currently no study that aims at these acquaintance intuitions. So there is room for very important work for X-Phi here. But, as for the fact that we have good a priori reasons for why knowledge intuitions are very widespread, we equally have good a priori reasons for why acquaintance intuitions will turn out as their source and will thus turn out as most widespread. While most problem intuitions (even some knowledge intuitions) can and probably will diverge for different reasons,

²¹ One might ask why acquaintance intuitions constitute merely a subclass of knowledge intuitions and not a class of problem intuitions of its own? Since I take acquaintance to be (as is often done) an epistemic relation with primarily epistemological implications, classifying them as knowledge intuitions is appropriate. However, if acquaintance is taken to be also a metaphysical relation (as is sometimes done), then it is probably better suited to consider acquaintance intuitions as constituting a class of problem intuitions on its own. This doesn’t have substantial consequences for my theory, though.

the intuition that consciousness cannot be fundamentally different from what we take it to be (whatever we take it to be), or, in other words, the intuition that we are not totally misguided on the nature of consciousness, is very likely to be the most stable intuition about consciousness.²² As such a kind of intuition is exactly what belongs to acquaintance intuitions, it is very plausible that acquaintance intuitions will turn out as the most widespread.

What does that mean for our investigation? Does that mean that we can trace the intuitions of acquaintance back to even another class of problem intuitions downstream of them? The problem intuition that turns out the most widespread will probably be the source of all problem intuitions. But this implies that this intuition cannot be rooted in another problem intuition downstream. Since it seems as if acquaintance intuitions are the most widespread, we must think of acquaintance intuitions (though what acquaintance intuition specifically is not yet clear) as not explainable in terms of other, more basic intuitions. It is thus reasonable to hold that acquaintance intuitions constitute the very bottom of all problem intuitions from which the latter origin in varying degrees. But, if this to be true, then the intuition of acquaintance must obviously itself be rooted in some kind of acquaintance. This then seems to imply that there must be some kind of second-order acquaintance which accounts for the certainty of our (first-order) acquaintance intuitions. But, in order to avoid an infinite regress, we seem thus to have reached an epistemic foundationalist conclusion that holds that acquaintance is some kind of self-reflexive relation. Luckily, this is what we find in introspection: we not only seem to be acquainted with our experiences, but also with our acquaintance itself. When I experience a red tomato, I intuit that I'm acquainted with the reddish quale, which is to say that I'm super-Mooreanly certain about the presence and qualitative nature of the reddish quale. But I also (though tacitly) intuit that I'm super-Mooreanly certain about *this intuition*. And all this happens on the first-order level of being acquainted with the reddish quale. So, on the basis of this epistemic foundationalist nature of our acquaintance intuitions, we seem to have the perfect proof for the claim that if there is a universal source for PIC, acquaintance is the perfect candidate.

We thus can summarize this subsection as follows:

1. Knowledge intuitions are the most widespread.

²² Interestingly, Liu (ibid., fn. 5) also provides brief empirical data for why the revelation thesis seem to be widely shared among people. This is probably the only data available so far that *might* be interpreted as proving that acquaintance intuitions are widespread. However, it's not a proper study as Liu only mentions it in a footnote.

2. Knowledge intuitions are rooted in acquaintance intuitions, which represents an important subclass thereof.
 3. Acquaintance intuitions are the most widespread (acquaintance hypothesis).
 4. If some specific class of PI_C is the most widespread (the most upstream) it is the source of all PI_C .
- C. Acquaintance intuitions are the source of all PI_C .
5. Acquaintance intuitions are explained by acquaintance itself.
- C. Acquaintance is the source of all PI_C .

If acquaintance is the main explanandum of the meta-problem, we must expect the second conclusion to be true. This is exactly where we've arrived at: both conclusions are logically valid. Premises (4) and (5) seem to be rather uncontroversial (though premise (5) requires more exploration on the nature of acquaintance. See sect. 5). Premises (1) and (2) are the main premises. In the absence of sufficient contradicting empirical data, but in the presence of very plausible a priori reasons, we should accept their truth and eventually accept the acquaintance hypothesis in premise (3).²³ This includes the prediction that problem intuitions decrease in their degree of universality the farther they are removed from acquaintance intuitions. That's why we conclude that acquaintance is in perfect alignment with both aspects of (II), i.e. with the *universality* of, as well as with *variation* across problem intuitions.

4. Problems with Empirical Evidence

So far, we've considered what can fulfill (I), which is the question for what explanandum is appropriate when taking into account the fact that the meta-problem is unique. We came to conclude that it has to be the acquaintance relation we bear to our conscious experiences since this is the reason for (I) even to be a constraint for meta-problem theories. In the last section I investigated if acquaintance is compatible with (II), which is the question if acquaintance keeps up to the empirical expectations that any explanandum of the meta-problem has to be in accordance with. We concluded, that, indeed, acquaintance perfectly suits these expectations (or will very likely do so). However, as I said a few times before, empirical matters with problem intuitions is a delicate issue. This is because there are controversies surrounding the ge-

²³ Note that premises (1) and (2) could be left out. But it supports my argument making the case first for knowledge intuitions in general because, in contrast to acquaintance intuitions, at least some empirical data are available for knowledge intuitions and their constitutive role for other problem intuitions is more evident.

neral empirical status of problem intuitions (4.1), and because we lack crucial empirical data on the acquaintance hypothesis which is central for my thesis (4.2). That's why it's important to address these issues separately.

4.1. Universality of problem intuitions?

Some (most prominently Sytsma 2009, 2010, 2016; Sytsma & Machery 2009, 2010; Sytsma & Ozdemir 2019; Díaz 2021; Rosenthal 2019) argue that problem intuitions (especially the very concept of phenomenal consciousness) are not widespread among laypeople. This, they take to cast doubt on the explanatory power of the meta-problem, since if problem intuitions about consciousness significantly vary across laypeople, it seems unlikely that they result from a universal basis that is connected to consciousness (like acquaintance).

This is an important empirical question but hasn't gained much attention yet. Currently, there are very little studies addressing this issue sufficiently; most of the studies just mentioned are only concerned with people's concepts about consciousness so they don't even try to investigate what they think about consciousness. This makes it that that data on problem intuitions are very thin and so far should not be considered as providing a reliable basis to draw meaningful conclusions. Liu (2023) nicely illustrates why. She argues that we need to be careful in using data from X-Phi telling us that laypeople don't possess specific philosopher's concepts C or intuitions X to draw conclusions that philosophical ideas based on C or X are wrong. This, she puts forward, is crucial when C and X involve „ad hoc concepts“, which she defines as concepts „[...] communicated by speakers that [i.e. the concepts] are different from lexically encoded concepts and constructed pragmatically by hearers during utterance comprehension.“ (ibid., 165). According to Liu, many concepts involved in the debate on consciousness (even basic concepts like „explanation“ or „possibility“) are ad hoc concepts which participants of X-Phi-studies fail to construe due to various reasons (e.g. missing background information or appropriate conversational feedback mechanisms because of not being interviewed). That's why, especially when it comes to problem intuitions about consciousness, studies of experimental philosophers like Rodrigo Díaz or Justin Sytsma carry little evidence for anti-universality theses, due to the many ad hoc concepts involved in the questionnaires and interviews. Of course, Liu's criticism is also applicable to studies which support the universality of problem intuitions. However, as she remarks, in the case of knowledge intuitions

regarding Mary, ad hoc concepts involved are roughly possessed by participants due to adequate conditions provided by Jackson's thought-experiment so that in the case of these intuitions we can expect them to be widely shared and thus to be more reliable. By referring to the study by Gregory et al. (2022) previously mentioned, she correctly points out that this is exactly what we find. Liu's paper thus provides convincing reasons for (a) why we should be hesitant with the studies that try to reject the universality claim with data from X-Phi and (b) why we can accept that studies on knowledge intuitions are more reliable because of their involving less or easier-to-grasp ad hoc concepts. As explicated above, as we go up the explanatory hierarchy of problem intuitions (away from source universality), we can expect the degree of widespreadness to decrease, so that even when participants actually possess the respective ad hoc concepts (like philosophers of mind), many problem intuitions won't turn out even nearly universal (as the dispute between physicalism and non-physicalism in the metaphysics of mind illustrate).²⁴ However, what tends to be confirmed by (b) is that there are at least *some* problem intuitions that turn out universal, most likely knowledge intuitions. And this suffices for the universality claim to go through and thus to refute the present objection.

Furthermore, the fact that as we go down the explanatory hierarchy of problem intuitions, we can expect the degree of universality to decrease rebuts an objection by Irvine (2019) who argues that variation in problem intuitions threatens the existence of the meta-problem. Since variation of problem intuitions is exactly what is predicted to occur by their explanatory hierarchic order, this by no means threatens the meta-problem but rather is in perfect accordance with it.

4.2 Universality of acquaintance intuitions?

Objections regarding the general universality of problem intuitions can be dismissed. However, while holding that knowledge intuitions might in fact be very widespread, it still might be questioned if acquaintance intuitions are actually that widespread as I suggested it to be, which would straight forwardly undermine my thesis.

²⁴ Interestingly, Gregory et al.'s study showed that people with higher educational degrees tend to have less frequently (though still very often) the intuition that Mary doesn't know what it is like to see red before surgery (i.e. inside her room). If we assume that higher educational degrees entail greater theoretical reflection, the findings of Gregory et al. confirm the thesis that the greater problem intuitions get theoretically reflected, the less universal they turn out to be. There are other possible explanations for this, though.

As I said in section 3.2.1, there are currently no data on acquaintance intuitions. So, in response, we can say that the acquaintance hypothesis can presently not be rejected on empirical, a posteriori grounds. Are there any a priori reasons to reject it then? One might argue that acquaintance intuitions heavily rely on theoretically loaded ad hoc concepts. On the basis of the principle that the more an intuition relies on the construction of theoretically loaded ad hoc concepts the less universal the intuition is, it might thus be objected that acquaintance intuitions can be expected to turn out not even nearly universal.

In response to this, we might say that the concept of acquaintance is indeed an ad hoc concept, in the sense that Liu defined it and which is subject to much theoretical reflection. But, as I made clear, the intuition of acquaintance must rather be taken as representing a *subclass* of knowledge intuitions that covers a range of more specific intuitions, like the revelation intuition. These specific intuitions can reasonably be taken to be very close to the source of problem intuitions and are by that little to no theoretically reflected and might therefore be considered as involving no ad hoc concepts at all (or at least very shallow ad hoc concepts). In contrast to other problem intuitions, acquaintance intuitions arguably rely exclusively on *introspection* which doesn't involve (much) theoretically reflected concepts since introspection aims at *first-person* intuitions and not (like explanatory intuitions, e.g.) at *third-person* intuitions. Roughly put, it is the way we *introspectively access* our phenomenal states which generates our acquaintance intuitions. And this presumably does involve little to no theoretical reflection (but of course it *can* involve theoretical reflection). Since this is very likely to be the same for all conscious individuals *qua* conscious individuals, we can strongly expect acquaintance intuitions to be truly widespread.²⁵ Thus, I think there are no viable reasons to reject the acquaintance hypothesis merely on a priori grounds. Referring back to what I already said in section 3.2.1, these a priori considerations rather suggest the opposite.

5. Is Acquaintance Compatible with Topic-Neutrality?

²⁵ I explicitly said „conscious individuals“ to include non-human animals. If the meta-problem is supposed to be able to tell us something about the hard problem, the universal mechanism that causes us to have intuitions about consciousness must be in principle be found with all conscious creatures as long as they possess the right cognitive capacities. Universality of problem intuitions implies not only universality across cultures, educational degrees, etc., but probably also across *species*. Studying animal's problem intuitions about consciousness is probably an impossible thing to do, but hypothetical amplifications to the animal case must be taken into considerations. Would a cognitively sophisticated enough cat have the same acquaintance intuitions like most humans have?

By rejecting objections concerning the empirical status of problem intuitions in general and of acquaintance intuitions in particular, we completed discussion on (II). We're left with one last very important concern which is the question if acquaintance is compatible with topic-neutral explanations. So far I haven't said anything to that, so let's go on to check if acquaintance passes (III).

What some causes to abandon acquaintance is its seemingly mysterious nature and its carrying „heavy metaphysical baggage“ (as it is sometimes put), implying non-naturalism from the outset and thus not being compatible with explanations (in purely functional terms, say) that do not mention consciousness (see e.g. Coleman 2019). In fact, when we define acquaintance as it was done in the introduction as an epistemic relation that relates the subject to his/her own subjective experience in an especially immediate and direct way, it's apparent that acquaintance is not topic-neutral as it explicitly mentions consciousness. This itself is not problematic, since what I'm arguing for in this paper is not what the *explanans* of the meta-problem is, but instead what the main *explanandum* seems to be. And the latter can obviously mention consciousness in its definition. But, of course, and this what (III) imposes on possible explananda, they must in principle be *susceptible* for topic-neutral explanans, which seems to exclude acquaintance by its non-naturalizable nature. Thus, one might object that acquaintance cannot be what has to be primarily explained in solving the meta-problem since it simply is not compatible with topic-neutral explanations. I think there are two ways to respond.

First, weakening acquaintance: Can't it be some other direct epistemic relation that is not as strong as acquaintance? This seems to contradict (I). The relation that explains how we access our phenomenal states has to be *sui generis* in order account for the *sui generis*-ness of the meta-problem. We have a direct epistemic relation to all sorts of mental phenomena but none of them strikes us as puzzling as conscious experiences. As we've seen, this is supported by empirical data: We have no anti-physicalist intuitions with regards to our non-phenomenal beliefs, or at least they are far less widespread than those regarding consciousness, despite the fact that we bear an epistemic direct relation to them in that we cannot fail to know that we have beliefs when having beliefs. No one would intuit that Mary lacks knowledge about her belief states in her black-and-white room, despite having direct epistemic access to them. This means that a direct epistemic access (sometimes construed as direct awareness) is *per se* not sufficient to account for (I). We need something stronger to grasp why people think

differently about conscious experiences despite having direct epistemic relations to many mental phenomena. So this way of responding to the problem seems to be unsatisfying.

Second, controversies about acquaintance: Only because we cannot substantially weaken acquaintance without contradicting (I), this must not lead us to acquaintance in the full blown sense that some acquaintance theoreticians take it to be, who take acquaintance to reveal the whole nature of our experiences. The uniqueness of the meta-problem might be accounted for by something stronger than mere direct awareness but something weaker than full blown acquaintance. This is supported when we recognize that there are still a lot of controversies on the nature of acquaintance, for example, whether or not acquaintance entails the property of revelation (e.g. Balog 2012; Coleman 2019), or, if acquaintance gives us actually infallible insight into the objects of acquaintance (e.g. Kammerer 2021b). It is also unclear what sorts of entities objects of acquaintance can be (if these objects include universals, for instance, as Russell (1911) suggested in his *locus classicus*). Thus, when speaking of acquaintance, this in no way has to mean that something very strong like full revelation has to be true. In general, the phenomenon of acquaintance remains vague and the controversies surrounding its features make it anything but clear that it is actually incompatible with naturalist (and physicalist) explanations. In effect, a considerable amount of physicalist actually defend acquaintance (see e.g. Balog 2012. See Duncan 2020, fn. 29 for an overview). So holding onto acquaintance is itself not that problematic as one might think it to be at first glance. Close philosophical and scientific examination of the relevant epistemic features and the underlying cognitive mechanisms will reveal if acquaintance is susceptible for topic-neutral explanations. In the end, further philosophical exploration seems to reveal that acquaintance comes down to an (what is sometimes called) *intimating* as well as *self-intimating* relation. If one then speaks of these two features as acquaintance or – in worry of unwanted alleged metaphysical implications – simply as direct awareness, is merely a terminological issue. If we find a cognitive mechanism by which these two features can be explained in topic-neutral terms, this will vindicate (III).²⁶

²⁶ Probably the only theory to date that is able to grasp these two features is François Kammerer's (2019b, 2021a) „evidential approach“ that he uses to construe a theory (the „TCE“ theory) according to which our cognitive system represents some mental states as evidential states that ground their own evidential situation by sub-personally applying theoretically determined concepts to these states in using a theory of mind module. Future philosophical investigations will reveal if something like Kammerer's account can succeed.

So it is anything but clear that acquaintance is incompatible with topic-neutral explanations, that's why the objection can be dismissed and we can hold on to acquaintance as the explanandum we're searching for. Either way though, this problem (call it simply the *problem of acquaintance*) in fact poses no objection to my thesis at all, as it just *formulates* the true problem at hand: explain acquaintance in topic-neutral terms or explain why this can't be done! This is the central task for the meta-problem research programme. Hence, when thinking about the compatibility of acquaintance with (III), we're already on the way of solving the meta-problem, rather than just clarifying it, the latter of which is the goal of this paper. So anything beyond this must be subject to future investigation that takes on the task of solving the problem of acquaintance in order to explain our intuitions about consciousness. The meta-problem of consciousness is the problem of acquaintance.

6. Conclusion

Studying the meta-problem of consciousness has many advantages in getting to understand the hard problem. However, the science on the meta-problem is arguably very pre-mature. A lot of philosophical work on clarifying the problem needs to be done before we can come up with promising theories to solve it. Especially what exactly the central explanandum of the meta-problem is, is yet unclear. I've argued that every meta-problem theory needs to account for (I) the uniqueness of the meta-problem, (II) needs to be in line with empirical data, and (III) must be susceptible for topic-neutral explanations (sect. 2). By using a problem-intuitions oriented approach, investigation on (I) revealed that the only explanation for the uniqueness (and the existence) of the meta-problem is acquaintance, since our immediate epistemic access to our conscious experiences is just what makes our problem intuitions about consciousness what they are, i.e. uniquely puzzling (sect. 3.1). However, if acquaintance is the main explanandum of the meta-problem, we must expect acquaintance to be the source of all problem intuitions. This then, must be manifested in a very high degree of universality of knowledge intuitions (to which acquaintance intuitions belong). Luckily, this is exactly what we seem find when consulting current empirical data and what can strongly be expected to be revealed by future studies based on a priori considerations (sect. 3.2). Worries concerning the empirical status of problem intuitions in general (sect. 4.1) and acquaintance intuitions in par-

ticular (sect. 4.2) can be dismissed due to the (yet) very unreliable empirical data base that we have. Eventually, the problem of topic-neutrality was addressed. It has been concluded that it poses no objection at all, since it just formulates the underlying problem of the meta-problem: Explain acquaintance in topic-neutral terms or explain why this can't be done (sect. 5). This is the problem of acquaintance.

The case made for acquaintance is very strong, I think. I could have argued the other way around by investigating the empirical landscape on problem intuitions first, and then exploring the nature of PI_C second, as the findings concerning (II) just predict that acquaintance is the property that makes PI_C unique and thus renders acquaintance the main explanandum. So the findings on the discussion of (I) and (II) serve as *proof* for each other, which should make it difficult to cast doubt on the conclusions made in this paper if you don't want to contradict basic premises of the meta-problem (such as the premise that there is a meta-problem). However, most of what I said is still very speculative. Though the basis is very strong, there is still a lot of work to do as to clarifying the meta-problem. Especially, we should get data on the acquaintance hypothesis to test if acquaintance intuitions actually are the most widespread. If they are, I think we then conclusively proved that acquaintance is the source of our problem intuitions about consciousness and thus should be studied extensively. That's why future experimental studies need to focus on introspective tasks in order to get sufficient data on acquaintance intuitions and other first-person knowledge intuitions. X-Phi should focus on how people introspect their phenomenal states and how they intuitively think about the introspective processes involved, since understanding the way in which we access our phenomenal states from the first-person perspective is crucial in solving the meta-problem and thus to unravel the mystery of consciousness.

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