

**Knowledge By Acquaintance:**  
**An Explication and Defence**

By: Michael Ernest Markunas

University College London  
Doctor of Philosophy

I, Michael Ernest Markunas, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

*"This is how philosophers should greet each other:  
'Take your time!'" -Ludwig Wittgenstein*

## Abstract

Recently, there has been a renaissance of study on knowledge by acquaintance. One reason for this is that many writers believe acquaintance holds the key to understanding consciousness and our conscious experience of the world. For this reason, research on acquaintance has been primarily focused on perception and self-knowledge. While these questions are undoubtedly important, I believe being overly focused on these issues has prevented a defensible theory of knowledge by acquaintance from being developed. In particular, two questions have largely been ignored in the literature. First, what *kind* of knowledge is knowledge by acquaintance? If knowledge by acquaintance is supposed to give us special epistemic access to its objects, what are the central epistemic features of it and how do they differ from other kinds of knowledge? Second, can we have knowledge by acquaintance beyond cases of perception and self-knowledge, and if so, how?

In this dissertation, I answer both of these questions. In response to the first question, I argue that knowledge by acquaintance is a form of non-propositional discriminatory knowledge. Roughly, discriminatory knowledge is the exercise of a discriminatory capacity to single out a particular object from other objects of its kind. It is non-propositional because the object of the mental act of discriminating is not a proposition or truth. It is important that we understand knowledge by acquaintance in terms of discriminatory knowledge because it allows us to move beyond perceptual knowledge and self-knowledge. In this dissertation, I show how this is possible by showing that we can be acquainted with the natural numbers. This provides an answer to the second question. There is, in principle, no reason why acquaintance should only exist in sensory perception, provided we understand it in terms of discriminatory knowledge. The upshot of this is that my account of knowledge by acquaintance has a breadth and unity not often found in the acquaintance literature.

# Impact Statement

This dissertation concerns knowledge by acquaintance. In this way, it brings together issues from the philosophy of perception, mind, language, epistemology, mathematics, and the history of philosophy. Though much research on knowledge by acquaintance has been done in philosophy of late, often sub-disciplines do not speak to each other. For instance, acquaintance theorists working on issues about language and singular propositions do not always consider the ramifications their theory has for issues about perception. Likewise, acquaintance theorists working in the philosophy of perception do not always consider the ramifications their theory has for issues in language and epistemology. This dissertation contributes to the advancement of scholarship in the discipline of philosophy by bringing these sub-disciplines in dialogue with one another. This dissertation also contributes to the scholarship of philosophy by developing a unique account of knowledge by acquaintance in terms of discriminatory knowledge. No other theorist currently working in this field has defended such a conception. One of the benefits of doing this is that it allows knowledge by acquaintance to be applied to the philosophy of mathematics, a much neglected topic amongst acquaintance theorists.

Outside of the discipline of philosophy, my research has bearing on linguistics and psychology. The semantics of 'knowledge' ascriptions in English has been a recent topic in linguistics, as has the notion of acquaintance (e.g., Frana (2017)). This dissertation will be of interest to those linguists working in those areas. Likewise, in cognitive psychology, acquaintance plays a role in explanations of how we have knowledge of particulars in our spatial environment. Thus, this dissertation will be of interest to cognitive psychologists working on perceptual acquaintance. Finally, outside of academia, this dissertation provides an interpretation of a key aspect of Bertrand Russell's theoretical philosophy. Russell is one of the most widely read popular philosophers, and anyone who is interested in understanding the development of his ideas, and the development of British philosophy at the start of the 20<sup>th</sup> century, may find useful information in this dissertation.

## Preface

My interest in this topic goes some way back, at least as far back as 2010, when I was in the final year of my undergraduate studies. Having finished my B.A. in Philosophy but not my B.A. in English Literature, I was faced with a choice: either take one English module while simultaneously working a full-time job to support myself or take two additional philosophy modules and thus be registered as a full-time student and entitled to funding. I chose the latter, and lucky I did for the modules I took were Mike Martin's 'Philosophy of Perception' and Seth Yalcin's 'Form and Meaning: An Introduction to Formal Semantics'. In some ways, this dissertation is a working out of themes and issues I first encountered in those modules. In particular, I remember visiting Mike Martin in his office hours and him encouraging me to read Crane's *Elements of Mind*, which I promptly did. I still have a copy of that book with my original notes in the margins, one of which expresses my utter disbelief that anyone could believe something so crazy as Russell did in believing there is such a thing as knowledge by acquaintance. It seemed obvious to me then, in a way that it does not now, that all thought about objects was really just representational and descriptive. The thesis that you are now reading is, in a way, an experiment to see if I can convince myself that there is such a thing as knowledge by acquaintance.

A second theme that runs through this dissertation is the issue of consciousness. When I began graduate school, I was absorbed in the problem of consciousness. Assigned to Mark Kalderon as my M.Phil supervisor, I told him I wanted to work on qualia and consciousness. I did not then know that Mark thought the so-called 'hard problem of consciousness' was entirely ill-conceived. Nevertheless, he suggested I write my M.Phil thesis on the knowledge argument. He suggested this puzzle would focus my mind on the actual issues that were going on in the debate, and he was of course right. Whilst writing on that, I became more and more familiar with naive realist or relationists theories of perception. This was significant because so many relationists, like John Campbell, Bill Brewer, and Matt Soteriou, amongst others, appeal to a notion of acquaintance. What appealed to me about the relationists approach is its rejection of representationalism. I have never felt that representationalist could give an adequate account of the phenomenal character of perceptual experience. However, I was also sceptical of qualia, if

those are understood as some mind-dependent internal object. The relationist seemed to offer a way out of this dilemma by means of a story about perception that was both more theoretically plausible and more phenomenologically apt than the alternatives. Central to so many of the relationists story, was the notion of knowledge by acquaintance, and so again, I seemed confronted with this relation.

The problem, it seems to me, is that despite acquaintance being used a lot to solve problems of consciousness, perception, and reference, very few had anything to say about the epistemic properties of this relation. Moreover, with the exception of a few writers such as Campbell (2009) and Martin (2015), most working on acquaintance did little but pay lip-service to Russell's theory. This dissertation was born out of a frustration with this state of things. If acquaintance is to do so much epistemic work for us, then shouldn't we get clearer on its history and epistemology? It was this question that has been the driving force for this dissertation.

In chapter 1, I make these issues perspicuous by using the knowledge argument as an *aporia* to introduce and frame the topic. In chapter 2, I examine in some detail what I take to be the heart of Russell's theory of acquaintance. In Chapter 3, I show how such an account of acquaintance can be a case of knowledge by examining recent trends in epistemology. In chapter 4, I argue that acquaintance is a form of discriminatory knowledge, or *knowing which*, and that, despite what propositionalists say, the semantics of knowing-wh ascriptions does not require that the knower bears a propositional attitude. In chapter 5, I show how thinking of acquaintance in terms of discriminatory knowledge allows us to move beyond the case of perception into the realm of the abstract. In particular, I argue that it is possible to have acquaintance with the natural numbers. In chapter 6, with my theory of acquaintance now fully spelt out, I return to the knowledge argument. I show how my theory dissolves that puzzle and how my account differs from other acquaintance theorists in the vicinity. I also say briefly what my account does not cover and what else should be covered in future work.

## Acknowledgements

I would first like to thank my partner, Kat, who never let me quit. There were many times, especially after our daughter was born, when I wondered whether finishing the PhD was worth it. Since Kat is the primary financial earner in our household, and I the primary caretaker of our daughter, I often considered how much easier our life might be if I were a full-time stay at home dad. Even though it would have probably made her life easier, Kat would not hear of it. She reminded me how much I love philosophy and how lost I would be without it. She was also the one who pushed me to actually go to graduate school in the first place. I sometimes feel, like the later Wittgenstein did, that philosophy is nothing but one big linguistic confusion. In these moods, I often feel that I should really be doing something more useful with my time. This was perhaps most pronounced after my undergraduate studies, when I took two years off from school and worked as an ophthalmologist's surgical assistant in a hospital in New York City. This seemed a much more useful thing to do with my time. Despite this, I couldn't seem to stop reading and doing philosophy. Kat was more observant of this behaviour of mine (as partners often are) and helped me realise what a regret I would likely feel if I didn't at least try to continue my studies in some professional capacity. For this, I am forever grateful.

I would also like to thank Mark Calderon, for giving me so much support throughout my time at UCL. When my daughter was born, he was an incredibly patient and understanding supervisor. I spent the first year just reading *The Varieties of Reference* as best I could as a sleep deprived new father. I wrote mini chapter summaries and criticisms for Mark every few weeks that proved invaluable in keeping momentum. Moreover, when the pandemic hit, again Mark was incredibly flexible and patient. We sometimes met in the park, lockdown rules being what they were, to discuss chapters and drafts I had written. Without this patience and flexibility, I am not sure I would have finished.

I would also like to thank Rory Madden and Nilanjan Das, for many rewarding supervisions over the past few years. Rory has been involved since he was graduate tutor when I first started my M.Phil. He has always had tremendously useful advice not only as a supervisor, but in general about navigating academic and parental life. Though I only worked with Nilanjan for



a year or so, he got me up to speed on many contemporary debates on epistemology and much that I wrote for him became chapter 3 of this dissertation. I also had the good fortune to be a teaching assistant for Mark, Rory and Nilanjan, and have learned a tremendous amount from watching how they structure their lectures and interact with their undergraduates.

Moving to London from Los Angeles, alone, without knowing anyone, was a risk. The UCL Philosophy Department has been an incredibly vibrant place to be, both with the faculty and the graduate students. I particularly would like to single out, James Laing, Edgar Phillips, James Brown, Charles Jansen, Rowan Mellor, and Catherine Dale. All of them have been good friends and colleagues since day one. James Laing and Edgar Phillips have been particularly helpful this past year while I have been applying for jobs and trying to get things published. Not only have they read and commented on nearly all of my written work, but they have been a source of inspiration and support whilst on the job market.

Finally, I would like to thank Mike Martin. Mike first introduced me to philosophy of perception as an undergraduate at Berkeley and was the one who suggested I apply to UCL, as well as writing me a letter of recommendation for graduate school. Though he moved to Oxford shortly after I arrived at UCL, there is no doubt that without this early guidance I would not have been where I am.

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# Chapter 1: Acquaintance and The Knowledge Argument

Why begin a thesis on knowledge by acquaintance with a discussion of the knowledge argument? There are a few related reasons. First, examining the knowledge argument illustrates what acquaintance can do for us. While philosophers have appealed to knowledge by acquaintance in a variety of different debates—such as debates over the nature of reference, singular propositions, perception, and whether or not we have so-called privileged access to our mental states (to name just a few)—it is its application as a response to the knowledge argument where we see most clearly what a theory of knowledge by acquaintance can do for us. Though I will discuss the role knowledge by acquaintance plays in some of these other debates below, the knowledge argument is useful because it dramatizes the nature of knowledge by acquaintance in a particularly lucid way. Second, and relatedly, the knowledge argument makes vivid the need for non-propositional knowledge. Many of the earliest and most attractive responses to the knowledge argument appeal to the fact that there are kinds of knowledge that are not reducible to propositional knowledge. Acquaintance theorists who understand knowledge by acquaintance as a mode of non-propositional awareness, as I will argue we should below, have a potent response to the knowledge argument. Third, and finally, by looking at different reactions to the knowledge argument, we can see different ways one might be tempted to develop a theory of knowledge by acquaintance. For instance, if one is convinced there are phenomenal concepts and that the knowledge Mary learns involves grasping or tokening such a concept, one might develop a theory of acquaintance to meet this need of grasping the phenomenal concept that would be very different from the one in this thesis. Indeed, as we will see, Katalin Balog has developed just such a view in ‘Acquaintance and the Mind-Body Problem’ (Balog, 2012). For these reasons, I will use the knowledge argument to structure and constrain the account of knowledge by acquaintance presented in this thesis.

This is not to say that my goal is to provide a knockdown solution to the problems raised by the knowledge argument. Nor is it my goal to try to defend physicalism. I am not interested in whether or not physicalism is true, at least not in this thesis. Instead, I want to use the knowledge argument and the types of responses philosophers have offered to it to introduce, motivate and constrain the theory of knowledge by acquaintance I present in this thesis.

There is one terminological matter I need to set straight before we begin. I

will use the phrase ‘knowledge by acquaintance’ and ‘acquaintance’ interchangeably. Not everyone speaks this way. Some writers distinguish between the acquaintance relation and the knowledge gained from it. For them, ‘knowledge by acquaintance’ means something different from ‘acquaintance’. I reject this way of thinking about acquaintance, and so I reject this distinction in terminology. As will become clear throughout the thesis, I think the acquaintance relation is a form of non-propositional knowledge such that one cannot be in the acquaintance relation without thereby having knowledge by acquaintance. For what it is worth, this is the same terminology that Russell uses.

### **1.1 The Knowledge Argument**

Jackson first presents his knowledge argument in his 1982 article ‘Epiphenomenal Qualia’ and expands on the argument in ‘What Mary Didn’t Know’ (1986).<sup>1</sup> In both articles, he uses the knowledge argument in an attempt to refute physicalism—the doctrine that everything is physical. His method of attacking physicalism is to try to show that the mind—particularly sensory perceptual states—have non-physical properties called qualia. The argument proceeds via a thought experiment that exploits our intuitions about the kinds of knowledge that are gained by our perceptual faculties. Here is how Jackson summarises his argument:

Mary is confined to a black-and-white room, is educated through black-and-white books and through lectures relayed on black-and-white television. In this way, she learns everything there is to know about the physical nature of the world. She knows all the physical facts about us and our environment, in a wide sense of ‘physical’ that includes everything in completed physics, chemistry, and neurophysiology, and all there is to know about the causal and relational facts consequent upon all this, including of course functional roles. If physicalism is true, she knows all there is to know. For to suppose otherwise is to suppose that there is more to know than every physical fact, and that is just what physicalism denies....It seems, however, that Mary does not know all there is to know. For when she is let out of the black-and-white room or given a colour television, she will learn what it is like to see something red, say. This is rightly described as learning—she will not say “ho, hum”. Hence physicalism is false. This is the knowledge argument against physicalism (1986, 291).

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<sup>1</sup> The knowledge argument has generated a vast collection of literature. For a good collection of papers on the topic, including Jackson’s original papers, see (Ludlow, Nagasawa, & Stoljar, 2004). For a recent collection of articles dedicated to the knowledge argument, see (Coleman, 2019). For a book-length discussion and defence of the knowledge argument, see (Robinson, 2016).

Notice that the formulation of the argument is in terms of physical facts. It is not just that there is something Mary doesn't know, some quale for instance. It is that there is some *fact* about that quale that Mary cannot know without experiencing a quale of that kind. Thus, we can reconstruct the argument contained in this passage as follows:

- 1) Mary knows all the physical facts about the world.
  - 2) If physicalism is true, then Mary knows all the facts about the world.
  - 3) When Mary sees colours for the first time, she comes to know something new.
  - 4) What she comes to know is a new fact.
- 
- 5) Conclusion 1: There are non-physical facts in the world.
  - 6) Conclusion 2: Physicalism is false.<sup>2</sup>

I want to make a few remarks about how Jackson understands some of these ideas. First, Jackson refuses to define physicalism. He says a precise definition is problematic, but that is not a unique problem just for physicalism. Many things resist precise definitions. He nevertheless thinks we can characterise the view without giving a precise definition. His way of doing this is to imagine a time when all the physical sciences – physics, chemistry, neurophysiology – are ‘complete’. That is to say, all the truths that can be discovered in those fields are known. So, physicalism is the view that there are no other truths to be discovered about the phenomena studied by those fields. For example, if physics studies light and is complete, then there are no more facts to be discovered about the nature of light.

Second, Jackson thinks that what Mary gains is knowledge of a new fact. The fact Mary learns is often said to be ‘what it is like to experience red’ or ‘what it is like to experience colour’. The locution ‘what it is like’ requires delicate handling.<sup>3</sup> It is due mainly to Nagel (1974) who argued that all the physical sciences couldn't tell us what it is like to be some organism. As is well known, the example Nagel uses is a bat navigating by sonar. Nagel claims that knowing all the physical information about sonar navigation will never be enough to tell us what it is like to be a bat navigating by sonar.

What is not often noticed or remarked upon is that Jackson explicitly

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<sup>2</sup> I first presented a version of this formulation of Jackson's argument in Markunas (2016).

<sup>3</sup> See Snowdon (2010) and Stoljar (2016) for interesting albeit different approaches to how understanding this locution.

rejects the idea that he is talking about the same thing as Nagel. To see this, consider the following passage from Jackson in the same article as the knowledge argument, but this time about colour-blind Fred:

When I complained that all the physical knowledge about Fred was not enough to tell us what his special colour experience was like, I was not complaining that we weren't finding out what it is like to be Fred. I was complaining that there is something about his experience, a property of it, of which we were left ignorant (1982, 132).

According to Jackson, Nagel's interest in what it is like to be a bat is about the total conscious experience of the organism both at a time and over time. This is different from what Jackson is interested in. Jackson is interested in whether or not there are certain non-physical properties. This matters because Nagel's conception is at least in principle compatible with a version of physicalism. One might think, for instance, that there are only physical properties in the world, but that knowing what it is like from a subjective point of view to undergo a certain experience is not obtainable without undergoing that experience. This then would be a question about the first-person perspective and the subjective experience that often accompanies an experience. This is different from there being certain non-physical properties.

By contrast, as Jackson makes plain in the quote just mentioned, Jackson's interest is in a property of the experience that we cannot know via physical means. This property is non-physical. Nagel does not need to appeal and indeed does not appeal to any non-physical mental property. Jackson does and purposefully does so to make his point. This mental property is an intrinsic qualitative feature, or a quale (singular) or qualia (plural) for short. For ease of exposition, I will refer to qualia as the non-physical intrinsic mental properties of experiences. Thus, to say there are no qualia is to say there are no non-physical intrinsic mental properties of experiences. Jackson is, by his own admission, a 'qualia freak', whereas Nagel never explicitly endorses or rejects qualia, at least not in his article, 'What is it Like to Be a Bat?' (1974). This difference between Jackson (1982, 1986) and Nagel (1974) is not often highlighted in the literature but it matters. It matters because it means we cannot innocently slide back and forth between talk of qualia and talk of 'what it is like'. Maybe such a slide is justifiable, but it requires reasons.

Third, and finally, I want to highlight that Jackson seems to be committed

to propositionalism about knowledge. On a standard conception of propositions, propositions are abstract entities that are the primary bearers of truth or falsity. If a sentence is true, it is true because the proposition it expresses is true. This is a standard, though not universal, understanding of propositions. Standing in contrast to propositions are objects and properties (amongst other things). Objects and properties are not truth-evaluable the way propositions are. As Frege points out:

That the sun has risen is not an object emitting rays that reach my eyes, it is not a visible thing like the sun itself. That the sun has risen is recognised to be true on the basis of sense-impressions. But being true is not a sensible, perceptible, property (1956, p. 292).

The sun is a visible object. The fact that the sun has risen is not. The latter but not the former is truth-evaluable. Now as Jackson says in the quoted passages above, his aim is to establish that a certain kind of non-physical property exists, namely qualia. But it is in virtue of these things existing, and our knowledge of them, that we come to have non-physical knowledge. That knowledge is nevertheless knowledge of facts or truths (I will use these terms interchangeably). So, Mary comes to know a non-physical fact because it is a fact about a non-physical property. However, this assumes that all knowledge is knowledge of facts, and it is not obvious that all knowledge is propositional knowledge. As we shall see in the next chapter, Russell (1912, 1913) was adamant that there was a kind of knowledge that was not knowledge of facts, particularly in cases of sensorily experiencing colours. What's more, as we will see in the rest of this chapter, many of the earliest responses to Jackson's argument reject this commitment of propositionalism about knowledge.

It is not obvious why Jackson commits himself to propositionalism since he could have just as easily run his argument as a case of non-propositional knowledge. After all, isn't it in the first instance the red quale that Mary comes to know, and not some fact about redness? As Jackson himself says:

Tell me everything physical there is to tell about what is going on in a living brain, the kind of states, their functional role, their relation to what goes on at other times and in other brains, and so on and so forth, and be I as clever as can be in fitting it all together, you won't have told me about the hurtfulness of pains, the itchiness of itches (1982, p. 127).

Surely what Jackson is trying to convey by using expressions like 'the itchiness



of itches' is that there is some sensible property that must be sensed in order to be known. That is, to stand in the relation of knowing to itchiness, one must stand in the relation of sensing to itchiness. But then isn't the former relation constituted by the latter? That is, isn't the knowing relation constituted by the sensing? What more could one need to know it? If so, then what is known is a property, not a true proposition about a property. In which case, there is no reason to suppose that this is a case of factual or propositional knowledge.

Jackson doesn't address this worry. It was probably dialectically prudent at the time that he couched his argument in terms of propositional knowledge. But one might worry that he misses something fundamental about the case. Arguments about physicalism aside, why does Mary have to sense the property to know it? What does that say about the sensible and our relation to it? Before trying to answer this question in depth, I want to look briefly at the main responses to the knowledge argument. Doing this will equip us to better understand the theory of knowledge by acquaintance that I will develop in this thesis. I will begin by looking at the ability response, which is a response that, like the acquaintance response, calls into question Jackson's assumed propositionalism about knowledge.

## **1.2 The Ability Response**

One of the earliest responses to the knowledge argument is to argue that Jackson equivocates on knowledge. This strategy turns on rejecting Premise 4 of the knowledge argument. That is, those who endorse this response accept that Mary knew all the physical facts about colours and colour experience (Premise 1), that there are no other non-physical facts about colours and colour experience (Premise 2), and that we rightly say Mary learned something new when she sees colours for the first time (Premise 3). What they reject is that what she comes to know is a new fact (Premise 4). The new knowledge Mary gains is not knowledge of a fact, but something else.

Nemirow and Lewis present the earliest versions of this response. Their responses turn on the idea of practical knowledge being a type of non-propositional knowledge:

The knowledge argument rests on a shaky inference. From the premise that knowing what it is like escapes physical theorising, the inference is made that there is information about what it's like that escapes physical science. In short, it is assumed that knowledge of what it's like must be knowledge of the way

things are. But that assumption ignores the fact that the vocabulary of knowledge also applies to abilities (Nemirow, 1990, p. 492).

This idea goes back at least to Ryle (1949). Ryle argued that knowing how to do something is not a matter of being in a mental state that has a proposition as its object, but the idea is intuitive enough without getting bogged down in Ryle's philosophy of mind. Take a simple example of riding a bicycle. Most people cannot learn how to ride a bicycle simply by reading a textbook about bicycle riding. To know how to ride a bicycle one needs to practice riding a bicycle. That is, one needs to gain and refine an ability. This ability is a type or kind (I use these terms interchangeably) of knowledge. This is reflected in ordinary discourse. For instance, one can ask, 'do you know how to ride a bicycle?' before letting someone ride your bicycle, or you can say, 'I know how to ride a bicycle but not a unicycle'. So, it seems like this ability to ride a bicycle is a kind of knowledge. Such knowledge is often called 'practical knowledge'.<sup>4</sup>

What is essential to this line of reasoning is that not only is it a contingent fact about humans that they cannot learn how to do something without actually practicing doing that thing, but that such knowledge itself is not reducible to the knowledge of facts. For instance, imagine an alien species that have never ridden a bicycle or in fact observed a bicycle. Imagine they come to Earth and read a textbook on bicycle riding, and then immediately could ride a bicycle expertly without any practice or training. This case would not be a refutation of the view of practical knowledge discussed here. The practical knowledge displayed by this species would still be of a different kind. It is a kind of knowledge that is not reducible to the facts. Of course, no one is arguing that reading about the facts will not help. Reading a book on how to ride a bicycle will help. No one is denying that. But such knowledge does not constitute the knowledge of doing the thing. This is because such practical knowledge is not knowledge of a set of facts, but rather, an ability to perform some type of task.

So, an ability response to the knowledge argument turns on this distinction between kinds of knowledge. It connects the idea of having a new experience

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<sup>4</sup> Practical knowledge has recently generated a large amount of literature. Most of this is sparked by Stanley and Williamson (2001), who argue that practical knowledge is actually a way of knowing facts. A useful volume discussing these issues is Bengson and Moffett (2011). See also Farkas (2016) (2017) and Snowdon (2004). I will discuss some of the issues raised by Stanley and Williamson in chapter four. For now, I will accept, without argument, that Lewis and Ryle are right, practical knowledge is non-propositional knowledge.

with gaining new abilities. Nemirow (1980) explains it in this way:

Some modes of understanding consist, not in the grasping of facts, but in the acquisition of abilities...As for understanding an experience, we may construe that as an ability to place oneself, at will, in a state representative of that experience (pp. 475-476)

Building off this idea, in Lewis's 1988 article 'What Experience Teaches', he says:

If you have a new experience, you gain abilities to remember and to imagine. After you taste Vegemite, and you learn what it's like, you can afterward remember the experience you had. By remembering how it once was, you can afterward imagine such an experience. Indeed, even if you eventually forget the occasion itself, you will very likely retain your ability to imagine such an experience (Ludlow, Nagasawa, & Stoljar, 2004, p. 98).

Applying this idea to the knowledge argument, when Mary sees colours for the first time, she comes to gain a range of new abilities including but not limited to imagining, remembering, and recognising those colours. Moreover, this response continues, knowing what it is like to experience some colour just *is* to possess these abilities. These abilities can neither be gained nor reduced to a set of facts given in a lesson.

There are two things that I think are correct about the ability response to the knowledge argument. First, it is no doubt true that Mary gains a host of new abilities when she comes to see colours for the first time, not least the abilities to recognise, imagine and remember the colours she has seen. These abilities are indeed practical knowledge. I do not think anyone would deny that, in any case, I do not deny it. Second, I agree with Nemirow and Lewis that practical knowledge cannot be gained or reduced to the knowledge of facts. That is, I think it is a type of non-propositional knowledge.

Nevertheless, the ability response to the knowledge argument faces a number of objections that are formidable.<sup>5</sup> Nearly all of the objections focus on the following idea – gaining an ability just can't be *all* there is to knowing what something is like. When Mary sees colours for the first time, she seems to learn something about what the *world is like*, not just how to do something in the world (Braddon-Mitchell & Jackson, 1996). To make the point more vivid,

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<sup>5</sup> See Loar (Loar, 1990, revised in 1997, reprinted in 2004), Nida-Rumelin (1995), and Tye (2001) amongst others.

consider the following case:

*Alzheimer's Case:* Suppose I develop a quite severe case of Alzheimer's disease. Suppose further I have a favourite red coffee mug that I drink coffee from every day. And suppose that the nature of my Alzheimer's is such that I not only forget that I drank out of that coffee mug, but that I forget I have ever seen the colour. Thus, every morning, I open the cabinet to see my favourite red coffee mug and exclaim, 'Wow! The colour of that mug is so spectacularly bright! I love it and want to use that mug for my coffee!'

In this case, it seems, I know what redness looks like. However, I don't remember redness, I don't recognise it (it seems like a new colour to me every day), and presumably, I do not imagine it. Thus, I lack all the abilities that are supposed to constitute knowledge of what redness is like. And yet, it seems wrong to say I do not know what redness is like. I am looking at it. It is hard to deny that in this case, I do not know what redness looks like even though I lack all the requisite abilities.

There are, perhaps, things a proponent of the ability response could say in response to counterexamples of this kind, but it is hard to deny the intuition that what Mary learns is something about the world, not just how to do something. Some philosophers of mind explain a salient feature of the difference between belief and action as a difference between the 'direction of fit'.<sup>6</sup> The case of believing truly is a case of trying to change our mind to fit the world. It has a *mind-to-world* direction of fit. By contrast, the case of acting successfully is a case of trying to change the world to fit our mind. It has *world-to-mind* direction of fit. In light of this distinction, we can explain our complaint against the ability hypothesis in this way: the proponents of the ability response mistakenly posit that Mary's new knowledge has world-to-mind direction of fit. In fact, Mary comes to gain knowledge of redness by fitting her mind to the world. Her knowledge is not just how to do something in the world, it is knowledge of how the world is.

In short, while proponents of the ability response are correct that Mary gains new abilities, and they are (arguably) correct that those abilities are not reducible to factual knowledge, they nevertheless locate the epistemic shift in the incorrect place. Mary's epistemic gains are not just matters of new things

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<sup>6</sup> Searle (1983) did much to popularise this way of talking, but the distinction goes back at least to Austin (1953) and also features in Anscombe (1957).

she can do. The gains are a matter of learning something about the nature of the world, specifically about the nature of colours.

### **1.3 The Phenomenal Concept Strategy**

Another popular physicalist response to the knowledge argument is the phenomenal concept strategy. The phenomenal concept strategy has two key differences from the ability response. First, unlike the ability response, those who embrace the phenomenal concept strategy argue that the knowledge Mary gains is knowledge of what the world is like. Second, the proponent of the phenomenal concept strategy argues this knowledge is propositional. That is, they think it is knowledge of a fact.

The phenomenal concept strategy has been one of the more discussed and controversial responses to the knowledge argument. I will not follow every contour of the debate here. Indeed, I won't even get into the different approaches among phenomenal concept theorists as to what the nature of phenomenal concepts are. Instead, there are two reasons I want to discuss the phenomenal concept strategy. First, many of the defenders of the phenomenal concept strategy appeal to something like knowledge by acquaintance, either explicitly (e.g. (Balog, 2012)) or implicitly (e.g. (Nida-Rumelin, 1995)). By contrasting their approach to acquaintance with a more general approach to acquaintance as I will in the next section, we get a clearer view of what is at stake in knowledge by acquaintance as it is conceived in this thesis. Second, the phenomenal concept strategy defends physicalism by appealing to a more general strategy often called the 'old fact/new mode' approach. (Ludlow, Nagasawa, & Stoljar, 2004) This label is slightly misleading since many phenomenal concept strategists do not think phenomenal concepts are modes of presentation at all. Nevertheless, the attribution is accurate in so far as phenomenal concept strategists defend the view that Mary's new knowledge is factual knowledge. So, unlike the ability response (and the acquaintance response, as we'll see in the next section), this approach does not endorse the idea that Jackson's argument equivocates on 'knowledge'. According to those who use the phenomenal concept strategy, there is no non-propositional knowledge (or if there is, then it is not what Mary learns). Rather, Mary comes to understand a fact she previously knew but under a new guise. How could this be?

In his 1990 article, 'Phenomenal States', Brian Loar presents one of the

earliest and perhaps more influential accounts of phenomenal concepts (Loar, 1990, revised in 1997, reprinted in 2004). Loar argues that the knowledge argument confuses properties and concepts. When we introspect our own experiences, there are ways those experiences 'differ and resemble each other with respect to what it is like to have them' (p. 219). Such differences and resemblances among experiences are what Loar calls 'phenomenal qualities'. These are properties of our experience. By contrast, the conceptions we have of those qualities are called 'phenomenal concepts'. Phenomenal concepts are thus conceptions of the phenomenal qualities. Loar's main thought is that the knowledge argument pumps an intuition about phenomenal concepts, but mistakenly takes it to be about phenomenal qualities. Thus, in Loar's view, phenomenal concepts are conceptually irreducible to physical concepts:

It is my view we can have it both ways. We may take the phenomenological intuition at face value, accepting introspecting concepts and their conceptual irreducibility, and at the same time take phenomenal qualities to be identical with physical-functional properties of the sort envisaged by contemporary brain science (220).

So, Mary's learning is knowledge of a fact—what redness is like. This is a fact she knew before in her black-and-white room. It is a fact about the 'physical-functional properties' of the human brain. But Mary only knew this fact under a physical-functional description. What she lacked was a phenomenal concept of the same fact. Both beliefs demonstratively identify a red experience. For instance, in her black-and-white room, Mary could look at a brain scan of a human having a colour experience and demonstratively identify it by saying 'this is what seeing red is like'. Similarly, once released, she could see red and say, 'this is what seeing red is like'. Thus, both beliefs are made true, if true, by the same fact, namely the visual experience of a human being seeing red. But the latter is known from a first-person introspective perspective. Thus, Mary gains a new way of conceiving—a new concept—for the same fact.

Loar's defence of this view is that the knowledge argument has a semantic premise. That is, when we say 'Mary knows what it's like to see colours', 'knows' is opaque. As Loar sees it, the knowledge ascription *must* be opaque in the knowledge argument. If it weren't, it would be transparent and thus would beg the question against the physicalist because in order to gain new

knowledge on a transparent reading there must be something else that she knows. But that would entail there was something non-physical she knows. So, the knowledge ascription cannot be transparent here but rather must be opaque.

The 'opacity of knowledge', as it has come to be called, is the idea that from facts of the form:

- (1)  $A = B$
- (2)  $S$  knows that  $A$  is  $F$

one cannot thereby infer facts of the form

- (3)  $S$  knows that  $B$  is  $F$ .

For example, Clark Kent is Superman, and one can know that Superman can fly without knowing that Clark Kent can. Similarly, Mary might know 'this is what seeing red is like' under a physical-functional description without knowing 'this is what seeing red is like' under a phenomenal description. In both cases, the fact that makes the pair of beliefs true is one and the same fact. Thus, beliefs are individuated more finely than the facts that make them true. So, one knows an old fact in a new way. The phenomenal concept strategy says this new way is the possession and application of a phenomenal concept.

Importantly for our purposes, phenomenal concepts are not contingent modes of presentation. This is one way phenomenal concepts are disanalogous to other cases of beliefs involving modes of presentation. For example, it is a contingent fact about Venus that it appears as the Morning Star for us, and it is also a contingent fact that it appears as the Evening Star. Another planet could have been so placed that it was the first star to appear in the earthly sky in the morning and the first star to appear in the earthly sky at night. Thus, when someone believes 'the Morning Star is bright' they are conceiving Venus being bright under a contingent mode of presentation. By contrast, phenomenal concepts pick out their referent essentially and directly, or so Loar argues:

This brings us back to Mary, whose acquired conception of what it is like to see red does not conceive it under a contingent mode of presentation. She is not conceiving of a property that presents itself *contingently* thus: it is like such and such to experience  $P$ . Being experienced like that is essential to the property Mary conceives. She conceives it directly...she has a direct grasp of the property involved in the new information; she conceived of it somehow, but

not under a contingent mode of presentation (p. 223).

It is from this line of argument that acquaintance becomes important for the phenomenal concept strategist. Katalin Balog makes this explicit in 'Acquaintance and the Mind-Body Problem':

Acquaintance is a unique epistemological relation that relates a person to her own phenomenally conscious states and processes *directly, incorrigibly, and in a way that seems to reveal their essence*. When one is aware of a phenomenal state in the process of having it, something essential about it is revealed, directly and incorrigibly, namely what it is like to have it (2012, p. 16).

As we shall see in the next section, this is a different account of acquaintance than those who endorse a pure acquaintance response to the knowledge argument. That is, an acquaintance response that makes no appeal to phenomenal concepts or abilities or anything else. As Balog's writings make clear, acquaintance is wheeled in to bolster the phenomenal concept strategy as a general physicalist response to anti-physicalist arguments, the knowledge argument in particular. What a phenomenal concept strategist needs from acquaintance is this epistemic relation that is direct, incorrigible, and revelatory. This is a tall order for any epistemic relation, and it is perhaps not surprising that phenomenal concept strategists appeal to knowledge by acquaintance for this, for it is often thought this is how Russell conceived of acquaintance with colours, though as we shall see in the next chapter, it is not obvious that Russell thought this way, nor is it forced upon an acquaintance theorist.

There have been many objections to the phenomenal concept strategy, but I will just run through the one I think is most pressing. The trouble with the phenomenal concept strategy is that knowledge is only opaque if one does not know everything there is to know about something (Braddon-Mitchell & Jackson, 1996). For example, failing to know Clark Kent flies is failing to know something about Superman, namely that he is Clark Kent. But this can't be what is going on in the knowledge argument. Mary, by stipulation, knows everything there is to know about redness. So how could there be something she doesn't know about it? This seems to run afoul of the thought experiment itself. Another way to put the same point is that *either* the referent of the phenomenal concept RED Mary gains has to be something genuinely new. In which case, it must be non-physical since she knew everything physical or alternatively, it was something she already knew about and it wouldn't amount to new knowledge. Of course, one could argue, as the ability response and the



acquaintance response do, that she only knows everything propositional, not everything *simpliciter*. But the phenomenal concept strategist does not want to appeal to non-propositional knowledge. They believe Mary's epistemic gains are the result of knowing an old *fact* known in a new way.

Another thing that is quite worrying for our purposes is that the phenomenal concept strategy seems to need a quite strong theory of knowledge by acquaintance to ground its plausibility. Indeed, it needs a theory of knowledge by acquaintance that is stronger than the one I will defend in this thesis. The phenomenal concept strategy needs acquaintance to be direct, incorrigible, and revelatory. As I will argue in this thesis, none of those features are necessary either to explain knowledge by acquaintance or to have it do theoretical work for us.

So, the problem with the phenomenal concept strategy then is that we are burdened with further controversial theoretical commitments that need much spelling out. What's more, most of those further theoretical commitments, even if adequately spelt out and defended, would point the way to a more straightforward solution to the knowledge argument. If we have to appeal to acquaintance as a direct, incorrigible relation that reveals the essence of the objects, then surely what grounds these features will be the fact that acquaintance is a conscious presentation of an item the knowledge of which does not entail any truths. For instance, it is only part of Russell's theory that acquaintance gives us direct and incorrigible knowledge that is revelatory (and it is not even clear he is committed to them in the strong sense that the phenomenal concept strategist needs). Importantly, these features are spelt out in Russell in light of a backdrop of acquaintance as a conscious presentation of an item that is not reducible to the knowledge of truths. It is in virtue of this non-propositional mode of awareness that we get direct, incorrigible, revelatory knowledge, at least for Russell. But that means phenomenal concept strategists must either appeal to these features of acquaintance or must provide some other account of how there could be such a relation. If they do the former, then they already have an answer to the knowledge argument in terms of non-propositional knowledge and do not need to take on controversial theses like incorrigibility, revelation, or even phenomenal concepts. If they don't want to go the non-propositional route, then they owe an explanation of how such theses could be defended. It is not obvious that any such account is forthcoming.

#### **1.4 The Acquaintance Response**

Like the phenomenal concept strategy, and unlike the ability response, the

acquaintance response tries to do justice to the fact that Mary's epistemic progress is a result of learning something about the world, not just gaining an ability. However, unlike the phenomenal concept strategy, but like the ability response, the acquaintance response claims that the knowledge argument equivocates on 'knowledge' because there is non-propositional knowledge. That is to say, the acquaintance response rejects Premise 4 of the argument, the thesis that Mary's new knowledge is knowledge of a fact. The acquaintance response accepts the other premises of the argument, namely that Mary knew all the physical facts about colour and colour experience (Premise 1), that there are no other non-physical facts about colours and colour experience (Premise 2), and that Mary learns something new when she sees colours for the first time (Premise 3). Churchland (1985) (1989), Conee (1994), and Tye (2009) have all defended different versions of this response to the knowledge argument. Despite their differences, what unifies them is the idea that there is a type of non-propositional knowledge that one gains when one has an experience of an item.

#### 1.4.1 Churchland

One of the earliest acquaintance responses is found in Churchland (1985). He argues that:

There are pretty clearly more ways of "having knowledge" than having mastered a set of sentences. And nothing in materialism precludes this. The materialist can freely admit that one has "knowledge" of one's sensations in a way that is independent of the scientific theories one has learned. This does not mean that sensations are beyond the reach of physical science. It just means that the brain uses more modes and media of representation than the simple storage of sentences. And this proposition is pretty obviously true: almost certainly the brain uses a considerable variety of modes and media of representation, perhaps hundreds of them. Jackson's argument, and Nagel's, exploit this variety illegitimately: both arguments equivocate on 'knows about' (p. 24).

As this passage illustrates, Churchland thinks Jackson equivocates on 'knowledge' in the knowledge argument. On Churchland's view, there are two different kinds of knowledge, and one can know the same thing in either or both of these two different ways. With respect to sensible qualities like redness, one way is by knowing all the true propositions, another way is by directly experiencing the quality. The latter has a different form of representation in the

brain, namely a pre-linguistic (perhaps iconic?) representation. So, when Mary sees colours for the first time, according to Churchland, she still knows about the same thing, namely a physical quality in the world, but she knows about it in a new way by means of a new representational mode. She knows *of* redness by being acquainted with it and that acquaintance knowledge does not consist in knowing true propositions but representing in a pre-linguistic part of the brain.

In some ways, Churchland's response may seem reminiscent of the phenomenal concept strategy because Churchland is explicitly appealing to the way Mary represents the quality. While there are similarities, it would be a mistake to categorise his view as of the same kind as the phenomenal concept strategy in the last section. The phenomenal concept strategy argues that knowledge is opaque. But there is no such argument to that effect in Churchland. Rather, it is clear that he thinks that the knowledge argument equivocates on 'knowledge'. This is because there are two types of knowledge, and the knowledge argument is trading on this. The phenomenal concept strategist refuses to countenance more than one type of knowledge—propositional knowledge. So, the two approaches are different.

One of the interesting features of Churchland's view is that it accounts for the seeming ineffability of sensible qualities in a non-mysterious way. Churchland's view is that we can not explicitly state what the representation of redness is like because it occurs in a pre-linguistic part of our brain (1985, p. 28). This is just a contingent fact about human anatomy rather than some deep mystery about colour or ineffable qualia. So, if one did think colour experiences were somehow ineffable as some do, then Churchland's account might be attractive as a physicalist way of explaining this fact.

One possible problem with Churchland's approach is that it seems to suggest that experience is not transparent. By making the mode of knowing a certain type of representational format in the brain, Churchland is open to the criticism that what Mary actually gains is not knowledge of redness, but knowledge of how humans represent redness in colour vision. That might still be an answer to the knowledge argument since it still explains how Mary can gain knowledge about human colour vision by seeing it. There is nothing non-physical about this. Nevertheless, this seems to run afoul of the transparency thesis that is somewhat common in the philosophy of perception. Roughly speaking, the transparency thesis is made up of two claims. First that our

experiences present or represent mind-independent objects, qualities and relations. Second, that our experiences do not present or represent any intrinsic properties of our experiences (Harman, 1990) (Martin, 2002b). The transparency thesis is quite plausible, and its denial difficult to maintain. It is even harder to maintain if one is a physicalist. Since Churchland is a physicalist, it seems like he needs to offer an explanation for this. This does not necessarily mean that Churchland's rejection of the knowledge argument fails, it just means that the rejection might have some assumptions that we do not want to embrace. Perhaps it is best to view Churchland as meeting Jackson on Jackson's own terms. That is, perhaps Churchland's argument proceeds as follows: assume for the sake of argument that there are qualia, that they are internal, and Mary cannot know them without experiencing them, does that then mean physicalism is false? No, because there are physical qualia and because Jackson's argument equivocates on knowledge.

#### 1.4.2 Conee

A similar response to Churchland's is Earl Conee's acquaintance response (1985) (1994). Like Churchland, Conee thinks the knowledge argument contains an equivocation on 'knowledge' and that there is a type of knowledge that is not knowledge of a fact. Conee argues that what Mary gains is knowledge by acquaintance of a property, namely a phenomenal property which is a property of her experience that comes to be instantiated when she first experiences colours:

During her confinement, phenomenal redness was not a property of any of her visual experiences. It seems also to be true that she never knew the property itself, in spite of her knowing all about it. This suggests the more specific acquaintance hypothesis that becoming acquainted with a phenomenal quality consists in experiencing the quality. This further hypothesis puts us in a position to account for Mary's learning what it is like to see something red. The learning is a matter of Mary's becoming acquainted with the visual experience that ordinarily results from seeing something red, and this acquaintance consists in Mary's experiencing phenomenal redness. She experiences the quality, and that teaches her what seeing red things is like. **She does not learn any new fact. Rather, she comes to know the quality itself** (1994, pp. 140-141) (emphasis added).

Conee's thought is that the only knowledge Mary gains is knowledge of a

property, namely a phenomenal property of her experience. Conee goes on to say that experiencing that property is 'nearly sufficient', adding the qualification that one must at least attend to the experience. He adds this qualification to rule out cases where qualities are experienced quickly and inattentively. Conee thinks such cases do not constitute knowledge of the property. So, it is not any kind of experience with the property, but rather, an attentive experience with the property in question to have knowledge by acquaintance. As Conee explains, 'the one thing more that is required in order to know an experienced quality is to notice the quality as it is being experienced' (1994, p. 141). He never spells out what noticing comes to. Is it, for instance, the deployment of a concept? If so, does this raise problems for it being non-propositional? Does the deployment of a concept require predicating of an individual *A* that it has feature *F*? Does such predication consist in knowledge that *A* is *F* and thus a form of propositional knowledge? Putting these worries aside, we can see that Conee, like Churchland, thinks Mary knew all the facts about redness and red experiences. But that she had not experienced red and experiencing red gives one a particular kind of knowledge of the property itself. Like propositional knowledge and practical knowledge, knowledge by acquaintance is an epistemic achievement according to Conee:

In order for someone to know something by acquaintance, it is not enough for the person simply to have one or another sort of familiarity with the thing. In fact, however, it is with the two other forms of knowledge, it seems particularly clear that knowing something by acquaintance requires a person to be familiar with the known entity in the most direct way that it is possible for a person to be aware of that thing (1994, p. 144).

For Conee, acquaintance is a direct form of awareness with the object of knowledge, whether that be an individual or a property. Moreover, according to Conee, knowledge by acquaintance is an epistemic achievement, just like propositional knowledge and practical knowledge. Rather, according to Conee, it requires an *attentive* experience the thing in question. Moreover, Conee seems to imply that while it might not give the knower infallible knowledge, it does provide some sort of special epistemic justification. For these reasons, Conee thinks that knowledge by acquaintance is rightly called knowledge because it is indeed a type of cognitive achievement with special epistemic properties.

Conee's response is significant in how non-committal it is. First, unlike

Churchland, Conee does not cash out knowledge by acquaintance with representational formats in the brain. Furthermore, Conee is completely neutral on whether physicalism is true or not. He thinks that either way, what Mary gains is knowledge by acquaintance of a property, but that property may or may not be physical. Here is how Conee sums up his own view:

The present response to the knowledge argument is epistemologically substantial, but it is very lean. The claim is that there is a kind of knowledge of a phenomenal quality, knowledge by acquaintance, which can consist in attentively experiencing the quality rather than possessing information or abilities. This is not an exotic epistemic state. It is neither ineffable nor unmistakable. It is the familiar sort of knowledge to which we refer when we discuss knowing people and places as well as experiences.

The acquaintance approach is metaphysically noncommittal. The relation of experiencing need not be some simple relation to a phenomenal quality. For all that the approach implies, attentively experiencing a quality might be a brain state with a complex neurophysiological nature, and equally, it might be a simple unanalyzable relation of a soul to a nonphysical quality. Physicalism is neither implied nor excluded. The present reply to the knowledge argument contends that the differences in experience that are by hypothesis included in Jackson's examples constitute the differences in the knowledge that are actually present in the examples. The examples thus do not support the existence of any non-physical information. This says nothing metaphysical about experiences (1994, p. 147).

We can see that, unlike Churchland who takes phenomenal qualities to be in some sense ineffable, Conee is committed to no such thing. All that is required is a mere acquaintance relation to the object. That relation constitutes knowledge. Whether or not that relation is analysable or not is something Conee feels he does not need to commit to. In this way, Conee's response is rather elegant in that it avoids many of the major problems of acquaintance. By the same token, however, it is a rather unsatisfactory account because Conee does not tell us how an acquaintance response could possibly distance itself from such issues. All that is said by Conee is that Mary gains knowledge by acquaintance which is a special epistemic achievement consisting of attentively experiencing a thing. This is not knowledge of a fact or information and so the knowledge argument fails. But how to understand this direct intimate awareness of things is never explained, and a reader might reasonably think that if nothing substantial can be said here then there really is no response to

the knowledge argument, but only a template waiting to be filled in.

Still, Conee's response is important because it lays bare the central aspects of an acquaintance response. He is right that what differentiates his view is that on his account, Mary's epistemic progress is not a matter of abilities (like those who are committed to the ability hypothesis claim), nor is it a matter of gaining information (like those who are committed to the phenomenal concept strategy claim). What's more, physicalism is a secondary issue for Conee. As he says, it is neither implied nor excluded. Conee is right that a proper acquaintance response to the knowledge argument is compatible with physicalism and dualism. The knowledge argument is not really about the metaphysics of mind, despite what Jackson wants to claim. Rather, it is about the epistemic progress one makes when one is acquainted with colours for the first time. The rest of this thesis is an attempt to spell out a theory of acquaintance that can do this.

### 1.4.3 Tye

In his 2009 book *Consciousness Revisited: Materialism without Phenomenal Concepts*, Tye develops an acquaintance response as a physicalist defence to the knowledge argument (and other purported puzzles of consciousness) that is much more fleshed out than Churchland or Conee. Importantly for our purposes, unlike Churchland and Conee, Tye explicitly ties his theory to Russell's theory of acquaintance:

I hold that Russell's distinction holds the key to understanding the central aspects of the correct solutions to the above puzzles. What Russell needed when he advanced his distinction between knowledge by acquaintance and knowledge by description was a better grasp of the nature of perceptual content. Lacking such a grasp, he was not able to provide a fully satisfactory answer to the question (2009, p. xii).

Tye is right that it is something about the perceptual contact with redness that explains Mary's epistemic progress. But I will say upfront that I do not find his theory of perceptual content plausible. The nature of perceptual content that Tye offers is a particular form of intentionalism or representationalism. I do not reject it simply on those grounds alone, but Tye holds what he calls the 'Singular When Filled Thesis' of perceptual content. This is the view that perceptual experiences have representational content with a gap in it that is to be filled with a particular individual when the individual is experienced. For instance, a particular experience of Donald Trump might represent him with a

dark suit and red tie, and that content will be filled in by the particular man just in the case you are actually looking at him and not hallucinating. On this account, perceptual experiences are representational states that are singular when veridical and purport to be singular, but are actually ‘gappy’, when hallucinatory because of their structure. Moreover, Tye notes, that the representational content of experience is non-conceptual and non-propositional. The upshot is that, on this view, the phenomenal character of an experience (when veridical) is the thing experienced. So, redness, taken as a property of material objects in the world, just is the phenomenal character of a veridical experience of red (albeit it has to meet further conditions such as playing the appropriate functional role). So, Tye claims,

If I say, while viewing a ripe tomato, “this is what it is like to experience red” the referent of my demonstrative is simply the colour represented by my experience. It is the colour that I attend—and that is what it is like for me to experience red. The story could hardly be simpler” (2009, p. 120).

Here, Tye is evoking the transparency of experience thesis discussed above. He is an externalist about phenomenal character. His account becomes more complicated when he applies this theory of intentional content to the Mary puzzle:

In coming to know a new thing, Mary thereby makes a discovery. It seems infelicitous to say that the new thing she knows just is her discovery. What does she discover? What does she learn? The natural answer is that she discovers (learns) what it is like to experience red. This, I now want to suggest involves a mixture of factual and objectual knowledge...Mary’s consciousness of red gives her objectual knowledge by acquaintance of red, and (partly) via that knowledge she knows a certain proposition. On this view, we can say that after she leaves her room Mary knows a certain fact (partly) by knowing a certain entity she did not know in her room (namely red of the phenomenal character of the experience of red) and that this combined knowledge is what is needed to know what it is like to experience red. (2009, p. 132)

I must admit I find this view very difficult to make coherent.<sup>7</sup> The idea seems to be that there are two distinct things Mary comes to know, but that they are fundamentally related. First, she comes to know redness. This is the objectual or object knowledge and therefore non-propositional knowledge. It is also

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<sup>7</sup> I have examined Tye’s theory in more detail in Markunas (2016).



object knowledge that can only be had via acquaintance and therefore knowledge by acquaintance. Second, she comes to know what it is like to experience redness. This is a fact that can only be known by having knowledge by acquaintance with red. If this is the right interpretation of Tye's acquaintance response, then it is not clear to me how to square this approach to the knowledge argument with the view of perceptual content above. Is the redness the singular object that fills the gap in the singular proposition of experience? Perhaps, but redness isn't an object, it's a property. In fact, it is a determinable property. How does such a determinable property become the singular object of a singular proposition in content? Wouldn't the object of the perceptual episode be a more determinate shade of red? But then, how does knowledge of this determinate shade yield knowledge of the determinable redness? Is it to predicate, in thought, that *this* determinate is an instance of the determinable? If so, is that not to have a judgement of the form '*A is F*'? But '*A is F*' is propositional. So how can this be non-propositional knowledge? Moreover, if the determinate shade of red is the referent of the singular term in the singular proposition, then does that mean that redness is the concept under which the determinate shade falls? That is, is the concept REDNESS the *F* in '*A is F*'? If that is right, then not only is this propositional knowledge, but conceptual knowledge. But then, how can an acquaintance response to the knowledge argument require a theory of perceptual content that is non-propositional and non-conceptual?

Assuming these questions can be answered, it is still not clear how Tye would answer my original question—does Mary learn a new proposition? The following is evidence that he would answer 'No'. Mary's learning, is at least partly, knowledge of a thing. Tye emphasises that there is a type of knowledge called object knowledge or thing knowledge and that knowing redness is knowing a thing by acquaintance. Moreover, Tye claims that perceptual experience has non-propositional and non-conceptual content. All this seems to suggest he has a view remarkably close to Conee's view. However, there is evidence Tye would also answer Yes to the question. For instance, he says knowing what it is like is knowing a new fact, a fact that cannot be known without being acquainted with the constituents of the proposition. This suggests that Mary does gain new propositional knowledge via acquaintance on Tye's view. But then this is at odds with his view that perception is non-propositional. So, it cannot simply be that view. So then maybe the view is that

she gains knowledge of an old fact in a new way.

Putting the problems with Tye's particular view aside, what is important in Tye's work is the link he makes between the nature of perception and Russell's theory of acquaintance. It is by understanding that connection we begin to make progress on the nature of knowledge by acquaintance. It is that issue that will be broached over the next few chapters.

## **1.5 Conclusion**

All of the acquaintance responses I've considered so far need shoring up in various ways. Churchland's account seems to run afoul of the transparency thesis and is anyway internalist about content in a problematic way. Conee's account is promising but so minimal as to struggle to give much of a satisfactory answer. Tye's answer, though lengthy, is borderline incoherent. Nevertheless, what these accounts share is a commitment to some form of non-propositional knowledge. It is this that differentiates them from the phenomenal concept strategists, some of whom also appeal to knowledge by acquaintance.

It is important to note that there are others who are moved by this insight but are not physicalists. Robinson (2016) uses the knowledge argument as a way to argue for the existence of a non-physical mental substance. But he proposes, the knowledge Mary gains is knowledge by acquaintance of redness. As far as I can tell he believes this is a non-propositional mode of knowing (p. 26). It is just that redness for Robinson is a non-physical mental property in the mind of perceivers. As we saw, Conee also believes this a possible view for his theory of acquaintance (though he doesn't explicitly endorse it).

What all of this shows, is that the acquaintance response can be used to defend many positions on the metaphysics of mind and perception. If you are a physicalist about the mind, it can be used to defend an internalist (Churchland) or externalist (Tye) account of mental content and phenomenal character. If you are an anti-physicalist either idealist or dualist (Robinson), it can be used to defend that position. Or it can be used in accounts that are non-committal on the metaphysics (Conee). But all of these approaches rely on the key feature that knowledge by acquaintance is non-propositional. That is, the knowledge gained is not knowledge of a fact. Redness is a quality of...insert your metaphysics of colours, mind, and/or content here... and Mary comes to be acquainted with that quality when she sees red for the first time. This is new knowledge about the way things are, not a new practical ability.

But how can we make sense of this idea? How can we make sense of the idea that acquaintance is actually a form of non-propositional knowledge? In my opinion, no one has properly even tried to answer this question, let alone

given a satisfactory answer to it. In the rest of this thesis, I attempt to fill this gap. In the next chapter, I begin this project by looking back at Russell's original theory of acquaintance.

## Chapter 2: Russell's Theory of Acquaintance

Russell was one of the earliest and most prolific defenders of knowledge by acquaintance. The idea is not necessarily his own. There is some evidence he took the idea from reading an abridged version of William James's *Principles of Psychology*, who in turn took it from Helmholtz and Grote (Proops, 2014). Knowledge by acquaintance makes its earliest appearance in Russell's writings in 1903, both in his notebooks 'Points about Denoting' (hereafter, *POD*) and also in print in the introduction to *The Principles of Mathematics* (hereafter, *POM*). However, by 1919, Russell had given up on knowledge by acquaintance. From 1903-1919 his theory underwent many changes. In 1913, Russell seemed to be struggling to develop his theory of knowledge by acquaintance. Russell abandons his *Theory of Knowledge* manuscript (hereafter, *TOK*) the main topic of which is acquaintance. Russell's own feelings seemed to be that Wittgenstein had read the manuscript and given fatal objections to his theory of propositions.<sup>8</sup> In any case, the *Theory of Knowledge* manuscript is both one of the most extensive discussions of acquaintance and also the most inconclusive in Russell's corpus. After Russell abandons this tract of epistemology, acquaintance makes less and less of an appearance in subsequent works such as *Our Knowledge of the External World* (1914b) (hereafter, *OKEW*) and *The Philosophy of Logical Atomism* (1918, reprinted in 1985) (hereafter, *PLA*) except 'On the Nature of Acquaintance' (1914, reprinted in 1956), which was just a published version of what he saw as salvageable from the abandoned *TOK* manuscript. In 1919, Russell abandoned his notion of acquaintance and began to embrace neutral monism, a position he previously attacked (Martin, 2015).

This chapter will not trace every contour of Russell's thought on knowledge by acquaintance during this period. Nor will it examine why he decided to give up on the notion. Instead, I want to uncover what drove Russell's interest in this notion for so long. I contend that there was a core idea, or rather two ideas, that he felt difficult to articulate but nevertheless remained committed to, despite other changes in the theory. That set of ideas is that (1) knowledge by acquaintance requires a conscious presentation of the object known, and (2) such knowledge is not propositional. These are the two central

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<sup>8</sup> Though he also laments in a letter to Lady Ottoline that he might just be too old (41 years old) for theoretical philosophy, a comment I find entirely dismaying. For discussion, see Eames's introduction to Volume 7 of *The Collected Papers of Bertrand Russell*.

aspects of Russell's theory of knowledge by acquaintance that any acquaintance theorist has to come to terms with. All other features, such as whether such knowledge is indubitable, or whether the relation is "direct", or *sui generis*, or entails revelation, or sense-data, are all secondary issues. These are all consequences of the primary two commitments of Russell's theory of acquaintance. As I will try to show, this core idea underwent modifications as he tried to expand the range of issues to which it applied. But it was never abandoned. Indeed, it is the stable core throughout the years that he was committed to knowledge by acquaintance.

To present this picture of Russell, I take a more synoptic approach to his writings during this period than perhaps some writers do. I begin with his work in 1903 and end with *OKEW* in 1914, which is one of the last published places Russell defends acquaintance. I try to sketch how and why the theory evolved. The picture is no more than a sketch. A full account would be longer than can be presented in this thesis. Nevertheless, the upshot will be an insight into the contemporary issues involving acquaintance. In particular, we will recover what I take to be the core of Russell's theory of acquaintance, namely that it requires a conscious presentation of the object and that such knowledge is not propositional. This idea will help us evaluate contemporary proposals, such as the acquaintance response and the phenomenal concept strategy to the knowledge argument that we saw in the last chapter, but also issues about the nature of knowledge in general (chapter 3), the nature of knowledge which (chapter 4), and the nature of knowledge of the natural numbers (chapter 5).

We begin though, with a distinction within a distinction. Russell first distinguished between knowledge by acquaintance on the one hand and knowledge by description on the other. Later, he distinguished knowledge by acquaintance from knowledge of truths. Following Proops (2014), I will call these distinctions *A* and *B* respectively.

## **2.1 Distinction A**

Here is one of the earliest, possibly the earliest, mentions of acquaintance in Russell's corpus. This is from his notebooks:

That sometimes we know that something is denoted without knowing what. This occurs in obvious instances, as e.g., if I ask: is Smith married? And the answer is affirmative, I then know that 'smith's wife' is a denoting phrase, although I don't know who Smith's wife is. We may distinguish the terms with

which we are acquainted from others which are merely denoted...So again in other cases. It is known that every class of material points has one centre of mass: this is demonstrated without reference to particular classes of material objects. Thence, given a particular class, e.g., the solar system, we infer that it has one centre of mass; thus we can denote the centre of mass in question, without being acquainted with it (1994, p. 306)

In the same year, in *The Principles of Mathematics*, Russell gives a mathematical example.

The discussion of indefinables—which forms the chief part of philosophical logic—is the endeavour to see clearly, and to make others see clearly, the entities concerned, in order that the mind may have that kind of acquaintance with them which it has with redness or the taste of a pineapple (p. xiii).

Two years later, Russell begins his now famous paper ‘On Denoting’ with the same idea:

We know that the centre of mass of the Solar System at a definite instant is some definite point, and we can affirm a number of propositions about it; but we have no immediate *acquaintance* with this point, which is only known to us by description. The distinction between *acquaintance* and *knowledge about* is the distinction between the things we have presentations of, and the things we only reach by means of denoting phrases...In perception, we have acquaintance with the objects of perception, and in thought, we have acquaintance with objects of a more abstract logical character (1905, p. 479).

One thing to notice from these early passages is the wide range of things Russell is willing to countenance as possible objects of acquaintance. We have people (Smith’s wife), places or at least points in space (the centre of mass), abstract objects (the indefinables of logic), qualities (the taste of a pineapple) and properties (redness). This is significant partly because of how much current philosophical literature on acquaintance focuses on just the perceptible objects. No doubt this is largely due to Russell’s later writings where experience and sense-data come to play so prominent a role in his theory of knowledge by acquaintance. But it is worth mentioning now that he wasn’t always so zealously pursuing a sense-datum theory. As these passages make clear, his earliest writings contain a multitude of objects with which one can be acquainted.

We can also see that the main thing Russell contrasts acquaintance with is knowledge by description. Acquaintance is, in the first instance, an issue about

reference, that is, about what objects can be the referents of our demonstrative thoughts. On Russell's view, we can denote things such as Smith's wife and the solar system without being able to demonstratively think about them. But standing in the acquaintance relation to an object enables demonstrative reference and thought about that object. The contrast is a contrast between the ways in which it is possible for us to refer to objects. Moreover, the distinguishing feature between these two is the relation of conscious presentation. It is because we have a conscious presentation of the objects of acquaintance that we can demonstratively refer to them. And it is because we lack such a conscious presentation of other objects that we can only denote them by descriptions. This becomes most prominent in his paper 'Knowledge by Acquaintance and Knowledge by Description' (hereafter *KAKD*):

I say that I am *acquainted* with an object when I have a direct cognitive relation to that object, i.e., when I am directly aware of the object itself. When I speak of cognitive relation here, I do not mean the kind of relation which constitutes judgment, but the sort which constitutes presentation. In fact, I think the relation of subject and object which I call acquaintance is the converse of the relation of object and subject which constitutes presentation. (1911, p. 108)

So, we have here a distinction between types of thoughts, a distinction that is supposed to underpin and explain two different kinds of referential capacities. On the one hand, we have objects to which we can demonstratively refer. On the other hand, we have objects thought about which requires a descriptive or set of descriptive propositions to pick out. We can only perform the referential task in the first case (i.e., demonstration) if we have a conscious presentation of the item. Following Proops, I will call this distinction between knowledge by acquaintance and knowledge by description distinction *A* (Proops, 2014). It is significant as it is not the only contrast Russell seems to draw.

## **2.2 Distinction B**

Proops (2014) argues, rightly I think, that this is not the only distinction in Russell's corpus. Proops claims that in addition to the distinction between knowledge by acquaintance and knowledge by description, Russell also held a different distinction, a distinction between knowledge by acquaintance and knowledge of truths. Call this Distinction *B*. Distinction *B* occurs most

prominently in *POP*. The following passage is the clearest example of it:

Knowledge of things, when it is of the kind we call knowledge by *acquaintance*, is essentially simpler than any knowledge of truths, and logically independent of knowledge of truths, though it would be rash to assume that human beings ever, in fact, have acquaintance with things without at the same time knowing some truth about them (1912, p. 46).

According to Proops, Russell uses these two distinctions against different targets. Distinction *A* is used to combat what Russell thinks is a restrictive epistemology in William James's *Principles of Psychology* (Proops, 2014). For James, acquaintance is required for anything and everything with which we can think (1890; 1892). It is thus both an enabling and limiting condition for human understanding. Russell develops his theory of descriptions as a way of moving beyond James's restrictive epistemology so that we can think about and understand propositions about things with which we are not acquainted. By contrast, Distinction *B* is used to combat a certain holistic conception of knowledge that Russell believes the monistic idealists are committed to. Proops refers to the passage cited above in *POP* as Russell's Independence Thesis and explains:

The development that explains Russell's interest in the Independence Thesis is—or so I want to claim—a new twist in his long-running dispute with Monistic Idealism. Such a development seems likely to have been prompted by his engagement at this time with the work of his transatlantic allies, the so-called “American Realists”. This group of philosophers had just the previous year published a manifesto entitled “The Program and First Platform of Six Realists”. In this article, which Russell read soon after its publication, the six American Realists set out their anti-Idealist agenda in a series of short and rather dogmatic manifestos. Russell's article, “The Basis of Realism”, of March 1911 (Papers, 6:130) was inspired by the Realists' article and constitutes, in effect, a seventh (less dogmatic) statement of the Realists' position (2014, p. 805).

The idea, roughly, is that Monistic Idealists of this ilk have a holistic conception of knowledge that Russell finds objectionable. According to this version of Idealism, in order to know something, one must know all the relations that that thing stands in. But to know all the relations a thing stands in requires knowing all the truths about that thing. Moreover, in order to understand the relation, one needs to understand both relata. From these ideas, one can conclude, as the Idealists did, that to know something one has to know, in a sense, *everything*.



For instance, if world  $W$  consists of just two objects  $A$  and  $B$  and one relation  $R$  to which  $A$  and  $B$  stand to one another, then to know any object in that world, such as  $A$ , one also needs to know the relations it bears to other objects, such as  $R$ , and to know  $R$ , one needs to know both its relata so one also needs to know  $B$ . Thus, in this world consisting of just  $A$ ,  $R$ , and  $B$ , to know  $A$ , one must know everything, that is  $A$ ,  $R$ , and  $B$ . For worlds more populous than  $W$ , this can seem overwhelming.

According to Proops, Russell's distinction between knowledge of things and knowledge of truths (Distinction  $B$ ) is used to combat this conception of knowledge by claiming that knowledge of things is independent of knowledge of truths. Proops is right to highlight these two different distinctions in Russell, and he is right to see this as combating a holism that Russell rejects. Moreover, I will return to this project of Russell's attack on idealism below when I discuss revelation. Before that, though, we need to see that the introduction of distinction  $B$  into Russell's writings creates a *prima facie* problem for Russell's theory of acquaintance. The problem is that as distinction  $B$  emerges in Russell's writings, the idea that the acquaintance relation is simply the reverse of presentation is undermined. That is, once Russell starts talking about acquaintance in terms of distinction  $B$ , it seems he is undermining or abandoning distinction  $A$ .

To see this though, we need to pin down where the change in Russell's theory occur in print and why. Proops seems to see this change largely as a result of Russell's engagement with James.

Distinction  $B$ , which Russell inherits from William James—who in turn inherits it from Hermann von Helmholtz and John Grote—is, by contrast, not formulated with any precision until the spring of 1911, when—or so I shall argue—Russell returned to James's treatment of acquaintance in preparation for writing his article "Knowledge by Acquaintance and Knowledge by Description". Nonetheless, as I shall argue, Russell had a more-or-less firm grip on the distinction from 1903 onward (2014, p. 781).

And a few sections later, Proops says:

Around this time [1911] Russell seems to have returned once again to James—where distinction  $B$  is particularly clearly marked. One presumes that he wished to refresh his memory of the latter's discussion of acquaintance in preparation for writing [KAKD]. Internal evidence of a return to James at this time is provided by the appearance in 1911—for the first time in Russell's work—of certain Jamesian examples and turns of phrase. These include Russell's use of James's example of knowledge of the causes of the toothache;

his drawing attention to the existence in foreign languages of verbs corresponding to two different senses of “know”, and his inclusion within the range of the acquaintance relation of distances in our private tactile spaces. External evidence for the same hypothesis is provided by the fact that, after James’s death in August 1910, Russell was called upon to write an appreciation of his philosophy for *The Nation* (Papers 6:286–89)—a notice that includes quotations from the *Principles of Psychology* (Proops, 2014, pp. 804-805).

Regardless of whether Proops is right about what Russell was reading and whether it affected his subsequent writings, this major change does not seem to happen in *KAKD* as Proops suggests, but a year later in *POP*. It is in this work after all, that Proops finds all of the quotations he cites for distinction *B*. So, if as Proops claims, Russell gets distinction *B* from James, and Russell re-read James in order to write *KAKD*, then this doesn’t seem to show up in *KAKD*, but only a year later in *POP*. This textual evidence is significant because not only do all of Proops quotations in support of Distinction *B* occur in *POP*, but as Martin (2015) points out, the claim about presentation disappears too.

Gone is the contrast between acquaintance and the relation that constitutes judgement (although Russell still contrasts acquaintance and judgement in the contrast between acquaintance with things and knowledge of truths). Gone too is the association of acquaintance with presentation. In the earlier paper [*KAKD*], Russell’s two examples of acquaintance with particulars are sensation and introspection. But [*POP*] introduces Russell’s account of memory as acquaintance, and memory is inserted before introspection in the list of particular–acquaintance relations. The dropping of the explanation in terms of presentation suggests that Russell does not think of memory acquaintance as a kind of presentation (2015, p. 4).

We have then, a possible problem on our hands. Both Martin and Proops seem to locate a change in Russell’s understanding of acquaintance around the years 1911/1912, and both cite mainly *POP* as evidence of this change. Moreover, as Martin points out, this change seems to preclude conscious presentation being a necessary condition of acquaintance. In the next two sections, I aim to show that this is an overreaction. Despite a difference in emphasis, Russell never gives up on the idea of a conscious presentation as a necessary condition for knowledge by acquaintance.

### **2.3 States of Mind**

Proops suggests the change from Distinction *A* to Distinction *B* is mostly caused by Russell’s re-reading of James’s *Principles of Psychology*, while Martin

seems to suggest it is because of Russell's new interest in memory acquaintance. These two claims are not in competition—both could be right. But let us see what James actually writes in the unabridged edition:

There are two *kinds of knowledge* broadly and practically distinguishable: we may call them *knowledge of acquaintance* and *knowledge about*. Most languages express the distinction... *noscere, scire; kennen, wissen; connaitre, savoir*. I am acquainted with many people and things, which I know very little about, except their presence in the places where I have met them. I know the colour blue when I see it, and the flavour of a pear when I taste it; I know an inch when I move my finger through it; a second of time, when I feel it pass; an effort of attention when I make it, a difference between two things when I notice it but *about* the inner nature of these facts or what makes them what they are, I can say nothing at all....I cannot describe them...at most I can say to my friends, go to a certain place and act in certain ways and these objects will probably come...we can relapse at will into a mere condition of acquaintance with an object by scattering our attention and stare at it in a vacuous trance-like way. We can ascend to knowledge *about* it by rallying our wits and proceeding to notice analyse and think. What we are only acquainted with is only present to our minds, we have it, or an idea of it (1890, p. 220).

It is not clear that this speaks more to distinction *B* than distinction *A*. In James's understanding, there are two distinct states of mind through which we can know the world. One is by a mere presentation of the thing. This psychological state is pre-linguistic—all animals have it, and humans have it even before language. When we gain language, it gives us the ability to describe the world and that yields *knowledge about* these things. This is a second type of state of mind for James. But we can, according to James, lapse back into these 'dumb' and 'trance-like' states of knowledge whereby we commune with the thing that is presented to us in our experience. Moreover, these states seemed to be ranked by James. Acquaintance is something lower that we 'relapse into' or 'ascend out of'. The thought, I take it, is that we have evolved higher cognitive functions—one of which is language—that allow us to know the world in a different way. Nevertheless, these evolutionary developments do not replace our more primitive cognitive contact with the world. These experiences are ineffable for James—the best we can do is to tell people to go experience that thing, and then you will know it. This obviously is reminiscent of both Jackson's Mary and Nagel's bat from the last chapter. Both of those thought experiments invoke situations where the knower knows a number of facts by description, written

down in language, but nevertheless has not undergone a conscious experience of them. In Mary's case, it is seeing colours, in Nagel's example, it is navigating by sonar.

If anything, this seems more like distinction *A* than distinction *B*. After all, it is about a conscious presentation of a sensible item that cannot be known by descriptions. It is not about the difference between things and truths, but about presentation versus description. That is not to say truth is absent from this passage, and in fairness to Proops, he does admit Russell has a grasp on both distinctions, *A* and *B*, as early as 1903, so it's not as if these two distinctions are completely independent. Nevertheless, Proops claims that they must be 'sharply distinguished' (p. 780) and, moreover, that distinction *B* isn't formulated 'with any precision' until Russell's re-reading of James in 1911 (p. 781). But it is not clear from this passage or any other passage that I can find in James that it should be associated more with distinction *B* than with distinction *A*. James's discussions of acquaintance seem to support both distinctions simultaneously, and possibly *A* more than *B*.

One idea that does seem somewhat new in Russell after 1911 that is present in James's writings is the idea of the distinction being a distinction between states of mind. For James, there is the state of mind of being acquainted, and the state of mind of 'knowing about'. Likewise, Russell seems to think acquaintance is a distinct state of mind that contrasts with judgement. This is discussed at length in *POP* and *TOK* (1912; 1913, reprinted in 1984). In these works, acquaintance is a dual relation whereas judgement is a multiple relation. Moreover, it is this nature of judgement that allows error or misjudgement to arise. It is my contention that it is here, in this theory that distinguishes these two states of mind, that we find the distinction between knowledge of things and knowledge of truths. A few illustrative passages will make this clear:

Knowledge of things, when it is of the kind we call knowledge by *acquaintance*, is essentially simpler than any knowledge of truths, and logically independent of knowledge of truths, though it would be rash to assume that human beings ever, in fact, have acquaintance with things without at the same time knowing some truth about them (1912, p. 46).

Already we see Russell paying more attention to human psychology here when he says it would be rash to ever assume humans have knowledge of things without knowledge of truths. This is a claim about human psychology.

Moreover, a few chapters later he says:

Knowledge of truths raises a further problem, which does not arise in regard to knowledge of things, namely the problem of *error*. Some of our beliefs turn out to be erroneous, and therefore it becomes necessary to consider how, if at all, we can distinguish knowledge from error. The problem does not arise with regard to knowledge by acquaintance, for whatever may be the object of acquaintance, even in dreams and hallucinations, there is no error involved so long as we do not go beyond the immediate object: error can only arise when we regard the immediate object, i.e. the sense-datum, as the mark of some physical object (1912, p. 110).

And again just a few pages later:

The actual sense-data are neither true nor false. A particular patch of colour which I see, for example, simply exists: it is not the sort of thing that is true or false. It is true that there is such a patch, true that it has a certain shape and degree of brightness, true that it is surrounded by other colours. But the patch itself, like everything else in the world of sense, is of a radically different kind from the things that are true or false, and therefore cannot properly be said to be *true* (1912, p. 113).

In these passages, we see a new idea or at least a new emphasis in Russell's discussion of acquaintance. This is the idea that there are two states of mind. One which relates us to things, another which relates us to truths. The former does not allow for error, but the latter does. This is because the latter, but not the former, is a relation to a proposition rather than a particular:

The fundamental characteristic which distinguishes propositions (whatever they may be) from objects of acquaintance is their truth or falsehood. An object of acquaintance is not true or false, but is simply what it is.

...

Of course, a judgement or a statement may be true or false in one sense, although it is an event which may be an object of acquaintance. But it is fairly obvious that the truth or falsehood which is attributed to a judgement or statement is derivative from the truth or falsehood of the associated proposition (1913, reprinted in 1984, p. 108).

Propositions then are the primary bearers of truth for Russell. Acquaintance does not concern truth, judgement does. Thus, if acquaintance is knowledge, then it is not knowledge of propositions because it is not knowledge of truths,

but of things.

Does this change present a problem for the thesis that knowledge by acquaintance is the converse of presentation? Martin seems to think so. It is to that worry I now turn.

## **2.4 Memory Acquaintance and Presentation**

Martin seems to think that Russell's account of temporal experience and memory, as it begins to develop in *POP* and *TOK*, cannot allow Russell to any longer accept the claim that acquaintance is the converse of presentation (2015). This is problematic for us because there seems to be something quite correct about the presentation thesis. As we saw in the last chapter, the knowledge Mary lacks is only accessible if she has a conscious presentation of the item in question. Moreover, it seems like there is something to the thought that we are better off epistemically if we have a conscious experience of the thing. It is also hard to deny that we know more of the world the more we experience it, and that this type of knowledge is just not available without the experiences. James explicitly appeals to the idea of presentation, so if this change in Russell is driven by Russell's re-reading of James, as Proops claims, then something has gone amiss. In this section, I spell out this worry in more detail by looking at Russell's theory of memory acquaintance. In the next section, I will argue that Russell's discussion of memory acquaintance does not show that conscious presentation is dropped from knowledge by acquaintance.

### **2.4.1 Martin's Worry**

We must be clear that it is not, as Martin points out, that presentation drops out entirely from all discussions of acquaintance after 1911 (2015). Rather, it is that acquaintance can no longer be *defined* as a dual relation that is the reverse of presentation. This is because of Russell's interest in memory as acquaintance. Russell's interest in this is that it grounds our knowledge of the past, or so anyway Russell argues. The clearest account of this in Russell is in *TOK*. In the opening paragraph of Chapter Six, titled 'Our Experience of Time' he says:

It will be seen that past, present, and future arise from time-relations of subject and object, while earlier and later arise from time-relations of object and object. In a world in which there was no experience, there would be no past, present, or future, but there might well be earlier and later (1913, reprinted in 1984, p. 64).

Without subjects to experience particulars passing through time, Russell claims, there is no existence of the *past* (as opposed to earlier and later). The way this happens involves what Russell calls immediate memory, which is:

A two-term relation of subject and object, involving acquaintance, and such as to rise to the knowledge that the object is in the past (1913, reprinted in 1984, p. 70).

Martin argues, rightly I think, that this view of immediate memory was already present in *POP*, though under the name 'immediate memory' (2015). This is seen in the following two passages from *POP*:

It is obvious that we often remember what we have seen or heard or had otherwise present to our senses, and that in such cases, we are still immediately aware of what we remember, in spite of the fact that it appears as past and not as present. This immediate knowledge by memory is the source of all our knowledge concerning the past (1912, pp. 48-49).

and

Thus, the essence of memory is not constituted by the image, but by having immediately before the mind an object which is recognized as past (1912, p. 115).

According to Martin, these passages in *POP* and their coherence with the account of memory on offer in *TOK* explain, at least partially, why Russell drops the definition of acquaintance as the converse of presentation. This account of immediate memory that is supposed to explain our knowledge of the past is incompatible with acquaintance being defined in terms of presentation because the objects we are acquainted with in immediate memory *must* be in the past if we are to succeed in explaining our knowledge of the past. Russell makes this point numerous times throughout *TOK*, but the clearest statement is in chapter six, where he puts the question rather bluntly:

Does our knowledge of the past involve *acquaintance* with past objects, or can it be accounted for on the supposition that only knowledge by description is involved in our knowledge of the past? That is, must our knowledge of the past be derived from such propositions as "*this is past*" where *this* is an object of present acquaintance, or can it be wholly derived from propositions of the form: "an entity with such-and-such characteristics existed in the past?...since, however, the "past" has significance for us there must be the perception of facts in which it occurs, and in such cases memory must be not liable to error. I

**conclude that though other complications are logically possible, there must, in some cases, be immediate acquaintance with past objects given in a way which enables us to know that they are past,** though such acquaintance may be confined to the very recent past (1913, reprinted in 1984, p. 71)(emphasis added).

Like Russell's early writings on acquaintance (i.e., *POD*, *OD*, *KAKD*), we have here again the distinction between knowledge by acquaintance and knowledge by description, that is, distinction *A*. But in this passage, the object of our acquaintance is in the past. That means that it cannot be given in the present the way it is in sensation. Compare this with Russell's explanation of sensation in the same chapter from *TOK*.

(1) *Sensation* (including the apprehension of present mental facts by introspection) is a certain relation of subject and object, involving acquaintance, but recognisably different from any other experienced relation of subject and object.

...

(2) Objects of sensation are said to be *present* to their subject in the experience in which they are objects...Sensation then is that kind of acquaintance with particulars which enables us to know that they are at the present time. The object of sensation we will call a sense-datum (1913, reprinted in 1984, pp. 64-65).

So, we have then a marked difference between the ways the objects of acquaintance are given in these two relations. In sensory acquaintance, the object is both in the present and given in a way that allows the subject to know it is in the present. By contrast, in memory acquaintance, the object is in the past and given in a way that allows the subject to know it is in the past. This is summed up nicely when Russell closes off Part I of *TOK*:

Towards particulars with which we are acquainted, three subordinate dual relations were considered, namely sensation, memory, and imagination. These, we found, though their objects are usually somewhat different, are not essentially distinguished by their objects, but by the relations of subject and object. In sensation, subject and object are simultaneous, in memory subject is later than the object; while imagination does not essentially involve any time-relation of subject and object, though all time-relations are compatible with it (1913, reprinted in 1984, p. 100).



We can see then that the difference between these three kinds of acquaintance is a difference between the relations. In particular, the relations differ to the object in different temporal modes—presently, past, or in no time at all. This leads one to think that Russell revised his theory of acquaintance as he begins to think about imagination and memory, but memory in particular since it requires the object to be in the past. Thus, the early definition of acquaintance in terms of a dual relation that is the converse of presentation cannot explain these other forms of acquaintance. So, Russell must be giving up the presentation thesis. Let's call this Martin's worry.

#### 2.4.2 A Response

There is something to Martin's worry, but it is not as damaging as it might first appear. To begin with, notice how much has *not* changed in Russell. As we saw in the quotes just cited, Russell still thinks the question that must be asked about knowledge of the past is whether it is knowledge by acquaintance or knowledge by description. It is not a contrast between knowledge of things and knowledge of truths. Moreover, the objects of memory acquaintance are still objects referred to using logically proper names as is evident by his discussions of the demonstrative propositions '*this is past*' where *this* is the object of memory acquaintance. We can see, then, that the concerns that drove Russell in 1903 about denoting objects are still very much in play in his later writings about acquaintance with past objects. It is still the contrast between knowledge by acquaintance versus knowledge by description, not knowledge of things versus knowledge of truths. And it is still about having an object in your mind in such a way that you can demonstratively identify it, *even if* it is in the past.

Moreover, Russell explicitly marks two different senses of the word 'present' in *TOK*. He says:

Whatever I experience is, in one sense, "present" to me at the time when I experience it. But in the temporal sense, it need not be present—for example, if it is something remembered or something abstract which is not in time at all. The sense in which everything experienced is "present" may be disregarded, the rather as we already have three words—experience, acquaintance, and awareness—to describe what is meant by this sense. There is, however, another sense in which objects given in *sensation* are "present". As we shall find later, there is reason to suppose that there are several species of the general relation "acquaintance" and it would seem that one of these species is "presence" in the sense in which objects are present in sensation and perception but not in

memory. The relation of “presence” in this sense is, I think, one of the ultimate constituents out of which our knowledge of time is built, and the “present” time may be defined as the time of those things which have to me the relation of “presence” (1913, reprinted in 1984, p. 38).

According to Russell then, there are two senses of the word ‘presence’. The first one is synonymous with experience, awareness, and acquaintance. This is the sense in which something is present to the mind — the sense that we have been working with in this chapter. It is the one that allows demonstrative identification of objects via logically proper names. The second sense of the word ‘presence’ concerns the temporal relation of the subject and object. This type of temporal presence only occurs in sensory acquaintance. We can see then that Russell has not abandoned the presentation thesis. It is not as if acquaintance can be had with objects that are not presented to the mind in this first sense of the word. Indeed, according to Russell, we have other English words we can use to express this idea, and those words are ‘awareness’ ‘experience’ and ‘acquaintance’. So, while it is true Russell’s theory of acquaintance evolves and becomes more complex, especially when he begins to consider our knowledge of the past and thus posits a type of memory acquaintance, none of this evolution shows that he gives up on the fundamental idea that was driving him since the early writings of *POD* and *OD*. He is still very much concerned to contrast two ways of knowing objects, one by way of description and one by way of presentation, which allows one to use a logically proper name in a demonstrative proposition. The recognition that we can do this not only in sensation but in memory and imagination does not alter this basic idea.

This is not to say everything is neat and tidy with memory acquaintance in Russell’s account. It is not obvious to me that there is such a thing as memory acquaintance for one, but the issues are quite complex and beyond the scope of this chapter and this dissertation. Rather, the point I want to make here is that while certain commentators, such as Proops (2014) and Martin (2015), are right to have highlighted differences between Russell’s early theory of acquaintance and later theory of acquaintance, the evolution of his theory is not as discontinuous as it might first appear. There is a fundamental or basic idea that is driving Russell’s theory. It is this idea that is constant throughout other changes in the theory. It is this fundamental idea that I think is plausible and will further explore in this dissertation.

## **2.5 Standing States and Occurrent Mental Episodes**

There is, however, another objection to the presentation thesis as it occurs in Russell's corpus. This is not about whether or not Russell holds onto the thesis, but whether or not it is compatible with the idea that acquaintance is knowledge. Proops voices this concern most clearly. He argues that holding onto the presentation thesis is inimical to Russell's claim that acquaintance is knowledge.

It must be obvious beyond reasonable doubt that acquaintance is indeed genuine knowledge. But, unfortunately for Russell, that is not obvious. Indeed, doubts on this score had already arisen in Russell's time, and they are still with us today....ordinary thing-knowledge is always a standing state, while acquaintance need not be—and the paradigm case of acquaintance, namely, acquaintance with a sense-datum in perception, is not (2014, p. 44).

Proops's worry is that acquaintance with a particular cannot be knowledge because knowledge is a standing mental state, not an occurrent mental episode. But acquaintance with a sensible particular is, or at least is part of, an occurrent mental episode. Once the episode is over the acquaintance is over. This is as much true for sensory acquaintance as it is for memory acquaintance. And the further assumption seems to be that once the acquaintance is over, so is the knowledge. Thus, the knowledge can only last as long as the presentation does.

No doubt, Proops is pointing to something important that Russell has not noticed or at the very least has not adequately explained. But it seems that Russell nevertheless has the resources to do so. There are two cases we can think about to respond to Proops. The first is cases of practical knowledge in particular and abilities in general. For instance, the ability to ride a bike is a standing state in Proops's sense. This standing state can be contrasted with its exercise. The exercise would be the actual riding of a bike. These are two distinct phenomena; one is stative, and one is dynamic or active. One is a standing state, and one is its exercise. Now, which one is knowing how to ride a bike? Is it the state or the riding? One feels inclined to answer, well both. The state is exercised in the activity of riding a bike. The knowledge is manifested. But bike riding is not stative, it is over as soon as one stops. Does this mean that our knowledge of how to ride a bike stops? Surely not. But then are we to say that bike riding is not knowledge? What else could it be if it's not?

Another example, not based on abilities makes the same case from a

different angle. Losing your virginity is an act that many people undergo. Much like the acquaintance with the colour blue, the act of losing one's virginity is an occurrent event in the life of the subject. But is not the state of the subject thereby changed? Is not the subject no longer a virgin? And isn't the state lasting, the non-virgin status being achieved, it cannot be undone. So too having acquaintance with a particular changes the state of the subject. He transitions from the state of ignorance to the state of knowledge. But this happens via a mental event in the life of the subject.

To drive the point home, here is one more example that has elements of both previous examples. Take two cases of physical excellence in the form of speed and strength: the running of a 4-minute mile and the deadlifting of 400 kgs. These are amazing feats of human speed and strength by any standard. Very few people in the United Kingdom, or the world for that matter, will be able to perform these feats. The running of 4-minute mile is an event that takes time—4 mins or less—as is a deadlift of 400 kgs. Once it has been accomplished, the athlete can rightly say 'I can run a 4-minute mile' or 'I can deadlift 400 kgs'. This ability can be exercised on multiple occasions, and can of course be lost (most slow down with advanced age and weaken). But, for a time, it is a state of the subject that they are in, based on an event that they performed. Is it not events in the life of the athlete that change the state of the subject? I have to undergo or perform an event—a four-minute mile or deadlift 400 kgs—in order to reach the status of being a person capable of running a four-minute mile or deadlifting 400 kgs.

Why should knowledge by acquaintance be any different than these types of cases? Yes, acquaintance is an occurrent mental event in the subject's life, but that does not mean the knowledge thereby gained is not stative. This does mean that Russell would have had to amend his presentation thesis, that acquaintance can no longer be defined as the converse of presentation. Russell has the resources to rise to this challenge. Based on Russell's own writings, Russell would likely respond that it is a necessary condition of knowledge by acquaintance that one be presented with the object with which one is acquainted. This allows the knowledge to continue beyond the event of the presentation but still makes the presentation essential to the type of knowledge gained.

## 2.6 Acquaintance and Luminosity

Before closing this chapter, there is one more issue I want to discuss, and that is to what extent acquaintance commits one to some sort of privileged access thesis about one's own mental states. By 'privileged access', I mean roughly, one has an epistemic access to their own mental states that others do not (or perhaps could not) have. There is a variety of ways that philosophers have spelled out what it means to have privileged access to one's mental states, and Alston (1971) identifies at least four – (i) infallibility (ii) incorrigibility (iii) omniscience (iv) indubitability – which philosophers have been committed to in some form. However, I do not want to focus on any of these versions in particular. Rather, I want to focus on a different one that has recently become popular thanks to Williamson's book *Knowledge and its Limits* (2000). This is the idea of luminosity.

It is often assumed that Russell was committed to some form of privileged access thesis about knowledge by acquaintance. In its strongest form, this assumption often manifests as the assumption that Russell's theory of acquaintance leads one to have infallible knowledge of the objects of acquaintance. However, infallibilism, as a view about the knowledge we can have of our own mental states, is not as popular as it once was. The onus is then on the acquaintance theorist to either say how we can have such infallibility or say how we can reject such infallibility in the acquaintance framework.

In fact, I think this dialectic is mistaken. Careful reading of the Russell texts demonstrates that he is not committed to infallibility, or at least not obviously so. Indeed, as I intend to show in this section, Russell actually has a version of an anti-luminosity argument that pre-dates Williamson's famous anti-luminosity argument. If this is right, then it is compatible with Russell's theory of knowledge by acquaintance that acquaintance is not luminous.

### 2.6.1 Luminous Mental States

Williamson says that luminosity is defined for any condition C if and only if the following holds:

(L) For every case  $\alpha$ , if in  $\alpha$  C obtains, then in  $\alpha$  one is in a position to know that C obtains. (2000, p. 95).

Pain is often taken to be just such a case. In every case in which one is in pain, then one is in a position to know that one is in pain. Williamson's question is,

are there any mental states that we, as humans, are in which are luminous. He gives an argument to the effect that there are no such mental states. His argument begins by considering the case of feeling cold, showing it to be non-luminous, and then generalising beyond the case of feeling cold by showing that the features that made feeling cold non-luminous are general features of mental states often purported to be luminous.

I will not assess Williamson's argument here. Rather, I want to highlight the base case of feeling cold and compare it to Russell's case of feeling weight. Here is the example Williamson gives.

Consider a morning on which one feels freezing cold at dawn, very slowly warms up, and feels hot by noon. One changes from feeling cold to not feeling cold, and from being in a position to know that one feels cold to not being in a position to know that one feels cold. If the condition that one feels cold is luminous, these changes are exactly simultaneous. Suppose that one's feelings of heat and cold change so slowly during this process that one is not aware of any change in them over one millisecond. Suppose also that throughout the process one thoroughly considers how cold or hot one feels. One's confidence that one feels cold gradually decreases. One's initial answers to the question 'Do you feel cold?' are firmly positive; then hesitations and qualifications creep in, until one gives neutral answers such as 'It's hard to say'; then one begins to dissent, with gradually decreasing hesitations and qualifications; one's final answers are firmly negative (2000, p. 97).

Williamson goes on to argue that in such a case one can feel cold without knowing that one feels cold, and thus, that feeling cold is a non-luminous mental state. Compare this case of Williamson's to the following passage in Russell's *OKEW*:

It is important to realise that two sense-data may be, and sometimes must be, really different when we cannot perceive any difference between them. An old but conclusive reason for believing this was emphasised by Poincaré. In all cases of gradual change, we may find one sense-datum indistinguishable from another, and that other indistinguishable from a third, while yet the first and third are quite easily distinguishable. Suppose for example a person with his eyes shut is holding a weight in his hand, and someone noiselessly adds an extra small weight. If the extra weight is small enough, no difference will be perceived in the sensation. After a time, another small weight may be added, and still no change will be perceived; but if both weights had been added at once, it may be that the change would be quite easily perceptible. Or again, take the shades of colour. It would be easy to find such stuffs of such closely similar

shades that no difference could be perceived between the first and the second, nor yet between the second and the third, while yet the first and the third would be distinguishable. In such a case, the second shade cannot be the same as the first, or it would be distinguishable from the first. It must, therefore, though indistinguishable from both, be really intermediate between them. Such considerations show that although we cannot distinguish sense-data unless they differ by more than a certain amount, it is perfectly reasonable to suppose that sense-data of a given kind, such as weight or colour, really form a compact series (1914b, p. 148).

Now since sense data are just *defined* by Russell as the objects of acquaintance in sensation, it follows that we can be acquainted with a certain feature (a particular shade of red, a particular weight) and yet not be capable of knowing that we are acquainted with that particular sense-data (shade or weight). Notice that both Russell and Williamson are appealing to cases of gradual change of experience over a compact series (colours, temperature, weight). It seems then, we have a very similar argument for a very similar conclusion. Moreover, as Russell points out, this argument already pre-dates Russell himself in the writings of the French mathematician Poincare:

We then come to wonder if the notion of the mathematical continuum is not quite simply drawn from experience. If so, the raw data of experience, which are our sensations, would be capable of measurement. One might be tempted to believe that this is indeed the case since, in recent times, efforts have been made to measure them and a law has even been formulated according to which the sensation would be proportional to the logarithm excitement.

But if we examine closely the experiences by which we have sought to establish this law, one will be led to quite the opposite conclusion. It has been observed, for example, that a weight A of 10 grams and a weight B of 11 grams produced identical sensations, that weight B could no longer be discerned from a weight C of 12 grams, but that one distinguished easily the weight A of the weight C. The raw results of the experiment can therefore be expressed by the following relations:

$$A=B, B=C, A<C$$

Which can be regarded as the formula of the physical continuum. There is here, with the principle of contradiction, an intolerable disagreement and it is the need to put an end to it that compelled us to invent the mathematical continuum. We are therefore forced to conclude that this notion was created from scratch by the mind, but that it was experience that provided it with the opportunity. We cannot believe that two quantities equal to the same third are not equal to each other, and it is thus that we are led to suppose that A is

different from B and B from C, but that the imperfection of our senses does not allow us to discern them (Poincaré, 1893) (citation translated by google translate from the French).

We have here in Poincaré the same style of argument against the idea that the objects of which our senses make us aware may nevertheless be beyond our senses power to completely discern from small changes. Sure, we can discern a green patch from a red patch, and even green patches from other green patches, but it does not follow that we can always so discern without limit. It does not follow though that the object of our sensations is not different merely because we cannot detect a difference. Thus, sensations are not luminous in Williamson's sense, either for Poincaré or Russell, as there comes a point in which a different sense-datum will be presented—and thus will be the object of our acquaintance—and we lack the discriminatory abilities to discern which one it is from a very nearby possible sense-datum.

### 2.6.2 Acquaintance and Truth

Now why would anyone think Russell is committed to some sort of privileged access thesis in general or luminosity thesis in particular, given the passages we have just seen? I suspect it comes from some passages in the *POP* that many are familiar with and that we saw earlier in this chapter:

The actual sense-data are neither true nor false. A particular patch of colour which I see, for example, simply exists: it is not the sort of thing that is true or false. It is true that there is such a patch, true that it has a certain shape and degree of brightness, true that it is surrounded by other colours. But the patch itself, like everything else in the world of sense, is of a radically different kind from the things that are true or false, and therefore cannot properly be said to be *true* (1912, p. 113).

and

Knowledge of truths raises a further problem, which does not arise in regard to knowledge of things, namely the problem of *error*. Some of our beliefs turn out to be erroneous, and therefore it becomes necessary to consider how, if at all, we can distinguish knowledge from error. The problem does not arise with regard to knowledge by acquaintance, for whatever may be the object of acquaintance, even in dreams and hallucinations, there is no error involved so long as we do not go beyond the immediate object: error can only arise when we regard the immediate object, i.e. the sense-datum, as the mark of some physical object (1912, p. 110).



Over these few pages, Russell seeks to portray a radical difference between knowledge by acquaintance and its objects on the one hand, and judgements of perception and truths on the other. He is beginning here to develop his multiple relation theory of judgement whereby a judgement is a mental act of 'knitting together' multiple terms into a propositional whole that is capable of being evaluated for truth and falsity. The objects with which one knits with are, however, according to Russell, not capable of truth or falsity. Both truth and falsity and *error* only arise when one goes beyond these constituents and starts trying to build propositional complexes such as 'that is blue' via a mental act of judging.

What are we to make of these textual tensions? In 1912, Russell seems to suggest acquaintance is infallible, but by 1914 he seems to argue it is not. Did he just change his mind? Perhaps. Perhaps he had not been focused on compact series in 1912 and so he revised his views in 1914 in light of reflection on this. But I have a different conjecture.

I think what Russell is keen to stress in the passages from 1912 is the different kinds of mental relations that are acquaintance with a sense-datum and a mental act of judging. If we can be misled by failure of our sensory systems to discriminate beyond a point, that is *not* a failure of *judgement*. It is a failure of sensory discrimination. That is, one does not fail to mentally knit together objects into a propositional whole. One simply lacks the discriminatory capacities to tell apart two particulars in a compact series. This is a different kind of failure. So, I think there is not necessarily an obvious inconsistency in Russell's thinking here.

But in truth we do not need to save Russell from himself, at least not in this dissertation. All we need is to see that adopting a version of Russell's theory of knowledge by acquaintance does not *force* upon us a commitment to infallibility or luminosity. Maybe Russell changed his mind. Maybe Russell was just inconsistent or unclear in his own head. But we can be clear in our own heads. Knowledge by acquaintance does not require infallibility or luminosity.

## **2.7 Conclusion**

In this chapter, I traced some of the central developments in Russell's theory of acquaintance, while arguing that a core idea of acquaintance remained the same. We saw that there are two distinctions in Russell, knowledge by acquaintance versus knowledge by description, and knowledge

of things versus knowledge of truths. We also saw that as his theory evolved, the nature of time and memory came to play a central role. We saw that, despite these developments, there was a core idea of a conscious presentation that allows one to demonstratively identify the particulars with a logically proper name. This core idea remains the same. Indeed, it is the basis on which knowledge of things versus knowledge of truths is based. Lastly, we saw that this theory need not commit us to infallibility or luminosity about knowledge by acquaintance.

The final thing I want to say in this chapter is that we are still owed an explanation of how knowledge by acquaintance is knowledge. We have seen some objections to it that are not very forceful, but we don't, as of yet, have a positive account of why knowledge by acquaintance is indeed a non-propositional form of knowledge. This matters because someone could accept everything that has been said so far without thinking acquaintance is knowledge. They might think, instead, that acquaintance is a relation that is the basis of a certain kind of propositional knowledge. For instance, going back to Russell's example of Smith's wife, one might think being acquainted with her allows one to have a certain kind of thought—what has come to be called object-dependent thought after Evans (1982) and McDowell (1984; 1986)—about the item in question. These thoughts are propositions. They require standing in an acquaintance relation to some or all of their constituents. But according to this account, it is merely confused to think this acquaintance relation is some kind of non-propositional knowledge. Rather, it is a special cognitive relation that allows a special kind of propositional knowledge.

Over the next two chapters, I seek to defend the claim that knowledge by acquaintance is a non-propositional form of knowledge. I will look at two issues, First, why knowledge by acquaintance should be thought of as a case of knowing which. Second, why this knowledge is non-propositional.

## Chapter 3: Acquaintance, Knowledge, and Luck

In the previous chapter, we saw that Russell thinks acquaintance is (1) a non-propositional mode of awareness and (2) knowledge. However, on an orthodox conception of knowledge, knowledge is factive. That is, if one knows  $P$ , then  $P$  is true. But if that is right then how can knowledge by acquaintance be knowledge? How can truth enter into knowledge by acquaintance at all? After all, acquaintance is supposedly simpler and logically independent of any truths. So how can it be that knowledge is factive as the orthodox conception holds? We are thus confronted with a puzzle: If knowledge is factive, how is it possible that knowledge by acquaintance can be both a non-propositional mode of awareness and still be a form of knowledge?

In this chapter, I aim to resolve this puzzle by answering this how possible question. The answer, briefly stated, is this: knowledge by acquaintance is a species of knowledge because it obeys structurally analogous principles as those principles that govern propositional knowledge. But though it is a species of knowledge, it is not the same as propositional knowledge. In particular, knowledge by acquaintance, I will argue, is unsafe, in the technical sense of 'safety'. Put another way, knowledge by acquaintance is modally fragile in a way that propositional knowledge is not. But this does not entail that it is not knowledge. By using Aristotle's theory of homonyms, I will show that knowledge by acquaintance is still knowledge, despite its modal fragility.

### 3.1 The Orthodox Conception

The orthodox conception of propositional knowledge holds that the following three principles govern propositional knowledge.

1. **The Factivity Principle:** If one knows that  $P$ , then  $P$  is true.
2. **The Entailment Principle:** If one knows that  $P$ , then one believes  $P$ .
3. **The Anti-luck Principle:** If one knows that  $P$ , then one's belief in  $P$  is not lucky.

The factivity principle is meant to rule out cases of knowing something false. The entailment principle is meant to rule out cases of knowing something that one does not believe. The anti-luck principle, which I will examine at length below, is meant to rule out cases where subjects who have true beliefs that are in some way luckily true.

I want to briefly spell out two different ways one might understand or approach these principles. One way is in terms of analysis. On such a view, these principles are to be explained by a reductive analysis of the concept knowledge. This approach has been tried many times in the post-Gettier (1963) literature, where knowledge is analysed as justified true belief plus some further condition, such as a causal condition or sensitivity condition, and so on.

Another way to approach these principles is as an anti-reductionist. The anti-reductionist holds that knowledge cannot be so analysed. Notice though, that the anti-reductionist must still make intelligible these principles governing knowledge, even if their account does not take the form of a reductive analysis. For instance, this is Williamson's approach. Famously, he argues against the reductive analysis of knowledge (2000). He argues that knowledge is both primitive, in the sense that it cannot be analysed, and it is prime, in the sense that other mental states (such as true belief) should be explained in terms of knowledge and not *vice versa*. Despite this, Williamson still defends a safety principle on knowledge as making intelligible the anti-luck principle (2000). Thus, even if one is committed to an anti-reductionist program about knowledge, one must still make these principles intelligible.

Though I am very sympathetic to the anti-reductionist approach, I do not take a stand on the reductionist / anti-reductionist issue in this chapter. I do want to point out though that someone who thinks such concepts can be analysed has set a task for themselves that they may or may not be able to fulfil, whereas the non-reductionist does not. Moreover, as we shall see, the way these principles are understood will affect how one understands the normal cases and counterexamples in the anti-luck conditions given below. Before that though, we need to formulate the analogous principles for knowledge by acquaintance. I turn to that now.

Knowledge by acquaintance, as I said, is a non-propositional mode of awareness that requires a conscious presentation of an object. This means we cannot directly transpose the factivity principle to knowledge by acquaintance, since acquaintance does not involve the knowledge of truths. Nevertheless,

analogues of principles (1), (2), and (3) are available for acquaintance.

4. **The Objectivity Principle:** If one is acquainted with *O*, then *O* exists.
5. **The Entailment Principle:** If one is acquainted with *O*, then one has an experience of *O*.
6. **The Anti-Luck Principle:** If one is acquainted with *O*, then one's experience of *O* is not lucky.

The objectivity principle is an analogue of the factivity principle. The objectivity principle rules out being acquainted with what does not exist. Since knowledge by acquaintance does not have a proposition as its object, neither the object of the knowledge nor the act of knowing is propositional. Nevertheless, it does have an analogue, namely objectivity. Just like you can't know some proposition unless it is true, so too you cannot be acquainted with some object unless it exists.

The entailment principle rules out cases of acquaintance where the subject does not have an experience of the object. Just like you can't have propositional knowledge without being in a mental state of believing, so too you cannot be acquainted with something without having an experience of that thing.

Lastly, the anti-luck principle rules out cases of acquaintance where an experience of an object is only luckily so. That is to say, whatever theory of perceptual experience one is attracted to, it cannot *just* be that the experience or sense impression matches the scene before one. For instance, Bill may be standing before me, and my eyes may be trained to his spatial location such that visual information is at least reaching my retinas, but that is not enough to see Bill. Why not? For familiar philosophical reasons—it could be that mad scientists are manipulating my brain such that my optic nerve is severed so no visual information gets beyond my retinas. Nevertheless, these scientists stimulate my visual cortex such that a visual experience of Bill occurs. Moreover, these scientists decide to stimulate my brain such that it always seems to me that I am standing in front of Bill. It is just luck that Bill happens to be before me now as well. Thus, I am undergoing a visual experience that is phenomenologically indistinguishable from seeing Bill, but it is not Bill. In such a hallucination, though my experience matches the world, my experience is nevertheless not successful because it does not put me in contact with Bill. So, similar to cases where a subject has a true belief that is only luckily true, subjects in cases of veridical hallucination have experiences that are only luckily or accidentally accurate. Thus, more must be

going on in knowledge and perception than just that my belief or experience luckily match the scene before me.

This anti-luck condition has been the sticking point for most theories of propositional knowledge over the past fifty or so years. Reviewing some of the insights gleaned from that research is necessary in order to get a plausible anti-luck condition on knowledge by acquaintance. As I will argue, there is actually no plausible anti-luck condition on knowledge by acquaintance. Nevertheless, seeing why this is the case and comparing it to anti-luck conditions on propositional knowledge provide evidence that knowledge by acquaintance is knowledge.

### **3.2 Understanding Luck**

We are considering the proposal that knowledge excludes luck. But not all luck is incompatible with knowledge. Pritchard has given an extended argument that knowledge is compatible with many forms of luck (2005). On the one hand, there is non-epistemic luck, and on the other, there is epistemic luck. It is epistemic luck that is supposed to be problematic and according to Pritchard, it is only a particular kind of epistemic luck—veritic epistemic luck—that is incompatible with knowledge. In this section, I will briefly delineate the type of luck that we are interested in an anti-luck condition by contrasting it with what we are not interested in. Doing so will provide a quicker way to review theories of knowledge that seek to meet the anti-luck requirement.

First, luck in general needs to be distinguished from accidents. Things can be lucky without being accidental. For instance, winning the lottery might be rightly described as lucky. But assuming you bought a lottery ticket, it is not an accident you won the lottery. This is not to deny that some lucky events are accidents. I might have meant to buy a lottery ticket with the numbers 5-6-9, but the cashier gave me a ticket with 5-6-6. This is an accident. If this ticket wins it is also lucky. So, while some events are lucky and accidental, not all are. Luck is not the same as an accident. This distinction is not always marked in the literature and can cause confusion. But once it is seen it is quite obvious.

Similar remarks apply to cases of low probability. There may be lucky cases that are improbable, but merely being improbable is not lucky. The difference is that luck has something to do with the agent involved. For instance, there might be a very small probability that a moonquake (like an earthquake) will happen in a remote part of one of Saturn's moons. Let us stipulate that such an event has a very low probability. Now, imagine you are reading about this moonquake in the newspaper,

as is your friend, and he says to you, 'unlucky about that moonquake isn't it'. You would, presumably, ask him what he means. If he responded merely by saying something to the effect of 'well it had such a low probability of occurring!' you could, I think, respond with bafflement. The reason is that for an event to be lucky or unlucky it must not only have a low chance of occurring, but also it must *matter to us* in some way. An earthquake that destroys your house is unlucky not *just* because of its low probability, but because of the way in which such a thing matters to you and your life. Similarly, you winning the lottery is lucky and improbable, but it is lucky because it matters to you in some way. So, while some lucky events have a low probability, luck is not the same as a low probability. Again, this distinction is not always marked in the literature.

Now that we have a better grasp of what is luck and what isn't, different types of luck need to be distinguished. Not all luck is epistemic. People who are (un)lucky enough to be able to have children are a case of luck, but there is nothing epistemic about that. This and other forms of non-epistemic luck are non-epistemic because they have nothing to do with your epistemic status as a knower. When we say that knowledge cannot be lucky, we are concerned with luck that enables or undermines your knowledge. That is, we are concerned with epistemic luck. Thus, non-epistemic luck is compatible with knowing.

So, on the one hand we have non-epistemic luck, and such luck is compatible with knowing. On the other hand, we have epistemic luck or luck that somehow relates to the epistemic standing of the agent. But not all forms of epistemic luck are incompatible with knowledge either. There are three types of epistemic luck that are compatible with knowledge, namely what Pritchard calls (1) content epistemic luck (2) evidential luck and (3) capacity luck (2005). I will explain each of these with respect to propositional knowledge and knowledge by acquaintance.

First, content epistemic luck is being lucky that the fact you know obtains. For instance, it might be extremely unlikely that the universe unfolded the way it did such that the gravitational constant on Earth is 9.8, but that is compatible with you knowing the gravitational constant on Earth. In other words, it might be lucky that the content of your belief is true, but that is compatible with knowing it. The same type of luck applies to cases of knowledge by acquaintance. Your first and perhaps only time tasting vinegar might be the result of a lottery and in that sense is lucky. But such luck does not mean that you are not then acquainted with the taste of vinegar.

Second, evidential luck is a type of epistemic luck that is compatible with

knowing. For instance, if you stumble upon a treasure map by accident, and it gives you knowledge of the location of the treasure, you will be extremely lucky to know such a thing because you are extremely lucky to have the map as evidence. Yet such luck is compatible with knowing. Indeed, it seems likely that if evidential luck undermined knowing, then much of our scientific progress as a species would no longer count as knowledge. Presumably, an anti-luck condition on knowledge should not have such a dire consequence. Similar remarks apply to knowledge by acquaintance. To use a familiar example from the epistemic literature, it could be the case that Jesse James is robbing the bank as you are in it. As he is leaving the building, his mask begins to slip and you catch a glimpse of his face, a glimpse long enough and clear enough to recognise him. You are also the only one in such a location to be able to see this happen. Thus, it is very lucky for you to have seen Jesse James's face and thus have evidence to tell the police that he was the bank robber. But this luck does not mean you are not acquainted with the look of Jesse James's face.

Third, capacity luck is a type of epistemic luck that is compatible with knowing. This is the luck to be the type of thing that is capable of knowing. That you have the capacity to know, or to see or to hear, seems compatible with the fact that you know some fact. We might be lucky enough that we are the sorts of creatures that have the capacity for rational thought and knowledge, but such luck of capacities does not undermine the fact that we do know. Similarly, we might be lucky that we do not have cataracts in both eyes and so are capable of sight. But such luck is surely compatible with seeing and knowing. In short, we may be lucky to have the epistemic and perceptual capacities we do, but that is compatible with our use of these capacities to know.

This brings us to our final case of epistemic luck, the one that is in fact incompatible with knowing. This veritic epistemic luck is the luck that the belief is true. Gettier cases are the classic example of this sort. In such cases, it is not about the capacity of the knower that is lucky, or that the knower is lucky to have the evidence, or lucky that the fact obtains, but that it is lucky that *that* belief is true (Gettier, 1963). The luck in question destroys or in some sense undermines *the relation* between the would-be knower and the fact. Thus, in the classic Gettier case, when you luckily truly believe that Jones owns a Ford, it is a matter of luck that what you believe is connected to the fact. It is this type of veritic epistemic luck that is incompatible with knowing, and it is this type of epistemic luck that should be the focus of an anti-luck constraint.

This type of luck will have to be slightly modified for the acquaintance case. In



the case of belief, luck is veritic because it is lucky that it is *true*, whereas in the acquaintance case it is lucky that you have experience of the thing, or put in our terminology, that it satisfies the objectivity principle. That is, in the acquaintance case what is lucky is not that some belief of yours is true, but that some experience of yours has a corresponding object. Cases of veridical hallucination bring this out clearly. In veridical hallucination, the hallucinated object may exist, and the world may be as your experience represents it as being, nevertheless you fail to perceive the object. This failure can be understood as your experience of luckily getting it right while failing to in fact perceive. Luck undermines your perceiving and hence your knowledge by acquaintance because you are lucky to have an experience of the object in question. So, it is a desideratum on a theory of knowledge that it has an anti-luck condition that explains why knowing is incompatible with veritic or objective luck. From now on, when I speak of luck or the anti-luck condition it should be understood I mean veritic or objective luck unless explicitly specified otherwise.

In sections 3.3, 3.4, and 3.5, I will consider certain accounts that have attempted to meet this desideratum for propositional knowledge and apply them to accounts of knowledge by acquaintance. While no unified account emerges, the shared features of propositional knowledge and knowledge by acquaintance are enough to show they are both forms of knowledge. Indeed, what is interesting is that the way these accounts (causal, counterfactual and safety) fail to meet an anti-luck condition on propositional knowledge are the same ways they fail to meet an anti-luck condition on knowledge by acquaintance.

### **3.3 Causal Accounts**

One way to avoid the problems posed by Gettier cases is to give a causal analysis of knowledge. Gettier cases are cases of justified beliefs that are true but nevertheless are not knowledge. In such a case, the knower is justified in their true belief, but this belief comes about in some lucky way. In his article, 'A Causal Theory of Knowing', Goldman presented a paradigmatic case of the causal analysis of knowledge (1967). The causal analysis diagnoses the problem in the subject's justified true belief (JTB) analysis of knowledge as one lacking a causal connection. The subject in a Gettier case has a true belief that is justified, but the true belief that some fact *P* lacks the appropriate causal connection to that fact *P*. This lack of causal connection between the fact that *P* and the true belief that *P* is the intuition that subjects in Gettier cases are just lucky to get right. So, according to the causal analysis of knowledge, knowledge is a true belief that has the correct causal connection to the

facts.

Notice that such an analysis is structurally similar to causal accounts of perception. Perhaps the most famous causal theory of perception is due to Grice (1961). On such an account, a perception of some object *O* requires that the object be the cause of the experience. For illustration, recall the veridical hallucination case where Bill is standing before me and my eyes are trained on his spatial location, but, through some weird circumstance, I undergo a hallucination that is indistinguishable from seeing Bill stand before me. In such a situation it is wrong to say I see Bill, although the hallucination represents Bill as he is. On the causal analysis of perception, we have a straightforward answer as to why this is not a case of perceiving, and that is because Bill is not the cause of my experience. I lack a causal connection to the object of perception. A causal connection between the subject and some object is a non-lucky connection. So causal accounts of knowledge and perception explain why certain cases are cases of success, and certain cases are not. If we gave a causal theory of knowledge by acquaintance, then condition six would become the following:

**Causal Acquaintance:** If a subject *S* is acquainted with an object *O*, then *O* is the cause of *S*'s experience *E* of *O*.

Such an account of knowledge by acquaintance provides a clear anti-luck condition. But, as is well known, the causal account is insufficient both for propositional knowledge and for perception. There are numerous reasons, but the one most germane to this discussion is deviant causal chains. Consider propositional knowledge first. Imagine that a subject has a brain lesion that causes the person to believe they have a brain lesion. However, they do nothing to verify this belief. They do not go to the doctor or receive any medical imaging or anything of that nature. They just believe they have a brain lesion. We can imagine they do not even know why they believe it, i.e., there is no pain or cognitive malfunction. They just believe it. Not only are they right, but the cause of their knowledge satisfies the causal version of the anti-luck condition. So, they meet the conditions governing propositional knowledge. Yet intuitively, in such a case the subject does not know.

A similar situation can occur in cases of knowledge by acquaintance. Imagine, for instance, that you have never tasted gasoline, but for whatever reason, you decide to try it. Gasoline, of course, is highly toxic to humans. Unbeknownst to you, you have a guardian angel. This guardian of yours immediately destroys all the gasoline in your mouth one millisecond before it hits your taste buds and turns it into water.

Just to keep their powers a secret, the guardian also induces in your brain, nervous system, and tongue, all the normal neuronal processes that would occur should you actually have drunk gasoline. Such neuronal processing results in you having an experience indistinguishable from tasting gasoline. Thus, your experience of gasoline matches the way gasoline actually tastes and moreover is caused by you actually putting gasoline into your mouth. So, the taste of the gasoline is the cause of your experience. But nevertheless, you do not stand in the right relation to the actual object because the causal chain is deviant.

There are various ways of trying to tighten up causal theories. One way is to try to appeal to the standard or normal process. To do this, one might try to make reference to the actual physiological goings on of a perceptual system (Grice, 1961; Tye, 1982; Lewis, 1980). But that unfortunately is too restrictive in that it rules out by definition creatures whose perceptual mechanisms are different than ours. If the causal chain is specified in such a way that it must make reference to certain physiological features of human beings, and restrict perceiving to just those causal chains, then there will be cases where it seems intuitive that the agent in question does perceive, but the definition rules it out. For instance, it could turn out that a minority of humans possessed visual systems which worked on different principles. Consequently, the definition would require us to say that this minority did not see or know, and that seems wrong. The most promising way of getting the causal chain right is by making reference to some standard process. But the problem with this is that it also rules out what would be cases of genuine perception by non-standard or artificial means such as prosthetic eyes and so on. The implication for knowledge by acquaintance is that the anti-luck condition can only be met by specifying a causal chain or standard process that rules out deviant causal chains. In this way we can guarantee that there are no lucky or accidental experiential states that yield knowledge. But doing this has the unfortunate consequence that plenty of cases of perception would fail to be counted as such by definition, and thus would deny not only perception, but knowledge, to many creatures whose means of perceiving are non-standard.

### **3.4 Counterfactual Accounts**

One way of trying to avoid the issues causal accounts face while still maintaining the idea of an appropriate connection is in terms of modal robustness.

As Lewis puts it:

What distinguishes our cases of veridical hallucination from genuine seeing—natural or prosthetic, lasting or momentary—is that there is no proper *counterfactual dependence* of the visual experience on the scene before the eyes (1980, p. 281).

The thought here is that while the causal account is right that there needs to be an appropriate connection between the subject and the object, causal accounts overemphasise how things happen in the actual world. What needs to be considered is what would happen had things been different. When the guardian angel is there, things go one way, but when the guardian angel is not there, things go another way. This makes the perceptual experience modally fragile, too dependent on how things are in this particular case. What we want is our theory to say how the subject's perceptual experience is sensitive to the actual object, not some powerful intervener. The upshot of this approach is that it allows non-standard causal processes to still count as perception just so long as there is the appropriate counterfactual dependence. This is because all you need is the experience to be sensitive to the object, it doesn't matter if this sensitivity occurs via a certain "normal" causal chain or not. Thus, the counterfactual account accounts for cases the causal account could not. Moreover, it can rule out veridical hallucinations as not cases of perceiving because hallucinations do not counterfactually depend on the scene before one. So, it seems like there is a strong case to be made that the counterfactual account is a superior theory of perception.

A similar counterfactual theory has been offered in the case of knowledge. The most famous theorist of this ilk is Nozick. His way to meet the anti-luck condition for knowledge is to add the following two counterfactual clauses:

**Counterfactual Knowledge:**

- (1) If *P* were false, then *S* would not believe *P* by using the same method (Sensitivity).
- (2) If *P* were true, then *S* would believe *P* by using the same method (Adherence) (Nozick, 1981).

Together, these two clauses are meant to make your knowledge counterfactually dependent on *P*. The issue of what counts as the same method is controversial, but for our purposes, it will not matter much. The basic idea is to hold fixed the belief-

forming mechanism across cases. For example, if you are comparing two different cases where the subject truly believes  $P$  in both, you don't want it to be that in one case the subject visually experiences that  $P$ , and in another, they are told by word of mouth that  $P$ . If the methods (perceptual versus testimonial) differ, then counterexamples abound, as Nozick rightly noted.

Of Nozick's two conditions, we can safely ignore adherence for now, since not much turns on it. The important issue is the sensitivity condition. The sensitivity condition states that if the situation had been different such that  $P$  was false, but you nevertheless still believed  $P$ , then you do not have knowledge. For example, recall the brain lesion patient. The brain lesion patient believes truly that they have a brain lesion in, let us say, their left hemisphere, but they only believe this because the brain lesion causes them to believe it. They do not see a doctor or do anything else to verify the truth of this proposition. Now imagine a different case where the same patient still believes they have a brain lesion in their left hemisphere, but actually, the lesion is in the right hemisphere.  $P$  is now false, but they still believe  $P$  via the same method, namely by a belief-inducing lesion on their brain. So, this person's belief in  $P$  is not sensitive to the facts and thus is not knowledge.

This counterfactual or sensitivity approach to perception and knowledge can be extended to knowledge by acquaintance. The idea is intuitive enough—knowledge by acquaintance could be had by non-standard causal processes, just so long as the episode of awareness counterfactually depended on the object of awareness. We can apply this to knowledge by acquaintance in the following way:

**Counterfactual Acquaintance:**

- (1) If  $O$  does not exist, then  $S$  would not have an experience  $E$  of  $O$  by using the same mode (Sensitivity).
- (2) If  $O$  does exist, then  $S$  would have an experience  $E$  of  $O$  by using the same mode (Adherence).

Note that I have changed Nozick's original formulation from a method of inquiry to a mode of acquaintance. This is because there are no different methods of inquiry for acquaintance. This is one way that knowledge by acquaintance is disanalogous to propositional knowledge on the counterfactual account. Nevertheless, there are different modes of acquaintance. As we saw in chapter two, Russell claims in the *Theory of Knowledge* manuscript that there are at least three modes of acquaintance,

namely sensory acquaintance, memory acquaintance, and acquaintance in imagination (1913, reprinted in 1984). Thus, we should keep the mode of acquaintance the same when evaluating counterfactual knowledge claims.

Counterfactual acquaintance is meant to capture the idea that if you cannot connect with the object in the right way, then you cannot be acquainted with the object. Surely, you cannot be connected in the right way to the object if it does not exist. Moreover, if *O* does exist, and *S* is acquainted with *O*, then *S* would have an experience of it. Notice that such a counterfactual formulation still allows for hallucination. If unicorns do not exist, then you cannot have knowledge by acquaintance of unicorns.<sup>9</sup> But that does not entail that you could not have an experience as of unicorns. Hallucinations are still allowed by this principle, and that is just what we want.

Counterfactual accounts face a number of issues and counterexamples. The problem most germane to our topic is what I will call, following Schaffer, ‘perceptual derailment’ (2003). The idea is that if perception puts us in touch with particulars despite small changes in our environment, then a counterfactual theory of knowledge fails to adequately track the perceptual case through spheres of possibilities. Here is how Schaffer explains the problem:

Human perceptual competence forms a discontinuous scatter in logical space... The tracking theory identifies knowledge with counterfactual covariation of belief and truth through a sphere of possibilities. The contents of the sphere are determined by the similarity metric. Derailings occur because the similarity metric (on any reasonable interpretation) is completely out of alignment with our actual rough-and-ready perceptual capacities. The problem is systematic: the mismatch between the smoothness of logical space and the roughness of

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<sup>9</sup> There is an obvious objection here, which is that Russell’s modes of acquaintance include imagination. The objects of imagination need not exist. Moreover, Russell thinks we are acquainted with sense-data, even in cases of hallucination and dreams. In such scenarios, the objects do not exist. So, this is a significant departure from Russell.

However, while this is a significant departure from Russell, we are none the worse for that. Practically no one accepts sense-data anymore. The disjunctivist has a neat way out for acquaintance theorists. By denying the experiences had in hallucination are of the same kind as those had in perception, one need not posit sense-data nor that the objects of hallucination or dreams are ‘real’ and thus objects of acquaintance. For more see Martin (2004; 2006), and Soteriou (2016).

human perception is not likely to be fixed by a further epicycle (2003, p. 42).

To illustrate Schaffer's point, consider the following example adapted from Kalderon (2011):

**Cricket ball:** A subject is fitted with an implant that cuts off information from travelling through the optic nerves whenever the subject is not looking at a particular visual target. For instance, imagine Farhaan is fitted with just such a device and is made to look at a red cricket ball. If Farhaan looks away, or if the cricket ball is moved away from before his eyes, the device is activated such that the optic nerves are shut down, and Farhaan is blind for one minute. Farhaan's acquaintance is not adequately tracking the ball in such a case because a small change in the situation, such as the ball moving or Farhaan moving ever so slightly, makes it not possible for Farhaan to be acquainted with the ball by the same mode, namely visual perception. Nevertheless, it is obvious that when the ball is right there Farhaan is acquainted with it. So, his experience does not counterfactually covary with the ball.

The upshot of this example is that neither Farhaan's propositional knowledge nor his knowledge by acquaintance counterfactually co-vary with the nearest possible situations—small changes in perception derail such counterfactual tracking. Notice that what undermines counterfactual propositional knowledge also undermines counterfactual knowledge by acquaintance. So just like both causal accounts of propositional knowledge and knowledge by acquaintance suffered from the same problem (deviant causal chains), so counterfactual accounts of propositional knowledge and knowledge by acquaintance suffer from the same problem, in this case derailment in logical space. This result in itself is interesting and suggests that knowledge by acquaintance has deep similarities to propositional knowledge.

Sensitivity accounts are not the only modal accounts of knowledge that try to meet the anti-luck condition. There is a weaker modal relation that is in the vicinity of sensitivity. This is safety. I now turn to this account.

### **3.5 Safety Accounts**

Safety accounts are descendants of sensitivity accounts. They stipulate a modal requirement on the relation of the knower to the known (Sosa, 1999). Thus, they are a way to meet the anti-luck condition of knowledge. That is, a subject's belief or experience is non-lucky just in case it is safe. Different theorists spell out what it means to be safe in different ways. Nevertheless, we can formulate the intuitive idea behind safety in a neutral way. I begin with a formulation for propositional knowledge:

**Safe Knowledge:** If a subject *S* knows some proposition *P*, then the subject could not easily have been wrong in a similar case.

The expressions 'easily' and 'similar case' are doing much of the work here. It differentiates safety from the sensitivity clause. If your belief is sensitive, then it cannot be wrong. It *must* track the truth through modal space. By contrast, if it is safe, it can be wrong just not easily. This is the intuitive idea behind safety.

It should be obvious how this is an anti-luck condition. If one's belief could not easily have been wrong in a similar case, then one's belief is not subject to veritic luck. For veritic luck is the type of luck that undermines the relation of the knower and the thing known such that in nearby cases one does not know. For instance, a lucky guess at the winning lottery numbers is not knowledge, because it could have very easily turned out that belief would not have been true in very similar circumstances. Thus, safety gives a straightforward answer as to why knowledge must exclude veritic luck.

Despite much discussion of safety in terms of propositional knowledge, as far as I know there has not been much, if any, discussion in terms of knowledge by acquaintance or perception. But given our intuitive understanding of safety for propositional knowledge, we can quite easily give an analogue for knowledge by acquaintance:

**Safe Acquaintance:** If a subject *S* is acquainted with some object *O*, then *S* could not have easily failed to be acquainted with *O* in a similar case.

We can see how safety deals with the problems of deviant causal chains posed for causal accounts. Recall that the worry with causal accounts was that there was no way to specify the appropriate causal chain without making reference to the particular causal mechanisms, but such reference ruled out cases of perceiving and



knowing that were unusual but nevertheless legitimate. But safety does not face that worry because, like sensitivity accounts, it replaces any reference to actual causal processes with a modal notion. So, we do not rule out unusual processes unless they are unsafe. Moreover, because the focus of evaluating cases is on the idea that one could not easily be wrong in a similar case, then deviant causal chains do not threaten perception and knowledge. For instance, the patient with the brain lesion causing him to believe he has a brain lesion, or a guardian angel making it appear as if you drank gasoline, are very different. Brain lesions do not act like that, and guardian angels do not exist. So, the safety theorist can admit that if things had been set up in just the right way, then perhaps you would not perceive or know. But that is compatible with you perceiving and knowing in the base case just because perceiving or knowing in the base case requires only that your knowledge or perception be safe.

How does the safety account handle cases that undermine sensitivity? It is controversial whether they do. Let us revisit the case of Farhaan being acquainted with the cricket ball. *Prima facie*, it seems like the safety theorist has a straightforward response here. They will say that the fact that an implant is put in to cut off the information in the optic nerve means that Farhaan could not easily have failed to be acquainted with the ball. After all, it is very difficult (currently impossible?) and unusual to have such implants. According to the safety theorist then, when the ball is in front of Farhaan he sees it, and if a clever device is implanted into his brain, this will make him no longer see it, but such a case is not easily done, and so his seeing and hence knowledge is safe.

One worry about this account is that this begs the question as to what is to count as 'easy'. In one sense, the Farhaan case is very easy. All that must happen is the ball be moved a meter or Farhaan turn his head and the connection between the knower and the known is severed. What could be easier than that? Even babies can do that. What's more, whatever the metric is that is used to spell out easiness, it seems like it is going to be a modal notion, and if it is going to be a modal notion, then it seems at risk that it is going to collapse back into a sensitivity account of nearest possible worlds. So even if we only need the knower to track the known proposition or object through the 'easy' worlds, and not all modal space, there is still a disconnect between the smoothness of logical space and the rough and ready abilities of perceptual capacities. There will be 'inner derailings', as Schaffer calls them, where things change in the smallest possible way and thus undermine the modal account.

There is a related but distinct worry, pressed by Neta and Rohrbaugh (2004). According to them, on one interpretation, safety is true but trivial. On another

interpretation, safety is unnecessarily strong. The true but trivial reading results from the following thought. If you spell out the similarity of cases as those in which the proposition known is true, then all the similar cases will of course be cases of knowledge. Why? Because similar cases are just those cases where the proposition in question is true, and the believer believes it. But no one will object to that. So, it seems trivial. On the other hand, if one wants to defend arguments using the safety principle, then one has to say something more substantive. The problem with this is, of course, that a substantive account is subject to counterexamples of the kind Schaffer (2003) and Kalderon (2011) have in mind.

Indeed, if a substantial account of safety can be given that is not reducible to sensitivity, then things might actually be worse for the case of knowledge by acquaintance. For it is when comparing a safety account that the differences between the modal profile of sensory perception and the modal profile of propositional knowledge are most stark. To see this, consider the following case from Longworth:

Suppose that one were the subject of a future neuroscientific experiment involving the induction of hallucination. The experiment begins with one sitting before an orange. Looking before oneself, one clearly sees the orange. Now, the neuroscientist turns on his machine and, unbeknownst to one, one stops seeing the orange and begins instead to hallucinate a matching scene. During this period, the neuroscientist removes the orange. This situation continues for five minutes, with a momentary break at two and a half minutes, during which the neuroscientist briefly both returns the orange to its original position and pauses the machine. It seems plausible that despite the surrounding hallucinations, one nonetheless sees the orange during one's half-time respite. Is one able to know, during that break in the ongoing induction of hallucination, that there is an orange before one? Plausibly not, due to the significant danger of committing erroneously (2021, p. 7).

One of the morals Longworth is trying to draw here is that one cannot know *that* there is an orange before one in the half-time break. One can nevertheless *see* the orange during the half-time break.

This example is particularly problematic for a safety theorist of acquaintance. If one is seeing the orange during the half-time break, then one is plausibly acquainted with it. After all, as we saw in the last chapter to be acquainted is to have a presentation of the object to one's consciousness. The person seeing the orange meets that requirement during the half-time break. Is that acquaintance a case of knowledge? It meets the objectivity requirement. In this case, the object is an orange, and the orange does exist. It meets the entailment requirement. The subject has an

experience of the orange. Moreover, the orange is in fact a constituent of the visual experience. Nevertheless, this mental state of the subject is incredibly modally fragile. It is surrounded by nearby worlds of hallucinatory oranges where the objectivity requirement and the entailment requirement are not met. So, it seems that this case of being acquainted with the orange during the half-time break is anything but modally safe.

What can an acquaintance theorist say in response to this case? There are a few options. First, one might give up the game and say that acquaintance is not knowledge. Longworth's example shows that acquaintance can be lucky, and if knowledge excludes luck, then acquaintance is not knowledge. But this reaction would be premature at this point.

A second option would be to bite the bullet and admit that knowledge can be lucky. This view may not be as untenable as it first seems. Indeed, at least one philosopher, Heatherington, seems to think all knowledge is lucky in just this sense (2014).

But I want to suggest a third way. The fact that we have at least two analogue principles—objectivity and entailment—for knowledge by acquaintance, coupled with the fact that many of the arguments that defeated anti-luck conditions for propositional knowledge also defeated anti-luck conditions for acquaintance theories in the same way, suggests that there are some deep similarities between propositional knowledge and knowledge by acquaintance. I now want to suggest that that is because knowledge by acquaintance has asymmetrical dependence on propositional knowledge. To do this, I borrow from Aristotle's account of homonymous terms.

### **3.6 Knowledge as Homonymous**

Up to now, we have been proceeding under the assumption that in order for knowledge by acquaintance to be knowledge it has, not only to obey all three principles governing propositional knowledge but obey them in the same way. But is this assumption unassailable? What if knowledge by acquaintance is only governed by two of the three principles, or is governed by all three, but meets one of them by a different means than propositional knowledge? Does that mean knowledge by acquaintance is not knowledge? It does not seem so. Knowledge by acquaintance may share some or many similar features with propositional knowledge, but it need not share all of them to still be a case of knowledge. To see this, I will examine Aristotle's account of homonymous terms, sometimes called focal

meaning.<sup>10</sup>

The notion is somewhat technical, but the basic idea is fairly straightforward. Take first the case of synonymous or univocal terms. These will be terms where, when two things are said to be of that kind, the account of why those things are that kind is the same. That is, if (1) *A* is *F* and (2) *B* is *F* and (3) the account of what makes *A* an *F* is the same as what makes *B* an *F* is the same, then *F* is univocal or synonymous. For instance, in (1) 'Socrates is a man' and (2) 'Plato is a man', "man" is univocal or synonymous.

In contrast to synonymous terms, there are homonymous terms, according to Aristotle. These are cases where synonymy fails. The English word 'bank' serves as an illustrative example when used in 'I tried to get a loan at the bank yesterday' and 'I sat down and had lunch at the river bank yesterday'. 'Bank' is not the same in these two sentences. So far so mundane. What is interesting in Aristotle's account is the sort of middle cases. That is, there are multiple ways of things being homonymous for Aristotle. Moreover, if we think of terms as falling on a spectrum consisting of on one end there being synonymous terms, and on the other end being completely homonymous terms like 'bank' (terms that are so different they seem to share nothing more than a Wittgensteinian 'family resemblance' with each other) then Aristotle's account of focal meaning is supposed to explain the terms that lie in the middle (Wittgenstein, 1953; Shields, 2022). That is terms, that are not synonymous, but not so disparate as to be completely unrelated semantically. To make this clearer, consider one of Aristotle's favoured examples, 'health', as is used in the following three sentences:

1. Socrates is healthy.
2. Socrates's diet is healthy.
3. Socrates's complexion is healthy.

Health is not univocal in these three sentences because the second means something that promotes health, whereas the third means something like appears or indicates health, and the first is the more fundamental, meaning roughly is of sound mind and body. So, they are not univocal like 'man' earlier. But they are not so disparate as 'bank'. There is a sense in which 'health' in (2) and (3) depend on 'health' in (1). As

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<sup>10</sup> The terminology is due to Owen (1960). See also Shields (2022). Thomas Crowther first drew my attention to this—or rather, suggested during the Q&A of a talk by Farkas in 2020 that focal meaning was a way she should consider of relating her notion of 'objectual knowledge' to propositional knowledge. After a brief discussion with Crowther, I decided to try to apply it to my case.

Shields puts it:

The last two predications rely upon the first for their elucidations: each appeals to health in its core sense in an asymmetrical way. That is, any account of each of the latter two predications *must* allude to the first, whereas an account of the first makes no reference to the second or third in its account. So, suggests Aristotle, *health* is not only a homonym but a *core-dependent homonym*: while not univocal neither is it a case of rank multivocity (2022, p. 216)

There is an asymmetric dependence between the focal meaning (aka core-dependent homonym) and other meanings. Without getting any further bogged down in the technicalities of Aristotle's theory, we can apply this idea to knowledge in the following way.

'Knowledge' is not univocal. We can see that most obviously in the case of the knowledge argument. When locked in her black and white room Mary, in one sense, knows what redness is because she knows all the true propositions about it. But in quite another sense she does not know what redness is because she is not acquainted with it. Knowledge is thus not univocal. As we saw in chapter one, this was one of the earliest complaints made against the knowledge argument by writers like Churchland and Lewis. But 'knowledge' is not of rank multivocity either. Propositional knowledge may be the focal meaning in that any account of knowledge must depend on it to be explanatory, but propositional knowledge need not appeal to knowledge by acquaintance.

For illustrative purposes, I have been writing as if Aristotle's theory of homonymity is a semantic theory. Though it is certainly read that way by Owen (1960), it is debatable whether or not this is the best interpretation of Aristotle. Irwin, for instance, argues that Aristotle's theory of homonymity is about the

way things really are as set out in this passage:

The difficulties in Aristotle's doctrine of the multivocity of good and being do not all disappear as soon as we see that they are not about different senses of "good" or "being"; but we can perhaps now distinguish the real from the imaginary difficulties. The imaginary difficulties are about differences of sense. These need not concern Aristotle. The real difficulties are about differences of essence and differences of real properties. We know that he faces these difficulties anyhow; his views about homonymy and multivocity are a part of his views about natural kinds (1981, p. 540).

On Irwin's reading, Aristotle is interested, like Socrates and Plato, in a 'what is it?' question about things such as justice, goodness, being, friendship and so on, but unlike Socrates and Plato Aristotle resists the idea that the answer to such questions can be given by positing a single unifying essence (e.g., a Platonic Form). Aristotle's account of homonymity is meant to show how multiple things can be of the same kind, while not being identical. This is not a semantic thesis about meaning or concepts. It is about how things are.

We need not settle this debate in Aristotelian scholarship to profit from it. Let us take the Irwin analysis and apply it to knowledge, regardless of whether it is the correct interpretation of Aristotle. Then, what we have is two kinds of mental states, each a kind of knowing, that share fundamental properties, but not all properties. Both are mental states of awareness of the subject—either beliefs or experiences—that relate the knower to an item in the world—either a fact (true proposition) or an object. In certain cases, such as Longworth's orange, one can be in one type of knowing state without being in the other, one can have knowledge by acquaintance of the orange without knowing *that* there is an orange in front of one. This might be because propositional knowledge requires a modal robustness that knowledge by acquaintance does not. But all that shows is that these are different kinds of knowledge of the world.

Moreover, we can also see why some writers, such as William James (1892) and Bertrand Russell (1911) point out how other languages, such as German and French, mark this distinction lexigraphy (e.g. *kennen* and *wissen* in German, *savoir* and *connaitre* in French). The thought here is there is a certain natural kind or property that certain languages mark with more than one word, and other languages, such as English, do not. This is akin to Aristotle's method of investigation of natural kinds and properties whereby we begin our investigation into the nature of being by examining the way things are said to

be (Aristotle, 1963). But investigating the way we speak, the ascriptions we are intuitively willing to make, is meant to jumpstart an investigation into reality, not into our concepts of reality.

### **3.7 Conclusion**

In this chapter, I have been showing how knowledge by acquaintance can be explained by appeal to orthodox conceptions of propositional knowledge. But this is not to say that the accounts will be identical. If propositional knowledge satisfies the anti-luck condition by being safe, it does not follow that knowledge by acquaintance satisfies the anti-luck condition by being safe rather than some other way, or not at all. It may be the case that knowledge by acquaintance can be lucky in a way that propositional knowledge cannot. After all, it does not follow that just because we have a lucky perceptual encounter, we do not make cognitive contact with the world. In Longworth's example, the subject does *see* the orange. They may not know *that* they see the orange. But that is just to say that their mental state is not luminous. And as we saw in the last chapter, we need not be committed to luminosity for acquaintance. So, it is plausible then, that knowledge by acquaintance is a kind of knowledge, without knowledge being univocal. After all, they are both modes of awareness in which we learn things about our world.

I have now tried to illustrate and defend the two central ideas of Russell's theory of knowledge by acquaintance. In the last chapter we saw that, even though there were some changes as the theory evolved, Russell was always committed to the idea of a conscious presentation as being a necessary condition of knowledge by acquaintance. In this chapter, I tried to defend the claim that knowledge by acquaintance is knowledge. In the next chapter, I want to extend the discussion of what kind of knowledge this is supposed to be. In particular, I want to pick up an idea from Evan's '*Variety of Reference*' (1982) that claims that acquaintance is a form of discriminating knowledge, in particular, it is *knowing which object* something is.

## Chapter 4: Acquaintance and Knowing Which

In this chapter, I aim to show the following three things: (1) knowledge by acquaintance is a form of knowing which, (2) knowing which is discriminatory knowledge; and (3) knowing which can be, in certain cases, non-propositional knowledge. Gareth Evans (1982) was the first to argue that knowledge by acquaintance is a kind of knowing which (claim 1), and that knowing which is discriminatory knowledge (claim 2). For that reason, this chapter will start with a presentation of his views. I will not accept his account in every detail but make some modifications I think necessary to make the view more tenable. In particular, I will reject (a) his concept of ‘Fundamental Ideas’ that ground discriminatory knowledge, and (b) his propositionalism. After this discussion of Evans in sections 4.1 and 4.2, I will consider a different challenge in section 4.3. This challenge comes from Proops (2014) who argues that *pace* Evans, Russell could not be thinking about knowledge by acquaintance in terms of knowing which. Proops argues that Russell implicitly distinguishes between knowing what and knowing which and that acquaintance cannot be a case of knowing which, but rather a case of knowing what. Though a formidable challenge that highlights some shortcomings in the writings of Evans, it does not succeed in demonstrating that acquaintance is not knowing which, nor that Russell did not think of it in those terms, or so I will argue in section 4.3. In section 4.4, I consider a different sort of objection, namely the claim that all cases of knowledge which *must be* propositional. This objection has been most forcefully put by Stanley and Williamson (2001) and Stanley (2011). I will meet this challenge by showing flaws in their reasoning about propositionalism, as well as pointing out explanatory gaps in their positive account.

### 4.1 Evans’s Discriminating Knowledge

On Evans’s reading, Russell’s distinction between knowledge by acquaintance and knowledge by description is the result of the following thought:

In order to be thinking about an object or to make a judgement about an object one must know which object is in question —one must *know which* object it is that one is thinking about. I call this Russell’s Principle (1982, p. 65).

Russell’s argument for this principle, according to Evans, is that we cannot imagine someone being able to entertain a thought or make a judgement about some object unless they know which object it is they are thinking or judging about. This makes knowing which a form of discriminating knowledge for



Evans:

In order to make Russell's Principle a substantial principle, I shall suppose that the knowledge which requires what might be called discriminating knowledge: the subject must have a capacity to distinguish the object of his judgement from all other things (1982, p. 89).

As this passage makes evident, discriminating knowledge is a capacity for Evans. In particular, it is a capacity to distinguish an object from 'all other things' (more on the scope of the quantifier 'all' shortly). Thus, knowing which is an exercise of this discriminatory capacity. He gives some examples to illustrate the point:

We have the idea of a certain sufficient condition for being able to discriminate an object from all other things: for example, when one can perceive it at the present time; when one can recognise it if presented with it; and when one knows distinguishing facts about it (1982, p. 89).

The three kinds of discrimination Evans appeals to—perception, recognition, and distinguishing facts—is a trichotomy he takes from Strawson's (1964) conception of identifying reference and identifying knowledge. This matters for the following reason. On a first reading of these examples by Evans, we might think that the first two kinds are paradigmatic cases of knowledge by acquaintance, but that the third and final one is not obviously a case of acquaintance, at least in the Russellian sense we saw in the last three chapters. Knowing distinguishing facts about an object seems the type of case Russell would have classified as knowledge by description. Moreover, Strawson (1964) calls the third item in the trichotomy 'identifying descriptions'. If that is right, then knowing which cannot be *identical* to discriminatory knowledge, at least not if Evans is attempting to explain knowledge by acquaintance in terms of knowing which. At best, knowing which could be a subset of discriminatory knowledge. That is, knowing which is a way, but not the only way, to have discriminatory knowledge of an object.

Ultimately, I think this might be the right way to read these passages from Evans. However, it cannot be ruled out on the textual evidence alone that there is no other way to read this passage. As I said, Evans takes this trichotomy from Strawson (1964). In that paper, Strawson attempts to elucidate what he takes to be 'identifying reference', where identifying reference is tied closely to 'identifying knowledge' (1964, p. 99). Strawson's thought, roughly put, is that in a conversational context, one may use a variety of linguistic devices to draw the attention of their interlocutor to a particular object. The idea is a familiar

one discussed by Strawson (1950), Donnellan (1966), and Kripke (1977). Following Kripke (1977), I will call it a distinction between semantic reference and speaker reference. The central thought is that speakers, intending to converse about a particular object in the environment, can use descriptions that are either partially, or possibly even entirely, false of the object, yet nevertheless successfully refer to that object. For instance, imagine you and I are at a wine reception at a conference, and in an attempt to draw your attention to the person in the corner by the light switch, I say 'Catherine's husband—that man drinking the white wine—fell asleep during my talk'. You see the person I intend you to see and form the belief that the person fell asleep. My speech act has done what I intended it to do—it made you pick out that person in the room and made you believe, or at least believe that I believe, that they fell asleep during my talk. But, as it turns out, that person is neither Catherine's husband, nor a man, nor drinking white wine. That is, all of the descriptions I use to pick out that person are false. Nevertheless, I succeed in getting you to attend to and thus refer in thought to the person I wanted you to. Thus, the speaker reference succeeds in spite of the semantic reference failing. You formed the correct beliefs I intended you to form about the correct object I wanted you to have those beliefs about.

Now, if this sort of case is the one Evans is appealing to, and Evans's page citations to Strawson (1964) suggest it might be, then examples of the third kind, of 'distinguishing facts' about the object, might be identifying reference of this sort. If that is the case, then these three kinds of discriminating knowledge are all cases of knowledge by acquaintance on the Russellian understanding we have been developing in this thesis. This is because in my speaking falsely I have nevertheless succeeded to induce in you a conscious presentation of the person I wanted to refer to.

One problem with this reading is that Evans phrases this as a 'knowing distinguishing facts', and that contradicts the idea that the descriptions used to pick out the referent could all be false. Perhaps this reading could be accounted for if we only allow that some distinguishing features are used accurately to get you to attend to the referent. For example, perhaps it is true the man is drinking white wine in the corner, though it is not Catherine's husband, in which case you now know some distinguishing fact about the person.

Despite this textual complication, I suggest we read it in the former way. That is to say, I will take it that knowing which is a subset of discriminating knowledge. Cases of the third kind are, as they seem to be on the surface, cases of knowledge by description, not knowledge by acquaintance. That means that discriminating knowledge is knowledge of particulars that includes both

knowledge by acquaintance and knowledge by description. Knowledge by acquaintance is a subset of discriminatory knowledge, in particular a kind of knowing which.

Consequently, we can see very clearly that Evans is putting forward a reading of Russell that endorses my thesis (1), knowledge by acquaintance is a form of knowing which and thesis (2), knowing which is a form of discriminatory knowledge. While I think this presents a helpful development of Russell's thought by Evans, I nevertheless want to distance myself from some of the things Evans says to spell out his account of discriminatory knowledge.

#### **4.2 Fundamental Ideas and the Unifying Project**

Evans's project is to explain this discriminating knowledge that we have been discussing. Moreover, his project is one of unification: he sets himself the task of answering the question of just what exactly these three different ways of discriminating knowledge have in common. As he says:

We cannot rest content with a purely disjunctive understanding of the concept of discriminating knowledge, but a more adequate understanding can be provided only by giving a theory in which the concept of discriminating knowledge is linked to the concepts of thought and judgement by way of Russell's Principle. Only a theoretical defence of Russell's Principle will provide us with an account of what common thing it is which descriptive, demonstrative, and recognition-based identification enable us to do, by showing us why it is that thought about a particular individual requires the subject to be able to do it (1982, p. 91).

These three modes of discriminatory knowledge—descriptive, demonstrative, and recognitional—are unified. This is done through Evans's theory of understanding. Evans argues that the concept of thoughts about individuals is tied to understanding the propositions in which those individuals are constituents (1982, p. 92). Thinking of objects in a way that is understanding relies on a 'fundamental Idea' which attaches to the 'fundamental ground of difference' of the object:

For any object whatever, then, there is what may be called *the fundamental ground of difference* of that object (at a time). This will be a specific answer to the question 'what differentiates that object from others?' of the kind appropriate of objects of that sort...Let us say that one has a *fundamental Idea* of an object if one thinks of it as a possessor of the grounds of difference which it in fact possesses. (Such an idea constitutes, by definition, distinguishing knowledge of the object, since the object is differentiated from all other objects by this fact) (1982, p. 107).

These fundamental Ideas, with a capital 'I', are what allow us to have discriminating knowledge of objects. Evan's understanding of these issues comes out most clearly in his two examples of qualitatively identical steel balls. Evan's asks us to imagine the following two cases:

**Case 1:** Imagine two qualitatively identical steel balls, call them Ball 1 and Ball 2, hung from the same point in the ceiling and spinning around one another, in a similar fashion to a ceiling fan. Suppose further that you have seen these two balls someday in the past for a relatively brief moment, perhaps a minute or two. There is then some set of beliefs you have about the balls from the previous encounter. However, this set of beliefs is not sufficient for you to be able to distinguish one ball from the other in the present encounter. That is to say, as you look at the steel balls today, you cannot judge 'That is Ball 1 which I saw last Tuesday' or 'That is Ball two which I saw last Tuesday.'<sup>11</sup>

The example is extremely compressed, but I think we can pull out the main idea if we add some more details to the case. Evans is not claiming that you cannot visually distinguish ball 1 and ball 2 in the present perceptual episode. It is not as if the balls are so fast that keeping track of them is impossible, the way it sometimes is with the blades of a ceiling fan. It seems you could, when you first look at the two balls presently, decide to look at one ball, ball 1, and follow it along its rotation. You could then think to yourself 'that is ball 1'. This would be a case of knowing which because it would meet Evans's first condition, namely discriminating an object during a present perceptual episode. Moreover, later in the day or perhaps even tomorrow when you are no longer looking at the balls, you could still judge, 'ball number 1 is the ball I saw first yesterday'. This would also be a case of knowing which for Evans because it meets his third condition, namely that you know some distinguishing facts about it. So, both thoughts would be cases of knowing which on Evans's account.

Why then, does Evans say that this is not a case of knowing which? The answer has to do with his second sufficiency condition. One needs to recognise the object, ball 1 say, on a fresh new encounter. So, suppose you have perfect episodic memory and could visually recall the events of your first seeing and tracking ball 1. How would that help you in the present situation when you are confronted with the balls again in the present? I think this is the thought Evans is trying to impress upon us with case 1. It is supposed that you do not have

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<sup>11</sup> These cases are from Evans (1982, p. 90) but I have cleaned them up. For instance, he does not provide in the example thoughts about particular days as their contents such as 'Tuesday'. But these details are needed I think, to make an otherwise cryptic example more available for reflection.

discriminatory knowledge in the sense of a recognition-based identification. Now consider the other case:

**Case 2:** Imagine that on Day 1 a subject sees just one steel ball, Ball 1, swinging by itself from the ceiling. On day 2 they see a different ball, Ball 2, swinging by itself from the ceiling. In between the two days, however, the subject undergoes memory loss such that on day 2 (and any day thereafter) they cannot remember day 1. If we ask the subject a few years later which ball he saw or when he wouldn't be able to provide any distinguishing fact about them. So, it seems that they do not know which ball they are thinking about. On the other hand, since they have no recollection of Ball 1, they can really only be thinking about Ball 2. Thus, they have Ball 2 'in their mind.'<sup>12</sup>

The intuition here is that the subject's memory is of a particular episode of perception which is (partially) constituted by a particular ball—Ball 2 on a particular day (day 2). Thus, the subject's thought is about *that* ball. If this particular ball constitutes part of the perceptual episode on day 2, and this perceptual episode is the only episode the subject can recall, then the recollection must be about Ball 2 and only Ball 2. Thus, the subject knows which, even if he doesn't know *that* he knows which. Or so at least this seems to be Evans's line of reasoning.

This is Evans's project. It is very ambitious and, I do not think it unfair to say, in some ways very Cartesian. By that I mean that it requires a sort of indubitable knowledge of particulars given in sense perception. Of course, Evans is no phenomenalist like Descartes or sense-data theorist like Russell, and there are significant strands of externalism about mental content in Evans's writings, but he is nevertheless taken by this idea that we can have indubitable knowledge of particulars. Recently, this type of reading of Russell has come under attack by Wishon (2017) who argues Evans (amongst others) is wrong to read this commitment to indubitable knowledge into Russell. Moreover, I argued in chapter two that there is textual evidence to suggest Russell was not committed to indubitable knowledge, at least not in terms of luminosity.

Whatever the merits of the argument by Wishon (2017) (and I think there are many), we need not get bogged down in that debate or take on the commitments of Evans's project. All we need to do is recognise that this is what Evans's is doing and recognise that we need not do that. Indeed, we might not *want* to do that as it massively over-intellectualises many types of cognitive states, in particular, sensory perception (Allen, 2016). All we need to do is recognise Evans's insight that connects knowledge by acquaintance with

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<sup>12</sup> Like case 1, this is my reconstruction of Evans's case.

knowing which, and connect knowing which with discriminating knowledge.

Thus, we can weaken our view in the following two ways. First, reject any strong project of unifying the different ways of knowing which. Why should we be moved to think those different ways of knowing which must be united in some unified theory? Surely the mind connects to the world in different ways, and to force them unnecessarily into a unified theory is to force them into a Procrustean bed. Indeed, one of the things it seems Russell wants to stress in his writings is the different ways one can come to know things. As we saw, this thought was present in his earliest writings on acquaintance in the *Principles of Mathematics* when he thinks about different ways of knowing a number, such as by a description of the number as the value of some function, or as being acquainted with the number (1903). The differences in these ways of knowing are what exercised Russell for much of his career, and it is the differences that are most useful for us.

Second, we need not require that knowledge by acquaintance in a perceptual encounter must lead to distinguishing the particular from all other things in all other situations, where the 'all' has no restriction on its domain. It is this, coupled with his 'Generality Constraint', that leads to Evans's idea that we must have a 'fundamental Idea' of an object with a fundamental ground of the difference. This added layer of complexity is unnecessary if we realise that what it takes to discriminate one thing from another will depend on the context, and moreover, the ability of our memories to retain our discriminating knowledge is a separate issue from what it takes to discriminate in our present situation. There are, of course, interesting things to be said about memory acquaintance as we saw in chapter two, but those issues are orthogonal to the issues of our project.

In sum, Evans is right to see knowledge by acquaintance as a form of knowing which. He is also right that knowing which should be understood as discriminating knowledge, where that is understood as a subject's capacity to distinguish that object from other things in the domain. However, I think it is unnecessary to take this domain to be as wide as Evans does. We need not be able to distinguish the object from all other objects, *full-stop*. This sort of Cartesian indubitability is unwarranted. I have argued that it stems from his unifying project, a project we need not be engaged in. Of course, at some level, knowledge by acquaintance and knowledge by description are unified. After all, they are both states of knowledge. But we need not think that this unification must be explicated in a fundamental level of thought and ideas as Evans does.

There is another insight that we can take from Evans, and that is his

connection of knowledge by acquaintance with knowing-wh. Knowing-wh is a class of English expressions such as knowing who, knowing what, knowing which, knowing where, and knowing when. Sometimes knowing whether and knowing how are included in this class too (Parent, 2014). Knowing-wh is supposed to mark a distinct mode of knowing that is different from knowing-that, which is another class of English expressions that are taken to express propositional knowledge. It is an open question amongst linguists and philosophers whether knowing-wh in English marks off a distinct class of knowledge ascriptions or if they are instead reducible to knowing that. This is a question not only about the semantics of 'knows' in English but also a metaphysical question about what kind of knowledge—what kind of mental state—we are ascribing to people. If, as many think, knowing-wh is a distinct class, then Evans has brought to the forefront something important in Russell's work by arguing that knowledge by acquaintance is a form of knowing which. And he seems right about this. As we saw in chapter two, when Russell first introduces the idea of knowledge by acquaintance in his notebooks, he puts it in terms of knowing what: 'sometimes we know that something is denoted without knowing what' (1992, p. 306). He is obviously distinguishing between knowledge that and knowledge what. However, this is not without its problems. As we will see in the next section, not everyone thinks that this textual evidence of Russell shows he is thinking of acquaintance as a distinct kind of knowledge. It is to that issue I now turn.

### **4.3 Knowing Which versus Knowing What**

Proops (2014) claims that Russell implicitly distinguishes between knowing which and knowing what, and that knowledge by acquaintance could not be knowing which. The textual evidence he cites for this is interesting as it is a similar passage (not the same) to the one Evans cites for his claim that knowledge by acquaintance is a form of knowing which. Ultimately, I will argue that Proops's analysis of these textual passages fails to establish that knowledge by acquaintance cannot be a case of knowing which. I will do this by spelling out the differences between knowing which and knowing what. Before that though, I will compare the two passages quoted by Evans and Proops. The passage Evans cites is on page 58 of Russell's *Problems of Philosophy*. However, there are two non-equivalent formulations on that page, and Evans does not specify which he is referring to. Here is the first:

The fundamental principle in the analysis of propositions containing descriptions is this: *every proposition which we can understand must be composed wholly of constituents with which we are acquainted* (1912, p. 58).

And then in the next paragraph, as a compressed argument for this principle, Russell writes:

It is scarcely conceivable that we can make a judgement or entertain a supposition without knowing what it is we are judging or supposing about (1912, p. 58).

Which of these two passages is Evans meant to be referring to? Or is it both? Given that in the first passage Russell calls it a principle and uses the phrase ‘with which we are acquainted’, it is tempting to think this is what Evans has in mind here. But though this thought is tempting, the temptation should be resisted because it is in the second passage that Russell gives the closest thing to an argument for this principle. And it is *the argument* for the principle that motivates Evans, as I showed above. However, if that is right, then that is worrying because in the second passage, Russell says we need to ‘know what’ we are judging about, suggesting that acquaintance is knowing what not knowing which.

Now compare this to what Proops has to say about a very similar passage from Russell that was published a year earlier in *KAKD*. In that paper, Russell says:

Whenever a relation of supposing or judging occurs, the terms to which the supposing or judging mind is related by the relation of supposing or judging must be terms with which the mind in question is acquainted. This is merely to say that we cannot make a judgment or supposition without knowing what it is that we are making our judgment about (1911, p. 117).

Again, here we see the language of ‘knowing what’ but also ‘with which we are acquainted’. Quoting this passage, Proops says the following:

Russell’s characterisation of merely descriptive knowledge reveals that he does not at this stage take acquaintance to entail knowledge which. For if he did, he could not grant—as he in fact does—that someone who had merely descriptive knowledge of a thing, and who was, therefore (in his terminology) ignorant of which thing it was, might nonetheless happen to be acquainted with it. This feature of Russell’s view has a perhaps unexpected consequence: it means that in [*KAKD*] Russell must be implicitly distinguishing between knowledge which and knowledge what. For in this same article, he equates knowledge what with acquaintance (2014, p. 7).

Proops then goes on to give the following explanation about why Russell might



be thinking of acquaintance as knowing what:

Russell must be equating the notion of knowing what it is one is judging about with that of being acquainted with the objects of one's judgment. This equation might sound unnatural, and it could certainly be challenged on grounds stemming from linguistic theory; so it is worth noting one route by which Russell might have arrived at it. I shall argue that Russell's discussion of acquaintance is plausibly indebted to James's work, *The Principles of Psychology* (1892). If Russell had seen a popular abridgement of that work, he might have encountered the following remark: "Our earliest thoughts are almost exclusively sensational. They give us a set of whats, or thats, or its; of subjects of discourse in other words, with their relations not yet brought out" (14). (Mention of "whats" is absent from the corresponding passage in the unabridged version, which speaks only of "thats" and "its".) ...If Russell had been familiar with this passage—or with similar passages in James's writings—he could easily have made the slide from the awkward phrase "knowledge of a what that we are thinking about" to the more natural "knowledge of what we are thinking about". At any rate, the hypothesis of such a slide would explain his otherwise puzzling equation of acquaintance with *knowledge what* (2014, p. 7).

Proops then goes on to give what I take to be a convincing textual argument for Russell having read this abridged version James's *Principles of Psychology*. So let us just assume for the sake of argument that Proops is right about this. Still, one might wonder just how much really turns on this textual debate. Quite a lot, I think. We can see this if we take a step back from the exegesis of Russell's texts and compare 'knowing what' and 'knowing which' locutions.

Consider the following sentences where the main verb is a form of 'knows which':

- 1) John knows which trail to take back to the campsite.
- 2) When the glass shattered, Mrs. Dermott demanded to know which boy threw the ball.
- 3) I was in such a dark place I just didn't know which way to turn anymore.
- 4) Do you know which of the twins was born first?
- 5) He knows which drill bit to use.
- 6) 'You don't need a weatherman to know which way the wind blows'  
- Bob Dylan, *Subterranean Homesick Blues*

The Oxford English Dictionary tells us that 'knowledge', at least when used as a transitive verb, is to be understood as 'recognise, identify, distinguish or perceive'. It also tells us that 'which' can be used as an adjective, pronoun, or general interrogative to specify (or request specification of) some particular item from an implied set. Putting these ideas together it would seem that when we use the locution 'knowing which' we are saying that the subject can distinguish a particular item from other items in the domain. Another notable feature of 'knows which' is that it can be used to say of someone that they know something that the speaker does not know. For instance, in (1) it is perfectly possible that John knows which trail to take but that the speaker does not. Such denials are not always available with other knowledge ascriptions such as 'knowledge that'. For instance:

- 1\*) 'John knows which trail to take back to the campsite, but I don't',  
makes sense, but
- 1\*\*) 'John knows that the Blue Ridge trail leads back to the campsite, but I don't', seems odd.

If I say honestly that John knows that some  $A$  is  $F$ , then it seems wrong or infelicitous to then state that, as a speaker, I do not know that  $A$  is  $F$ . How could I not? I just said it.

So far then, we can conclude that the expression 'knows which' functions to say of the knower that they can identify or distinguish a particular individual (even if the speaker themselves does not know) or in the case of the interrogative, they desire to be made capable of identifying the particular individual. How does this understanding of knows which fit in with (1)-(6)? (1), (2), and (4) are straightforward. (1) says that of the set of trails, John knows

which particular one has the property in question. Similarly, in (2) Mrs. Dermott wants to know of the set of boys, which one threw the ball, and likewise (4) is a question about which of the set of twins has the property of being born first.

What about sentences (3), (5), and (6)? Sentences (3) and (6) both have the expression 'know which way'. The Bob Dylan lyric, 'which way' fits with sentences (1), (2), and (4). While the ways the wind blows are infinitely many because space is compact, we usually only speak of them as going north, south, east, west or some combination thereof. Thus, the reading is, which way from this finite set, is it going? So, sentence (6) also fits our preliminary account. Sentence (3) can be read in two ways. First, it could be used when someone is in such a dark place, literally, such as a cave underground, that they cannot figure out which direction to turn. Alternatively, sentence (3) can be read more figuratively, as in the person was in such a dark place emotionally, that they did not know what to do or who to consult for help. This figurative use plays off of the literal use and extends it to a different domain, namely from the physical light to the emotional light. I suggest then that the figurative use accords with the other sentences in what knowing which means, albeit perhaps in a figurative way. In any case, the sentence poses no problem for the account of knowing which presented here.

The last sentence, sentence (5), is a little bit different. Knowing which drill bit to use is not to know, or at least not only to know, which particular individual drill bit, but what type of drill bit to use. Sentence (5) says that he knows which drill bit, as in a 1/16th inch drill bit and not the 1/8th drill bit, to use to get the job done. It does not, or need not, say that he has a particular individual drill bit that he knows, such as the one that is chipped on the bottom. So, it says that he knows a type, not a particular individual. This contrasts with the other sentences in the list. Is this a problem? I do not think so, but before I deal with that let us look at some sentences from knows what as it will reveal better the nature of my solution. Consider the following sentences:

- 7) Everyone knows what happens whenever *they* host a party.
- 8) I know what we should do!
- 9) Hey man, do you know what is going on across the street? There are police cars everywhere!
- 10) Don't worry, I know just what to expect from someone like you.
- 11) 'Was it really like that, or did the media just make it look like that?' I asked.  
'It really was. Teresa was there, and she knows what she is talking about', Margaret replied.

- 12) 'I thought I heard the mice this morning in the bedroom', I said.  
'Are you sure, they do not usually climb upstairs away from food sources', he cautioned.  
'Well', I explained, 'I definitely heard a squeaking chirping noise from the left corner behind the dresser. But I do not know what it was because I didn't see anything'.

'What' has a variety of functions in English, but when combined with 'knows' it is often to specify a kind or type. So, in sentence (7), what everyone knows is a type of event, say a fight, that occurs every time *they* host. Sentences (8) and (9) also suggest a type of event or action, such as going on a bike ride in (8) or someone firing a gun at the store in (9). Sentence (10) suggests a certain *type* of behaviour is expected. Sentence (11) is rather idiomatic and will be returned to later. Sentence (12) does not have a type of action or event denoted, but a type of animal or sound that the speaker cannot identify. In all of these cases then, 'what' serves to introduce a type or kind. This suggests that, while 'what' has many uses in English, when it is conjoined with 'knows' as a transitive verb, 'what' is used to specify a certain type or kind. Furthermore, like 'knows which' and unlike 'knows that', 'knows what' can be used to say of someone that they know something that the speaker does not know. For instance, 'Barbara knows what happened, but I do not' makes sense, but 'Barbara knows that Bob stabbed Sarah, but I do not' does not make sense.

Interestingly, sometimes knowing what is a way of knowing which. Let us return to (5) to see this.

- 5) He knows which drill bit to use.

We said sentence (5) was different because it did not say that he necessarily knew which particular individual drill bit to use, such as the one with a chip on it, as opposed to what type of drill bit to use, such as a 1/16th drill bit. This was an anomaly when compared with the other knows which sentences. Now we can see that it better fits our preliminary account of knowing what. Is this a problem? I do not think it is for the following reason. Sentence (5) could easily

be changed to

5\*) He knows what drill bit to use.

In this case, knowing what is a way of knowing which. So, sentence (5) was ambiguous between two readings of knowing which, one where what is known is a particular and one where what is known is a type, but that type is a way of knowing which. This is not always the case. Knowing which cannot always be replaced with knowing what. Replacing our original know which sentences with know what, we get

1\*) John knows what trail to take back to camp.

2\*) When the glass shattered, Mrs Dermott demanded to know what boy threw the ball.

3\*) I was in such a dark place I just didn't know what way to turn anymore.

4\*) Do you know what twin was born first?

6\*) 'You don't need a weatherman to know what way the wind blows'.

(1\*) is grammatical, but it does not express the same thought as (1) because one could affirm (1\*) while denying (1) as in 'John knows what trail to take back to camp, but he doesn't know which it is'. Here John knows, of a certain trail, e.g., the Blue Ridge trail, that it leads back to camp. But despite this knowledge, John cannot identify which trail is the blue ridge trail, for instance when he stands at a juncture point faced with the choice.

Sentences (2\*) and (4\*) sound ungrammatical to my ear. But even if we allowed them, the same line of reasoning would apply as does to (1) and (1\*). In sentence (4\*) I don't want to know merely what twin was born first, such as the one who is allergic to mushrooms say, but *which* one of the two twins it is, such as the one standing on my left or the one standing on my right.

Sentences (3\*) and (6\*) do not sound ungrammatical, but again when we replace the 'which' with 'what', we get a different thought expressed. For instance, one can know what way the wind blows (North) without knowing which way that is (is North in front of me or behind me?). So, knowing what way and knowing which way the wind blows here is different.

This preliminary discussion of 'knows which' and 'knows what' brings out some of the differences and similarities between the two expressions. But how does this relate back to the discussion of Russell? Well, regardless of the wording that Russell used, it seems that acquaintance must be a kind of knowing which. This is because many, indeed most, of Russell's examples focus

on discriminating a particular perceptual object (sense-data) from its surrounding environment (e.g., a visual field). And that is supposed to be a kind of knowledge that does not require or entail any kind of propositional knowledge. In such a case the subject may not know what it is (a sense-data, a blueberry or something else), but he will know which it is (this one currently presented to me visually). I think Russell failed to see this aspect of his theory. I also think this is something Evans does see clearly. As to the reason why Russell uses the locution 'what' instead of 'which', Proops himself gives us a nice account of the influence William James's writing had on Russell. In light of this, we should conclude that Russell was somewhat misled by James's use of the locution 'knows what'. In fact, Russell should be speaking of knows which for the reasons Evans cites.

I have now clarified and defended my first two theses of this chapter. (1) Knowledge by acquaintance is knowing which and (2) knowing which is a form of discriminatory knowledge. I now turn to the third thesis, namely that such knowledge is not knowledge of a proposition.

#### **4.4 Knowing-wh and Intellectualism**

In chapter two, I showed how Russell is committed to the claim that knowledge by acquaintance is non-propositional knowledge. In chapter three, I tried to make this claim plausible in light of recent debates in epistemology and Aristotle's notion of homonymy. In this chapter, I have argued that knowledge by acquaintance is a kind of knowing which. At this point, we run into a potential problem. Knowing which is part of a class of English locutions often called knowing-wh. These locutions are composed of 'knows' followed by a word beginning with 'wh' such as; knowing what, knowing which, knowing whether, knowing why, knowing who, and knowing when. The problem is that, at least since Groenendijk and Stockhof (1982), these locutions have been grouped together because they are thought to have the same semantics, at least in the Montagovian formal semantics tradition. The semantics in question is a propositionalist one. That is to say, the type of verb that all of these knowledge-wh constructions are such that they can only take a proposition as its semantic object. This is taken to mean that the knowledge attributed to the subject in any one of these constructions is knowledge of a proposition. This makes all knowing-wh the same as 'knowing that', namely propositional. This means all knowledge is knowledge of a proposition. This view has come to be called, appropriately, 'intellectualism' because it intellectualises, some would say, overintellectualizes, all knowledge ascriptions in English by making all types of knowledge reducible to propositional knowledge (Parent, 2014).

If intellectualism is true, then knowledge by acquaintance cannot be non-propositional as I have claimed. However, if intellectualism is false, if not all knowledge has a proposition as its object, then our theory of acquaintance can be non-propositional. Moreover, if not all knowledge-wh constructions are propositional, then we are right to think of knowing which as non-propositional. So then, rejecting intellectualism is required for the account that is on offer in this thesis to be tenable.

What are the arguments for intellectualism? Stanley and Williamson (2001) and Stanley (2011) present one of the more fleshed-out and discussed cases for this. As they see the debate, the default position *should* be intellectualism. This is because the default position is that knowledge is a uniform concept:

Of course, it may be that science will discover that our one concept of knowledge, like our previous concept of Jade, answers to different kinds. But this does not show that the default position is that there are distinct kinds of knowledge. Even in the case of jade, the default position is that there was only one kind of jade. After all, we had a great deal of evidence that jadeite and nephrite were of the same kind—they appeared to be the same. It took a definitive chemical discovery to undermine that default position. It should take a similar definitive scientific discovery to undermine the default position that all knowledge ascriptions are of the form [x knows that p] (Stanley, 2011, p. 37).

This seems confused. *Prima facie*, we *don't* have a good deal of evidence that all knowledge ascriptions are the same, if by the same we mean they take the same kind of syntactic or semantic complement. As has been known for a long time, saying someone knows some fact usually takes a sentence or a *that-clause*, whereas other knowledge ascriptions such as knowing a person do not take a *that-clause* as a complement. Thus, the grammatical object is not of a uniform type, so why should the semantic type be? Furthermore, as has been noted at least since James (1892), and as Stanley himself notes (2011, p. 33), other languages such as French and German have different words to correspond to different kinds of knowledge. French has '*savoir*' and '*connaitre*' whereas German has '*kennen*' and '*wissen*'. These have often been taken to correspond to knowledge by acquaintance and knowledge of truths as Russell understands it, and it is one of the facts James appeals to when introducing knowledge by acquaintance. That is to say, these are taken to be different types of knowledge. This has been one reason (amongst others) that recent linguistic theory (in the Montagovian formal semantics tradition that Stanley prefers) has seen 'knowledge' in English as having more than one semantic type (Ginzburg, 1995; Frana, 2017). So, at least on the basis of linguistic evidence, the English verb 'knows' does not *seem* to be of a uniform type.

This is in contrast to jadeite and nephrite that Stanley refers to, both of which seemed to be of the same type.

Moving away from linguistic issues into more epistemic considerations—epistemologists have long thought it necessary to distinguish different kinds of knowledge such as Russell's distinction between knowledge of truths and knowledge by acquaintance and Ryle's distinction between intellectual knowledge and knowing how. It is only very recently that epistemologists within the analytic tradition have thought that all knowledge be propositional. But until recently there have not been many arguments for that conclusion, it has rather, just been a fashion in the research program.

Finally, Stanley needs to explain why this explanation is the best one. He says it needs to take a scientific discovery that not all knowledge ascriptions are not of the form 'X knows that P'. But that is not what is required. All that is required is that a proposition is formed by the functional application of the semantic objects involved. This leaves it open that the object known is not a proposition but combines with 'knows' to form a propositional form. Why would that be a worse explanation than his? Stanley doesn't say anything about this proposal, but it would be a good enough proposal to explain the facts. So, Stanley is just assuming his explanation is the best without argument.

It seems then, that if we are trying to impartially determine what the default or starting point is, we have the following pieces of evidence: (1) surface grammar provides evidence of different kinds of knowledge; (2) different languages have different words for different kinds of knowledge and linguists seem to take this to be evidence that 'knowledge' in English can have different semantic types, (3) there are alternative explanations of the semantics that Stanley doesn't rule out that are just as explanatory, (4) Some of the most worked out epistemology of the analytic tradition appeals to different kinds of knowledge. This at least is *prima facie* evidence that the burden of proof is on the intellectualist. The default position is *not* intellectualism, no matter how much the intellectualist wishes it were so.

But we can perhaps be more charitable to Stanley's story by noticing that when he says the default theory should be one of ascribing the same state, it is not about the semantics strictly speaking, but about the metaphysical states of the mind of the knower. His thought seems to be this: all things being equal, we should see knowing as a unified kind of mental state. That is plausible enough. It seems to be a straightforward application of 'Occam's Razor', William of Occam's methodological principle that one should not multiply entities beyond necessity. A modern rendition of this principle is often expressed by saying one should be ontologically parsimonious with one's scientific theory. I have no desire to dispute this methodological principle, but only want to point out that sloppy application



of it can be an abuse of the principle. The principle does not say that one should do everything in one's power to reduce one's ontology. It is not a call for Quinean deserts. It is simply the idea that you shouldn't say there are more things than there are needed to explain the facts. But then the question is, what is needed to explain the facts? If a body of evidence *E* is explained better by theory *A* than theory *B*, but theory *A* posits more entities to do the explaining than *B*, that does not mean you should choose theory *B*. In our case, if we take the body of evidence to be the way the verb 'knows' seems to behave in English and its equivalent in other languages, then it seems that there is more than one kind of mental state that is being posited as knowledge. So, the cross-linguistic default position is not one of uniformity, but one of variety.

A final thing to say in terms of Stanley (2011) and Stanley and Williamson's (2001) intellectualist proposal is the following. For their proposal to work, they appeal to practical modes of presentation. But it is not at all clear what these modes of presentation should be. The appeal is obviously meant to make us think of Frege's Puzzle and how Frege tells us that different modes of presentation of the same object can have different cognitive values for us despite their objects being the same, such as the classic example of the planet Venus appearing as the Morning Star (mode of presentation 1) and the Evening Star (mode of presentation 2). But how is this analogy supposed to work in practical knowledge? What is the object known supposed to be and what is the mode of presentation? Take their example of riding a bike. The object of our knowledge is, presumably, how to ride a bike. Now there is supposed to be a distinction between knowing how to ride a bike under a practical mode and then under a non-practical mode. Presumably, the non-practical mode would be knowing a set of textbook propositions about it. So, we are supposed to imagine a case where we can know how to do something, just not practically speaking. But is such a thing plausible? Imagine someone comes up to you and asks you to ride your bike. Before letting them, you ask if they know how to ride a bike. They answer in the affirmative. Suppose you let them ride it and they immediately fall down. They try again and fall again. And so on repeatedly. If the failed rider then said to you, 'I know how to ride a bike just not under a practical mode of presentation' would that make any sense to you, even if you were familiar with this terminology? Isn't the explanation of their failure rather that they don't know how to ride a bike?

To vary the case slightly and make the point differently: imagine a world in which we accept this philosopher's notion of a practical mode of presentation. Everyone knows about it, not just philosophers. In this world, to diffuse bombs, you have to know how under a practical mode of presentation. What would it be, in this world, to know how under a practical mode of presentation? Such a notion

could not play a role in our psychology. Knowing how under a practical mode of presentation is just knowing how *full stop*. There is no division of modes of presentation. No doubt reading textbooks is not enough to know how to diffuse a bomb, but that is not because there is some further thing 'knowing how under a practical mode of presentation', it is because textbooks are not enough to know how. If you cannot do the thing, assuming standard conditions (your arms aren't broken, you are not hallucinating etc.) then you do not know how to do the thing, *full stop*. There is no 'knowing how under a non-practical mode of presentation'.

So, the intellectualist has not explained why we should think knowing-wh is a form of propositional knowledge. As we have seen, knowing which object something is, is to be able to discriminate it from its environment. To pick it out and refer to it. The object of such knowledge is not propositional. It is not of the form 'that such and such is the case'. It is rather to just pick out. To make it available for conscious thought. That is knowing which object it is.

#### **4.5 Conclusion**

We began this chapter by examining in what way knowledge by acquaintance could be a form of discriminatory knowledge. We saw how Evans (1982) provided a first step in this story by showing that there are many ways of having discriminatory knowledge, and knowledge by acquaintance is one of them. In particular, it is a way of knowing which. We then considered Proops's (2014) claim that Russell could not have thought of knowledge by acquaintance as knowing which because he thought of it as knowing what. We saw how the textual evidence failed to support that reading. Finally, we considered the intellectualist claim that all knowledge-wh ascriptions are propositional. We found the motivation for such a claim wanting.

## Chapter 5: Our Acquaintance with the Natural Numbers

We have been developing an account of knowledge by acquaintance that consists of two claims: (1) knowledge by acquaintance requires a conscious presentation of the item, and (2) knowledge by acquaintance is a form of non-propositional knowledge. In chapter one, I showed how this can help us better understand the knowledge argument. In chapter two, I showed how this account can be found in Russell. In chapter three, I showed how the second claim is consistent with contemporary epistemology. In chapter four, I extended the formulation of claim (2) to show that knowledge by acquaintance is a form of discriminatory knowledge. In this chapter, I want to show how this can help us generalise our theory beyond the realm of perception and perceptual knowledge.

Most contemporary acquaintance theorists focus on perceptual knowledge or self-knowledge (Duncan, 2021). But as we saw in chapter two, Russell never envisioned his theory to apply only to such a narrow domain. Indeed, some of his earliest appeals to acquaintance were to cases of non-perceptible items, in particular mathematical objects. In this chapter, I want to show how we can recover such a wide application of knowledge by acquaintance by appealing to discriminatory knowledge as I have conceived of it in the previous chapter. This also addresses a lacuna leftover from chapter two. Russell claimed that we have a conscious presentation of abstract objects or anyway objects not in time, but he never really gives an explanation of how. As we will see in this chapter, the theory of discriminatory knowledge developed in the previous chapter can fill this lacuna.

The plan to achieve this is as follows. First, I present a puzzle about numerals and their referents and provide an account of what a solution to the puzzle should look like. This is done in section 5.1. Next, I critically examine some possible solutions to the puzzle. We can order such solutions along a continuum with purely semantic solutions on one end and purely psychological explanations on the other. While no view in the literature can rightly be called a *purely* semantic or psychological one, ordering them in this way helps to make plain both their merits and shortcomings. For instance, Carnap (1947) comes quite close to a purely semantic view to the puzzle. In section 5.2, I examine his account and show why it fails by lacking psychological elements. By contrast, Kaplan's (1968) view of vivid names come close to a purely psychological view. In section 5.3, I examine this account and show why it fails by lacking certain semantic elements. Reviewing the

shortcomings of these views makes apparent why a more mixed or intermediate view is preferable to solve the puzzle. Kripke's idea of revelatory senses is one such prominent view in the literature (Kripke, 2008). He ties his semantic account to a psychological account of mental computation. In section 5.4, I examine this and show that, while it is preferable to a more purely semantic or psychological view, the view is nevertheless incomplete and therefore unsatisfactory. The requisite explanations as to why certain senses are revelatory are left unexplained by Kripke. In section 5.5, I seek to meet this explanatory challenge in terms of knowledge by acquaintance.

### **5.1 The Puzzle**

Consider the following situation. Emily is taking a maths exam and is asked the following question: what is  $57 \times 12$ ? Emily writes in the expression '57(12)' in a mixed base 10 and base 12 notation as her answer. But Emily gets a zero for this answer, for this is not the answer the examiner was looking for. Rather the examiner was looking for the expression '684'. Indeed, one can imagine the examiner not only not giving Emily any points, but that Emily's answer elicits the marker's ire. For Emily's answer reveals that though she is rather clever, she is nevertheless woefully unprepared.

Why is this? Why is the expression '57(12)' not an acceptable answer, but the expression '684' is an acceptable answer? Both expressions are singular terms that denote the same number, and that number is indeed the product of 57 and 12. That is to say, the two terms are coextensive, and since they are coextensive, they are informationally equivalent, at least in the minimal sense that they rule out the same possibilities. Moreover, there seems to be nothing in the question 'what is  $57 \times 12$ ?' that would make the expression that completes it referentially opaque, to use a phrase of Quine's (1960). That is, there is no obvious attitude verb (propositional or otherwise), nor a modal operator, nor anything else to indicate that this sentence is a non-extensional context. Indeed, '57(12)' is coextensive with '684'. How then, can the examiner be justified in such discrimination against Emily's answer?

Let me pause for a minute and reflect on the nature of the question / answer situation Emily finds herself in. One way to understand questions is in terms of ignorance (Fiengo, 2007). Asking questions can be a way to relieve oneself from ignorance. For instance, if I am ignorant of what phone number to dial to reach you, then asking you the question 'what is your phone number?' is an attempt to relieve that ignorance of mine. If you tell me truly what your number is, I am no longer ignorant (assuming, of course, that I believe you, that you are trustworthy, and so on). Thus, asking questions and receiving answers

can be understood as a relief from a lack of information, a relief from ignorance.

Notice this is not what is going on in Emily's situation. The examiner's question is not an attempt to relieve her ignorance of what the product of 57 and 12 is. The examiner already knows what the product is, that is she already knows the answer to that question. Her asking it is not to relieve *that* lack of information. Rather, what she wants to know is whether or not the student knows and, moreover, she wants the student to demonstrate this knowledge to her in the appropriate way. To see this, compare Emily's situation to an experience of mine that I think will be familiar to many readers. When I was a child, before I was allowed to leave the house, my mother would quiz me as to what our home phone number was (this was before mobile phones were widely available). She obviously didn't do this because she didn't know the number herself. Rather, she wanted to make sure I knew it. For this reason, an answer such as, 'Yes Mom, I know it' would not satisfy her. What she wanted was the number recited so that my knowledge of it was manifested in the answer I gave. Any answer that did not manifest this knowledge was disallowed and I was not allowed out. Emily finds herself in a similar situation. The examiner requires of her an answer that manifests her knowledge of the product.

What this highlights is that there are epistemic constraints on any answer given in this type of question and answer situation. The question is not about ruling out possible answers to the question. My mother is not trying to rule out one phone number from another. The examiner is not trying to rule out 685 or 683 as answers. *Those* questions are already settled for the questioner. My mother and the examiner already know the answers to their respective questions. What they want are answers that manifest mine or Emily's knowledge. Thus, the answers in these situations have epistemic constraints on them. It is not appropriate to merely provide the questioner with a means of knowing the answer. One must supply the answer in a way that manifests knowledge.

What then are the epistemic constraints on Emily's answer? In short, the correct answer requires manifesting your knowledge of which number is the correct one. What the examiner wants to know is whether or not the student is capable of finding the product. Indeed, not only does she want to know whether or not the student has this ability, but she wants the student to exercise this ability, and demonstrate that she has exercised this ability in the given case. Such an exercise would *manifest* knowledge of which number is the answer. As it stands, Emily has failed to demonstrate that she knows which number is the product of 57 and 12. She has failed to demonstrate this because the expression '57(12)' does not tell you which number it is, namely 684 (as opposed to 685

say). Thus, despite the absence of any overt epistemic attitude verbs in the sentence, what the examiner is looking for is the student's ability (and her demonstration of this ability) to *know which* number is the solution to this problem. What this suggests is that, while it may be true that the expression '57(12)' and the expression '684' are coextensive and thus informationally equivalent, they nevertheless manifest different epistemic states. The expression '684' given as an answer to this question manifests Emily's knowledge of which number is the product of 57 and 12. The expression '57(12)' does not. Thus, she loses points on the exam for not manifesting her knowledge.

It should be clear that, despite some similarities, this puzzle is not an instance of Frege's puzzle (1892). To stave off confusion, I want to briefly say why these are different. Frege's puzzle is about, amongst other things, co-extensive terms that nevertheless differ in cognitive significance. Thus, Frege is impressed by how 'the Morning Star is the Evening Star' can express an astronomical discovery, but 'The Morning Star is the Morning Star' cannot, given these are co-extensive terms. By contrast, our puzzle is about how one expression can be a privileged referential device, or, to put it a bit more specifically, about how the examiner can be justified in discrimination amongst co-extensive terms. We are not wondering how is it possible the examiner learns something new with the expression ' $57 \times 12 = 684$ '. Rather, we are wondering how is it possible the examiner can fail to give Emily points for ' $57 \times 12 = 57(12)$ ' but not ' $57 \times 12 = 684$ '.

One response to this puzzle which I think is unsatisfactory but is sometimes mentioned is that the 'knowing which' locution is merely an artifice of the exam context. That is to say, what the student really needs to show is knowledge *that* some numeral in the same base is the right answer. Asking Emily '*which* number is the product' helps Emily understand the task, but really, she doesn't need to know which number it is, she just needs to know that some numeral is the correct answer. A certain numeral notation is required by the examiner because that is the real pedagogical task. The student needs to demonstrate proficiency with this numeral system. There is perhaps, this response says, an implicature that the student answer in Arabic numerals or decimal notation and not Roman numerals or something else. Much like if one is taking a Spanish language test and one answers in another language, one would receive no marks. Thus, what is really going on is that the student needs to demonstrate knowledge *that* some numeral is the right answer *in the same base*.

This response is undercut by reflection on the nature of computation. It is no doubt true that part of Emily's task is to answer using Arabic numerals, and

that part of what she demonstrates when she answers correctly is knowledge that a certain numeral in that notation is the correct answer. But what it is to compute a function is to *find* the number in the number line. Boolos, Burgess, and Jeffrey (2007) make this point at extended length in their chapter on Turing computability. They acknowledge that a computation can be done in many different numeral systems and that some systems might be easier to perform such computations than others. But they point out that what a computation is doing, that is what it is for something to be *computable*, is to be able to specify *which* number it is. To make the point vivid they say the following:

At each stage of the computation, the computer (that is, the human or mechanical agent doing the computation), is *scanning* some one square of the tape...If you like, think of the machine quite crudely as a box on wheels which, at any stage of the computation is over some square of the tape. The tape is like a railroad track; the ties mark the boundary of the squares; and the machine is like a very short car, capable of moving along the track in either direction (2007, p. 25).

The machine then scans the number line until it finds the number and halts. This metaphor is supposed to make vivid what it is to compute a function. It is to *find* the number in the number line. Finding the number is determining which number it is. Knowing *that* numeral is the right symbol is derivative on the machine being in the right position, on knowing which position in the number line satisfies the function. Thus, what it is to compute a function, what it is to find 'the product of  $57 \times 12$ ' is to know which number on the number line is the correct one.

The puzzle then, is a puzzle about discrimination against extensionally equivalent expressions. In the next few sections I will review the views of Carnap (1947), Kaplan (1968), and Kripke (2011a). Each offers a different way to think about the epistemic gains one can have by using a particular numerical expression over another. But each view falls short of giving us a fully satisfactory answer. As I will show in section 5.5, a full explanation appeals to knowledge by acquaintance as a form of knowing which.

## **5.2 Carnap's Names of Standard Form**

Carnap argues that certain expressions are of 'standard form'. Expressions of standard form are privileged (1947). Carnap attempts to demonstrate what he means by this by way of a puzzle not unlike our own. The puzzle goes like this: assume a first-order quantificational language with an  $\iota$ -operator for definite descriptions. In such a language we can have expressions such as ' $(\iota x)$

( $Axw$ )' where 'A' is the two-place predicate standing for 'author of' and 'W' is 'the novel Waverley'. Of such an expression we can ask ourselves, which individual is the extension of ' $(\iota x) (Axw)$ '? Notice, how this question mirrors our initial puzzle. In both cases, the question is one about *which unique* individual meets some condition.

Carnap points out that certain answers to our question will be true but trivial, others true but less trivial, and some true and informative. Thus, we don't just need a true answer, we need a non-trivial true answer. According to Carnap, what makes an answer to our question not trivial is that the individual expression doesn't merely describe the extension, but *gives* it:

Obviously, the answer 'the extension of the description mentioned is the author of Waverley' would not satisfy us even though it is true; it is entirely trivial...The answer 'the extension sought is the author of Ivanhoe' is true and not trivial but nevertheless, it would not satisfy us because it does not supply the specific information we are looking for; we might say here again that this answer merely describes the extension but does not *give* it. The extension is actually directly given by the answer 'the extension is Walter Scott' (1947, p. 73).

In other words, if we ask what is the extension of the description ' $(\iota x) (Axw)$ ', we could say, in English, either of the following:

1. 'the author of Waverley',
2. 'the author of Ivanhoe', or
3. 'Walter Scott'

According to Carnap, it is only the proper name 'Walter Scott' that is a satisfactory answer. It is a satisfactory answer because it specifies the information we are looking for in asking our question. It specifies this information by giving us the extension. But what does it mean to give an extension?

To explain this more fully, Carnap develops what he calls a 'coordinate language'. In such a language the domain of individuals is ordered. The natural numbers would be such a domain. The authors of popular 19th century English novels would not be (unless ranked by popularity or alphabetically or something similar). Carnap stipulates further that the language system we are using only has one individual expression of standard form per individual in the domain. That is, for each individual, there is only one name that gives the extension. Arabic numerals would fit this stipulation.



What Carnap points out about such a coordinate language is that these individual expressions will tell you in *which* position is the item in the domain (1947). This is because the ordering of the domain is reflected in the ordering of the language, specifically the expressions of standard form. For example, let us suppose Emily's favourite number is 1, Sean's is 2, and Sarah's is 3. Moreover, imagine we have a language that contains the following descriptions: 'Emily's favourite number', 'Sean's favourite number', and 'Sarah's favourite number'. Despite the extensions of those descriptions being ordered, the descriptions do not reveal this ordering to us. The extension of 'Sean's favourite number' comes after the extension of 'Emily's favourite number', yet you cannot tell this merely from understanding these descriptions. By contrast, the extension of '2' comes after the extension of '1' is obvious to anyone who understands the numerals. From this, we can summarise Carnap's position as follows:

An agent is in a position to know which position in the natural number sequence a description  $D$  refers to if they are in a position to know that the referent of a description  $D$  is identical to the referent of a constant in a coordinate language  $L$ .

Let us see how this proposal stands in relation to our puzzle. The Arabic numerals are a coordinate language and the expression '684' is a constant in that language whose referent satisfies the description 'is the product of 57 and 12'. So, had Emily used '684' she would have received full marks. By contrast, the expression '57(12)' does not meet this criterion for it is not a constant in the language. So, by using this expression Emily has failed to demonstrate that she knows which natural number satisfies the description 'is a product of  $57 \times 12$ '.

While Carnap highlights something important about numerals as names of numbers, namely that the ordering of the objects is mirrored in the ordering of the names, the account is nevertheless unsatisfactory. It is unsatisfactory because it is incomplete. The proposal turns on what exactly it means for the extension to be 'given'. Carnap has an answer to this for numbers because the properties of the numerals in a coordinate system give the extension. But he thinks proper names like 'Walter Scott' also give their extension. But 'Walter Scott' does not have a sense that reflects the ordering of its extension the way numerals do. So, what explains how these expressions give their extension? Carnap is silent on this. In this sense, Carnap's view lacks an important psychological component. He fails to give any account of how names can help present the referent to the mind of the knower. Thus, while his account is on the right track in terms of some of the semantic doctrines, it ultimately fails to give a complete answer. In the next section, we will see how Kaplan, a student

of Carnap, tries to answer these questions.

### **5.3 Kaplan's Two Names**

Kaplan's article 'Quantifying In' (1968) is a direct response to Quine's article 'Quantifiers and Propositional Attitudes' (1956). This matters because Kaplan transforms Carnap's question through the lens of Quine. Famously, Quine argued that modal and propositional attitude contexts, including epistemic contexts, are referentially opaque (1953; 1956; 1960). The evidence he provides for this is that singular terms in such contexts cannot be substituted by different but nevertheless co-extensive singular terms *salva veritate*. The problem is a logical one according to Quine, and can be remedied in both modal and epistemic contexts with a logical solution. However, what is needed to solve the issue in both cases is different ways of specifying the referent. Famously, Quine argues that such a move in modal contexts is unwarranted because it leads to some form of metaphysical essentialism where certain features of objects are essential and others are not. Quine thinks such a metaphysics is indefensible and if quantified modal logic requires such a metaphysics, then so much the worse for quantified modal logic. However, Quine does not think the same holds true for epistemic contexts. The logical problem remains in epistemic contexts, and its solution requires different ways of specifying the referent, but Quine thinks such different specifications are indispensable. Indeed, Quine (1956) is an attempt to show how we might solve such a logical problem by distinguishing two different epistemic relations— notional belief and relational belief— between an agent and the thing known without thereby becoming essentialists.

The details of Quine's arguments need not delay us furthermore than this. What is important is his insistence that modal contexts and epistemic contexts differ in this way. This matters because Kaplan (1968) picks up on this division. Half of his paper is given over to naming abstract objects in modal contexts, and the other half of the paper is given over to naming contingent objects in epistemic contexts. Two different theories of names—'standard names' and 'vivid names'—are developed, respectively, to deal with the contexts independently. Moreover, this move matters in our dialectic because it is a step away from Carnap in at least two ways. First, Carnap saw no division between the naming relation for abstract objects and contingent objects. What goes for '2' goes for 'Walter Scott', or so at least we are told by Carnap. Second, Kaplan (like Quine) drops talk of knowing which. Instead, the focus becomes on what has been called *de re* access to objects. As we will see later, both of these changes are reversed in the work of Kripke. A move that I think is judicious.

At this stage the reader may wonder what use is a discussion of Kaplan's theory if we are only going to end up rejecting his innovations and end back where he started, namely with an account of knowing which that is applicable to both abstract objects and contingent objects. The reason why is because Kaplan's motivation for each account is insightful in a way that other writers miss. Kaplan highlights, in a way that neither Quine nor Kripke do, the philosophical issues surrounding the nature of the mind about these referential terms. It is his insight into the way the mind connects with these objects that we will ultimately take from him while discarding his theory of names that is meant to capture these features of the mind.

### 5.3.1 Standard Names

'Standard Names' is the name Kaplan gives to a class of names for abstract objects that are 'intimately connected' with their denotation. This intimate connection is spelled out thus; standard names *necessarily* denote their object (1968, p. 194). By this Kaplan does not mean that we had no other choice but to choose that sign for that object. It is not as if we had to use the Arabic numeral '9' to signify the number 9 anymore than Quine's parents had to give him the first name Willard. Rather, standard names necessarily denote their object in the sense that, if we hold our conventions of language fixed, then they denote the same object in all possible worlds. For instance, the numeral '9' necessarily denotes 9, but 'the number of planets'<sup>13</sup> denotes 9 but not necessarily. In another possible world, the number of planets could be 7.

Importantly, standard names should not be understood as similar to Russell's logically proper names. Kaplan is emphatic that we do not need, nor should we use, a purely referential semantics as Russell did with his logically proper names. Kaplan thinks this misses the point because the issue is not pure reference in the sense of lacking any descriptive content, but rather 'reference freed of empirical vicissitudes' (1968, p. 195). As Kaplan says:

'The number of planets' and '9' happen to denote the same number. The former might, under other circumstances or at some other time, denote a different number, but so long as we hold constant our conventions of language, '9' will denote the same number under all possible circumstances. To wonder what

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<sup>13</sup> I recognise that modern science now only counts 8 official planets as planets and categorises Pluto as a dwarf planet. However, at the time that Kaplan wrote 'Quantifying In', Pluto was considered to be an official planet and it was widely believed that there was a total of 9 planets in the solar system. If we changed the example to instead use the Arabic numeral 8, it would not affect our analysis. Therefore, we will use '9' here to denote 'the number of planets' and use the example as it appeared in the original literature.

number is named by the German 'die Zahl der Planeten' may betray astronomical ignorance, but to wonder what number is named by the German 'Neun' can indicate only linguistic incompetence (1968, p. 195).

Already we have the beginning of an answer to our question, what is it for an expression (name) to give the extension? It is not, according to Kaplan, to use a name that is purely referential. This is already an insight, or at the very least, a further claim beyond Carnap's names of standard form (though perhaps this was implicit in Carnap). Rather, Kaplan's standard names are special because they denote the same object in all possible circumstances. Thus, '9' gives the extension whereas 'the number of planets' does not. Moreover, and more importantly for us, this semantic fact about '9' has epistemic consequences. For what Kaplan is highlighting here is the different *epistemic* properties of these expressions. Wondering what is named by 'die Zahl der Planeten' and by 'Neun' can betray different epistemic states. While such wondering in the former could be caused merely by a poor grasp of the German language *or* by lack of astronomical knowledge, wondering in the latter can only be caused by not knowing German. It is because we understand the language, we gain special access to the object named. In so far as we grasp the standard names of a language, we get *de re* access to the denotations of these names.

As should be obvious, standard names are only available for certain kinds of objects of reference. In particular, only abstract objects can have standard names and not even all of them. It is only those objects that are not capable of failing to exist. So, 9 can have a standard name, but Kripke cannot, nor can {Kripke}, for it is possible that these latter two objects could not have existed, at least according to Kaplan (1968, p. 196). This follows on from the fact that standard names necessarily denote their object. Such a name cannot be if the object is not necessary. This again, is an improvement, or at least a difference from Carnap. Carnap's view was not limited to abstract objects, and it was not explained how he would explain the case of proper names. So, Kaplan is giving us a restricted but more powerful view to answer our puzzle. Standard names are unique because (1) they necessarily denote their object, and (2) this necessary denotation gives us epistemic *de re* access to the numbers. It is because these names have a descriptive content that is not hostage to the empirical world, that we have a special epistemic access to their referent. Kaplan's clearest expression of this point is here:

There is a certain intimacy between '9' and 9...There is a sense in which the finite ordinals (which we can take the entities here under discussion to be) find their essence in their ordering. Thus, names which reflect this ordering in an *a*

*priori* way, as by making true statements of order analytic, capture all that is essential to these numbers. And our careless attitude toward any intrinsic features of these numbers (e.g., whether zero is a set, and if so whether it has any members) suggests that such names may have captured all there is to these numbers. I am less interested in urging an explanation of the special intimacy between 'nine' and nine, than in noting the fact (1968, p. 195).

The explanation for this is now clear from what we have said about standard names. '9' is a standard name for 9 because '9' is the 9th position in the numeral sequence, and grasping this about the numeral gives you immediate grasp of a property of its denotation, namely 9. This differs from other expressions such as 'the number of planets' which lacks such ordinal properties. To grasp any numeral it is essential to understand their position in the sequence. But in so doing one also grasps an essential feature of the numbers. Thus, because the numerals are standard names our grasp of them allows grasp of the numbers. Similarly, the numerals can go proxy for the numbers in assertions of necessity and so on. We can summarise Kaplan's position as follows:

An agent is in a position to know which natural number a description *D* refers to iff they are in a position to know that the referent of a description *D* is identical the referent of a standard name, a name that conveys its referent to a linguistically competent hearer independently of any other empirical information.

While this theory is richer than Carnap's, it unfortunately cannot solve our puzzle. Our question was why '684' counts as an answer to  $57 \times 12$  but '57(12)' does not. Kaplan's standard names cannot answer this question. The reason why it cannot is that '57(12)' also necessarily denotes 684, just like '684'. So, this fact cannot be what is driving the epistemic difference between the two answers. Thus, while Kaplan is right that there is an epistemic difference, and that both expressions necessarily denote their object, it is not in virtue of this latter fact that the former obtains.

Ackerman first raised this objection to Kaplan's view with the following example:

Suppose Joe believes that the smallest perfect number is the smallest perfect number. Since 'the smallest perfect number' necessarily denotes the same number in all worlds, the expression 'the smallest perfect number' is a standard name on Kaplan's account. If the expression '*D*' is a standard name, then they believe *de re* of that object that it is *F* (1978, p. 147).

So, Joe believes *de re* of the smallest perfect number that it is the smallest perfect

number. Hence, 6 is such that Joe believes it to be the smallest perfect number and that there is something Joe believes *de re* to be the smallest perfect number. But this cannot be right. As Ackerman points out, how could believing the smallest perfect number is the smallest perfect number get us *en rapport* with 6 and allow for exportation? That seems the wrong result. Moreover, Kaplan denies it should in other cases. For instance, Kaplan denies that Joe believes ‘the least spy is the least spy’ gives one *de re* access to Orcutt, or that we can say there is an X such that Joe believes of it *de re* to be the least spy. But, as Ackerman points out, the intuition that leads Kaplan to this conclusion about Orcutt should lead him to the same conclusion about the smallest perfect number. Nevertheless, standard names as Kaplan defines them give one *de re* access to their referent and allow for exportation. This is not what is desired and so Kaplan’s account fails.

The moral Ackerman draws is two-fold. First, what may work for exportation and existential generalisation in modal contexts does not always work for an account of exportation and existential generalisation in epistemic contexts (1978, p. 147). Even if we limit our case to a subset of abstract objects (those that exist necessarily), the account of standard names still does not give us an account of the epistemic consequences in using such names. Second, Ackerman points out that we need to consider an even smaller subset of names. I think Ackerman is right about this. But what would such an account look like? Ackerman doesn’t say much except to point in the general direction of the numerals. One place we could look is the second half of Kaplan’s (1968) paper, where he gives an account of our *de re* access to contingent objects. This is his theory of ‘vivid names’. These are names that give us *de re* access to their referents, but not because they necessarily denote the thing, for the objects so denoted do not exist necessarily.

### 5.3.2 Vivid Names

Vivid names are names that let the agent know which object its referent is. What is interesting about vivid names is how Kaplan spells out vividness in terms of mental representation. This is an approach we do not get in other authors.

‘Vividness’ is a term of art explained in the context of the different ways in which photographs (and other representational products) relate to their subject. According to Kaplan it is what he calls the ‘descriptive content’ of a photograph that will determine its vividness (1968, p. 199). For instance, a grainy picture of some type of armoured vehicle moving through some indistinct landscape will lack vividness. By contrast, a clear picture of the

Ukrainian President Zelensky in combat gear standing in front of the Presidential Office Building in Kiev will be highly vivid. Kaplan allows that what counts as vivid may be context-sensitive or relative to interests. For someone wanting to draw a portrait of Zelensky, a headshot of him will be highly vivid. For someone wanting to know his current whereabouts, a mere headshot will leave everything that is wanted out.

Vividness then is a property of a representational medium such as a photograph or a numerical system that it bears to the object it represents. Kaplan's vividness has some special features worth noting. First, vividness comes in degrees. Photographs, for example, can be more or less vivid. Second, vividness is a property of what Kaplan calls the 'descriptive content' of the photograph. The descriptive content of a photograph is defined by contrast with the genetic character of the photograph. This contrast is in turn defined in terms of the user-dependence / independence. Thus, a descriptive content is user independent (in a sense to be explained), whereas the genetic character is user-dependent. An example will make this clear. Suppose you and I are both tasked with photographing the President on his recent visit to our town. Unbeknownst to us, the President has a doppelganger for security reasons. Imagine you get a photograph of the President and I get a photograph of the doppelganger. Moreover, both photographs have the person shaking the hands of some political faction to which she is trying to ingratiate herself. So good is the doppelganger that both you and I are able to sell our photographs to the media as photographs of the President. The descriptive content of the photograph, at least with respect to the President, is similar. But the genetic character is different. My photograph is *of* the doppelganger, yours is not. This is a significant difference pertaining to the picture's origins. Mine is caused by a different object in the world than yours. Hence, this genetic character of the photographs is user-dependent. On the other hand, both pictures resemble the President. The resemblance is user-independent in the sense that it does not matter how the user (photographer) acquired the photograph, but rather what it resembles. In this case, both photographs resemble the same thing, which is why we both make a profit selling our photographs (of different people) to the media.

Kaplan explains names as a representational and referential device akin to photographs. Names, like photographs, have at least two features, the descriptive content and the genetic character. Vividness, in both cases, is a property of the descriptive content. However, we won't pause to consider these semantic properties. What is relevant to our case is how vivid names are

considered psychologically in terms of mental representation:

The notion of a vivid name is intended to go to the purely internal aspects of individuation. Consider typical cases in which we would be likely to say that Ralph knows  $x$  or is acquainted with  $x$ . Then look only at the conglomeration of images, names, and partial descriptions which Ralph employs to bring  $x$  before his mind. Such a conglomeration, when suitably arranged and regimented, is what I call a vivid name. As with pictures, there are degrees of vividness and the whole notion is to some degree relative to special interests. The crucial feature of this notion is that it depends only on Ralph's current mental state, and ignores all links whether by resemblance or genesis with the actual world. If the name is such that on the assumption that there exists some individual  $x$  whom it both denotes and resembles we should say that Ralph knows  $x$  or is acquainted with  $x$ , then the name is vivid (Kaplan, 1968, p. 199).

Vivid names then are names whose use involves a conglomeration of mental representations that in some way mirror or reflect the thing they represent, if they represent anything at all. That is, Kaplan does not require the thing so named to exist. To use Kaplan's own example, a child may have a clear idea of Santa Claus and believe he exists. In such a case Santa Claus would be a vivid name. Of course, Santa Claus does not exist.

With this psychological story of vivid names, let us return to the natural numbers. For the numerals can also be thought of as a system that represents objects. If we reform our story to make room for vivid names, could we avoid Ackerman's objection? Could it be that vivid names are a subclass of standard names? We certainly would get what Ackerman claims we need: an inequalitarian attitude towards even standard names for numbers. It is only standard names that are vivid that give us epistemic access to the numbers. Thus, the Kaplan proposal would be this:

An agent is in a position to know which natural number a description  $D$  refers to iff they are in a position to know that the referent of a description  $D$  is identical to the referent of an optimally vivid name.

This account would help with Carnap's problem about 'Walter Scott'. Recall that Carnap failed to give us an account of how the proper name 'Walter Scott' gives its extension by presenting it to the knowers mind. Kaplan's vivid names solve this problem. Certain names are privileged because they provide a vivid mental representation of the referent. Moreover, the context of what counts as vivid will matter. In certain contexts, it may be trivial to tell one 'The author of *Ivanhoe* is the author of *Waverley*', whereas telling someone that 'The author of *Ivanhoe* is Walter Scott' is not trivial because it is a vivid name that provides



a mental representation of the referent.

But while the emphasis on representation is, I think, insightful, even with these emendations, I still do not see how Kaplan's theory could be made to work. For one, Kaplan's claim that such a notion comes in degrees is fine so far as it goes, but it requires supplementation with the idea of a threshold. Going back to our initial puzzle, without a threshold criterion there is no way for '684' to count as *the answer* to the question 'what is  $57 \times 12$ ?'. All we get is better or worse answers. However, perhaps this is a fairly easy fix. There is no problem combining the idea of a gradable notion like vividness with some kind of threshold. Thus, many things will be vivid and some more so, but only some will be so vivid as to have passed a certain threshold. And perhaps in any given situation only one will ever cross that threshold. Thus, gradeability coheres with a threshold and '684' is the most vivid name, i.e., the only one that meets the threshold. This is a bit *ad hoc*, but perhaps it can be made to work.

Nevertheless, there is still an issue about this not only coming in degrees, but that such a notion is *continuous* for Kaplan. With the explanation of a vivid name explained by the vividness of a photograph, vividness is continuous, like turning the resolution up or down on your screened device. Such an idea is, if not wholly inapplicable, nevertheless awkward and forced when dealing with names. Consider the following four designators for the number 684:

1. 'Martha's favourite number'
2. '57(12)'
3. '685-1'
4. '684'

Each one is in some sense easier to grasp than the previous one. But should this ease be explained in terms of a continuous 'turning up' of the resolution? Such concerns seem inapt at best. The reason why is that these notions are discrete, not continuous.

Finally, Kaplan puts too much weight on the current mental state. In this way the account is too psychological. It is unconvincing that so much should depend on internal individuation aspects. Surely what matters most is not just how clear the representation is in someone's mind, but how much the representation accurately reflects what is represented. This is a feature of the semantics that Kaplan is missing. What gives us the special epistemic access is this accuracy, this mirroring of the representation and the represented. So, Kaplan's account, as interesting as it is, ultimately fails for a number of reasons.

## 5.4 Kripke's Revelation

Kripke has a different story. Like the previous authors, Kripke thinks the numerals are in some sense special and give us intimate knowledge of their referents (2011c). However, Kripke manages to avoid the problems Kaplan faces while still giving a more fleshed out version than Carnap or Ackerman. That is not to say it is not without its shortcomings (more on that shortly). Nevertheless, his theory has many of the characteristics we need to solve our puzzle. Kripke's proposal is this:

An agent is in a position to know which natural number a description  $D$  refers to iff they are in a position to know that the referent of a description  $D$  is identical the referent of a singular term with an immediately revelatory sense.

Kripkean revelation is understood as follows:

A sense is revelatory of its referent if one can figure out from the sense alone what the referent is. Both 'nine' and perhaps even 'the square of three' do have revelatory senses. Given that one can understand them, one can tell what the referent is. The same holds for 'George W. Bush' and almost for 'the father of G. W. Bush's (biological) children' though in the latter case, strictly speaking, one has to know that George W. Bush is male and has children (Kripke, 2011a, p. 260)

Moreover, Kripke makes a further distinction between types of revelatory senses:

One might say that a sense is *immediately* revelatory if no calculation is required to figure out its referent. If  $f$  is a non-computable mathematical function than the sense of ' $f(n)$ ' might be revelatory in the weak sense that no empirical information is required to find the referent, though perhaps a mathematical argument is needed to do so. More important, even a computable function may not yield an immediately revelatory sense. For example, 'the square of three' does not have an immediately revelatory sense, since a computation, in this case a very easy one, is required to obtain its value...'nine' however is immediately revelatory (Kripke, 2011a, p. 261)

A sense is non-revelatory where the referent is not known though the expression is understood. For instance, 'the first human born in 2050' is, as of now, an expression with a non-revelatory sense. As we have seen, 'the square of 3' is revelatory, but not immediately so. It is revelatory because no empirical information is needed to figure out what the referent is (unlike 'the first human born in 2050'). Thus, from the sense of the term alone, one can figure out the

referent, though it may take some calculation. Finally, our numerals, such as '9' are immediately revelatory because not only do they not require any empirical information, but they require no computation either. '9' is immediately revelatory because we know which number that is, simply by being given the numeral. Thus, referring expressions are ranked in terms of their epistemic properties, in particular, the difficulty of coming to know which number (or thing) it is.

Notice how this proposal builds off of the previous writers. Like Kaplan's view of standard names, revelatory senses for Kripke are distinguished by the fact that their referent can be grasped independently of any empirical information being grasped (assuming of course the user understands the expression). Unlike Kaplan however, Kripke does not leave the distinction there. As Ackerman pointed out, what we need is a finer distinction still. And Kripke gives us that with a distinction between revelatory and immediately revelatory senses. Thus, immediately revelatory senses are the types of things that give us *de re* access to the numbers. Moreover, like Carnap (and unlike Kaplan or Ackerman), Kripke does single out this class in terms of *knowing which*. It is because the immediately revelatory senses allow us to know which object it is that makes them special. Let me spell this out a bit more.

According to Kripke (2023) numerical terms with immediately revelatory senses are 'buck-stoppers' in the following sense: once a buck-stopper has been given one cannot ask the further question, yes but *which* number is that? To be given a numerical term, such as '9', there is no further question, e.g., yes but *which* number is that? Returning to our initial puzzle, Emily lost points because the expression she used was not a buck-stopper, and it was not a buck-stopper because it was not immediately revelatory of 684, although it has the same referent as '684'. The examiner can rightfully ask Emily, 'yes but which number is that?' and some further calculation may be required. The distinction matters beyond just the classroom. Imagine, for instance, the (now former) health secretary Mathew Hancock being interviewed about how many more deaths from CO-VID 19 there are today as compared to yesterday and him answering in some mixed base 10 base 7 notation. The interviewer, as well as the public, would be rightly angered at this cheap trick to evade the question (though it would perhaps be naive to be surprised). One would rightly press him, 'yes but *which* is *that*?' A fully revelatory designator does not leave it open how many that is. It settles the question of *which* number it is.

Notice that such knowledge is actionable in a unique way. Emily can collect points if and when she provides the correct solution. Consider further Adriana the American, who, having grown up in the United States, is

accustomed to reading the weather report in Fahrenheit. However, Adriana now lives in Europe and has done so for some years. At such a point she may be quite familiar with Celsius, but still struggle on certain days. For instance, if the weather report says 9 degrees, she knows she's not about to wear shorts, but does she need a sweater and a jacket, or just a light jacket? It would be incorrect to say she does not know the temperature. She does know it. She knows it is 9 degrees Celsius and it would be a mistake to wear shorts. But we can imagine her wondering, yes but *which* temperature is that? Adriana will then most likely compute the value in Fahrenheit. Once the computation is complete and Adriana knows which temperature it is, she is positioned to make the appropriate sartorial decisions and leave the house. A similar phenomenon happens I am told with those fluent in more than one language.

So, we have a straightforward solution to our puzzle. The expression '684' reveals that Emily knows which number is the product of 57 and 12 because '684' has an immediately revelatory sense, and such an expression is a buck-stopper. By contrast, the expression '57(12)' is revelatory, but not immediately so, and so there is still a question of which number is the referent. Thus, someone who uses this latter expression fails to demonstrate their knowledge of which number is the product.

The main problem with Kripke is that we are not told what revelation is or what it means to know which. His account is not void of psychological elements, he clearly ties his notion of sense to the ability or need to perform a computation or calculation. But it is unsatisfactory not least because it fails to tell us why not needing to perform a calculation is so important. We are not told what revelation is other than a lack of calculation. How does this work? Why does this not require calculation? Moreover, knows which is left more or less unexplained. So, while Kripke gives us the start of an answer, it nevertheless fails to capture what is essential to the solution. We might put it like this: it is not that this view is wrong, but that it is only a partial solution. The full solution, I argue, requires knowledge by acquaintance. I argue for that now.

### **5.5 Knowledge by Acquaintance with the Natural Numbers**

Recall the puzzle from section 5.1. Emily is taking a maths exam and faces the question 'what is  $57 \times 12$ ?'. She writes in '(57)12' in a mixed base 10 base 12 notation. Emily gets no points for this question because the examiner has asked Emily to show that she has the ability to find the product of two numbers. But Emily has not shown that she has this ability because finding the product would be finding *which* number it is. Emily has failed to communicate to the examiner

that she knows which number is the product because the expression '57(12)' does not tell the examiner which number it is, for example, whether it is 684 or 685.

But this suggestion only got us so far. We then faced the question of just why one expression rather than another expression shows or communicates this ability to the examiner. Why is '684' a privileged expression in the sense that it can be used to communicate knowledge of which number it refers to, whereas the expression '57(12)' does not?

The answer I now want to suggest is that certain expressions *enable* one's knowledge by acquaintance with natural numbers. The expression '684' enables the subject to have knowledge by acquaintance with the number 684. The expression '57(12)' does not. Not only that, but in using such an enabling expression, one communicates this knowledge. Thus, if Emily had written in '684' instead of '57(12)' she would have communicated her knowledge by acquaintance with the number.

As we saw in the last chapter, acquaintance is a form of knowing which, and knowing which is a form of discriminating knowledge. We also saw that Evans's conception of what counts as discriminating was too strong since it required the subject to be able to discriminate it from all other things. We replaced this requirement with the weaker requirement that the subject is able to discriminate it from other objects in its environment. This was somewhat straightforward in cases of perception. In the case of a visual sense-data for instance, one needs to discriminate it from the other objects in the visual field. But what would it be in the case of numbers? In order to count as being able to discriminate a number from its environment, it is necessary and sufficient that one be able to discriminate it from other objects in its environment. This would be other numbers surrounding it in the sequence of ordinals. If it helps, you can imagine it visually as picking out the position of the number on the number line.

Notice that the way the context shifts will matter for what counts as being able to discriminate in at least the following couple of ways. One way is if there is some sort of obstruction to the subject—they are drunk, or on LSD, or a scientist is manipulating their brain in various ways, or, less dramatically, they are just exhausted—such that the subject loses their ability to discriminate in that situation. This happens both in the case of numbers and in the case of perceptual objects. Think for instance of driving home exhausted and not being able to always see traffic signs. Yet another way the context shifts is when the environment surrounding the object is somehow unfavourable. For instance, you may be able to be acquainted with Lizzy the lizard when she is on the white

wall in your living room, but when she goes outside, she blends into the soil so well that you cannot spot her anymore.

A similar situation will happen with numbers. You and I will most likely be able to know which number is presented by decimal notation, but perhaps not if they were in Roman numerals, or in a notation with a different base. What I think this shows is that to *know which* number something is requires what I will call, following Kripke, a canonical notation. A canonical notation is a system of names for the numerals that allow one to be acquainted with the numbers. These names reveal the numbers to us in ways that other names for numbers do not. When one uses a canonical notation, there is no further question 'yes but *which* number is that?'. And the reason there is no further question is because numerals in a canonical notation enable knowledge by acquaintance with the number, i.e., they enable you to know which.

Now, one might worry that this notion of presentation is inapt for the number case. I can imagine someone saying, look I understand what you mean when you say something is presented to you in perception like a table or a chair. But what could it possibly mean to be presented with a number? Such objects are of a very different nature than the concrete sensible objects we normally encounter. How can one be presented with something like that?

The answer is that our system of numerals presents the objects to us. It is through our use of language that (some) abstract objects are able to be brought before our consciousness. And it is not just any parts of language, but certain kinds of names. In the case of abstract objects, canonical names actually reveal their referents to us. This is why the expression '684' acquaints us with the number 684 but the expression '57(12)' does not. As Dummett (1956) reminds us, one image of naming that we have to disabuse ourselves of here is the view that names *only* function baptismally.

The mistake which makes Frege's view difficult to accept, which makes one feel that '28' does not really stand for anything as 'Eisenhower' does, is the idea that proper names are the simplest parts of language, hardly parts of language at all. This rests on imagining that learning the sense of a proper name consists in learning to attach a label to an object already picked out as such: whereas of course this is the case only when we already know how to use other names of the same kind, when we, so to speak, all but know the sense of the name (1956, p. 494).

That is to say, names can only be attached to an object that we have antecedently identified. This baptismal model of names is that we have a thing before us, and then we can attach a label on it. But this model is not available for names of things that cannot be perceived, such as numbers. Yet surely, we have names

for the numbers. So, our practice of naming the numbers must be different. And indeed, it is. Our mastery of the numerals comes not from our ability to pick out the number and then name it baptismally. Rather, our mastery comes from learning the numerals in order. Indeed, one thing that is different about numerals as opposed to names for people, is that our use of the numerals reflect the ordering of the numbers. The names 'Farhaan', 'Emily', and 'Mercy', have no ordinal properties as do the names '1', '2', and '3'. So, we can see that canonical notations are going to be a system of names that are ordered and only have one name per thing named. If we have a system of names that meets this requirement, and we learn not only this system but also how to put the ordinals in 1-1 correspondence with the cardinals, i.e., to use the numeral '3' when there are three things before one, then we will have acquaintance with the numbers. We will know which number it is. In mastering the use of number words, we master a discriminatory ability, namely, to know which number is which. Such knowledge is knowledge by acquaintance. The numbers are presented to us via the numerals in a canonical notation.

## **5.6 Conclusion**

We began with a puzzle about why certain expressions would answer a maths question and others would not. We saw that certain expressions are accepted answers because of the type of knowledge they manifest. The question then became how expressions could serve to manifest knowledge in such a way. We looked at three authors that tried to specify what is special about them. From this we saw that what was needed was the correct mixture of psychological and semantic theses. I have tried to provide this in my account. The semantic thesis is that certain names for the numerals are in a canonical notation because they reflect the ordinal properties of number and thus allow epistemic access to their referents. The psychological thesis is that such knowledge is a particular mental state of knowledge by acquaintance where that is understood as a discriminatory capacity to know which object is which.

A final word about what this view does not entail. First, this view is silent on the metaphysics of numbers. I have spoken throughout as if numbers were objects in a full-blown platonic sense. It should be obvious how my view is consistent with that. But one need not be a Platonist to accept this epistemology. For instance, a nominalist may think there are no numbers, so arithmetical statements, if true, are not true by reference to a domain of numbers. In such a case one can easily replace what is known by the subject not as a number but as a numeral in a canonical notation. Thus, what Emily knows is which numeral serves as the product in arithmetical statements like ' $57 \times 12 = ?$ '. In some ways, this metaphysics is easier for my account as there is nothing 'behind' or

'beyond' the symbol, it is all signifier and signified wrapped into one. Finally, structuralists, of both eliminativist and *ante rem* varieties can accept my account. If what numbers are, are just positions in a structure, then what is known is which position in the structure, however one understands 'structure'.

Finally, this account does not say why, *for us*, the Arabic numerals provide knowledge by acquaintance, as opposed to say the Roman numerals. There may be many canonical notations that could have been the ones that provide us with knowledge by acquaintance with the numbers. If we were a different species perhaps a base 7 would provide us with such knowledge. Perhaps there is an evolutionary reason why *this* canonical notation works for us. This is an interesting question, and there may be ways to answer it that involve either evolutionary psychology or perhaps anthropology. However, what I hope to have shown is that there is indeed such thing as canonical notation that provide us with a special epistemic access to the objects. That is to say, I hope to have shown how it is possible that we can have knowledge by acquaintance with the natural numbers.



## Chapter 6: Concluding Remarks

In this final chapter, I want to return to the knowledge argument with which I began in chapter one. There are two reasons for this. First, it ties together the different strands I have developed in the previous few chapters. Second, it provides a way to highlight the differences between the theory of knowledge by acquaintance developed in this thesis and the theories set out in the existing literature. In particular, I will contrast my view with that of Tye (2009) and Balog (2012). Finally, I want to close by saying briefly what my view does not entail. In particular, I will explain why this theory is silent on the debate in the philosophy of language about singular propositions.

### 6.1 Dissolving the Knowledge Argument

The Knowledge argument was intended to show that there are non-physical mind-dependent entities, called qualia, which are properties of certain sensational mental states like feeling pain or seeing red. I formalised the argument as follows:

- 1) Mary knows all the physical facts about the world.
  - 2) If physicalism is true, then Mary knows all the facts about the world.
  - 3) When Mary sees colours for the first time, she comes to know something new.
  - 4) What she comes to know is a new fact.
- 
- 5) Conclusion 1: There are non-physical facts in the world.
  - 6) Conclusion 2: Physicalism is false.

As should be obvious, my theory of acquaintance rejects Premise 4. When Mary sees red for the first time, she comes to be acquainted with an instance of the property red and thus has knowledge by acquaintance of it. This is knowledge by acquaintance because she comes to have a conscious presentation of the thing in question. Moreover, the thing in question is not a proposition, but a quality or instance of a property.<sup>14</sup> Thus, what she is acquainted with, and thus, what she knows, is not a truth or fact. This response rejects the idea that all knowledge must be knowledge of propositions in general, and in particular that Mary's epistemic progress is the result of a

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<sup>14</sup> I take no stand on the metaphysics of qualities and properties here.

relation to a proposition.

I have also argued that knowledge by acquaintance is discriminatory knowledge, a kind of knowing which. How is this feature of my account applicable to the Mary case? What Mary comes to know when she sees red for the first time is what redness is like. Knowing what redness is like is a way of knowing which colour red is. Recall that knowing what can sometimes be a way of knowing which, as when you know which drill bit to use (*that* one over there) by knowing what drill bit to use (the 1/64 inch one). Similarly, in Mary's case, when she is presented with an instance of the colour red, her conscious presentation is a way of knowing which colour red is by knowing what redness is like. To see this, let me flesh out the example a bit more.

There are (at least) two ways we could flesh out the case. First, we could imagine Mary being let out into the world and seeing typically red objects, like strawberries, apples and so on. Second, we could imagine her being let out and not seeing any such typical red objects, but rather shown a sample of colours, like looking at paint samples in the hardware store. In either case, what she sees is a particular shade of red by discriminating it visually from other colours in her perceptual environment. For instance, if she is looking at a strawberry, she can discriminate the red of the berry from the green of its leaves or the brown of its stem. If she is looking at colour samples in a hardware store, she can discriminate the red one from the yellow one and the orange one. Notice this account of knowing which does not require her to know that it is called 'red'. She might be able to do that. But she need not. Nor need she be able to know that the red she is currently looking at is related to a particular wavelength frequency that she studied in her black and white room. She might be able to do that too, but again she need not. All that is required is her to discriminate the colour from other visible items in her perceptual environment. This allows her to know which colour red is as well as what redness is like. Importantly, what she does not learn first and foremost, is what it is like to *experience* red. She is not acquainted with an experience. She is acquainted with red, not the experience of red. This is not to deny she might *also* come to have some knowledge about experiences. It is merely to deny that all of the knowledge can be explained in terms of knowledge of mental states. On my story, colours are qualities of objects in the environment, and what we know when we see them, is those colours themselves. Any knowledge of the mental state we are in is derivative on this primary case of knowing.

This point matters for a few reasons. First, it dissolves the knowledge argument in the following way: it explains why the argument fails to show that there are non-physical mental items. It does not however defend a physicalist account of mind or colours. Rather, it relocates the problem of the metaphysics of colours back where it belongs—in the external world, or, as Johnston (1996) aptly called it, a ‘mind-body problem at the surface of objects’. Second, it differentiates my view from the phenomenal concept strategists who appeal to acquaintance. This view has been developed by Balog (2012) and it is to that view I now turn.

## **6.2 Acquaintance and Phenomenal Concepts**

Balog (2012) offers a physicalist response to the so-called puzzles of consciousness, which, for her, include, but are not limited to, the knowledge argument (Jackson, 1982; 1986), the explanatory gap (Levine, 1983), and the conceivability of zombies (Chalmers, 1996). She argues, rightly I think, that nearly all of these puzzles are largely epistemic, and she develops an account of phenomenal concepts to deal with these puzzles. In this section, I will briefly lay out her theory of phenomenal concepts and then say how she uses this notion to appeal to acquaintance. I will then highlight the differences between her approach and mine, and offer some reasons to think my account is more parsimonious.

According to Balog, phenomenal concepts are a special kind of concept whose referent is a phenomenal experience, which in turn is realised by a neural state. So, for instance, Mary’s state of visually experiencing the red of an apple whilst looking at it is a phenomenal experience, and a phenomenal concept is a way of conceptualising that experience that is unique. It is unique in the sense that other concepts do not have their referents as parts. This means that you cannot have the concept without tokening the referent, which in the case of colours, is colour experience. Here is how she puts it:

On [my] view, a current phenomenal experience is *part* of the token concept currently applied to it, and the experience – at least partly – determines that the concept refers to the experience it contains. Of course, by “part” I do not mean “spatial part” but rather part in the sense that it is *metaphysically* impossible to token the concept without tokening its referent...If this account is right, phenomenal concepts have very special *realization properties*: the neural states realizing these concepts are the very same neural states the concepts refer to (2012, p. 12).

Importantly, Balog does not require that all concepts that have phenomenal experiences as their referents be phenomenal concepts. For instance, one can have a concept of a neural realisation of a colour experience. This would have as its referent a phenomenal experience, but it would not be a phenomenal concept of that phenomenal experience. Moreover, there are 'indirect' phenomenal concepts in cases where a person is thinking about a phenomenal experience of theirs without thereby tokening the experience. For instance, if a dentist asks you if you are in pain and you reply 'No, I am not in pain', you are using your pain concept indirectly, i.e., referring to phenomenal experience *phenomenally*, but without tokening the phenomenal experience.

With these qualifications in place, the main interest for Balog, and for us, is in 'direct phenomenal concepts':

*Direct* phenomenal concepts pick out their referent in virtue of their being partly constituted by a token of their reference. In this they are unique among concepts. On this account, there is an intimate relation between a phenomenal concept and its referent; more intimate than any causal or tracking relation. It is also a way of cashing out the idea that the experience serves as its own mode of presentation. The experience, so to speak, presents itself (2012, p. 13).

On Balog's account phenomenal experiences are non-conceptual representations of features in the environment. So, an experience of red is a non-conceptual representational state of the redness one sees. The phenomenal concept is then a conceptualising of this experience, but a conceptualising that contains, as a metaphysical part, the experience itself. Thus, Balog is, like most representationalists about perceptual experience, committed to a transparency thesis. Though she commits herself only to a weak form of transparency:

*Transparency:* When one turns one's attention to one's own conscious perceptual experience, one is aware of the features of the objects perceived. On the constitutional account, the experience contained within the concept maintains its representational features; I take it that experiences including sensations, afterimages, phosphenes, etc. are representational. So, for example, when a visual experience, that is, a phenomenally conscious non-conceptual representation of an object (or objects) and their properties partially constitutes a phenomenal concept representing it, attention directed to it will typically *also* or *primarily* be directed to the way the object is represented to be. I, however, deny the stronger version of the transparency thesis advocated by representationalists, namely the thesis that when one attends to one's conscious

experience, one is aware *only* of the representational content of the experience. In my view, one can also direct one's attention to the phenomenal character of the experience, which is not identical to its representational content (More on this in my explanation of acquaintance) (2012, p. 14).

And this, as the quote makes clear, is where acquaintance becomes relevant for Balog. According to her, what acquaintance does is gives us a special knowledge of our own mental states, namely of what it is like to undergo an experience. Thus, she says:

Acquaintance is a unique epistemological relation that relates a person to her own phenomenally conscious states and processes *directly, incorrigibly, and in a way that seems to reveal their essence*. When one is aware of a phenomenal state in the process of having it, something essential about it is revealed, directly and incorrigibly – namely, *what it is like to have it* (2012, p. 1).

Towards the end of the paper, she further explains:

When I focus on the phenomenal quality of that visual perception – not on what it represents but on the qualitative character of the visual experience – my representation contains that very experience. Thinking about it and simply having the experience will then share something very substantial, very spectacular: namely the phenomenal character of the experience. And acquaintance, on this account, is the special, intimate epistemic relation we have to our phenomenal experience through the *shared phenomenality* of experience and thought. Shared phenomenality produces the sense that one has a direct insight into the nature of the experience. Hence the unique epistemic standing of acquaintance (2012, p. 14).

Putting all this together we have the following picture. What we are acquainted with on Balog's account is not redness (or colours), but the phenomenal character of the experience of red. This is a mental state. A phenomenal concept is then a thinking about the phenomenal character of an experience. Balog leaves it open, at least in the sense of epistemic modality, whether these experiences are non-physical, but she argues we have good reason to think them physical. She does not explicitly say how this is supposed to deal with Jackson's knowledge argument, but we can extrapolate at least the following line of response. Mary in her red room has never had a visual experience of colours. Since phenomenal concepts are partly constituted by their referents, Mary lacks (direct) phenomenal concepts for colours. Once she is let out and

sees red for the first time, she comes to have a new phenomenal experience, and that new experience allows for a new thought, a thought she was not capable of having before because she lacked the concept, and she lacked the concept because she lacked the experience. Now, this experience is not something she did not know about for, by hypothesis, she knew all the facts about human colour experience. It is just that she lacked such experience herself. So, Balog's thought is, that finally coming to have this experience gives Mary a new *way* to think about a fact she already knew. This new way is in terms of a phenomenal concept. Moreover, Balog argues, our knowledge of this experience is special. It is a matter of acquaintance not because it is non-propositional knowledge, but because it is 'direct' and 'incorrigible' and 'reveals the essence' of the phenomenal experience.

Though I find much that is insightful and agreeable in Balog's paper about the nature of the puzzles of consciousness, I think it is a mistake to think that what one is acquainted with is an experience. Rather, on my account, experience is a way of being acquainted with the objects of perception. Moreover, the knowledge thereby gained is not of a mental state, not of what it is like to *experience* redness, but of what *redness* is like. After all, the function of our perceptual capacities is to put us in cognitive contact with the world, not with our minds. This is not to deny we may have experiences of our experiences, or acquaintance with experiences sometimes. Rather, what I deny is that, in the first instance the acquaintance had is with a mental property rather than something in the world.

Second, there is no need to appeal to 'incorrigibility', 'directness' or 'essences'. Granted, Balog qualifies what kinds of essences such acquaintance gives you by restricting it to the instantiation of the phenomenal state, (rather than the physiological state of the perceiver or the microphysical properties of colour realisers). But we need not appeal to any of these features to explain the uniqueness of the epistemic relation of acquaintance. On my story, what makes acquaintance unique is that it gives one non-propositional awareness of its objects. It need not be incorrigible or infallible. As we saw in chapter two, it is not even clear Russell was committed to this. Rather, acquaintance is a mode of awareness that does not require knowing propositions. This is a key feature of acquaintance that I think Balog misses. Her account seems committed to the propositionalist story that all knowledge is knowledge of facts. But this is one of the main assumptions of the knowledge argument that makes it seem so

powerful, and one that I have argued we should reject. So, despite some similarities, Balog and I offer not only different theories of acquaintance, but different diagnoses of the knowledge argument. While we both agree the puzzle turns on epistemic issues and acquaintance is required to solve or dissolve the puzzle, we disagree on what exactly those epistemic issues are and what role acquaintance plays in solving them.

The upshot is that there is no need to posit a unique theory of phenomenal concepts that differ from all other concepts, nor a unique epistemic relation that is incorrigible and direct. Such machinery is superfluous to dissolving the knowledge argument if we understand knowledge by acquaintance in the way I have been suggesting. The same goes, *mutatis mutandis*, for the other puzzles of consciousness.

### **6.3 Acquaintance and Perceptual Content**

My view of knowledge by acquaintance developed so far shares some similarities to the view developed in Tye (2009). As the title of that book—*Consciousness Revisited: Materialism without Phenomenal Concepts*—makes clear, Tye’s aim is to give a materialist or physicalist theory of consciousness without appealing to phenomenal concepts. Instead, Tye appeals to knowledge by acquaintance. According to Tye, Russell’s theory of knowledge by acquaintance suffered because Russell lacked an adequate theory of perceptual content (2009, p. ix). Once we have an adequate theory of perceptual content, Tye argues, we can use knowledge by acquaintance to solve the problems of consciousness, which for Tye, includes Frank Jackson’s knowledge argument.

My view shares with Tye’s view a rejection of phenomenal concepts and a defence of the view that knowledge by acquaintance is non-propositional knowledge. The difference is that Tye’s theory of perceptual content seems to undercut the very notion of knowledge by acquaintance he wants to employ to solve the problems of consciousness.

Tye’s view of perceptual content is what he calls the ‘Singular When Filled Thesis (SWF)’. On this picture, perceptual experiences are fundamentally representational. They have a general content that is shared across cases of veridical, illusory, and hallucinatory experiences. Moreover, the general content has a ‘gap’ in it left for the object to fill in. This happens in successful perception of the environment. For instance, a hallucination of Donald Trump and an actual seeing of Donald Trump have, at one level, the same content,

namely an appearance of Trump. However, on another level, the perception has a different content from the hallucination since it is constituted by Trump himself. This content, Tye tells us, is non-conceptual and non-propositional.

Tye tells us that such successful perceptual encounters give us 'thing knowledge', that is knowledge of things that they have as constituents. Thus, a perception of Donald Trump gives us 'thing knowledge' of Trump. This knowledge, Tye claims, is knowledge by acquaintance and it is what Mary gains when she first sees red. On Tye's story, when Mary sees red for the first time, she becomes acquainted with red by having a perceptual experience that is non-conceptual and non-propositional.

My account agrees with Tye that Mary comes to have non-propositional knowledge. It also agrees with Tye, and disagrees with Balog, that this is about qualities in the world, not experiences. It is, if you like, a 'phenomenal externalist' view of phenomenal character.

The problem with Tye's view is that the notion of a Singular When Filled content undercuts the notion of non-propositionality. If a proposition is, at a minimum, something that is true or false, and the objects that are constituents of propositions are, or can be, non-truth evaluable objects, then how can a content that *always* has an object plus some properties predicated of it not be propositional in structure? Take the example of Donald Trump. On Tye's story, there is a 'Donald Trump appearance' content that is shared across illusions, hallucinations, and veridical experiences. The only difference is that in the good case, Donald Trump is actually a constituent of that content. But then that means that the content of a successful perception is a content that has a particular object being predicated with an appearance property. It is of the form 'A is F' where A is the individual Donald Trump and F is the feature of appearing like Donald Trump. Moreover, in hallucination, there is a 'gap' where no object fills that slot for the individual. This means the content is false or 'gappy' (i.e., not truth evaluable). Nevertheless, it still has propositional structure as does the perception.

Moreover, Tye begins to walk back his answer a few years later in Tye & Grazankowski (2019). There they argue that one of the things Mary learns is what it is like to see red. But what it is like to see red is propositional. On this new account, knowing what it is like is knowing the answer to a question. Mary cannot know the answer to the question 'what is it like to see red?' without being acquainted with red, a constituent of the proposition. But it is not enough



to know what it is like to experience red. Knowing *that* requires further propositional knowledge. This seems like the most consistent account Tye can give. His account of perceptual content seems to commit him to this idea that acquaintance with an object results in a special kind of propositional mental state. But then his view is no longer that there is non-propositional knowledge that explains Mary's epistemic progress.

By contrast, my view takes no such path. I do not commit to the idea that perception is fundamentally representational, especially not that it is a Singular When Filled content. There may be ways of fleshing out a representational theory of perception that are compatible with my theory of knowledge by acquaintance. At the very least, one need not deny that perceptual states perhaps have *some* representational content. But it is much better to think of acquaintance as a relation of awareness between a subject and an object, where what one is aware of is a particular thing, not a particular thing represented thus and so. This 'naive realist' or, as I prefer to call it, 'relationalist' theory of perception emphasises the way experience puts us in cognitive contact with the world, a feature that is not easy to spell out on an account of perception that takes perception to be fundamentally a representational kind that could occur even when one was not in such contact. Admittedly, a full defence of this view would require a disjunctivist account of perception, and some story about the nature of hallucination. Such an account is beyond the scope and needs of this dissertation. All that needs to be seen is that if one wants to spell out a notion of knowledge by acquaintance as non-propositional knowledge, then one cannot make the perceptual content that gives one such knowledge be a truth-evaluable content. In this way, my view is a more plausible and consistent theory of knowledge by acquaintance than that presented by Tye (2009).

#### **6.4 Acquaintance and Singular Thought**

The last topic I want to broach in this dissertation is that of singular thought, understood as the grasping of a singular proposition. There is not much I want to say about this debate other than my theory of knowledge by acquaintance, so far as I can see, does not commit me to anything about the grasping of singular propositions. In this section I want to say, briefly, about why I think this is so.

The first thing to say is that there is no consensus on what *exactly* a singular proposition is or what it is supposed to do (Glick, 2018). It is a debate within

the metaphysics of propositions that assumes propositions are structured entities of some kind. Standardly, singular propositions are contrasted with general propositions and particular propositions (Fitch, 1997, revised 2013). Singular propositions are propositions that have their objects involved in them in some unique way, either by being a part or constituent or some other metaphysical relation in a way that general propositions or particular propositions do not. For instance, the proposition expressed by the English sentence 'Bertrand Russell published *The Problems of Philosophy* in 1912' is singular just in case the subject, Bertrand Russell, is a constituent of that proposition. In contrast, the proposition expressed by the English sentence 'The author of *The Problems of Philosophy* was British' is a particular proposition because it is about a particular individual, Bertrand Russell, but it does not contain him as a constituent. Rather, it is only indirectly about him. In contrast to both singular and particular propositions, general propositions are not about anyone or thing in particular. For example, the English sentence 'Most British citizens like watching football' is not about any particular individual but about the population as a whole.

Assuming that propositions are structured entities and assuming there are such things as singular propositions, there is a debate about what it takes to grasp and use a singular proposition. Let us call this latter debate one about singular thought (Jeshion, 2010a). The two are intimately connected, but nevertheless not the same. The former debate is a debate about the metaphysics of propositions and the semantics of reference. The latter is about the psychological states one is in when one bears an attitude towards such a proposition (and perhaps the semantics of propositional attitude reports as well). Some, such as Campbell (2010) and Recanti (2009; 2012), have argued that one must be acquainted with the object in order to grasp such singular propositions. Others, such as Jeshion (Jeshion, 2010b) and Hawthorne and Manley (2012), have argued that no such epistemic relation as acquaintance is required. Notice that both sides of this debate agree on the existence of singular propositions, i.e., metaphysically structured entities that have the individual as a constituent. What they disagree about is what it takes to grasp and use these propositions. Hawthorne and Manley christen their view 'Liberalism' and

characterise it thus:

'Liberalism about singular thought rejects the following principle:  
CONSTRAINT: To have a singular thought about an object, one must be acquainted with it' (2012, p. 37).

I do not want to get bogged down by their arguments for liberalism. What I do want to highlight is just that, for all I have said in this dissertation, one could still accept such liberalism. If, as Hawthorne and Manley conceive of it, having singular thoughts is just to be able to think about an individual non-descriptively but using propositions, then that is completely compatible with my notion of acquaintance not being required to have such singular thoughts. For instance, to use an example of theirs, imagine you are a substitute teacher at a new school and are given an attendance sheet with all the names of the students on it. Perusing the list, but without ever stepping foot in the school or knowing any of the students, you could single out the name 'Michael Markunas' and form the thought, *that person is a male*. The thought may be true or false, but regardless it seems like that thought is about *me*. Given a standard semantics of proper names 'Michael Markunas' refers to me and picks me out rigidly and non-descriptively. Thus, in using this name to form the thought that *that person is a male* you are thinking about me. Your thought has a proposition as its object, and that proposition is partly constituted by the individual itself, and therefore singular. Moreover, you can think such a proposition without being acquainted with me at all. This is the heart of Hawthorne and Manley's liberal view.

What I want to say is that this is entirely compatible with everything I have said in this thesis. Singular thoughts can perhaps be had without acquaintance. It does not follow that there is no such thing as acquaintance. Nor does it follow that acquaintance is not a unique epistemic relation that we bear to some things and not others. Let me explain. Let us stick with the example of being a substitute teacher thinking about a particular person on the attendance sheet using their name without having met them. In such a case, the truth conditions, and perhaps even the content of your thought, is nothing more than the person itself and the properties you predicate of them. Nevertheless, it does not follow that when you do actually meet them and have a conscious experience of them you are not then in a different epistemic position than you were before. In particular, you can (visually) discriminate them from other people in the class

and track them through space and time. You have knowledge of them you did not before. Similarly, if we apply the liberalism of Hawthorne and Manley to Mary in her black and white room, we can imagine her having singular thoughts without being acquainted with the referent. The case can not be directly transposed to colours because colours are not particulars (though their instances might be), and thus without being particulars it seems hard to cash out the intuition about the singularity of thought. We could nevertheless get close with the following:

Imagine Mary is in her black and white room and given an apple. It is a red apple, but she cannot see the redness (maybe she's got black and white contact lenses on—the science fiction details don't matter). Nevertheless, the person who gave it to her, tells her it is red, and she has good reason to trust that person's testimony. From this, she could form the singular thought, 'I bet the redness of this apple is spectacular'.

This is a singular thought about a particular shade or quality of red and so meets the requirements for singular thought. Now imagine that an hour later she is let out of the room and the lenses are removed and she can now see the redness of the particular apple. Does she not now make epistemic progress? Is she not now aware of something she was not before? She is aware of what redness is and is thus in a privileged epistemic state. But this is entirely compatible with her being able to have singular thoughts about the particular shade earlier in the black and white room. So, I see no reason to think that knowledge by acquaintance, as I have developed it in this dissertation, is *necessary* for singular thought. Maybe it is not, as Hawthorne and Manley suggest, or maybe it is as Campbell and others think. The point is, that the debate over singular thought is a separate issue from whether or not there is such a thing as acquaintance and whether or not it provides us with a unique epistemic access to its objects. Hawthorne and Manley's liberalism does nothing to threaten the account of acquaintance I have been developing in this dissertation.

## **6.5 Conclusion**

Knowledge by acquaintance is a technical notion that has been used in many debates in analytic philosophy. Its origin and development not only coincides, but in many ways traces and reflects the main developments of analytic philosophy, at least in the theoretical areas of language, mind,

perception, and epistemology that have been so central to the analytic tradition. In this thesis I have tried to give a more fleshed out account of acquaintance than others. I have also tried to apply it more widely than others. I have not restricted my discussion to the sensible, but also include the numbers as possible objects of acquaintance. Of course, I have not covered every debate. I have refused to take a stand on the issue of singular thought for instance, and my suggestions about relationism seem to require more to be said about the objects of hallucination than I have done here. For instance, what are we aware of when we hallucinate, and, whatever it is, are we acquainted with it? Or are we restricted, as Martin (2004) suggests, to only being able to say about hallucinations that they are phenomenologically indistinguishable from perceptions? This is further work that can and should be done in the future.

Still, I hope to have isolated and illuminated what I take to be the core features of knowledge by acquaintance. To wit, that knowledge by acquaintance is non-propositional mode of awareness; that it is a kind of discriminatory knowledge, and that it requires a conscious presentation (though not a sensible one) of the object of awareness.

**FINIS**

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