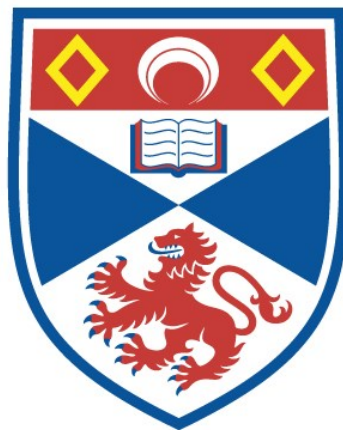


**Skill-based acquaintance:
a non-causal account of reference**

Jean Gové

A thesis submitted for the degree of PhD
At the
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I, Jean Gové, do hereby certify that this thesis, submitted for the degree of PhD, which is approximately 56,000 words in length, has been written by me, and that it is the record of work carried out by me, or principally by myself in collaboration with others as acknowledged, and that it has not been submitted in any previous application for any degree. I confirm that any appendices included in my thesis contain only material permitted by the 'Assessment of Postgraduate Research Students' policy.

I was admitted as a research student at the University of St Andrews in September 2020.

I received funding from an organisation or institution and have acknowledged the funder(s) in the full text of my thesis.

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Abstract

This thesis provides an account of acquaintance with abstract objects. The notion of acquaintance is integral to theorising on reference and singular thought, since it is generally taken to be the relation that must exist between a subject and an object, in order for the subject to refer to, and entertain singular thoughts about the object. The most common way of understanding acquaintance is as a form of causal connection.

However, this implies a problem. We seem to be able to refer and have singular thoughts about abstract objects. But given that abstract objects are causally inert, this would mean that we are unable to become acquainted with them. This problem shall be the focus of this thesis.

I first argue that these traditional causal interpretations of acquaintance are lacking. Instead, I show that acquaintance is dependent to some degree on factors internal to the subject, namely the skills that they possess. From doctors to sommeliers to mathematicians (and possibly even philosophers!) – these subjects seem to succeed in becoming acquainted with certain objects precisely in virtue of their respective skills. Thus, building off from Evans' *The Varieties of Reference*, I present a novel account of acquaintance, which I term as Skill-based Acquaintance (SBA). On SBA, a subject is said to be acquainted with an object when they possess discriminating knowledge of that object, gained through the use of their capacities and skills.

The SBA account is applied to virtual (Ch.3), fictional (Ch.4), and mathematical objects (Ch.5), as well as God (Ch.6). SBA is successful in explaining how subjects can indeed become acquainted with these problematic categories of objects - some of which are abstract – thus being able to refer and entertain singular thoughts about them. Overall, then, SBA is shown to have greater explanatory power than competing accounts and should thus be preferred.

Introduction

This thesis shall tackle the issue of how subjects succeed in referring to, and have singular thoughts about, abstract objects. The response that shall be put forward takes the form of a novel account of acquaintance – which I term as Skill-based Acquaintance (SBA) – that departs from the standard orthodox way of understanding acquaintance as a form of causal relation. Instead, on SBA a subject is said to be acquainted with an object if they are in possession of discriminating knowledge about the target object. Discriminating knowledge is that knowledge that allows a subject to pick out the target object within a given context. This knowledge must be derived from the target itself and obtained by the use of the subject’s capacities and skills. A central text that shall be elaborated upon in this thesis is Gareth Evans’ *The Varieties of Reference*.¹

In the various explanations given as to what exactly characterises and differentiates singular (sometimes also called *de re*) thought from descriptive (or general) thought, a salient feature that is almost always present is that in singular thought, objects are presented in thought and referred to *directly*. That is to say that some direct, close relation holds between a subject’s thought about *o*, and *o* itself. This is not the case with descriptive thoughts, wherein objects are generally held to be presented under some description. Given the fact that a *locus classicus* of this debate is Russell’s *Knowledge by Acquaintance and Knowledge by Description*,² acquaintance has been closely linked with

¹ (Evans 1982)

² (Russell 1911)

discussion on singular thought as the way in which a subject succeeds in referring to an object. However, as shall be elaborated on in Chapter 1, very few commentators post-Russell hold the same view of acquaintance as Russell himself proposed, given its very restrictive nature.³ Instead, acquaintance is now generally articulated as a type of causal relation existing between subject and object, without which singular thought would not be possible.

The acquaintance theorist is not out of the woods, though. Understanding acquaintance as a type of causal relation does allow us to explain how we are acquainted, and hence successfully refer to, a greater variety of objects. However, I argue that this is still not enough. One such class of objects that shall be the focus of this thesis (though not exclusively, as shall be seen) is abstract objects. It seems to be the case that we do have singular thoughts and refer to objects such as *Madame Bovary*, or the number 3. Yet the prevalent view takes abstract objects to be causally inert, that is to say, unable to enter into causal relationships. This fact, coupled with a causal understanding of acquaintance, would imply that subjects can never be acquainted with such objects, and hence never refer to them.

This issue has been noted by some theorists who have commented extensively on reference, singular thought, and acquaintance. For example, Recanati's detailed exposition of direct reference mentions the question of singular thought about abstract objects but states that this is "an issue which I will leave aside in this book."⁴ Elsewhere, commenting specifically on fictional objects, he states:

"[o]f course, whenever reference to abstract objects is at stake, the following issue

³ For an exposition of some of the problems with Russell's articulation of acquaintance, see: (Sainsbury 1986)

⁴ (Recanati 1993, 116)

arises: how can reference be based on acquaintance relations in such cases, since we are not acquainted with abstract objects? This is a general issue which I will put aside here...”⁵

Bach comments along a similar vein. He states that:

“We can have *de re* thoughts also about things we have perceived before and now remember and even about things others have perceived and have informed us of. Still, any object of *de re* thought must be or have been an object of perception, if not one's own then someone else's. Of course this does not apply to *de re* thoughts about oneself or about abstract objects, but these will not be taken up here.”⁶

He does, however, seek to extend acquaintance by speaking of what he terms as a “representational connection.”⁷ In a note to this he adds:

“These questions all pertain to singular thoughts about physical things. But we could ask similar questions about things of other sorts as well... Can we have singular thoughts about properties, kinds, relations, numbers, sets, and other abstract objects?”⁸

These questions, however, are left unanswered. Evans, who, as already mentioned, will be a focus of this thesis, gets a bit closer. However, his answer as to whether there is “anything corresponding to demonstrative identification in the case of abstract objects” is less than a page long consisting in some lecture notes, with McDowell adding in a footnote that “Evans seems to have planned a section on this question”⁹ which, unfortunately, was never written.

It must be mentioned, though, that some attempts have, in fact, been made at

⁵ (Recanati 2018, 46)

⁶ (Bach 1987, 11)

⁷ (Bach 2010, 57)

⁸ (Bach 2010, n. 21)

⁹ (Evans 1982, 198)

attempting to articulate how we can have singular thought about abstract objects. However, all of these attempts – as far as I am aware – do not make use of acquaintance.¹⁰ Some alternatives to acquaintance that have been advanced in the literature on singular thought are cognitivism,¹¹ semantic instrumentalism¹² and liberalism.¹³ In Chapter 1, some of these views are discussed. While they purport to be better than acquaintance in offering the subject the possibility of successfully referring to a greater variety of objects, including abstract objects, I argue that they should be discarded as they lack the distinctive directness that is crucial and characteristic of singular thought.

Before proceeding further, an important note must be added. In discussing singular thought, reference, and acquaintance with abstract objects, a crucial assumption that shall be made in this text is that such objects exist.¹⁴ This is a metaphysical claim, and one which will not be defended in this thesis. The claim this thesis shall make therefore, is that, *if* abstract objects exist, this is how one can become acquainted with them and thus successfully refer to them. Hence, in each chapter wherein acquaintance with a particular category of abstract objects is being explored, I shall always take up the perspective of the realist. While this metaphysical claim need not be adopted on the frameworks proposed by the rival theories to acquaintance, this is necessary in the case of acquaintance. Given that acquaintance is construed as a relation between object and subject, it would be nonsensical to speak of the existence of such a relation in the absence of either of the relata.

¹⁰ Some examples are: (Jeshion 2002; 2010; Hansen and Rey 2016; Davies 2019)

¹¹ (Jeshion 2010)

¹² (Kaplan 1989)

¹³ (Hawthorne and Manley 2012)

¹⁴ Of course, one need not necessarily hold that all abstract objects exist. That is to say, one can, for example, be a realist about mathematical objects, but an irrealist about fictional objects. In such a case, the SBA account being proposed here is only useful for such an individual with respect to mathematical objects only. Which abstract objects do in fact exist will not be explored here.

Realists about abstract objects are themselves confronted with the same question that is the focus of this thesis, i.e.: how can we refer to, say, fictional or mathematical objects, if we cannot be acquainted with them? Thus, apart from being, I believe, a more attractive view of acquaintance than traditional causal accounts, SBA can also be presented as an explanatory tool at the service of the abstract realist in order to overcome this objection.

The question we have set before ourselves, then, shall be approached in the following manner. **Chapter 1** shall present the problem of singular thought about, and reference to, abstract objects in a more systematic and elaborated way by presenting what I term to be the PUZZLE OF ABSTRACT SINGULAR THOUGHT consisting of three claims. After going through each claim, the chapter shall conclude by arguing for the need for a reformulation of the notion of acquaintance in a manner that does not rely on causation.

In **Chapter 2**, the alternative that is being proposed, that of Skill-based Acquaintance, shall be presented and spelt out. After elaborating on Evans' view, as mentioned above, the argument shall be made that a subject's skills can perform the same role that Evansian capacities do. In this way, on the SBA view, acquaintance shall be articulated in terms of the discriminating knowledge that a subject possesses, gained in virtue of the exercise of their capacities and skills. By means of two examples, DOCTOR and SOMMELIER, it shall become evident that even with respect to physical objects, SBA has greater explanatory power than traditional causal accounts of acquaintance.

Before delving into abstract objects *per se*, **Chapter 3** will deal with a category of objects that seemingly straddle the divide between physical and abstract: virtual objects. The chapter shall assume a virtual realist view wherein virtual objects shall be

taken to supervene on physical objects (such as computer hardware, for example).¹⁵ However, despite virtual objects not being abstract in nature, it shall be seen that traditional causal accounts of acquaintance face problems here, analogous to those encountered in the case of abstract objects. For this reason, the SBA account shall be applied here to show how a subject can become acquainted and successfully refer to virtual objects. The respective skill that a subject needs to be in possession of in order to do this is also explained. Furthermore, in the same way that skilled subjects might also make use of certain tools in the execution of skilled action, the chapter will also explore what possible tool could be useful to the subject inhabiting various virtual worlds in order to help them successfully refer to the objects they encounter.

The focus will then turn to abstract objects, beginning with **Chapter 4** which will explore acquaintance with fictional objects. Here, fictional objects shall be taken to be artifacts, i.e.: abstract objects created by subjects, and thus having a beginning in time. After showing how an irrealist might argue for successful reference by presenting Sainsbury's Reference without Referents view,¹⁶ realist solutions put forward by Thomasson and Recanati are explored.¹⁷ These views argue for a roundabout way of becoming acquainted with the fictional objects in question which, I argue, is unsatisfactory. Firstly, they are susceptible to challenges of underdetermination as shall be shown, and they do not reflect the intuitive view that authors, *qua* creators of particular fictional objects, are in an epistemically privileged position with respect to becoming acquainted with their creations. The chapter will therefore first focus on how authors of fiction are acquainted with the fictional objects they create in a primary way. Following

¹⁵ Along the lines of Chalmers' virtual digitalist view (Chalmers 2017).

¹⁶ (Sainsbury 2005; 2009)

¹⁷ (Thomasson 1999; Recanati 2018)

this, the attention will turn to how the rest of us come to be acquainted with a particular fictional object in virtue of reading, hearing, or seeing depictions of such objects. In this sense then, this secondary, derived acquaintance is the result of what shall be construed as the author's testimony of the fictional objects they have created. A particular upshot of this chapter is that, while only dealing with fictional objects, the view could arguably be extended to apply to other types of abstract artifacts.

The final two chapters will deal with a different class of abstract objects – those which are not created artifacts, but rather so-called 'transcendental' or 'eternal' objects. **Chapter 5** will deal with arguably one of the most notorious types of abstract objects – mathematical objects. The chapter begins by elaborating on Benacerraf's dilemma,¹⁸ it being the typical starting point for engaging with the epistemology and semantics of mathematics, and then moving on to present the realist views put forward by Maddy and Chudnoff.¹⁹ Following this, the chapter is divided into two parts. The first part explores empirical literature regarding core knowledge and the subitising ability found in newborn infants. This ability is construed as an Evansian innate capacity following SBA and this is how, it is argued, subjects can be said to be acquainted and refer to the basic numbers 1, 2, and 3. The second part of the chapter explores the wider set of mathematical objects that are more complex than the first three natural numbers. The conclusion here is an inductive one. By exploring a particular example relating to the discovery of the Monster group in abstract algebra, it is argued that before this discovery, no singular thought about such a group was possible. It is only after the Monster group was discovered and confirmed to exist – by means of the skilled performance of mathematicians – does it

¹⁸ (Benacerraf 1973)

¹⁹ (Maddy 1990; Chudnoff 2013; 2014)

seem possible to assert that the mathematicians involved became acquainted with the Monster group and successfully referred to it.

The final chapter, **Chapter 6**, does not discuss a category of abstract objects, but rather focuses on God. Within theology and philosophy of religion, there is substantial debate regarding the reference of the name ‘God.’ After expounding on the various positions present within the literature, it becomes evident that testimony can only take us so far back – the need to speak of acquaintance, and how this takes place with respect to God is made all the more clear. This is done by specifically focusing on first-hand documented mystical experiences. The accounts put forward by Augustine, Swami Vivekananda, and Simone Weil, are explored and integrated within the SBA account. Furthermore, after exploring a number of theological positions regarding how a subject is able to come to know of God, the upshot of the SBA account that shall be seen is that it can accommodate and unify this diversity of positions.

By the end of this thesis, I hope that the attractive features of the SBA account are made manifestly clear. Certain obstacles still remain in the overall problem of acquaintance and reference with abstract objects, even on the SBA framework. Notwithstanding this, the account does make advances over traditional causal accounts of acquaintance, not only in the case of abstract objects, but as already mentioned, also with regards to physical and virtual objects. In light of this, I argue that the SBA framework should still be preferred over these traditional accounts.

Chapter 1 – The Puzzle of Abstract Singular Thought

§I. Introduction

It seems to be the case that we can think about the same object, but in different ways. Take this pair of thoughts:

- (1) ‘This stadium [standing just outside Wembley Stadium] can seat 90,000.’
- (2) ‘The largest stadium in the UK can seat 90,000.’

It is generally held that (1) is an example of a singular (sometimes also called *de re*) thought, while (2) is an example of a descriptive (or general) thought.

However, as Sainsbury notes, discussion abounds as to what exactly is it that makes a thought a singular thought.²⁰ Relying on his taxonomy, the way singular thought shall be understood here is in terms of “directness.” This is to say, that the difference between the two thoughts above should be understood in terms of how the target object is being picked out. Whereas in (2), the subject is employing some description, in (1) there seems to be some sort of direct relation holding between the thought and Wembley Stadium. Here, I will take this direct relation to be a reference relation.

The specific focus of this thesis shall be a particular category of singular thoughts; those which are about abstract objects. It seems to be the case that subjects do succeed in entertaining thoughts concerning abstract²¹ objects that, *prima facie*, seem to have the structure of singular thought. A subject may think, for example, ‘*Sherlock Holmes* was

²⁰ (Sainsbury 2020)

²¹ There is still much debate as to the nature of abstract objects. Here I shall take abstract objects to be those objects which are generally considered to exhibit two distinct features: not having spatiotemporal properties, and (consequently) being causally inert. This latter point shall be investigated in further detail in §IV.

created by Arthur Conan Doyle,’ or ‘ π is used in a number of mathematical equations.’ Thus, the problem that shall be our concern here already begins to take form. If we are taking singular thoughts to be based on a direct relation “between an element of the thought and the object,”²² then this would imply that the object the thought is about must exist. There are two routes one can now choose to embark upon.

One may choose to accept that certain thoughts about abstract objects (like the examples proposed above) are indeed singular thoughts. Such individuals, most notably among them being Frege,²³ would assert that the fact we can determine whether such thoughts are true or false must imply that such abstract objects do in fact exist. This argument, generally known as the “Singular-Term Argument” for Platonism,²⁴ is intended to prove the existence of abstract objects. However, the soundness or otherwise of this argument is not something I desire to engage in, preferring rather to leave metaphysical issues to metaphysicians.

The second route, on the other hand, is of greater interest to us presently. Let us take up the position of the abstract realist and assume that abstract objects exist, and that we can have singular thoughts about them. If this is the case, we are still left with the question of *how* a subject can entertain such thoughts. We have already stated that for a thought about an object to be a singular thought, there must be some direct relation holding between some element of the thought and the target object, which I am taking to be reference. How does a subject, however, come to be able to refer to an object in the first place? The typical way that this is answered within the literature on singular thought

²² (Sainsbury 2020, 21)

²³ Such as in: (Frege 1948)

²⁴ For more on this, see: (Balaguer 2016)

– and the view which I shall also subscribe to – is via acquaintance.²⁵ Now, as shall be seen further on, acquaintance has generally been articulated in terms of a causal relationship holding between subject and object. However, abstract objects are generally considered as being causally inert, meaning that, if they exist, they cannot form such causal relationships. Thus, we have the bare-bones structure of the problem this thesis shall attempt to overcome. We can present this as a puzzle composed of three claims.

THE PUZZLE OF ABSTRACT SINGULAR THOUGHT:

Claim 1 (C1) – In order for a subject to have a singular thought about an object, the subject must be acquainted with the object.

C2 – Acquaintance is understood as a type of causal relation.

C3 – Abstracta are causally inert.

The problem is thus laid bare. If we assume that we do, in fact, entertain singular thoughts about abstracta,²⁶ then these three claims are jointly inconsistent. To say that we have singular thoughts about abstracta implies acquaintance with them, yet how can acquaintance take place if abstracta are causally inert? One of the above claims must be removed in order to solve the puzzle.

In this chapter I shall argue that C2 is the claim worth challenging and discarding. I shall do this by showing that the causal constraint that lies at the heart of this generally

²⁵ For classical examples of this sort of view, see: (Donnellan 1977; Peacocke 1983)

²⁶ I will not be arguing for this assumption here and take it as given. The main reason that is usually given for why we cannot have singular thoughts about abstracta is due to our inability to be acquainted with them, and this is the main focus of this thesis. Beyond this, however, there is no reason to think that we cannot think of abstract objects in a direct manner (i.e.: have singular thoughts about them) as we do about other objects.

accepted view of acquaintance is either too restrictive or too wide. In place of a causal constraint on acquaintance, the main aim of this thesis is to put forward a novel account which I term as Skill-based Acquaintance (SBA): that acquaintance with an object – abstract or not – depends on the subject gaining discriminating knowledge of the target, in virtue of the capacities and skills that the subject possesses. On SBA, a subject can gain discriminating knowledge about objects that are not causally efficacious, and hence become acquainted with them. Yet this novel view will only be elaborated upon in the following chapter – suffice here to motivate the problem and set up the stage.

The chapter shall proceed in the following manner; first (§II), I shall elaborate how acquaintance should be the manner in which the direct relation that is distinctive of singular thought be understood. After a brief comment on Russell’s view, I will then focus in greater detail on Recanati’s articulation of acquaintance and singular thought.

However, given the restrictions that acquaintance imposes on which objects a subject can be acquainted with (as shall be shown further down), some theorists have sought to formulate alternative theories to acquaintance. In the subsequent section (§III) therefore, by focusing specifically on cognitivism and semantic instrumentalism, I shall show how these alternatives attempt to overcome C1 by attempting to articulate a manner in which we can have such singular thoughts without the need for acquaintance. I shall argue that these compromise views – while purporting to solve the puzzle presented above – are ultimately unsuccessful.

In (§IV) I shall briefly touch upon C3. Recent work has sought to argue that the causal inertia of abstracta is not a foregone conclusion since this supposedly empirical claim rests on non-empirical foundations and thus should not be unquestioningly

accepted. In this text I do not deny C3, but rather seek to show that such a claim must be argued for and an adequate reply to the challenges presented must be given. Finally, in (§V) I shall present some problems that advocates of a view of acquaintance that relies on causation face. Despite not intended as an outright refutation, this should be enough to motivate us to propose an alternative account of acquaintance as a way of resolving the puzzle. This positive account of SBA shall be presented in Chapter 2.

§II. Acquaintance and Singular Thought

It has already been stated that we will understand singular thought as being defined in terms of directness. We can begin to elaborate on this by using a definition put forward by Recanati: “[o]bjects are given to us directly, in experience, and we do not necessarily think of them as the bearers of such and such properties.”²⁷ This is in contrast with descriptive thought, which lacks this directness, in that thoughts come to be about certain objects in virtue of some description or set of properties.

We can make use of the satisfactional/relational distinction originally introduced by Bach.²⁸ Descriptive thoughts, Bach states, pick out an object satisfactionally, in that a thought is about a particular object if that object satisfies a certain set of descriptions a subject has about it. Singular thoughts, on the other hand, are said to refer to objects in a relational manner. This means that *S*'s thought about *x* succeeds in referring to *x* not because *x* satisfies some set of descriptions that *S* believes, but rather due to a relation that holds between *x* and *S*.

²⁷ (Recanati 2012, 4)

²⁸ (Bach 1987)

However, if singular thoughts involve individual, extra-mental objects, how does this process happen in the first place? Put differently, what allows a subject to be able to think of an object in such a direct way? Descriptivism does not encounter this problem since the properties and relations that a subject uses in thinking general propositions are considered as “things that might more plausibly be thought of as internal to the mind, or at least things that the mind could grasp from the inside.”²⁹ Therefore, what account does the singularist put forward in order to explain how a subject can have thoughts regarding individual objects?

As shall be explored further down, Bach asserts that “[t]he relation that makes something the object of a *de re* thought is a *causal relation*.”³⁰ Recanati,³¹ in a similar vein, seeks to answer this question by presenting a theory of singular thought which explains how a subject succeeds in having thoughts about a particular object in virtue of an acquaintance relation that the subject has with that object. However, while this text shall focus heavily on Recanati’s articulation of this acquaintance constraint on singular thought, any thorough discussion on the matter must also begin by making reference to Russell’s original conception of it. This especially given the fact that Russell’s elucidation of acquaintance led him, over time, to champion descriptivism – despite his initial insistence to avoid it at all costs.

Russell articulates acquaintance by saying that,

“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.”³²

²⁹ (Stalnaker 2008, 12)

³⁰ (Bach 1987, 12 Emphasis added.) Despite Bach’s usage of ‘*de re*’, I will avoid this nomenclature for clarity.

³¹ (Recanati 2012). This has been followed by (Recanati 2016)

³² (Russell 1911, 108)

The close link between acquaintance and the directness of singular thought can already be clearly seen. However, while Russell does distinguish between being acquainted with particulars or universals, he asserts that we cannot be acquainted with physical objects.³³ Rather, the particulars that he refers to are what we have now come to term as ‘sense-data’, akin more to properties that a particular object instantiates. We are then subsequently acquainted with universals through the process of abstraction, as Russell states elsewhere,

“It is obvious, to begin with, that we are acquainted with such universals as white, red, black, sweet, sour, loud, hard, etc., i.e. with qualities which are exemplified in sense-data. When we see a white patch, we are acquainted, in the first instance, with the particular patch; but by seeing many white patches, we easily learn to abstract the whiteness which they all have in common, and in learning to do this we are learning to be acquainted with whiteness. A similar process will make us acquainted with any other universal of the same sort. Universals of this sort may be called ‘sensible qualities’. They can be apprehended with less effort of abstraction than any others, and they seem less removed from particulars than other universals are.”³⁴

We shall return to this notion of abstraction and the question of universals further on. For now, suffice to show that on Russell’s notion of acquaintance the number of things we can have singular thoughts about is very limited. It is precisely for this reason that Russell was then forced to take up descriptivism.

How, then, does Recanati’s notion of acquaintance differ from Russell’s? Recanati elaborates on this in his mental file framework on singular thought. To be acquainted with an object, Recanati asserts, is for the subject to have an ‘epistemically-rewarding’ (ER)

³³ (Russell 1911, 112)

³⁴ (Russell 1912, chap. 10)

relation as a means of gaining information about the object. In forming an ER relation with an object, the subject forms a mental file which is deployed as a constituent of singular thoughts the subject has concerning that object. In Recanati's words:

“acquaintance relations... are epistemically rewarding in that they enable the subject to gain information from the object... The role of a mental file based on a certain acquaintance relation is to store information acquired in virtue of that relation... what determines the reference is not the content of the file but the relevant relation to the object. The file corresponds to an information channel, and the reference is the object from which the information derives, whether that information is genuine information or misinformation.”³⁵

From the above, the relational nature of Recanati's mental files is clearly understood: the information that the subject has regarding an object in her corresponding file may be correct or incorrect, what matters is that the file picks out the referent in virtue of the acquaintance relation that exists between object and file. Hence, on Recanati's theory, a subject opens a JONES mental file once she forms an ER acquaintance relation with Jones. Different individuals might become acquainted with Jones (possibly, in different ways) and will all open a corresponding mental file. Each JONES file, however, differs depending on the type of ER relation the respective subject has with Jones (such as being in a perceptual relation to him, or having heard about him, etc.).

A significant difference between Russell and Recanati should already be evident. Whereas Russell held that we are never acquainted with physical objects *per se* (except maybe with the exception of one's self), Recanati asserts that we are acquainted with physical objects. This implies that we are not, therefore, given a complex of properties in

³⁵ (Recanati 2012, 37–38)

acquaintance, but rather the object itself. Furthermore, as already noted, these acquaintance relations are epistemically-rewarding (ER) relations. However, Recanati does not offer an exhaustive list of types of ER relations. He mentions the obvious case – perceptual relations – as a type of ER relation, as well as communicative chains, and memory, as forms of mediated acquaintance which still classify as ER relations. Beyond these, Recanati leaves open the possibility of other possible types of ER relations – quoting Lewis – “in virtue of the analogy between relations of perceptual acquaintance and other, more tenuous, relations of epistemic rapport...”³⁶ We shall return to Recanati later on.

As already mentioned, the notion of causality is heavily intertwined with acquaintance. While various authors have put forward different articulations of the relationship between the two, the general thrust of these arguments is that acquaintance can be said to be achieved upon the formation of some sort of causal relation between the extra-mental object and the thinker, thus enabling the latter to have thoughts about the former.³⁷ The crux of the problem pertaining to acquaintance with abstracta lies precisely here – how can the thinker be in a causal relation to something that is considered as being causally inert? Bach notes the existence of this problem – he plainly states that “[a]bstract entities simply cannot enter into causal relations,”³⁸ but still believes that one can have singular thought about such entities, though he chooses to not tackle the issue.³⁹

³⁶ (Lewis 1999, 380–81)

³⁷ For a brief overview of differing accounts of causality and its relation to acquaintance see: (Hawthorne and Manley 2012, 19ff)

³⁸ (Bach 1987, 12)

³⁹ (Bach 1987, 11, 262)

What option does an advocate of acquaintance theory have left in order to try and account for singular thought involving abstracta? Let us examine how Recanati attempts to resolve this tension. The two principles on which his mental files theory rests are:

- “1. The subject cannot entertain a singular thought about an object *a* without possessing, and exercising, a mental file whose referent is *a*.
2. To possess and exercise a mental file whose referent is *a* the subject must stand in some acquaintance relation to *a*.”⁴⁰

It should be noted, however, that 2. is a normative requirement according to Recanati, since one can, under certain circumstances, token a mental file without acquaintance. These are instances where one is not yet acquainted with an object, yet *expects* to be so in due course.⁴¹ Recanati seems to tout this notion of expected acquaintance as a manner in which we can expand the horizon of objects one can have successful singular thoughts about.⁴² While this might be the case, this expansion is minimal and still in need of further explanation as to what justifies one anticipating a future acquaintance relation with an object (as Recanati himself aptly notes).⁴³ Crucially, then, expected acquaintance still requires acquaintance, and thus, expected acquaintance still doesn't solve our present concern regarding abstracta.

How then, does Recanati try to overcome this problem of securing acquaintance with abstract objects? For some solution, we may turn to his treatment of fictional objects.

Let's begin with his own example:

⁴⁰ (Recanati 2012, 155)

⁴¹ (Recanati 2012, chap. 13) There is another way which one can entertain singular thought that Recanati briefly touches upon – the case of *imagined* acquaintance.

⁴² (Recanati 2010)

⁴³ (Recanati 2012, 165 n.7)

(3) “Sherlock Holmes is a fictional character created by Conan Doyle. He first appeared in print in 1887, in *A Study in Scarlet*.”⁴⁴

According to Recanati, the above is judgeable as being true or false because a referent is indeed secured. This is because ‘Sherlock Holmes’ in this sense, does not refer to the detective who lives on Baker Street, but rather refers to the fictional artifact Sherlock Holmes which, taking up the stance of a fictional realist, does exist. Recanati then goes on to explain in what manner might one become acquainted with abstract entities of this type, which I reproduce in full below:

“In metafictional discourse, illustrated by [(3)], actual reference takes place, but the target is a cultural artefact, not a flesh and blood individual. That means that a mental file is deployed, referring to the abstract artefact. That metafictional file, as we may call it, is similar to the sort of file we deploy in thinking about other abstract artefacts such as the i-Phone or Beethoven’s Fifth Symphony (Thomasson 1999). Of course, whenever reference to abstract objects is at stake, the following issue arises: how can reference be based on acquaintance relations in such cases, since we are not acquainted with abstract objects? This is a general issue which I will put aside here—I assume that mental files can be based on epistemically rewarding relations even if the referent of the file is an abstract object, provided one is acquainted with something that bears an appropriate relation to the abstract object. In the case at hand, since fictional objects supervene on acts of fictional reference, acquaintance with the fictional practice will provide the relevant source of information, as will more indirect relations to the practice via the testimony of others. (For the i-Phone, acquaintance with instances—tokens of the type i-Phone—will do, as well as, again, testimony.)”⁴⁵

⁴⁴ (Recanati 2018, 26)

⁴⁵ (Recanati 2018, 46) Referencing from (Thomasson 1999).

Recanati thus seems to follow in Russell's footsteps (albeit in a modified manner) in advocating in favour of some form of abstraction process through which we can come to be acquainted with abstract entities. Recanati seems to allude to the fact that this can only be done via other objects with which we can form acquaintance relations (curiously, however, in the above example he mentions being acquainted with the "fictional practice" – itself not a physical object!). Acquaintance and reference with fictional objects will be treated at greater length in Chapter 4. For now, however, suffice to show that to overcome the supposed causal inertia of abstract objects, Recanati's proposal can be described as a 'two-step' model wherein we come to be acquainted with a physical object (since it is *not* causally inert) and then, by a mental process of abstraction, arrive at the abstract entity in question.

Crucially, however, on this two-step model we are *still* not acquainted with the abstract entity in question in a direct manner.⁴⁶ Thus, the second of Recanati's principles stated above is still not fulfilled. The two-step model, while somewhat intuitive, lacks the characteristic feature of singular thought of directness. The second step of the two-step model entails that the subject would think of Sherlock Holmes under some description like 'the protagonist of Conan Doyle's novels,' thus meaning that such a thought would be more of the descriptive sort. If we refer back to the puzzle presented towards the end of the previous section, we observe that the two-step model doesn't remove any of the claims, and thus the problem still exists.

One might be tempted to ask whether there are other ways of forming singular thoughts about abstract entities without the need of acquaintance altogether. In the

⁴⁶ And neither should we expect to be acquainted with it in the future – thus ruling out Recanati's notion of 'expected acquaintance.'

following section I shall explore some of the views that have been advanced as alternatives to acquaintance. In particular I shall elaborate on two other methods available in the literature, namely semantic instrumentalism and cognitivism. These theories, therefore, challenge Claim 1. While they do not seem to differentiate between abstract and physical entities and are thus, in this respect, simpler, I shall argue that they have other objections levelled against them that still make the acquaintance view a more attractive one to hold.

§III. Singular Thought without Acquaintance

The motivation behind why one would want to look for alternatives to the acquaintance model for accounting for singular thought is well-founded; as has been shown in the previous section, acquaintance seems to restrict the number of objects one can have singular thoughts about. This has been further elaborated on by Hansen and Rey⁴⁷ who elucidate a wide variety of entities – abstract or otherwise – that Recanati’s model seems to struggle with.⁴⁸ Davies argues a similar point, yet strictly with respect to mathematical objects.⁴⁹

The first alternative to the acquaintance model, then, that I will discuss is known as semantic instrumentalism. The name refers to the instrumental use of language in allowing the subject to have singular thoughts without necessarily being acquainted with the object. In Kaplan’s own terms, semantic instrumentalism (although he never made use of the specific name) asserts that:

⁴⁷ (Hansen and Rey 2016)

⁴⁸ (Hansen and Rey 2016, sec. 4) The authors themselves also admit that this is by no means an exhaustive account.

⁴⁹ (Davies 2019)

“...a special form of knowledge of an object is neither required nor presupposed in order that a person may entertain as object of thought a singular proposition involving that object. There is nothing inaccessible to the mind about the semantics of direct reference, even when the reference is to that which we know only by description. What allows us to take various propositional attitudes towards singular propositions is not the form of our acquaintance with the objects but is rather our ability to manipulate the conceptual apparatus of direct reference”⁵⁰

We recall that the critical distinguishing feature between singular and descriptive thought is the ability to think of an object directly, and not under some form of unique description or collection of properties. What Kaplan is effectively saying is that, in instances where a subject is not acquainted with the object (such as Evans’ example of “the inventor of the zip”),⁵¹ they can still coin a proper name, such as ‘Julius,’ that refers to ‘the inventor of the zip’, thus allowing the subject to entertain singular thoughts about the inventor of the zip without being acquainted with them.

Thus, semantic instrumentalism can secure singular thought about abstract entities in a far simpler way than the acquaintance approach. Whereas we have seen the two-step route that Recanati seems to hint at in the preceding section, the semantic instrumentalist need only use language itself as a tool for coining a new name to ‘refer’ to the abstract entity. Semantic instrumentalism thus purports to enable the subject to entertain singular thoughts, without being acquainted with the objects being thought about.

A particular feature of this approach to achieving singular thought, however, has come under much fire with what Davies terms as ‘voluntarism.’⁵² Whereas singular

⁵⁰ (Kaplan 1989, 536)

⁵¹ (Evans 1982, 31)

⁵² (Davies 2019, 4120)

thought on the acquaintance model can only come about once there exists some sort of relationship between the subject and object (via, for example, Recanati's ER relations), on the semantic instrumentalist view, the subject can have singular thought about anything whenever they will it. This is problematic since – to use Evans' words – “[w]e do not produce new thoughts (new beliefs) simply by a 'stroke of the pen' (in Grice's phrase) – simply by introducing a name into the language.”⁵³ There is, in effect, no relation holding between the thought and the target object the thought is about. The crucial characteristic of singular thought is thus lost.

This, I argue, also leads us to another objection. On this view, while a subject might not be acquainted with the inventor of the zip, she coins the name 'Julius' to refer to him. However, let us imagine that the zip was not invented by a single individual, but by a committee – what does the name 'Julius' refer to in this case? Or maybe zips are a naturally-occurring phenomenon found in nature as a result of some geological formation – like diamonds. In these cases, to speak of 'the inventor of the zip' would be as nonsensical as to speak of 'the inventor of volcanoes.' Thus, given that the semantic instrumentalist need not assert that a relation holds between subject and object, it would seem to be the case that on this view, subjects are far more susceptible to having pseudo-singular thoughts than on the acquaintance view. Infelicitous examples do exist on the acquaintance view (as shall be commented on further down) but these occur when 'things go wrong' so to speak. On the semantic instrumentalist view, however, the fact that subjects are far more susceptible to having pseudo-singular thoughts, and subjects' lack of explanatory resources to show how or why this is the case, seem to be features baked into the theory itself.

⁵³ (Evans 1982, 50). Referring to (Grice 1969, 140).

This brings us to the second approach to achieving singular thought – the cognitivist view. Cognitivism, as advanced by Jeshion, asserts that, in the absence of acquaintance with an object, a subject may still have singular thoughts about the object, if that object “is significant to the agent with respect to her plans, projects, affective states, motivations.”⁵⁴ Jeshion labels this the Significance Condition. This view does not fall prey to voluntarism as, according to Jeshion, it is not the agent’s judgement that ‘decides’ whether one can have singular thought about an object one is not acquainted with, but rather the “cognitive system.” As if to further reinforce the fact that such an act is not under the agent’s voluntary control, Jeshion affirms that:

“I cannot inhibit the production of the singular nature of my thinking about the relevant individual, returning, at will, to a descriptive mode of thinking, for this is not under my control.”⁵⁵

At face value this might seem to be a plausible view. Jeshion continues to show how, on the cognitivist approach, one can have singular thoughts about abstract entities, such as God or one’s imaginary friend,⁵⁶ in the absence of acquaintance. Davies, for example, also takes up cognitivism as a viable means to secure singular thought about mathematical objects.⁵⁷

It should be noted, however, that while cognitivism escapes the objection of voluntarism, it is not entirely out of the woods. Apart from certain general objections raised towards this approach by Davies,⁵⁸ there is another issue. We have seen above how

⁵⁴ (Jeshion 2010, 136)

⁵⁵ (Jeshion 2010, 137)

⁵⁶ This particular example is also taken up by Recanati, who seems to indicate some form of ‘imagined acquaintance’ (Recanati 2012, 168). Criticism has been levelled by Hansen and Rey on this point (Hansen and Rey 2016, 431 n.18).

⁵⁷ (Davies 2019, 4121 ff.)

⁵⁸ (Davies 2019, sec. 3.4)

Jeshion appeals to the ‘cognitive system’ in order to avoid the pitfall of voluntarism. The attractiveness of cognitivism, therefore, is that it rests on a system governed by psychological principles that can be empirically analysed. However, in this regard, both Jeshion and Davies admit that the necessary evidence needed to backup this approach is still forthcoming.⁵⁹ While this fact alone is not enough to rule out the view, it leaves this rather attractive theory without an empirical leg to stand on.

The cognitivist might retort by saying that this is only a matter of time. Once neurological and psychological studies advance, they will have the necessary information and evidence to back up their claims. Yet is this entirely the case, specifically with regards to Jeshion’s Significance Condition? How can we expect to empirically analyse ‘significance’? One may, in due course, draw up an account of how the Significance Condition is triggered or said to be fulfilled when certain neuro-psychological processes take place, yet would this not be tantamount to shifting the accusation of voluntarism to a higher level? It seems that the concept of significance itself is not analysable empirically, thus putting into question the main advantage that cognitivism purports to have over semantic instrumentalism.

Thus, in both semantic instrumentalism and cognitivism, singular thought is supposedly achieved without the need for some sort of relation between the subject and the object in question. Effectively, the referent plays no role in making it the case that the thought a subject has, is *about* it. On these views, a thought is about a particular object simply because the agent wills it to be. This is obvious in the case of semantic instrumentalism. It is less so, however, in the case of cognitivism where Jeshion reiterates that “[m]ental name production is not wholly under agential control. It is under cognition’s

⁵⁹ (Jeshion 2010, 138; Davies 2019, 4135)

control.”⁶⁰ Despite this, however, on the cognitivist account, the successful tokening and deployment of a mental file (to use Recanati’s terminology) does not take into consideration the referent the mental file is about (whether it exists or not, and whether the subject has some form of relation with it). Significance is therefore wholly internal to the subject, even if not under the subject’s direct control.

It would be helpful here to make reference to a distinction made by Sawyer in her criticism of cognitivism. She articulates the three constraints on singular thought which largely follow the interpretation employed here, namely “a quasi-semantic constraint—that the object be thought of directly rather than descriptively; a metaphysical constraint—that there be an object thought about; and an epistemic constraint—that the subject be acquainted with the relevant object.”⁶¹ The Significance Condition on the cognitivist view seems to do away altogether not only with the epistemological constraint, but also with the metaphysical one as well. Recanati articulates this in a similar manner – “When a [mental file] occurs in a thought, the referent itself is part of the truth-conditions of the thought. (Hence no complete thought is expressed unless this individual exists.) It is supposed that there is an object outside the mind from which the subject receives information.”⁶² Thus, on the acquaintance view – as can be seen – a relation with the referent is required, even if we do still find infelicitous examples of pseudo-singular thought wherein a subject thinks they are tokening a thought about some object, but unbeknownst to them no such objects exists.

The Significance Condition, however, has no such supposition; the object one’s thought is supposedly about need not necessarily exist. And even if it does, a relation

⁶⁰ (Jeshion 2010, 125)

⁶¹ (Sawyer 2012, 270)

⁶² (Recanati 1993, 130)

need not hold between it and the subject. This naturally raises the question of what makes it the case on the cognitivist view that – lacking any relation with an object *o* - my thoughts are indeed about *o* and not some other object? Given this, it would seem safe to say that, like semantic instrumentalism, on the cognitivist view *anything* and *nothing* can be significant to a subject.

This, I argue, is problematic, and should lead us to prefer acquaintance over its competitors, despite the rigid “epistemic limitations”⁶³ acquaintance places on singular thought. Acquaintance respects all three of Sawyer’s constraints. Relying once again on Sainsbury’s taxonomy, given that understanding singular thought in terms of directness, entails that singular thought must be “object-dependent” and “object-involving,”⁶⁴ the fact that instrumentalism and cognitivism have dropped these criteria make them unsavoury alternatives.

Acquaintance, on the other hand, can give us what we are looking for in that, contrary to the views discussed in this section, it stipulates the necessity of some sort of relationship with the object one’s singular thought is about. In this manner, I hope to have shown that, attempting to articulate the directness of singular thought as arising from something other than acquaintance will inevitably lead us to give up much more than we would want. Discarding acquaintance in order to ‘expand’ singular thought, therefore, would be nothing more than a pyrrhic victory.

⁶³ (Jeshion 2010, 129)

⁶⁴ (Sainsbury 2020, 22)

§IV. Doubting Causal Inertia

Let us revisit the puzzle presented towards the end of the first section. The problem with postulating acquaintance with abstract entities, we have seen, is that they are causally inert. This is to say that, lacking any spatio-temporal properties by which we can ‘grasp’ them, they elude us. In light of this, we must discard one of the three claims presented in the PUZZLE presented in §I in order to approach some sort of solution. The two-step model that some acquaintance theorists propose – presented in §II – was also seen to be lacking in that it did not challenge any of our initial claims. Furthermore, discarding C1, as we have seen in the preceding section, does give us singular thought about abstracta, yet at the expense of severing the object-dependence of singular thought. I have argued that this is too big a consequence to accept and thus C1 should not be discarded. In this section, the focus shall shift to C3. While I do not believe that the puzzle can be resolved by discarding this claim, recent literature seems to indicate that questioning the supposed causal inefficacy of abstracta is not as outrageous as some would think.

One line of argumentation that has been advanced by a number of theorists in these past few decades has come about as a reply to Benacerraf’s⁶⁵ dilemma regarding knowledge of mathematical objects.⁶⁶ However, I would here like to focus more specifically on abstract artifacts. Abstract artifacts such as novels, musical pieces, or fictional characters, are considered as such in virtue of having been created by someone. These differ from so-called ‘eternal,’ or ‘transcendental’ abstracta such as numbers. Some

⁶⁵ (Benacerraf 1965; 1973) This will be explored in further detail in Chapter 5.

⁶⁶ (Maddy 1990; Cresswell 2010)

theorists have even made the case that entities such as laws, or corporations are also examples of abstract artifacts.⁶⁷

Two arguments exist with regards to abstract artifacts and their not being causally inert. The first, put simply, states that since such artifacts are created, then they can be said to be *caused* to exist. Thus, the very fact that novels are written, musical pieces are composed, parliaments are convened, and nations are founded – the argument goes – shows that, at the very least, this class of abstracta are not causally inert. Creation is thus considered as a form of *causing* to exist.⁶⁸

The second line of argumentation asserts that such artifacts are not only causally affected, but that they themselves cause effects. Dodd pushes this line by giving, as an example, when a film causes a riot.⁶⁹ We can see this argument at play also when totalitarian governments ban particular books from circulation.⁷⁰ Such governments do not believe that the book itself is ‘dangerous,’ but rather the ideas contained within and the effects it can have on those who read it. Similarly, one can argue that the practice of censoring works of art in general is premised on the very idea that such works of art, be they novels or film, (supposedly) cause negative effects on those who ‘consume’ them. We can also see this with regards to social institutions such as, for example, the British Parliament. It can hardly be called a physical, or concrete entity,⁷¹ and yet it certainly is the cause of a number of very real effects (as any EU citizen can testify!). Finally, Friedell takes up this idea of the effects that artifacts produce and widens it to encompass and

⁶⁷ For example: (Thomasson 2003a, 273)

⁶⁸ (Brock, Maslen, and Ngai 2013)

⁶⁹ (Dodd 2007)

⁷⁰ Such as, for example, Nazi Germany’s banning of *The Communist Manifesto*.

⁷¹ Since ‘British Parliament’ does not refer to the building of the Houses of Parliament, nor even to the sum total of all elected MPs.

apply to many more types of abstracta, not only artifacts.⁷² He concludes with a brief example that we may replicate here:

“Premise: π caused Taylor to lose sleep.

Premise: If π caused Taylor to lose sleep, then some abstracta are causally efficacious.

Conclusion: Some abstracta are causally efficacious.”⁷³

The final observation I would like to make in this regard pertains to C3 itself. The claim rests on two notions which are still heavily debated. There is no agreement as to the definition of an abstract entity (whether it is an object which is defined in terms of its lack of spatiotemporal properties, or its inability to enter into causal relationships),⁷⁴ coupled with the fact that the metaphysics of causation itself is still the source of debate.⁷⁵ Generally, the relata are taken to be events, however, we are here concerned with objects. Thus, relevant to both C2 and C3 is the fact that we are in need of an account that can stipulate in virtue of what is an object involved, or participates, in a particular causal event such that I become acquainted with *it*. However, this issue – crucial to those who would like to uphold the mentioned claims – has not been properly tackled. Friedell, as mentioned above, does in fact attempt to give a formalised account of how objects participate in causal events in a manner that does not differentiate between concrete and abstract objects.⁷⁶ Accepting such a model may solve our puzzle by eliminating C3,

⁷² (Friedell 2020)

⁷³ (Friedell 2020, 141)

⁷⁴ For a general overview on this debate, see: (Falguera, Martínez-Vidal, and Rosen 2022)

⁷⁵ Discussion in this area betrays viewpoints which vary greatly from one theory to another as to the nature of causal relations and their relata. While the treatment of causality in our present debate does not delve into the same detail and rigour, however I shall briefly mention one particular point. One view of causation considers the relata as events, such that one event causes another. Events, in this context, are considered as immanent and, hence, necessarily spatiotemporal. Another view, however, views causal relata as transcendental facts, which are abstract propositions. Thus, even from a metaphysical perspective, the causal efficacy of various objects is dependent on one’s theory of the metaphysics of causation.

⁷⁶ (Friedell 2020, 139–40)

however it is dependent upon one adopting Friedell's specific analysis of causality. As Rosen notes, when commenting on the need to give an account of object causation, "[t]here is no reason to believe that it cannot be solved, though the varieties of philosophical analysis for the notion of *causality* make the task full of pitfalls."⁷⁷ For this reason, it seems to me that attempting to solve the puzzle by removing C3 is tenuous, at best, and highly dependent upon the interpretation of causality that one adopts. Thus, while it is hoped that what has been presented in this section is just enough to show that the prevalent view on the matter – namely that abstracta are causally inert – should be seriously questioned, I now move to what I hold to be a more promising route to removing the inconsistency and thus solving the puzzle.

§V. Towards an Alternative to Causal Acquaintance

By a process of elimination, we have come to select C2 as the 'best candidate' to be challenged in order to aim towards a solution to the puzzle of singular thoughts involving abstracta. Thus, while in the previous section, the issue was with the relata in the causal relationship, namely the abstract objects themselves, in this section the focus turns to the notion of causation itself as employed in articulating acquaintance. C2 is problematic precisely because articulating acquaintance in terms of causality severely restricts the variety of objects one is acquainted with.

I should first make explicit at the outset what I understand acquaintance to be; acquaintance is a relation that exists between subject and object that enables the subject to think of the object in a non-descriptive way. Therefore, given that the object is presented to the subject in this direct way in acquaintance, an implication of this claim is

⁷⁷ (Rosen 2020)

that – as has been mentioned elsewhere above – the object with which one is acquainted must exist (or have existed at some point). Furthermore, to become acquainted with an object is an experience that the subject undergoes wherein the subject immediately becomes aware of their being acquainted with the target. Thus, I understand becoming acquainted with an object to be a necessarily conscious event.⁷⁸

As has already been briefly mentioned above, acquaintance post-Russell has largely been articulated in terms of causation. Let us first put forward a catch-all definition of acquaintance for the family of views which fall under this category.

CAUSAL ACQUAINTANCE VIEWS (CAV): A subject is acquainted with *O* when they are in “some appropriate causal connection”⁷⁹ with *O*.

In what follows, I shall show that, when seriously probed, CAV struggles to explain how we are acquainted with classes of objects far less problematic than abstracta. The aim here, then, is not to present a total refutation to CAV, but rather to show that such views are not as water-tight as their proponents take them to be, and this should be sufficient motivation to look for an alternative way of articulating acquaintance. The positive proposal, however, will not be made here, but will be presented in the following chapter.

In examining CAV, we must first ask what is understood by ‘causal connection’? There are two distinct levels which I believe are relevant to this question. The first, weaker sense in which a subject can be said to be causally connected to *O* is to state that there

⁷⁸ A distinction must be made here between ‘becoming acquainted’ and ‘being acquainted.’ By asserting that becoming acquainted is a conscious event, I understand that it would be nonsensical for the subject to assert something like “I do not know that I have now become acquainted with *x*.” However, I do not intend to mean that one must remain conscious that they are acquainted with some object. To ‘be acquainted’ with an object, then, can be likened to a state or disposition. Similar to Recanati’s two principles presented above, the successful tokening of that object (or rather, the mental file linked to that object) in thought – either in recalling a memory, or in being presented with it in perception – is possible in virtue of one’s becoming acquaintance with that object at a certain point in the past.

⁷⁹ (Hawthorne and Manley 2012, 21)

exists some explanation of how a subject's thought is about *O*. However, this is uncontroversial. This much is admitted of competing theories such as cognitivism and semantic instrumentalism. Cognitivism, for example, holds that a subject's thought is about *O* because *O* is somehow significant to the subject. Semantic instrumentalism holds that a subject's thought is about *O* because a subject has given the mental name '*O*' to some description. Both theories explain a cause of one's thought involving *O*, and arguably every theory can be labelled as being 'causal' in this weak and unremarkable sense. Proponents of CAV, on the other hand, seem to want something stronger to satisfy their thirst. To be 'causally connected' or 'causally related,' as CAV seems to imply, is to say something like 'the relation between subject and object is a causal relation of which the subject and the object are the relata.' This is why, for example, it is generally held that, on CAV a subject cannot be acquainted with abstracta precisely because of the belief that abstracta cannot themselves enter into causal relations.

Let us elaborate further on this 'strong' version of causality. One manner in which we may do so is to map out the logical space of possibilities of how causality may be articulated in terms of necessary and sufficient conditions. A theory along the lines of this strong version would seek to explain acquaintance by appealing solely to causation and nothing else. We can propose then that CAV would assert that a causal relation existing between subject and object (in the strong sense we are describing) would be both necessary and sufficient for acquaintance to take place.

Those sympathetic to the CAV might object that I am presenting a view which is too rigid and implausible – a caricature of what a real causal view should look like. I do not think that I am misrepresenting CAV; however, I do believe that once the view is laid bare, the causal theorist must either bite the bullet and admit that it is, in fact, too rigid

and implausible, or seek an alternative. To be clear, I do not wish to argue that there are no instances in which causation plays a role in acquaintance; rather, I seek to show that causation alone is – at the very least – insufficient (and in some instances possibly even unnecessary). Some theorists seem to hint at the insufficiency of causation arguing for something akin to ‘the right kind of causal connection’ without specifying further on what is understood by ‘right kind.’⁸⁰ The fact remains that, if causation ceases to be sufficient for acquaintance, then the important work in acquaintance is now being done by whatever other condition(s) one adopts over and above causation, and I do not consider such a theory to be a type of CAV at all. Evans already challenges this point. “It is the *sufficiency* of a bare causal relation for determining reference which Evans casts doubt upon,”⁸¹ and similar to Evans, below I shall attempt to go into further detail on why we should discard the sufficiency condition. Doing so, I argue, is enough to show how the Causal View loses its defining characteristic. If causation ceases to be sufficient then the important work in acquaintance is now being done by whatever other condition one adopts over and above causation.

Generally, the relata of causal relationships are taken to be events. Yet events themselves are composed of objects (e.g.: in the event of the cue ball hitting the eight ball, the cue ball and the eight ball are the objects involved). Furthermore, we can have a causal chain of event e_1 causing e_2 , which in turn causes e_3 , etc., with each event involving different objects. Thus, to adapt a popular example, we can think of Smith being murdered

⁸⁰ The following are a few examples: Böer and Lycan speak of “(appropriately shaped) causal chains” (1986, 128); Salmon speaks of “certain sorts of causal contact” (1986, 180); Soames similarly speaks of being “sufficiently acquainted with o ” which he goes on to describe as “vague (what counts as sufficiently acquainted?), [and] not easy to satisfy” (2002, 92).

⁸¹ (Recanati 1993, 116 n. 6 Emphasis in original.)

by Jones, and the Inspector coming upon Smith's bloodied corpse. In this case a causal chain exists between the Inspector and Smith, and Smith and Jones.

Following CAV, the Inspector *qua* subject is therefore causally related with Smith, yet he is also causally related with Jones. And if causation is indeed sufficient for acquaintance, then are we to say that the Inspector is thus acquainted with both Smith and Jones? While the answer might not be as clear-cut, surely there are situations in which, even if an object is indeed on the same causal chain that the subject is a part of, we do not want to say that the subject is acquainted with that object. Upon seeing a building, it would be uncontroversial to say that the subject is acquainted with that building. Some might even agree that the subject is acquainted with the building's builder. But I doubt whether any supporter of CAV would hold that the subject is also thereby acquainted with the building's builder's mother! McLaughlin latches onto this issue in similar words by stating that,

“to perceive an effect of something is not ipso facto to perceive it. As one gazes at the scene before one's eyes, one does not thereby see the Big Bang. There are less cosmic examples. When one hears the sound of a passing car, one thereby hears the car. But one may not thereby hear the pistons in the engine or the wall that reflects the sound, even though each causally affects the sound. Seeing the glows of a car's headlights may count as seeing the car but not as seeing the battery inside, even though the battery is a causal source of the glows.”⁸²

Hansen and Rey, in articulating the same problem more specifically in terms of our current line of questioning, pick up on the essential pitfall that is common to these type of problems that can be multiplied:

⁸² (McLaughlin 1984, 579)

“there are causal chains connecting most pairs of things in the world: any normally educated person has a pretty good idea about how in principle to ‘gain information’ about most anything. After all, everything is potential evidence of practically everything else, if you can only figure out how to mine it, since most everything (at least in the relevant past light cones) is causally related to most everything else.”⁸³

It seems, then, that CAV lacks the explanatory resources to explain why the subject is acquainted with some objects on the causal chain but not with others. Furthermore, if indeed the subject is acquainted with all or many of the objects which lie on a given causal chain, it would seem that CAV lacks the resources to explain how or why the subject is acquainted with one object on the causal chain as opposed to another.

There is a second problem here which can be articulated as follows; even if the subject were to latch onto a particular object, CAV seems to lack the explanatory power to differentiate acquaintance between an object or a part of it. We are used to these sorts of questions in ethics when investigating whether the cause of one’s death was the finger pulling the trigger or the person whose finger it is. In these case, the answer is less problematic since we do not lay moral culpability by looking only at the casual chain but by also including other constraints. What about acquaintance? If a subject is only acquainted with part of an object, do they also become acquainted with the whole object? Walking slowly in a dark room a subject might become acquainted with the table leg that they have stubbed their toe on. Are they thus also acquainted with the table? Yet thinking ‘Blasted table leg!’ or ‘Blasted table!’ are two different thoughts, both seemingly arising from the same (painful) causal interaction. The supporter of CAV needs something else to remedy this discrepancy.

⁸³ (Hansen and Rey 2016, 427)

All that has been said so far should, by now, motivate us to seriously examine whether acquaintance should be articulated in terms of causality. One's convictions regarding C2 above, therefore, should be doubted and questioned for various reasons. It seems that our intuitions on which entities we can have singular thoughts about, and how causality is supposedly employed in acquaintance relations, do not align. We need another way of articulating acquaintance.

However, I argue that we need an articulation of a *specific sort*. One must be wary of advancing some mysterious or special mode of acquaintance with abstract objects, akin to some sort of 'third-eye' or 'special intuition.'⁸⁴ While the notion of causality is problematic, this does not justify rearticulating acquaintance in an *ad hoc* manner without a proper elucidation.

Some have sought to articulate acquaintance without recourse to causation. Kim, for example, interprets acquaintance as a subject being in "direct cognitive contact" with an object.

"if there are cases in which ostension is possible without causality, then the concept of ostension as such cannot involve a causal component. And ostensive reference seems most nearly to correspond to the basic, primal form of intentionality, the idea of our mental attitudes being directed upon an object. The idea of perceiving a physical object might contain a causal element, but this does not mean that the intentional component of perceiving an object coincides with this causal component or is explained by it. Moreover, given a suitable concept of ostensive reference, the

⁸⁴ Chudnoff, for example, argues for the case that we have mathematical knowledge in virtue of 'intuitive awareness.' He adapts Evans' notion of the fundamental ground of difference as a "Ground of Intuitive Awareness" which we recognise phenomenologically. This shall be further explored, and challenged, in Chapter 5 (Chudnoff 2013).

concept of perceiving an object seems analyzable without immediate recourse to causal concepts.”⁸⁵

However, Kim (along with other theorists who explore a similar vein) have come under fire as being merely “off-hand and picturesque.”⁸⁶ While this objection might be justified, the crucial point that must be preserved in articulating acquaintance is that as a result of it, the subject comes to refer to the object in a relational manner, as opposed to satisfactionally. Thus, while the acquaintance relation may be causal, this is not necessary. What is necessary is that there exists some relation between the object in the world and the object in thought.⁸⁷

There is another way we can flesh out this notion of ‘direct cognitive contact.’ Thus far, we have only examined the object of acquaintance and its ontological status. Let us instead attempt to approach this problem by examining the subject. In exploring the capacities and functions the subject exhibits, we might make some headway in providing an alternative articulation of acquaintance. This is the route I will now explore. Recanati, despite advocating a view along the lines of CAV, also admits as much:

“Of course, which relations are epistemically rewarding *depends upon one’s cognitive equipment*, since one must be capable of exploiting the relations to gain information”⁸⁸

⁸⁵ (Kim 1977, 619)

⁸⁶ (Hawthorne and Manley 2012, 20)

⁸⁷ This, it must be noted, directly contravenes Bach’s interpretation – he considers any non-causal relation as “not as intimate a relation as acquaintance in Russell’s sense” (Bach 1987, 15). Bach’s appeal to Russell here is somewhat counter-productive to his aims – Russell himself, in the preface to *Principles of Mathematics* asserts that we can be acquainted with mathematical and logical entities (Russell 1903, xv), and as we have already seen above, Russell thought we could be acquainted with the abstract class of ‘Universals.’

⁸⁸ (Recanati 2012, 20 Emphasis added.)

This can be clearly illustrated in cases when a subject, for some reason or another, does *not* have the ability to pick out certain objects (or categories of objects) – concrete or abstract. We can mention individuals exhibiting amusia (the inability to recognise pitch and musical notes; this is commonly referred to as ‘tone-deafness’), aphasia (the inability to recognise written words/speech), prosopagnosia (the inability to recognise faces; commonly referred to as ‘face blindness’), or alexithymia (the inability to recognise emotions). The existence of individuals who exhibit such conditions can be taken as examples which indicate that acquaintance is not best described in terms of causality but more akin to a cognitive ability that a subject may or may not possess. Individuals suffering from these type of conditions, then, can be said to be unable to become acquainted with a specific category of objects.

This is not dissimilar to Russell’s original conception of acquaintance quoted above, specifically when he speaks of becoming acquainted with whiteness. Russell uses a curious phrase – “we are *learning* to be acquainted with whiteness.”⁸⁹ It seems, therefore, that the variety of types of objects one can be acquainted with varies according to one’s cognitive skills. Some skills might be present at birth, while others might need to be learned and acquired over time. The seemingly strange implication that follows is that the variety of types of objects one can be acquainted with is not the same for everyone, but varies from subject to subject according to the cognitive abilities that an individual is in possession of. Having a cognitive ability is to be able to discern and identify an object amongst a set of objects belonging to a category.

Here already, then, we can begin to see some hints as to what the central thrust of the SBA account – which will be presented and fully-fleshed out in the following chapter

⁸⁹ (Russell 1912, chap. 10)

– will consist in. What these cognitive abilities are, and how they allow the subject to become acquainted with an object is yet to be seen. How this account enables the subject to become acquainted with abstract objects will then be the aim of the subsequent chapters.

For now, however, the aim we have set for ourselves at the start has been achieved. The PUZZLE presented further above rests on three claims. After examining each claim, it seems that the most plausible route would be to seek to challenge and discard C2. Despite attempts that have been made to articulate singular thought as arising from means other than acquaintance, these attempts end up losing the distinct ‘directness’ that is characteristic of singular thought. Hence, acquaintance is an important part of singular thought and should be maintained. Debate still rages on as to the causal inefficacy, or otherwise, of abstract objects. While some existing views do in fact postulate that abstract objects can be related in causal interactions, these views at times require one to subscribe to significant metaphysical baggage which one might not be willing to accept. The only route left was to examine whether we can remove the obstacle of abstract objects’ causal inertia by detaching the causal constraint from acquaintance. Examining the role causation plays in acquaintance showed that CAV faces challenges of underdetermination – both in terms of which are the right causal relations to enable acquaintance, and which objects, of those a subject is causally related with ‘in the right way,’ is a subject acquainted with. Hence, for the realist on abstract objects, the most promising route would be to seek out an alternative way of articulating acquaintance that does not rely on causation. This is what SBA will offer.

Chapter 2 - Introducing Skill-based Acquaintance

§I. Introduction

As has been seen in the previous chapter, the notion of acquaintance is integral to theorising on reference and singular thought, since it is generally taken to be the relation that must exist between a subject and an object, in order for the subject to entertain a singular thought about the object. An argument was there presented to show that acquaintance should be preferred over its competitors since these rival views, such as cognitivism or semantic instrumentalism, lack the directness that is necessary for singular thought and successful reference. In this chapter the focus shall shift specifically to how acquaintance is to be understood. The most common way of understanding acquaintance is as a form of causal connection between subject and object. While numerous variations have been advanced,⁹⁰ for simplicity, in the previous chapter we termed the collection of theories that fall under this category as Causal Acquaintance Views (CAV).

In this chapter, the shortcomings of CAV are first further underlined. By means of some examples, it shall be seen that CAV cannot explain how a subject is acquainted with one object as opposed to another, or how a subject becomes acquainted with an object while another does not. This should be enough to motivate us to look for a novel theory of acquaintance. Furthermore, from the examples that shall be presented, it shall

⁹⁰ For an extensive list see: (Hawthorne and Manley 2012, 21)

also be seen that whatever alternative framework is proposed, it must incorporate within it the notion of skill.

While there already exists a considerable body of literature on skills, this has tended to focus on its relationship to propositional and practical knowledge (know-how).⁹¹ The aim of this chapter, however, is somewhat different. Here I will present a novel account of acquaintance, which shows how acquaintance is dependent on skills. I term this theory as Skill-based Acquaintance (SBA).

In order to be able to do this, however, we must turn to an alternative manner of understanding acquaintance than that employed by CAV. Such an alternative can be found in the work of Evans,⁹² who i) describes acquaintance in terms of a subject having ‘discriminating knowledge’ of the target object, and ii) asserts that a subject gains discriminating knowledge of an object in virtue of their ‘capacities.’ I shall show how skills function similar to Evansian capacities, in that they also allow the subject to gain discriminating knowledge of the target object and, as a result, the subject becomes acquainted with the object.

I shall first briefly recapitulate the problems facing CAV and then move to sketch an outline of Evans’ account of acquaintance. Following this, I will present the SBA account and show how skills function similar to Evansian capacities. The upshot of SBA is that it aligns more with our intuitions than CAV does, while also providing us with the explanatory tools to show how subjects can be acquainted with a wider variety of objects. This is achieved since the SBA account being proposed here is sensitive to how

⁹¹ For an overview of this see: (Pavese 2016a; 2016b)

⁹² (Evans 1982)

acquaintance is secured in contexts where a finer-grained notion of discriminating knowledge is required in order to pick out an object.

It should be noted that, despite the main aim of this thesis being that of articulating how a subject can become acquainted with abstract objects, this chapter will exclusively discuss acquaintance with physical, spatiotemporal objects. The aim here, then, is to present the SBA account and show how it is already a better account of acquaintance even if we were to only consider physical objects. The treatment of abstract objects, and how SBA can account for acquaintance with them, will be tackled in the subsequent chapters.

§II. Acquaintance, Causation, and Evans

As has already been noted previously, in the literature on singular thought, acquaintance has been discussed in the context of articulating what makes it possible for a subject to refer to an object. As a first pass we may present what Jeshion terms as ‘Acquaintance Thesis’ and ‘Standard-Standard on Acquaintance’ as core beliefs held by acquaintance theorists:

ACQUAINTANCE THESIS: “[T]o have a singular thought about an object O, one's thought must be based upon one's acquaintance with O.”

STANDARD-STANDARD ON ACQUAINTANCE: “One can be acquainted with an object O only by perception, memory, and communication chains.”⁹³

Furthermore, acquaintance is not just a ‘one-off event’ the subject has with an object, but rather as a continued and sustained relation the subject must have with the target object at every occasion that it is presented in thought.⁹⁴ Thus, a subject can cease to be acquainted with a specific object by, for example, forgetting all about it, even if they

⁹³ (Jeshion 2010, 109)

⁹⁴ For more on this see footnote 78 in Chapter 1.

were once perceptually presented with it. I take this to be a given feature of the acquaintance relation.

However, we haven't yet touched upon what acquaintance *is*. The ACQUAINTANCE THESIS merely states that acquaintance with an object is necessary for singular thought involving that object. A notion as central as acquaintance requires further elaboration. One such attempt, which I am loosely calling CAV, seeks to explain acquaintance by appealing to causation. While CAV should not be taken to imply that there is a single account to which all theorists adhere to, it still seems to be the case, though, that the specific role causation is playing in these theories is not always explicitly stated.

Appeal to causation in articulating acquaintance fits in nicely with Jeshion's STANDARD-STANDARD. Proponents of some version of CAV, such as Bach, assert that perception requires a causal relation existing between subject and object. Memory and testimony are, in turn, causally related to perception.⁹⁵ One's acquaintance with an object in their memory is causally derived in that the memory is causally related to the subject's previous perception of it. In the case of communication chains, the hearer can trace the causal chain back to the speaker's perception of the object in question. Thus, for the supporter of CAV, perception can be said to be the main source of acquaintance, but memory and communication chains are also considered in virtue of some previous perception of the target object by the subject, or a speaker which the subject hears. As already stated, this is a generalisation and there may be variations from one theorist to another, however this should not be an obstacle to our current endeavour. From the above,

⁹⁵ Though this is not to say that they are the *only* sources of acquaintance. The 'self' is sometimes also considered as another source of acquaintance, yet there is greater disagreement in this regard. I shall stick to these three sources in order to try and carve out as general a version as possible of CAV to suffice for our present aim.

therefore, we can see how the central claim of CAV is that a subject is acquainted with *o* if they are causally related to *o*.

While a strength of CAV is its simplicity, I would like to present here two examples that seem to cause problems for the view.

SOMMELIER: At a wine-tasting event, guests are blindfolded and given a glass of wine to taste. Amongst them are Paul and Steve. Steve is a professional sommelier, while Paul is not. The organiser of the event mistakenly changes their glass after the first taste with another glass containing a different wine. After the second taste, Paul – unaware of the change in wine – thinks, “*This* wine is really good.” Steve, however, realising what has happened thinks, “*This* wine is more balanced than *the previous one*.”

DOCTOR: A doctor is performing a physical examination on a patient. Upon feeling the patient’s neck, the doctor identifies a goitre (swelling of the thyroid) still in its early stages. The doctor informs the patient of this, and the patient feels their neck, trying to locate the lump. Unable to do so, the doctor places the patient’s hand where the goitre is, saying “There, *that’s* it right there.” Yet the patient, still unable to make out the lump, says “I can’t feel anything!”

All four individuals presented in the cases above are causally connected to the target objects (the wine and the goitre respectively). However, while the sommelier and the doctor do, in fact, succeed in becoming acquainted, it would seem that the other two individuals do not. On CAV, it is not immediately clear how this fact can be accounted for. CAV needs some other resource over and above the causality constraint – and it is not immediately clear what form this could take. While this does not entail an outright refutation of CAV, however, this should be enough to motivate us to look for alternatives.

Let us turn back to the above cases. The main difference between the acquainted subjects and the non-acquainted ones is the respective skill that the former have. It would seem then, that whether or not a subject is acquainted with an object is dependent to some degree on the skills that the subject possesses. This, therefore, means that a robust theory of acquaintance must give an account of the role of skill. Furthermore, beyond doctors and sommeliers, the above examples can be extended to other skilled subjects – such as woodworkers, chefs, mathematicians, mechanics (and possibly even philosophers!) – who seem to succeed in becoming acquainted with certain objects precisely in virtue of their respective skill. In a general way, we can say that possession of a skill φ entails the ability to become acquainted with ‘ φ -related objects.’ The need to move away from CAV and search for an account of acquaintance that takes into consideration the subject’s skills is therefore made all the more manifest.

Several non-causal views of acquaintance exist in the literature,⁹⁶ yet it could be argued that the view put forward by Evans, specifically in his post-humous *The Varieties of Reference*,⁹⁷ remains one of the most articulated and detailed. Here, I wish to present a stripped-down version of Evans’ theory which will, in turn, be further fleshed out in §III. It is only the general principles of Evans’ theory that I wish to adopt, as shall be sketched below.

Evans’ account gives prominence to Russell’s Principle:

RP: “[A] subject cannot make a judgement about something unless he knows which object his judgement is about.”⁹⁸

⁹⁶ For a brief survey see: (Hawthorne and Manley 2012, chap. 3).

⁹⁷ (Evans 1982)

⁹⁸ (Evans 1982, 89) Paraphrasing from: (Russell 1912, 58).

It must be immediately noted that RP is not uncontroversial and has had numerous objections levelled at it.⁹⁹ The majority of objections centre around the interpretation of ‘knowing which.’ To this end, Evans further articulates the following (which Hawthorne and Manley call ‘Discrimination’):¹⁰⁰

DISCRIMINATION: “In order to make Russell’s Principle a substantial principle, I shall suppose that the knowledge which it requires is what might be called *discriminating knowledge*: the subject must have a capacity to distinguish the object of his judgement from all other things.”¹⁰¹

By Evans’ account this is still not enough, however it does help us understand that (in some, yet unspecified manner) successful reference is dependent on discriminating knowledge, which in turn is gained by virtue of the subject’s capacities. This notion of capacity, albeit still somewhat mysterious, is crucial to the SBA account, as shall be elaborated on further down.

Evans then moves to introduce the notion of Ideas. “An Idea of an object, then, is something which makes it possible for a subject to think of an object in a series of indefinitely many thoughts, in each of which he will be thinking of the object in the same way.”¹⁰² It is understandable, then, that there are many possible ways that a subject can think of an object, and thus a multitude of possible Ideas. Yet of all these possible Ideas, in any given context there is one Idea which is vital to Evans’ account; what he calls the ‘fundamental Idea’ of an object. Evans continues that:

⁹⁹ Hawthorne and Manley present a number of objections both to RP, as well as to Evans’ account in general. While these should be engaged, to do so here would take us too far afield from our current aim. (Hawthorne and Manley 2012, sec. 3.1)

¹⁰⁰ (Hawthorne and Manley 2012, 74)

¹⁰¹ (Evans 1982, 89 Emphasis original.)

¹⁰² (Evans 1982, 104)

“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 to objects of that sort... Let us say that one has a fundamental Idea of an object if one thinks of it as the possessor of the fundamental ground 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.)”¹⁰³

According to Evans, at a given time or context, every object has a fundamental ground of difference. He mentions a number of examples pertaining to abstract objects but, as already stated above, let us here concern ourselves with physical objects. In this case, Evans claims that such an object is differentiated from everything else in terms of its location. This rests on two assumptions, one which Evans makes explicit, the other not. The first is that no two objects can ever coincide in space,¹⁰⁴ the second is that the subject is cognizant of this fact, whether consciously or not.

Now it is evident that not every Idea that a subject has is a fundamental Idea. And yet it is only fundamental Ideas that allow a subject to satisfy RP and, consequently, will count as the subject being acquainted with the object in question. The way Evans proposes to solve this is by stipulating that, in order for the subject to truly be said to understand a thought they have involving some Idea of an object, the subject must also know what it takes for an identity of their Idea of an object and the fundamental Idea of that object to be true.¹⁰⁵ In the case of physical objects located in space, such an identification will involve the location of the object in (what Evans terms as) the subject’s egocentric space

¹⁰³ (Evans 1982, 107 Emphasis original.)

¹⁰⁴ Putting aside, for now, questions relating to statues and lumps of clay.

¹⁰⁵ (Evans 1982, 110)

and public, ‘objective’ space.¹⁰⁶ For such demonstrative Ideas to succeed, Evans asserts that the subject must have “a capacity to attend selectively to a single thing over a period of time: that is, a capacity to keep track of a single thing over a period of time – an ability, having perceived an object, to identify later perceptions involving the same object over a period of continuous observation.”¹⁰⁷ Once again, we have here the notion of capacity as crucial to Evans’ framework.

Evans further extends his account to include memory and testimony. With regards to memory, Evans appeals to capacities once more, specifically the notion of recognitional capacities which the subject has. Firstly, Evans specifies that recognition of objects is to be understood as pertaining to objects that one has already been presented with. This is in order to rule out instances wherein a subject comes to know which is the object under investigation simply based on some description. Evans holds that genuine recognition does not reduce to knowing which object satisfies a certain description, and thus the latter case is not an instance of recognition.¹⁰⁸ He then goes on to explain how it seems very plausible that we have developed a recognitional capacity not only for kinds, but also for particulars, on the basis that this seems to have been a capacity favoured for in evolutionary selection processes.¹⁰⁹ How are we, then, to assert that a subject’s Idea genuinely refers to its corresponding object in a manner as to abide by RP? Evans articulates the following:

“To see a way out of the difficulty, we must realize that while a recognitional capacity, as we ordinarily understand it, does require the ability to distinguish an

¹⁰⁶ (Evans 1982, 162)

¹⁰⁷ (Evans 1982, 175)

¹⁰⁸ (Evans 1982, 271)

¹⁰⁹ (Evans 1982, sec. 8.2)

object from all other things, such a discrimination is made not only on the basis of the object's *appearance*, but also on the basis of its *location*.”¹¹⁰

The notion of egocentric space is again invoked. In this manner, it is ensured that one's Idea is genuinely recognitional and not based on the satisfaction of some description. Evans continues that, as long as no duplicates are introduced within the egocentric space that the subject is considering then the subject's Idea will fulfil RP and thus genuinely refer.¹¹¹

The final category we will consider for now is that of testimony. On CAV, somewhat adapted from Kripke,¹¹² one can be acquainted with objects via testimony since once can trace a causal chain from the hearer to some other individual's perception of the object/person in question. Evans' account differs slightly in certain ways. He divides the community between consumers and producers. Yet instead of appealing to something akin to a one-off 'baptism', producers are rather those who are capable of recognising and identifying the object (or person) in question with the proper name NN. In order for consumers – those lacking such a capacity – to use NN to refer to the object it names, they must become aware of the name-using practice surrounding NN. In this case, then:

“Provided that some one individual is consistently and regularly identified by producers as NN (known as NN), that individual is the referent of the name as used by participants in the practice. And it is in terms of this notion of a name's having a reference that we should seek to understand particular utterances involving the name, *whether uttered by producers or by consumers*.”¹¹³

¹¹⁰ (Evans 1982, 278)

¹¹¹ (Evans 1982, 282)

¹¹² (Kripke 1980)

¹¹³ (Evans 1982, 383)

There are, therefore, two ‘sets’ of capacities at work here. The capacities of the producers which fall under perception and recognition, but also the capacity of the consumers to pick up the use of such a name.

In all that has been said above regarding all these different capacities, there seems to be here at least two ways in which one can understand ‘capacities.’ On one hand, a capacity can be considered in a non-particular sense wherein, being in possession of a capacity *c*, a subject can then gain discriminating knowledge of all the objects that can be grasped by *c*. On the other hand, we can understand capacities in a more particular, individual sense, wherein a subject employs a general capacity with respect to particular objects in a given context.

Let us imagine a subject standing before a large audience. Understanding capacities in the first sense would lead us to say that the subject is immediately acquainted with all the people present before them (and any other object in their field of vision, for that matter) in virtue of their perceptual capacity. This does not seem to be the case. On the second understanding of capacities, we can say that, while many objects are present before the subject’s field of view, the subject is only acquainted with those that they attend to and track at a given moment, in virtue of the perceptual capacity they possess. This, latter, understanding of capacity seems to be more along the lines of what Evans seems to propose,¹¹⁴ and what shall be understood by the term’s use in this text.

Thus, Evans’ account can be condensed as follows:

- i) a subject is acquainted with an object once they have discriminating knowledge of that object, and

¹¹⁴ When discussing the difference between perceptual and recognitional capacities, Evans speaks of capacities not being “retain[ed],” thus hinting at this object-specific way of interpreting capacities (Evans 1982, 267).

- ii) a subject gains discriminating knowledge in virtue of the exercise of their capacities.

Given the importance of the notion of capacities to Evans' account (and to the SBA account that shall be presented), a few further clarificatory comments must be made on what is understood by capacities before we may proceed. The first regards the distinction and categorisation of capacities themselves. We have established above that capacities can be considered as 'tools' the subject has, that they may deploy with respect to a particular object in a given context in order to gain discriminating knowledge of that object. Yet these general capacities, such as those mentioned above, can also be considered as a collection of more refined capacities that function in concert. Here is how Evans discusses the capacity related to self-identification:

“we have what might be described as a general capacity to perceive our own bodies, although this can be broken down into several distinguishable capacities: our proprioceptive sense, our sense of balance, of heat and cold, and of pressure”¹¹⁵

This same reasoning can be applied to other general capacities, such as the perceptual capacity discussed at length above. While a more in-depth study into the division and distinction of different capacities is warranted, it seems to me that presently we need not be too concerned with elucidating all of the lower-level capacities that the more general capacities are composed of. For the explanatory purposes of Evans' theory, suffice to say that discriminating knowledge is secured in virtue of the general capacities that a subject employs.¹¹⁶

¹¹⁵ (Evans 1982, 220)

¹¹⁶ Especially since it could be the case that when a subject makes use of a general capacity, they might not necessarily be employing all of the lower-level capacities that fall under the general capacity, but merely some of them – depending on the situation. For example, when discussing the general perceptual capacity to demonstrably identify an object that is being perceived, we can suppose that

The other clarificatory comment that must be made regards which subjects are in possession of which capacities. Unfortunately, Evans is not explicit about this. However, despite not delving into much detail, there are some points we can tease out from his discussion on capacities. Firstly, capacities are sometimes referred to as being “primitive”¹¹⁷ and forming as a result of evolutionary processes.¹¹⁸ Furthermore, in at least one instance, when discussing the capacity to identify one’s self, Evans countenances “the situation of a man who is paralysed, and who has lost the use of his senses.”¹¹⁹ Evans theorises as to whether or not such an individual has lost their capacity for self-identification. While he does not think this is entirely lost, it is severely affected. From this, then, it seems that we can assert that Evans general view on capacities is that any subject with normal cognitive functioning should be in possession of them. Thus, it can be assumed that the majority of subjects are in possession of these general capacities. It also seems that these basic capacities are largely innate to subjects (though they might start being used and engaged later on in a subject’s development). Furthermore, there is still the possibility – as seen in the paralysis example – that severe trauma (or even cognitive degeneration) can affect a subject’s possession and effective deployment of certain capacities.

From the above, we can articulate the following:

CAPACITY (CAP): A Capacity is an innate general cognitive function (which can be composed of lower, more fine-grained functions) possessed by subjects having normal cognitive functioning, which is deployed with respect to specific objects.

different low-level capacities are employed depending on whether it is broad daylight or night-time, given the different lighting conditions affecting perception.

¹¹⁷ (Evans 1982, 248, 276)

¹¹⁸ (Evans 1982, 275)

¹¹⁹ (Evans 1982, 253)

On Evans' account given further above, and in light of CAP, we are to take capacities as being primitive in this philosophical account. In this way, we can now proceed to introducing skills into the theory of acquaintance we are proposing.

§III. Skill-Based Acquaintance

How do we describe specialists, professionals, or experts who seem to be in possession of something more than just mere capacities? If, according to CAP, acquaintance is dependent on capacities which are shared by all subjects having normal cognitive functioning, then how can we explain the fact that the doctor and the sommelier become acquainted with the goitre and the wine respectively, while the patient and the guests are not? It seems to be the case that the doctor and the sommelier have something *more* than just general capacities. They have a particular skill (or set of skills) that, I believe, allows them to gain discriminating knowledge of the target object, thus becoming acquainted with it. Before proceeding further, then, we can already present the SBA account that is being put forward:

Skill-Based Acquaintance

- i) a subject is acquainted with an object once they have discriminating knowledge of that object, and
- ii) a subject gains discriminating knowledge in virtue of the exercise of their capacities or skills.

The claim that is being made, then, is that within certain contexts skills function like Evansian capacities; they can provide the subject with discriminating knowledge of an object and thus allow them to become acquainted with it. However, this must be

elaborated on. Firstly, we must investigate whether the notion of skills can perform the epistemic work SBA requires of it.

There has been a steady and renewed interest in the interconnected concepts of skill, knowledge how, and cognitive ability.¹²⁰ Skills are related with knowledge-how (which is sometimes also called practical knowledge)¹²¹ and is generally differentiated from propositional knowledge (knowledge-that) and acquaintance. An issue that has characterised the debate on knowledge-how is whether knowledge-how can be reduced to, or explained in terms of, propositional knowledge. This is known as ‘intellectualism’ about knowledge-how and skill. Thus, an intellectualist position would assert that, for example, knowing how to cook risotto is merely to know a set of propositions such as (but not limited to) knowing that only certain types of rice make a good risotto, that the rice absorbs the flavours present in the stock, that it must be continually stirred in order to avoid clumping, and that the rice is cooked when it is *al dente*. In this manner, one may theoretically give an account, in terms of propositions, of what it entails to know how to φ . Whether or not intellectualism is true is not the focus of our debate.¹²² Rather, skills – be they reducible to propositional knowledge or not – have certain particular features and characteristics which we should underline in order to move forward with our account.

It must be noted that the SBA account I am proposing does not align itself to one particular theory of skill, since the characteristics of skill that enable acquaintance to take place are agreed on by the majority of authors on the subject. Specifically, I will focus on

¹²⁰ For a general overview, see: (Pavese 2016a; 2016b)

¹²¹ It is generally held that skill entails knowledge-how yet some, like Stanley and Williamson, argue against this entailment. To delve into this particular debate here would take us too far afield (Stanley and Williamson 2017).

¹²² For an example of an intellectualist position, see: (Stanley and Williamson 2017)

the fact that skills can be i) gradeable, ii) applied in novel situations, and iii) acquired by subjects in various different ways.

For a subject to be said to possess a certain skill at φ -ing, it is expected that they be able to perform φ with a certain degree of repeatability and reliability. However, we can speak of individuals as being more, or less, skilled than others. In this sense, skills are therefore said to be gradeable. Stanley elaborates on this point:

“The expert surgeon is able to adjust her scalpel to a surprising complication in a way that the novice surgeon, even one with the same knowledge of what has been published in the journals, is not. An expert outfielder is able to adjust to an unusually hit fly ball better than a novice.”¹²³

It should be noted that it seems there should be a sense of some threshold that must be overcome in order for a subject to be said to have a certain skill at all. It is above this threshold that one can be said to be more or less skilled.¹²⁴ Thus, skills can not only explain why the doctor becomes acquainted with the goitre while the patient does not, but also why a seasoned endocrinologist might become acquainted with a particular early-stage goitre while a medical intern might not. This feature of skills can therefore provide us with a finer-grain explanation of why some agents succeed in becoming acquainted with a target object while others do not. The fact that we can speak of different degrees of skill is a great upshot of articulating acquaintance in terms of skill, as opposed to mere causal connections.

Another characteristic of skill is their applications to novel situations. For a subject to be truly skilled, they must be able to φ in a variety of different and new situations.

¹²³ (Stanley 2011, 181)

¹²⁴ (Pavese 2016a, 646)

Thus, a subject is properly skilled at riding a bicycle if they are able to ride a bicycle in different weather conditions, and on terrains which they might have never driven on before.¹²⁵ Similarly, we can say the same of the respective set of skills that the doctor or the sommelier exhibit in the examples we started off with. We would say, for example, that a doctor is skilled inasmuch as they can identify goitres in so many different individuals. It should immediately be evident how this particular characteristic of skills makes them fitting to be integrated within acquaintance.

The final characteristic of skill that we shall consider presently pertains to skill acquisition. We have stated at the beginning of this section that it seems that one way in which we can differentiate capacities from skills is that the former are shared by all individuals while the latter are not. Yet how does an individual become skilled? Dickie (in seeking to defend anti-intellectualism about skill) delves into this particular point. She states:

“Consider the myriad routes to acquisition of skill. These routes include, but are not exhausted by, inborn talent; mindless repetition; unreflective imitation; hypnosis; induction from past attempts; reflection from first principles.”¹²⁶

While the examples given at the beginning of DOCTOR and SOMMELIER pertain to individuals who have had to undergo rigorous training in order to acquire the skills they have, we can think of different skills which are acquired in any of the other ways that Dickie mentions. We can even go a step further; apart from the fact that skills, unlike capacities, are not shared by all individuals, we can also countenance situations wherein an individual loses or forgets a skill that they once possessed (due to old age, for

¹²⁵ (Stanley and Williamson 2017, 719)

¹²⁶ (Dickie 2012, 741)

example). Once again, this is a great advantage that SBA has over CAV in explaining why acquaintance might not be secured in some instances despite there being a causal connection between subject and object.

Let us recap what has been said thus far. The claim being made is that skills can function similar to Evansian capacities in allowing a subject to gain discriminating knowledge of an object – and hence become acquainted and able to refer to it. So far, however, we have only elaborated on the nature of skills, and how, unlike capacities (following the definition of CAP give above), skills are not shared by all subjects. Yet, we have not said anything about which skills are of interest of us. A distinction, therefore, must be introduced for clarity at this point regarding this.

Skills, as we have seen, are linked to an action (performance, procedure) that the subject carries out. Furthermore, in many cases we can speak of the result of a skilled action; so the result of the skilled action of cooking risotto is a delicious plate of risotto, or the result of the skilled action of woodworking is a chair, or a table. In a number of these skills, however, there is a particular feature that should be highlighted; we find in these skills, either (i) as their purpose, or (ii) as a necessary component for the fulfilment of their purpose, that the subject becomes aware, or is able to discern the presence of some object or other (depending on the context and the particular skill being deployed). In essence, this category of skills, I argue, enables the subject in possession of such skills to become acquainted with the relevant object/s.

Let us elaborate this further. In some case, the result of skilled action is not an artifact – as in the examples above – but rather an awareness. By skills falling under (i), I understand those skills whose primary function or action is to allow the subject to discern, or locate, the presence of some object. For example, the skill a radiologist

possesses can be considered of this type. The radiologist, in virtue of their skill at using and reading the results of ultrasounds, X-rays, MRI, and CT scans, becomes acquainted with objects, such as tumours or embryos, which the patient – or any other unskilled individual – would not have detected or become aware of. The radiologist’s skill, therefore, is a skill that enables the subject to gain discriminating knowledge of what we can roughly label as ‘radiology-related objects.’

The second type of skills are skills which, while having some function or artifact as their result, necessarily involve some sort of discernment, detection, or realisation on the part of the skilled individual in the process of deploying that skill. The respective skills that sommeliers and doctors have could be said to fall under this classification. A good (skilled) sommelier is one who knows how to pair wines with dishes, and who can describe the different notes of a given wine and possibly also its provenance. Yet this much is not acquaintance. As SOMMELIER attempted to show, what counts as acquaintance is the sommelier coming to know that *this* wine is not *that* (previous) one. The doctor’s skill consists in examining and treating one’s health. Yet in the fulfilment of this goal and the employment of their skill, the doctor can also identify the presence of ‘physiology-related objects’ such as goitres, or tumours, to name but a few, that an unskilled examiner would not become acquainted with.

For simplicity, we may label skills falling under (i) and (ii) collectively as ‘discriminating skills’ (D-Skills). A subject being in possession of D-Skill₁ is able, in virtue of such a skill, become acquainted with ‘D-Skill₁-related objects.’ By this I mean that, for example, a sommelier’s skill does not necessarily allow them to gain discriminating knowledge of goitres or tumours, but only of wines.

A clarification must be made here; a D-skill need not necessarily *always* lead to discriminating knowledge. Let us consider the wine-tasting example given above. Were the subjects to not have been blindfolded, both Steve *and* Paul would have seen the switch in wine glasses and would have known that the first wine and the second wine they tasted are not the same. Steve's possession of the D-skill of wine-tasting would not have provided him with new knowledge (at least with respect to acquaintance). It is only when blindfolded that Steve's skill gives him an edge over Paul. Thus, a more refined way of speaking of D-skills is to say that while such a skill may consist in the subject being able to discriminate between flavours, colours, shapes, or any other property or feature of an object, it is only in certain contexts and situations that *discriminating knowledge*, in the Evansian sense, is achieved.

Being in possession of a D-skill therefore does not mean that such a skill will always and only provide the subject with discriminating knowledge, but rather that such knowledge is one result of skilled action, amongst other things, and that only in specific situations. Referring back to the examples given at the beginning, the doctor, inasmuch as they have been trained to carry out a physical examination, and Steve, inasmuch as he is a connoisseur of wines, can be said to respectively possess a particular D-skill which, given the particular context, results in an awareness of the goitre they are touching, or the wine they are tasting. D-skills, then, do indeed seem to perform the same role as capacities.

The upshot of this claim, i.e.: that D-skills can perform the same epistemic function that Evansian capacities carry out, is that we now have a way of explaining why not every subject succeeds in becoming acquainted with a target object, but only those with the relevant D-skill. However, this leads us to another question: how are we to

differentiate between capacities and skills? Should we do away with capacities altogether? Or are skills another type of capacity?

Pavese¹²⁷ and Stanley & Williamson¹²⁸ (SW) seem to use ‘ability’ and ‘capacity’ interchangeably and distinguish between mental and non-mental abilities/capacities. SW mention “strength, speed, and stamina” as examples of non-mental abilities.¹²⁹ On the other hand, however, a ‘perceptual ability’ or ‘perceptual capacity’ is a typical mental (or cognitive) capacity.¹³⁰ For SW, perceptual skills are perceptual capacities that are used intelligently. They state:

“We call certain skills “perceptual” or “observational” when their successful exercise involves a substantial component of acquired perceptual ability: wine-tasting, for example. Even perceptual skills of this sort require intelligent decisions; what to look for, as well as where to look, or what to listen for, and when to listen for it. Perceptual skills are ones that involve acquired perceptual ability, which is employed in making intelligent decisions about what to do.”¹³¹

It would seem then, following SW and employing our terminology, that D-Skills are more complex than capacities, and that they might even involve the use of certain capacities. Furthermore, in a note to the above quote, SW crucially add to their view that “[t]hough perception too can itself be regarded as a disposition to acquire knowledge, mere perceptual capacity, in and of itself, is not a skill.”¹³²

¹²⁷ (Pavese 2016a)

¹²⁸ (Stanley and Williamson 2017)

¹²⁹ However, this distinction between mental and non-mental abilities is somewhat contentious (Stanley and Williamson 2017, 721).

¹³⁰ Arguably, then, SW would consider Evans’ capacities as a type of mental capacities.

¹³¹ (Stanley and Williamson 2017, 718)

¹³² (Stanley and Williamson 2017, n. 11)

In a similar vein, Pavese remarks on the vast difference in complexity that we find between simple capacities and more complex skills. According to her, the defining characteristic of skills is that they are acquirable and manifest themselves in action, while capacities are innate.¹³³ However, this distinction seems to me to be somewhat unsatisfactory.

Firstly, the assertion that capacities, as opposed to skills, are the only thing that can be innate, is somewhat controversial, as has already been noted further above by Dickie. Furthermore, differentiating capacities and skills by stating that the latter are inextricably linked with action, while the former are not, is also questionable. One can easily think of examples wherein an action involves the use of capacities exclusively.

Let us instead turn back to CAP provided towards the end of the previous section. From that definition, we find two distinguishing features that we may use to differentiate between skills and capacities. The first pertains to prevalence; while the majority of subjects with normal cognitive functioning tend to be in possession of basic capacities, skills are generally possessed by fewer people. Furthermore, it would seem uncontroversial to state that the more complex the skill, the smaller the number of subjects who possess it. Admittedly, however, this definition is not entirely satisfactory, in that a particular cognitive function is labelled as a capacity or skill depending on how many subjects in a given community possess it. This would lead us to categorise the endocrinologist's capacity/skill differently depending on whether, for example, they are currently at a philosophy conference, or at an endocrinology convention.¹³⁴

¹³³ (Pavese 2016b, 657)

¹³⁴ Assuming, of course, that philosophers are bad at locating goitres!

The second manner we may distinguish between capacities and skills is more useful. It relates to what I will call ‘domain-specificity.’ The endocrinologist’s skill is arguably of no particular use at a wine-tasting event, and similarly the sommelier’s skill won’t particularly be helpful in identifying goitres. There is, therefore, a specific domain, or context, in which a skill is useful. On the other hand, capacities such as the perceptual capacity to track and locate objects, or the recognitional capacity related to memory seem to be employed in a multitude of different situations and contexts – be they at a wine-tasting event or during a hospital consultation, or in a myriad of other everyday contexts. This distinction seems preferable to the ones presented above, in that it is not dependant on external factors, but rather on what a particular ability’s function is.

However, while we might continue to seek to properly articulate the distinction between skills and capacities, we may, for the present moment, put this to one side. Whether a subject is employing a skill or a capacity, the purpose always remains that of attempting to gain discriminating knowledge of an object. In this light, therefore, it would make more sense to speak of a ‘spectrum of discernibility,’ with capacities at one end, being the most basic, moving on to skills of ever-increasing complexity. The examples of skills I have employed here are of a highly-specific and ‘expert’ nature in order to aid in the explanation of SBA and better illustrate the strength of this view (and the weakness of CAV). However, we can think of many other D-skills which are more widespread and common – arguably almost as much as capacities themselves; skills such as making conversation, solving simple arithmetic, or playing a particular sport. What remains crucial is that the subject obtains discriminating knowledge of a particular object by means of the capacities and skills they possess, deploying either or both of them, depending on the situation they are presented with.

§IV. Conclusion

This ‘two-pronged approach’ of capacities and skills that I have sought to articulate as SBA has the benefit of allowing us to explain how the subjects can cast a wider net of acquaintance to catch a greater diversity of objects. SBA has the upshot of overcoming challenges faced by CAV wherein many subjects seem to be in the right causal relationship with an object, and yet not all succeed in becoming acquainted with it. Furthermore, SBA provides a detailed account as to one reason why professionals and experts are indeed professionals and experts; they succeed in becoming acquainted with certain objects that non-experts do not.

More is still left to be said about which objects one can be acquainted with via SBA. As mentioned in the outset of this chapter, the focus here has been exclusively on physical objects. A specific category of particular importance, and the focus of this thesis, is that of abstract objects. Due to the causally inert nature of such objects, traditional CAV accounts have either outrightly asserted that it is not possible to become acquainted with such objects,¹³⁵ or have proposed some roundabout way of going about it.¹³⁶ *Prima facie*, it could also be the case that SBA might have the explanatory tools to resolve this issue by theorising on particular skills. We may speak of authors, artists, mathematicians, or – once again – possibly even philosophers, as having domain-specific D-skills that allow them gain discriminating knowledge of fictional, aesthetic, mathematical, or philosophical objects. It is to this particular question that the subsequent chapters will now turn to and explore in greater depth.

¹³⁵ For example: (Bach 1987)

¹³⁶ For example: (Recanati 2018)

Chapter 3 - Virtual Reality, Virtual Objects, Virtual Reference

§I. Introduction

We've all seen videos of individuals donning a VR headset, getting a little bit carried away and ending up smashing the coffee table or sucker-punching their five-year-old. And after the laughter has died and the debris has been cleared, these events still leave us with a number of interesting philosophical questions. One such question that this chapter shall engage with is the problem of reference with virtual objects. Subjects immersed in VR have thoughts and utter sentences on the virtual objects that they encounter. Yet how do such thoughts and utterances come to be *about* virtual objects? Let us first try and set up the problem in a clearer fashion before proceeding, by means of the following example:

VIRTUAL BIRD ATTACK: Ana has invited her friend, Hans, over to try out her VR-headset for the first time. Ana has had the headset for a number of months now and has been using it quite frequently. For Hans, however, this is his first time trying it out. In this virtual world, the subject finds themselves in a qualitatively identical replica of the room they are physically present in. In the virtual living room, a pigeon comes flying through the window. Both Ana and Hans do not know that this is about to happen. Ana tries this out first, and despite being somewhat startled, finds this quite amusing and thinks "That pigeon surprised me!" Without telling him of what she just saw, Hans dons the headset next. Upon seeing the pigeon crashing through,

Hans panics and starts wildly flailing his arms, and yells “Ana, run! That pigeon is in the living room!”

It is evident in the above case that Hans is very confused about the nature of the object he is trying to talk about. However, on some views of reference, this deep confusion that Hans exhibits might preclude him from referring to the virtual pigeon at all. Thus, despite both Ana and Hans seemingly referring to the virtual pigeon, is this truly the case? Or would it be more accurate to say that only Ana has successfully referred?

More specifically, then, the task at hand is to examine what acquaintance with virtual objects involves. Is it the same as acquaintance with physical objects, or does the subject need to satisfy other conditions in the case of virtual objects? Or put differently, does the mere presence of some sort of causal relation existing between a virtual object and a subject – as is asserted on CAV as explored in Chapters 1 and 2 – mean that acquaintance has been achieved?

The claim this chapter shall make is that the typical way of articulating acquaintance along the lines of CAV faces problems here, too. It is incapable of explaining how some individuals succeed in referring to a virtual object while others do not. Instead, I will here show how the Skill-based Acquaintance (SBA) account presented in Chapter 2 has the explanatory tools to comfortably explain what is needed in order for a subject to become acquainted, and thus successfully refer, to a virtual object. I will here argue that for acquaintance with virtual objects to take place, the subject must have the capacity to

discriminate which particular world¹³⁷ (be it virtual or physical) they are currently immersed in. A foretaste of this position is already echoed by Chalmers who takes up the position - as part of his wider virtual realist view - that “[e]xpert users [of VR] don’t suffer from the illusion that virtual objects are in the physical space in front of them; instead, they experience the virtual objects as being in a virtual space...” This paper shall therefore attempt to flesh-out a theory of what makes one an ‘expert’ at successfully referring to virtual objects.

After briefly going over the salient points of the SBA account presented in Chapter 2, the account will then be specifically applied to virtual objects. Apart from being able to account for the differences in acquaintance with physical objects as opposed to virtual ones, SBA also has two particular upshots that shall be presented further down. The first is that the view can explain acquaintance with objects within ‘nested’ virtual worlds (i.e.: virtual worlds located within other virtual worlds). The second is that this view is able to accommodate situations where the delineation between the physical and the virtual becomes less clear with the increased realism that accompanies new software and the ever-diminishing “device-gap[, that is to say, the] demarcation between reality and VR through the act of donning devices.”¹³⁸ A final comment is then added on the implications of such a theory to VR-users and developers of such technologies. Specifically, as VR technologies become more advanced, and the difference between the virtual and the

¹³⁷ 'World' here should therefore not be understood in a Lewisian sense of possible or impossible worlds, but rather as a real, bounded region of space that a subject can immerse and move themselves in. We can thus understand the virtual space that a subject is immersed in upon donning a head-mounted display (HMD) as a ‘world’ separate and disconnected from the physical world. These worlds are separate inasmuch as they are unconnected regions of space. On an ontological level, however, the virtual world depends on the existence of the physical. The upshot of using this framework is that we can then also speak of higher level worlds being dependent on lower level worlds which in turn all rest on the ground level world. This point will be addressed at greater length below.

¹³⁸ (Slater et al. 2020)

physical becomes all the more difficult to distinguish, this paper shall advance a proposal for the need for tools and artifacts which might serve to help subjects distinguishing and keeping track of which world they are currently immersed in.

Before we can proceed, however, some preliminary remarks must be made by way of clarification and delineation of the field of inquiry. It has already been stated above that I shall take successful reference to be dependent on the subject's being acquainted with the target object. Consequently, therefore, successful acquaintance necessarily implies that the target object does in fact exist. For this reason, in this chapter, I shall take virtual objects to be real objects, according to Chalmers' virtual digitalist view¹³⁹ which takes virtual objects to be digital data structures that are themselves grounded in physical entities (such as various parts of computer hardware). However, any theory that asserts that virtual objects are real suffices for the account presented below to run. While the debate still remains on the metaphysics of virtual objects, the aim of this text is to remove one of the roadblocks that the virtual realist faces in elucidating their position; namely what I am calling the problem of virtual acquaintance.

§II. Virtual Acquaintance

Let us revisit VIRTUAL BIRD ATTACK. In this example, we should imagine that the particular VR-headset that Ana and Hans make use of is so advanced that whatever virtual object they perceive is indistinguishable from a qualitatively identical physical object. Furthermore, for simplicity I shall assume here that the virtual pigeon that Ana and Hans

¹³⁹ (Chalmers 2017)

perceived is the same virtual object. Following Chalmers' virtual digitalist view we can say, for example, that the pigeon Ana perceived, and the pigeon Hans perceived are the same pigeon because the same digital "data structure" was the causal source of both instantiations of the virtual pigeon, which led, in both instances to Ana and Hans making a 'pigeon'-utterance.

There are two ways in which we can describe what has happened. The first, arguably more intuitive, way to characterise what has happened here is to say that both Ana and Hans have managed to refer to the same object, but Hans has some mistaken beliefs about it – principally that it is in the physical living room. In this case, Hans would have successfully referred to the pigeon in question, yet mistakenly thought, for example, that the bird was a physical bird, as opposed to a virtual one. However, I believe this to be an incorrect way of describing what is going on.

On the other hand, we may want to say that Ana and Hans were not referring to the same object. Ana, knowing that she is in the virtual world, refers to the virtual pigeon that was seen to virtually fly into the virtual living room. But Hans, on the other hand, seems to have attempted to refer to some physical pigeon located in the physical living room. In fact, since there was no such pigeon in the living room, we can say that Hans' thought is not about the virtual pigeon at all, since he has failed to successfully become acquainted with it. This is the view that I would like to argue for here. Let us then look at both options in more detail.

The idea that Hans is acquainted with, and referring to, the virtual bird is not novel. On the contrary, its intuitive appeal comes from its apparent similarity with other non-

virtual examples. One of the most popular of these is Donnellan's 'man drinking a martini' example.

MARTINI: "[O]ne is at a party and, seeing an interesting-looking person holding a martini glass, one asks, "Who is the man drinking a martini?" If it should turn out that there is only water in the glass, one has nevertheless asked a question about a particular person, a question that it is possible for someone to answer."¹⁴⁰

The point being made here is that despite certain incorrect attributions or descriptions that the subject makes about the target object (i.e.: that the man is drinking a martini), the subject is nonetheless successfully acquainted with him. This is because reference, Donnellan and others argue,¹⁴¹ is not dependent on some description that a subject has about an object, but rather on some link, or relation, that holds between subject and object. Furthermore, a substantial number of these theories can be considered to fall under the wide umbrella of CAV. While I hold that a relation must hold between subject and object, I believe that it is incorrect to characterise it in terms of a causal relation. I shall elaborate on this below, and show why – for this reason – we cannot consider VIRTUAL BIRD ATTACK and MARTINI to be analogous examples.

The reasoning behind the claim that VIRTUAL BIRD ATTACK should be considered as being analogous to MARTINI is that both are cases of demonstrative identification.

¹⁴⁰ (Donnellan 1966, 287)

¹⁴¹ Numerous theorists subscribed to this anti-descriptivist position, some examples are: (Evans 1982; Kripke 1980; Recanati 2010)

Given that the alternative model of acquaintance that shall be proposed relies on Evans, we can here present an example put forward by him to argue against this position.

RADIO: “It is reported that certain primitive people, when they first heard a radio, were convinced that there was a man inside it whom they could hear. Labouring under this misapprehension, they would naturally attempt to identify the man they thought they could hear, in the standard demonstrative way. Their identification would have no complexity, but nor, in this circumstance, would it be adequate. If they were totally mystified by the apparatus when it was explained to them, and could not understand the idea that they might be hearing a man very distant from them in space (and possibly in time), then I should say that, in this situation, they could form no adequate Idea of the man they could hear at all... Of course, we know which man he *means*, which man he has *in mind*, as he gesticulates at the radio, but we shall not be misled by these idioms into thinking that he has the capacity to have particular-thoughts about him.”¹⁴²

The contention here, then, is that VIRTUAL BIRD ATTACK should be likened more to RADIO than to MARTINI. Evans articulates well why we must not consider the case of Hans and Ana as cases of what he labels as ‘standard’ demonstrative identification, like the way the ‘man drinking a martini’ is identified. Rather, Hans is – if only just momentarily – like the people unable to understand how a radio functions and unable to comprehend that there isn’t a little man inside it talking. We must therefore not be fooled into thinking that Hans’ demonstrative utterance is a sign that he is indeed successfully acquainted with the virtual pigeon. We might even imagine that Hans is fully capable of explaining all the technological and computational processes that go on behind VR

¹⁴² (Evans 1982, 149–50 Emphasis original.)

experiences, however, as soon as he ‘forgets’ that he is not perceiving physical objects but rather virtual ones, he can be likened to being in the same state of confusion as the people who fail to understand how the radio functions. Alternatively, we can even imagine a similar situation wherein Hans has been immersed in VR for a significant amount of time, such that his confusion as to ‘where’ he is is not just momentary but prolonged. Thus, in order for Hans to be successfully acquainted with the virtual pigeon, we require something more than just a causal-perceptual link.

The reasons why we should seek for an alternative to CAV have already been laid out in earlier chapters. Here, however, we can already see how CAV is not only found lacking in the case of physical objects, but also with respect to acquaintance with virtual objects. We can now, therefore, proceed to show how the alternative that is being proposed – that of SBA – can indeed overcome this issue.

§III. Evans

In Chapter 2, the account of Skill-based Acquaintance was presented and argued for. The two principles of this account were stated as follows:

SKILL-BASED ACQUAINTANCE (SBA)

- i) a subject is acquainted with an object once they have discriminating knowledge of that object, and
- ii) a subject gains discriminating knowledge in virtue of the exercise of the capacities or discriminating skills (D-skills) which they possess.

Thus, a subject successfully referring to an object is dependent not only on external factors – such as the object existing – but also on internal factors. Becoming acquainted and successfully referring, is dependent on the subject having discriminating knowledge of the object in question. Furthermore – and crucially – this discriminating knowledge is always attained in virtue of the subject’s capacities and skills.

With the bare-bones of this new account in place, we can turn back to Evans – specifically to his treatment of perception and demonstrative identification, which is central to our current investigation. The capacity required for a subject to successfully demonstratively refer to an object they are perceiving, is that of being able to locate and track the object in what Evans terms as the subject’s ‘egocentric space.’ Egocentric space is defined by Evans as follows:

“The subject conceives himself to be in the centre of a space (at its point of origin), with its co-ordinates given by the concepts 'up' and 'down', 'left' and 'right', and 'in front' and 'behind'. We may call this 'egocentric space', and we may call thinking about spatial positions in this framework centring on the subject's body 'thinking egocentrically about space'. A subject's 'here'-thoughts belong to this system: 'here' will denote a more or less extensive area which centres on the subject.”¹⁴³

Evans elaborates more on this concept. Egocentric space is further described as “the space of the possibilities of one's action.”¹⁴⁴ Furthermore, in order for a subject to genuinely demonstratively refer to an object, they must be further able to unify egocentric and public space. That is to say, the subject must be able to understand and know how

¹⁴³ (Evans 1982, 153–54)

¹⁴⁴ (Evans 1982, 167)

their current frame of reference (whether they are stable or moving) maps on to objective, or public, space. Thus, on this view, there are as many egocentric spaces as there are subjects, but there is one shared, unified, public, objective space given that all subjects inhabit the same physical reality. In this way, Evans shows what it takes for one to genuinely demonstratively refer to an object one is perceiving, and how it is not (merely) dependent on the referent being causally related to the subject, but rather that the subject has the capacity underlined above which allows them to track the object in one's egocentric space, the space where one thinks of as 'here.'

Can we apply this notion of egocentric space to the virtual world? As a first pass, it would seem so. Donning the VR headset, the subject finds themselves - similar to egocentric space as described by Evans - at the centre of a virtual space, where they can also speak of 'up,' 'down,' 'left,' or 'right'. Furthermore, moving through whatever virtual world the subject might be in, they can also have an idea of the relationship between their own position (or virtual-egocentric space) and 'objective' space in this case referring to the map of the virtual world that could be inhabited by other users. Subjects moving around in a virtual world also seem to be able to locate and track particular virtual objects, even if the objects are moving or if the subject themselves is moving through virtual space. It would seem, then, that the concept of egocentric space can be transposed and applied to the virtual world. And while in the physical world, subjects have a capacity to locate and track objects in their egocentric space and know what it takes for their egocentric space to map onto objective space, we can then also speak of an analogous capacity (or skill) of subjects locating and tracking virtual objects in their virtual egocentric space and mapping their virtual egocentric space onto virtual objective space.

Not so fast, however, since Evans presents an objection - of what he calls a 'non-ordinary' case - that might prevent us from applying the concept of egocentric space to virtual space. He puts forward the following example:

SUBMARINE: "One envisages, for example, a television screen showing pictures sent back from a remotely controlled submarine on the sea bed. Some straggly bits of seaweed appear, and so on. It seems that we can throw ourselves into the exploration: 'What have we here?', we say, or 'Here it's mucky.'"¹⁴⁵

Evans further adds that one may also imagine that the submarine also has appendages that one can manoeuvre to grab things with. He goes on:

"Perhaps we can tell the story of the submarine in such a way that the subject's location in the surface vessel becomes less and less important to him. He does not move; he becomes insensitive to the sounds and smells around him. It might be possible (with enough of this sort of thing, and perhaps some surgical changes) for us to think of the submarine as *his body*."¹⁴⁶

Evans asserts that in this 'non-ordinary' case, even if it seems quite intuitive for the subject controlling the submarine to feel as if their 'here'-thoughts refer to the location where the submarine is, the location where the submarine is still cannot be considered as the subject's egocentric space. Evans states:

¹⁴⁵ (Evans 1982, 164)

¹⁴⁶ (Evans 1982, 167 Emphasis original.)

“The subject can *play* at being where the submarine is ('Here it's mucky'); he can *play* at having that mechanical contrivance for his body ('I'll pick up that rock'). But really *he* is (say) in the bowels of a ship on the surface of the water.”¹⁴⁷

The problem lies in the fact that, as Evans continues,

“It is not possible for a single subject to think of two (or more) separate places as 'here', with the conceptual simplicity of normal 'here'-thoughts. The point is not that the attempt to do so will lead to *confusion*. (A subject might simply have the *de facto* capacity to keep his 'heres' apart, and to act appropriately, rather as we have a *de facto* capacity to keep our right and left arms apart in thought, and to move them appropriately. We might imagine a switch enabling him to shut out information from one place or the other.) The point is not a practical point but a conceptual point: the subject is supposed to be able to *think*, for instance, 'It's warmer here₁ than here₂' (where both 'heres' have the conceptual simplicity of a 'here'-Idea), and I claim that this is not coherent... No single subject can simultaneously perceive and think of the world from two points of view. (The world cannot be *centred* on two different points.)”¹⁴⁸

Evans' argument, then, is that 'here'-Ideas are characterised with what he terms as a certain 'conceptual simplicity.' What this means is that, given that 'here' is located within one's egocentric space, then the subject already knows where this is, and there is no need for any other “conceptual ingredient,”¹⁴⁹ such as, say, 'five miles away', or 'at the bottom of the ocean.' Conceptual simplicity is important if we would like to assert

¹⁴⁷ (Evans 1982, 166 Emphasis original.)

¹⁴⁸ (Evans 1982, 167–68 Emphasis original.)

¹⁴⁹ (Evans 1982, 167)

that the thoughts a subject entertains about the objects in their egocentric space are not thought of in a descriptive manner, but referred to directly. Entertaining more than one 'here'-Idea would mean that the subject must have some sort of way of discerning between the two (such as 'here at the bottom of the ocean' and 'here at the surface of the sea'). This conceptual simplicity is lost precisely because the subject must have some other component to their 'here'-Idea (such as the concept of 'being at the bottom of the ocean'). This is why Evans asserts that a 'world cannot be centred on two different points.'

It might seem then, that any attempt to utilise the notion of egocentric space in VR is quashed. This non-ordinary case as presented by Evans seems very similar to what goes on in VR. The immersive and interactive nature of VR¹⁵⁰ can be likened to that of the submarine case. Furthermore, VR-users find themselves intuitively having 'here'-thoughts in the virtual world, while still having 'here'-thoughts about the physical world too. Are VR-users, then, like the subject controlling the submarine, incoherent in thinking of the world from two points of view? Or to put the question differently, is thinking 'It's more beautiful here_v than here_p' (where here_v is a virtual place, and here_p is a physical place) as incoherent as thinking 'It is warmer here₁ than here₂' (where both here₁ and here₂ are physical places)? Two choices are available to us if we would like to maintain that the thoughts VR users are having are coherent; one may either choose to disregard Evans' objection entirely and assert that it is not in fact incoherent to think of two separate egocentric spaces, or attempt to show how the VR case is dissimilar to the submarine case. It is the latter of these two routes that I shall opt for.

¹⁵⁰ (Chalmers 2017, 312)

The crucial point of why ‘It is warmer here₁ than here₂’ is incoherent, as Evans notes, arises from the fact that both instances of ‘here’ are located within the same unified space – the same world. There is a way in which one can think of the distance and relative location and direction of one ‘here’ relative to the other ‘here.’ If one occupies the position of here₁ and imagines their egocentric space as extending further and further out, there will come a point where here₂ will also fall within the egocentric space of the subject at here₁ in such a manner that here₂ will actually be ‘there’! This is what Evans notes in the case of the submarine and the subject controlling it from the ship on the sea’s surface. The incoherence lies precisely in the fact that the subject cannot simultaneously think of both locations as ‘here’ without distinguishing them by some other, added, ‘conceptual ingredient.’

Yet arguably this does not occur if the subject thinks ‘It is more beautiful here_v than here_p.’ Upon wearing a VR-headset a subject finds themselves at a particular location in some virtual world. Here_v and here_p, however are not part of the same unified space. Put crudely, here_v and here_p can never be two points on the same map, even if one has a map of Earth (or of the entire physical universe, for that matter). The physical world and the virtual world are two distinct, separate, and discrete realities. Unlike the case of two points in the same world, if this subject takes up the position of here_p, and we imagine their egocentric space extending further and further out, there will never come a point in which here_v is located as a point within the subject’s egocentric space as thought and perceived from here_p. They may demonstratively point at her VR-headset and say ‘That’s where here_v is,’ but this seems like a case of deferred reference. Such an utterance is akin to a subject sitting in their room in London and pointing at a photo of a beach on the

Maldives and saying ‘That’s where I’m going on holiday,’ but this does not make the beach on the Maldives present in his egocentric space.

Thinking ‘It is more beautiful here_v than here_p’ is not incoherent because the subject is not perceiving and thinking of the same world from two points of view, but perceiving and thinking of two different worlds, each with its own respective point of view. Given that the physical world and the virtual world can be described as regions of space that are unconnected with each other, the subject does not, therefore, think of two different egocentric spaces in the same world (with the incoherence that it brings with it, as shown above), but rather thinks of an egocentric space in each of the two worlds, which do not form part of the same unified space. In this manner, conceptual simplicity of one’s ‘here’-Ideas is preserved. We recall that Evans’ issue was not with the subject’s *de facto* ability to think two different ‘here’-thoughts, but with the incoherence that this would entail. Whether or not a subject has such an ability is beyond the question we are investigating. The above discussion, however, should adequately show that the pitfall of incoherence is avoided. A subject can thus have as many ‘here’-thoughts as worlds they are inhabiting, provided that each world is discrete and separate from all the other worlds.

What implications does this have to our original question? And how does this affect our reading of VIRTUAL BIRD ATTACK? Let us distil what the requirements are on a subject to successfully demonstratively refer to an object. According to Evans, a subject must be able to both locate the target object in their egocentric space, as well as be able to map their egocentric space onto public, objective space. We have already seen how a subject may have more than one egocentric space, as long as these different points of view are not to be found on the same public space. Furthermore, the physical world and

whichever virtual world a subject engages in can be considered as different and discrete worlds, (and hence, discrete public spaces which are not unified).

It is when we come to mapping one's egocentric space to public space, that we can see how Hans has gone wrong, and what is required of proficient subjects in VR – like Ana – in order for them to succeed in becoming acquainted and referring to virtual objects. Hans' exclamation shows that he believes the virtual pigeon to be in the physical living room. In other words, Hans has not simply formed a false belief about an object, but rather failed at mapping spaces. He has mistakenly mapped his egocentric space in the virtual world to the physical objective space in the physical world. Similar to RADIO, Hans “could form no adequate Idea”¹⁵¹ of the virtual pigeon due to this radical mistake.

This is where our discussion can now turn to skills. Given that there is a discrepancy in becoming acquainted between Hans and Ana, and Ana can be considered as being more proficient in the use of VR, we can cash out this proficiency in terms of a skill that Ana has and Hans does not. Subjects, like Ana, are successful in becoming acquainted and referring because they are not only able to locate and track objects in their egocentric space, and map their egocentric space to public space, but it seems that they are also able to keep track of which world or public space they are currently immersed in, onto which their egocentric space is being mapped. Given that the claim here is that Hans fails to become acquainted because he has confused (even if momentarily) the public space he was immersed in at the moment, we can thus assert that the skill that subjects need for successful acquaintance is some sort of ‘world-tracking’ skill. Such a skill consists of, for example, the ability to remember whether one has donned a HUD or not,

¹⁵¹ (Evans 1982, 150)

or the ability to recognise and pick up minute differences and details in the way objects move and behave in the physical world as opposed to the virtual one, or even the proprioceptive differences between the virtual and the physical that the subject notices.¹⁵²

Thus, we can say that it is through the deployment of this world-tracking skill, in conjunction with what has already been said above, that a subject can successfully gain distinguishing knowledge of, become acquainted with, and refer to virtual objects.

§IV. Two Upshots

Adopting the SBA account has two particular upshots which would make this theory a favourable one to hold as we try to grapple with the exponential advance of VR technology – both in terms of hardware and software.

First, however, there is a clarification that must now be made, that was only briefly mentioned at the start of this chapter. I am assuming here that the world we currently inhabit, and where we (so far) pass the majority of our time, is a physical world. Yet this could not be the case, as numerous brain-in-a-vat, simulation, or matrix cases show us. If we were to articulate existence in terms of the floors of a building, we can refer to this world as our ‘ground level’ of existence. There could be other worlds ‘below’ this one which are more fundamental and on which this world rests upon, but for now we do not know this. Either way, this makes no difference to the argument being presented here. The focus of this text is between the ground level world we inhabit – which, for simplicity,

¹⁵² Here we can also begin to see how, as technological advances make the virtual more qualitatively similar to the physical, the higher the degree of skill that is required for a subject to successfully gain discriminating knowledge – but this will be elaborated on in the following section.

I take to be a physical world – and any other ‘higher level’ virtual worlds that we might temporarily immerse ourselves in (though we can also imagine subjects in the future spending the majority – or all – of their time in such worlds). Furthermore, we can also imagine there being virtual worlds that are ‘nested in’ and dependent on other virtual worlds.

The first upshot of the SBA account being presented here is that it can accommodate a multiplicity of worlds, and not simply a dichotomy of physical and virtual. A subject might immerse themselves in different discrete virtual worlds. Furthermore, once in a virtual world, a subject might immerse themselves into another virtual world which is nested within the first. SBA allows the subject to map their egocentric space onto as many different public spaces, given that no two worlds form part of the same unified space. Thus, while the subject may only coherently think of ‘here’ in the physical world, they may similarly coherently token different ‘here’-thoughts in the different virtual worlds they might inhabit – as long as those worlds are discrete and unconnected spaces.

Secondly, emphasizing the notion of skill on the SBA account allows us to offer an explanation of how and why becoming acquainted becomes more difficult given the ever-decreasing device-gap, with more realistic and convincing renders of virtual objects being made possible. It should immediately seem evident that the degree of proficiency of the world-tracking skill that a subject requires in order to become acquainted differs depending on the virtual world one is immersed in.

Let us once more imagine the blindfolded sommelier being given two wines to taste, without being informed whether or not they are the same; the level of skill required

in order to successfully discriminate between the two wines is quite basic if the first wine was a white wine, and the second red. On the other hand, however, a significantly higher degree of skill is required in order to gain discriminating knowledge if the first wine is a 1989 Pétrus and the second a 1990 Pétrus. The same can be said of the degree of proficiency of the world-tracking skill required in order to gain distinguishing knowledge in different virtual worlds. If one finds themselves in the virtual world of Minecraft, then it seems one would easily know that the objects they are perceiving are not physical objects. In the virtual world of Second Life, however, the virtual objects one perceives are more life-like, yet we would still be surprised if one were to confuse such virtual objects for physical objects. And while the case of Hans might seem somewhat unrealistic, it would not be surprising to think that it is only a matter of time before we begin to experience virtual worlds which are very much life-like; virtual worlds in which the virtual objects one perceives are almost indistinguishable from physical ones. As has been said thus far, in these circumstances, in order for a subject to become acquainted and successfully refer to the objects they are perceiving, they must be in possession of the world-tracking skill to a very high degree. Yet, despite having a very refined skill, the subject might still find it very difficult to distinguish between the virtual and the physical.¹⁵³ The skilled subject is in need of something extra to help them out - a tool. It is to this point that I now turn.

¹⁵³ This difficulty fully materialises not only with the progress of VR software (capable of greater processing power), but also with the progress of hardware. At the moment, a subject can simply attempt to remove the VR-headset they are wearing in order to know whether they are in the virtual or the physical world. Yet it would not be too great a stretch of the imagination to think of technologies embedded in our body that cannot be simply 'removed.' It is even conceivable to say that this might happen within our lifetimes.

§V. Skilled Users and their Tools

When considering the wide variety of actions that we label as skilled, in many of these cases, subjects make use of specific tools that aid them in carrying out their tasks. Frequently, a number of these tools tend to be very task-specific; think of the number of tools you would expect to find on a carpenter's work-bench or beside a dentist's chair. In a sense, we can even go as far as saying that, in certain cases, the skilled individual is incapable of carrying out their tasks without the specific tools that they require. And yet, at the same time, using a particular tool does not guarantee that the user will successfully carry out the task at hand - their skill is still the integral part in determining success or not.

This also seems to be the case with that category of skills that we are calling discriminating skills. A radiologist has the discriminating skills that allows them to become acquainted with bodily masses. Yet they succeed in doing so through the use of highly specialised medical imaging machines - from X-ray machines to ultrasound machines to MRI scanners. In these cases, it seems that the tools at the subject's disposal enable them to become acquainted with the objects in question. Or put differently, acquaintance would not have been possible without certain tools aiding the skilled subject.

Given what has been said above, then, regarding the ways in which virtual objects are becoming more qualitatively similar to physical objects, the skilled VR-user therefore might benefit from a tool that can help them in tracking which world they are currently immersed in, by distinguishing physical space from virtual space - especially where it seems more difficult to discern the virtual from the physical. As has frequently been the

case in philosophical discussion on VR, we can turn to the arts, film, and literature, for ideas or answers to our current challenge. In this light, I propose that skilled VR-users can make use of ‘totems’ as presented in Christopher Nolan’s film *Inception* (2010).

In *Inception*, a group of individuals make use of dream-sharing technology that allows them to extract information from the subconscious of their victims, or - in the particular story presented in the film - to plant ideas. Crucial to the film is the fact that the protagonists - Cobb, Ariadne, Arthur and Eames - move between the real, physical world, and what we can call the ‘dream-world’ (either one’s own dream, or in the dream of somebody else). The dream-world is perceptually indistinguishable from the real world; people, buildings and cars in the dream-world look exactly as they would in the real world. Unless one sees a city folding in half upon itself or some other extraordinary feat, one might even forget that they are in a dream altogether. Early on in the film, therefore, we learn that Cobb, Arthur and the rest make use of ‘totems’. A totem is a small unique object that each person must carry at all times. Totems have an altered quality - a modified weight, a particular feel, or an unusual centre of balance - that only the owner of that totem is aware of. Users use their totem in order to keep track of whether or not they are in someone else’s dream, as in such circumstances, the totem would lack its unique quality (e.g: a loaded die in the real world would be a regular die in someone else’s dream). For this reason, totems can never be shared, or touched by someone other than the owner, as it would defeat the purpose. It is, in the words of Ariadne, “an elegant solution for keeping track of reality.”

Given the similarities between *Inception*’s dream-world and the virtual worlds we immerse ourselves in, it seems plausible that totems could also be our own ‘elegant

solution.’ As VR technology advances, and as we begin to spend more and more time in the virtual world, the utility of such totems would increase and be made amply clear. Every VR-users can (and, for their own benefit, should) have their own, unique totem. Such a tool might not be essential to the deployment of the world-tracking skill in every instance, but might be useful in particular situations. Thus, if a subject can reliably recall if they have donned a HUD in the past hour, then they have no need for a totem-like tool to help them keep track. But we can equally imagine a situation wherein a subject has spent a prolonged amount of time in a virtual world such as to forget, or become confused as to which world they are currently immersed in. The subject in this case needs to clarify which public space they are currently now occupying. Let us recall that, on the Evansian picture that we are adopting, this notion of egocentric space is crucial in order to allow the subject to *know which* object they are tracking and locating and, consequently, to successfully refer. The subject can thus consult their totem, find it, feel it, spin it, or balance it, in order to ascertain which space they are currently attending to. Totems in our case will work exactly as they do in *Inception*. Since we are speaking of objects that have a unique and unusual characteristic in the physical world that is only known by the subject themselves, then this characteristic cannot be known (and thus replicated or reproduced) by the VR software.

Yet, as explained above, we must be clear that no tool can guarantee the user the discriminating knowledge they need for acquaintance. Having a totem, therefore, is not a sure, fail-safe guarantee against confusing one’s space and reference-failure. Firstly, the subject must be sure that they know in which world they have set up their totem. A totem can only indicate to the user whether or not they are currently immersed in the world in which the totem was set up, as it would only exhibit the unusual characteristics or features

it has in that particular world. We can also imagine, then, that a subject might have more than one totem, with each totem indicating to the user whether or not they are in the specific world where the totem was set up. Thus, for example, totem_a exhibiting its unusual feature would indicate to the user whether or not they are currently in world_a, while totem_b would do the same for world_b, and so on.

Furthermore, similar to *Inception*, only the subject must know what is distinctive about their own totem and, in order to protect the integral functioning of the totem, not share this information with anyone else. Unlike the film, however, a subject might have more than one totem even for a given world. One type of totem might have a unique feature that corresponds to a different sensory modality; such as having a strange centre of balance, or a music box with a unique melody, or a lens that refracts light in a distinctive way. Another type of totem might be placed in specific, hidden location, known only to the subject – such as a false bottom or a desk drawer. These are only a few examples.

Ultimately, however, the right type of totem will depend on the manner in which VR software and hardware develops and progresses in the near future. While it is still to be seen what specific form these totems will take, what is sure, I believe, is that totems will become integral tools that subjects will frequently consult and make use of as we begin to divide our time between the physical and the virtual worlds.

§VI. Conclusion

In this way we can present a more fleshed-out account of acquaintance and reference in VR. After showing that CAV does not have the necessary conceptual framework to incorporate a subject's expertise, and cannot explain why in some instances,

certain subjects succeed in becoming acquainted with an object while others do not, I sought to provide an alternative account in the form of Skill-based acquaintance. On SBA, a subject is acquainted (and thus successfully refers) if they have discriminating knowledge of that object, which is obtained by means of the subject's skills and capacities. In normal cases concerning physical objects, a subject is acquainted with that object if they have the capacity to locate and track that object in their egocentric space. In the case of virtual objects, (assuming virtual realism is true) a subject can only be said to be successfully acquainted with such an object if they have the capacity mentioned above, along with the accompanying skill of being able to track with world they are currently immersed in – thus allowing them to to locate and track virtual objects in their virtual egocentric space.

Chapter 4 - Acquaintance and Reference with Fictional Objects

§I. Introduction

There are two families of views when discussing fictional reference which, roughly speaking, correspond to the ontological status that one takes fictional objects to have. On the one hand, irrealist (or fictionalist) views assert that fictional objects do not exist, and hence utterances involving fictional names are meaningless since they are empty. At the same time, however, such irrealist positions seem to struggle with explaining how metafictional utterances such as

(1) Sherlock Holmes was created by Arthur Conan Doyle
are true.

On the other hand, realist views assert that fictional objects do, in fact, exist, and hence (1) is not seen as problematic. However, realists must then answer the question of how it is the case that one's utterance comes to be *about* Sherlock Holmes in the first place. Realists, thus, need a way of explaining how a subject comes to be acquainted with a fictional object. This is, essentially, a version of the PUZZLE OF ABSTRACT SINGULAR THOUGHT presented in Chapter 1, applied specifically to fiction.

The aim of this chapter, then, in line with the general thrust of this thesis, is to seek to provide a way for the realist to overcome the issue of explaining how a subject comes to be acquainted with a fictional object. An overview of some of current positions in the debate shall first be presented; focusing first on Sainsbury's Reference without

Referents view as an example of an irrealist position, followed by Thomasson and Recanati as examples of realist positions. I will show how the Skill-based Acquaintance (SBA) account presented in Chapter 2 can help to further clear up the way for the realist to overcome the issue of acquaintance in a way that has so far not yet been advanced.

Building on from the Evansian capacities framework, the SBA account will enable the realist to assert that acquaintance with fictional objects is secured in virtue of the cognitive skills and capacities that the authors and the readers of fiction respectively have. I shall articulate below how Conan Doyle, *qua* creator, can be said to be acquainted with Sherlock Holmes in virtue of his creative imagining of this abstract artifact, while readers subsequently become acquainted with Sherlock Holmes via testimony of Conan Doyle's imaginings and writings. I term this testimony as 'Fictional Testimony' (FT). FT functions like any other sort of testimony wherein – following Evans – the hearers (or, in this case, readers) are consumers of the naming practice related to the fictional character, of which the author is both the creator of the character and the producer of the naming practice related to it. However, FT differs from standard testimony in that the hearer must also be capable of distinguishing the context of the testimony being given, discerning between testimony on existing physical objects, physical objects which no longer exist, and fictional objects.

§II. Irrealism

Answering the question of how (and if) one is acquainted with fictional objects depends on the metaphysical status that one considers fictional objects to have; chiefly, whether they exist or not. In this sense, therefore, the two competing views that I will discuss are so-called realist, and irrealist positions – as mentioned in the introduction

above.¹⁵⁴ The irrealist view that shall be presented here is that put forward by Sainsbury, called the ‘Reference without Referents’ (RWR) view.¹⁵⁵ Before proceeding, however, a few clarificatory remarks must be added. Firstly, RWR is intended as a theory of reference that is not specific to a particular category or set of objects, however the focus here shall be specifically with reference to fictional objects. Secondly, the point of this section (and of the rest of the chapter more generally) is not to argue for whether or not fictional objects exist, but rather to show how an irrealist might argue for how we might still be successful in referring to fictional objects.

RWR is an altogether novel strategy to overcome certain issues in reference, yet the attempt to offer a route for the irrealist about fiction to assert that they are still referring is— by Sainsbury’s own admission – understandably “controversial.”¹⁵⁶ A challenge that irrealists must answer is how are we to understand utterances involving fictional names, given that such names are empty – lacking a referent. The traditional view – and one that has been endorsed in this thesis – is that reference is impossible without a referent to begin with. Sainsbury, however, challenges this assertion. As the name of the view itself states, RWR proposes that reference is still possible despite the lack of a referent.

RWR rests on two central points. The first is that Sainsbury takes what we might call a ‘practical’ approach to language and semantic understanding. Instead of names having a referent and some sort of relation that holds between them, RWR asserts that

¹⁵⁴ A clarificatory point must be made before proceeding; I will only here consider the dichotomy of views that debate whether fictional objects are abstract artifacts or whether they do not exist at all. I will not delve into the various ‘intermediate’ views that consider fictional objects as non-existent objects (along the lines of Meinongianism), or in terms of Lewis-style possible worlds. Similar to Sainsbury, I believe that the abstract artifact theory of fictional objects to be the best alternative to irrealism, yet I will not argue this here. (Sainsbury 2009, xi)

¹⁵⁵ As elaborated first in (Sainsbury 2005) and subsequently also in (Sainsbury 2009).

¹⁵⁶ (Sainsbury 2005, 87)

names “are associated with reference conditions rather than referents.”¹⁵⁷ Hence, ‘Sherlock Holmes’ does not pick out a particular fictional object, but rather “stands for something just in case that thing is Sherlock Holmes.”¹⁵⁸ Yet this still leaves the irrealist with the problem of making sense of utterances involving such empty names. Following Frege, the classical view is to take such utterances as being meaningless. This is where the second point of RWR comes in. Sainsbury argues for adopting an alternative logic – negative free logic (NFL). Using NFL, utterances involving empty names are no longer considered as meaningless, but rather as being false. However, having every utterance involving a fictional name turn out to be false might cause some problems – especially when it comes to certain metafictional utterances as exemplified by (1) above. Cognizant of this, Sainsbury delves into a detailed analysis of how this can be overturned¹⁵⁹ without the need to subscribe to a realist ontology.

Routes are available, therefore, for the irrealist about fictional objects, to make sense of utterances involving fictional names and even – at least on RWR – refer. However, as already stated, a theory of reference that accommodates the irrealist tells us nothing about whether or not irrealism or realism is true. One might wish, for reasons other than reference or semantics, to assert that fictional objects do, in fact, exist. In this case, Sainsbury’s view (or any other irrealist view, for that matter) is of little help. The aim of the SBA account that shall be presented further down is, at the very least, to place the realist and the irrealist on a level footing when it comes to questions of reference. As to the ontological questions on the nature of fictional objects, that is not for us to discuss here.

¹⁵⁷ (Sainsbury 2005, 46)

¹⁵⁸ (Sainsbury 2009, 40)

¹⁵⁹ (Sainsbury 2009, chap. 6)

§III. Realism

Thomasson presents an abstract artifact view of fictional objects, which she terms the “artifactual theory of fiction.”¹⁶⁰ On this view, fictional objects are ‘abstract’ inasmuch as they are not concrete, physical objects occupying a specific place in spacetime. They are artifacts inasmuch as they are created (unlike, say, some views that take mathematical objects to be eternal. These shall be discussed in Chapter 5) – in the same way that a necklace, or a table is an artifact. A crucial point for Thomasson is that these abstract objects are ‘dependent’ for their existence in two important ways. Firstly, they are dependent on the creative acts of the author/s in order to come into existence, since we don’t say that authors ‘discover’ their characters, but rather “we describe authors as inventing their characters, making them up, or creating them, so that before being written about by an author, there is no fictional object.”¹⁶¹ Fictional objects however continue to exist even when the authors that have created them die. They are therefore further dependent on the existence of a literary work and of a community which can read and interpret such works in order to remain in existence.

Thomasson goes on to describe how the artifactual theory differs from other views. It might be worth here emphasizing the differences with one of these views – the ‘Imaginary Objects’ view – in order to further clarify Thomasson’s own position. Thomasson cites Sartre¹⁶² as a proponent of this view, wherein fictional objects are taken to be products of the author’s creative intentionality, in virtue of their use of imagination. In this light, the Artifactual Theory and the Imaginary Objects view seem to be very similar. The crucial difference between the two, as Thomasson states, is that on the

¹⁶⁰ (Thomasson 1999, 3)

¹⁶¹ (Thomasson 1999, 6)

¹⁶² (Thomasson 1999, 22) quoting from (Sartre 1972, 177–78)

Imaginary Objects view, these fictional objects cease to exist once the author ceases to think about them. This seems to be at odds with how we think of Sherlock Holmes or Emma Bovary. The Imaginary Objects view would seem to strangely imply that Sherlock Holmes comes into existence once Conan Doyle starts thinking about Holmes, and ceases to exist once he stops.

The Artifactual Theory does not encounter this problem since, on this view, a fictional object is created with the author's imagining of it *as well as* the author's writing of the literary work. Hence, once Conan Doyle turns his mind away from Holmes, and on to what he'll be having for tea, Sherlock Holmes is not annihilated but continues to exist in virtue of the text that Conan Doyle has penned, even if nobody is thinking of Sherlock Holmes at a certain moment.¹⁶³ It is important to note the importance and function of imagination in both these views as a skill which is central to the creation and persistence of fictional objects; this will be explored in greater detail below.

There is one last point that should be underlined from Thomasson's view before proceeding, which is the question of reference: how does the name 'Sherlock Holmes' refer to Sherlock Holmes? After articulating her position on the metaphysics of fictional objects, Thomasson then moves on to deal with this issue at considerable length.¹⁶⁴ Thomasson notes that one cannot merely transpose the typical Kripkean notion of causal-historical chains that link names to objects by 'baptisms.'¹⁶⁵ There is, however, a way to resolve this:

“Although the name cannot be directly causally related to its referent if the referent is a fictional character, it can be causally related to a *foundation* of the referent

¹⁶³ (Thomasson 1999, 23)

¹⁶⁴ (Thomasson 1999, 43ff.)

¹⁶⁵ (Kripke 1980)

(namely the text), to which in turn the referent is connected by the relation of ontological dependence, enabling one to refer to these abstracta via their spatiotemporal foundations”¹⁶⁶

In order to do this, Thomasson has to instead rely on Evans’ articulation of proper names.¹⁶⁷ As briefly illustrated in Chapter 2, Evans’ view differs from Kripke’s. Kripke focuses on the causal link from one subject to the next, wherein the referent of a certain name is set by a one-off ‘baptism’, or naming ceremony. Evans, on the other hand, emphasizes the importance of what he terms as the ‘producers’ of a naming practice. Producers are those individuals in a community who can reliably identify and pick out the referent of a particular naming practice. Other subjects, called consumers, can make use of the name to refer to the object it picks out, without being able to identify it. Thomasson thus applies this to names of fictional objects and asserts that the producers of this naming practice are the author and all those who read the literary works in which a particular fictional object is found. Consumers, on the other hand, are those who hear and participate in the naming practice, without necessarily knowing many details (or possibly even some incorrect details) about the object in question. It is worth emphasizing here that, for Thomasson, the producers are *both* the author *and* the readers of the literary works. In the following section I will offer an alternative wherein only the author is the producer of a naming practice pertaining to fictional objects, and everyone else is a consumer.

¹⁶⁶ (Thomasson 1999, 44 Emphasis original.)

¹⁶⁷ (Evans 1982, chap. 11)

The above is a brief sketch of reference in metafictional discourse.¹⁶⁸ As regards fictional discourse, Thomasson adapts Lewis' notion of a 'story operator.'¹⁶⁹ Fictional utterances differ from metafictional ones in that the former are prefixed by a story operator which is something akin to stating: 'In the story...'. Thus, the presence of the story operator allows one to judge the truth conditions of fictional utterances, while still holding that the fictional name that occurs within such utterances still refers to the fictional abstract object. Thomasson elaborates further:

"What is true according to the story is, roughly, a combination of what is explicitly said in the story and what is suggested by the background knowledge and assumptions on which the story relies. Put in other terms, it is what a competent reader would understand to be true according to the story."¹⁷⁰

Ultimately then, it seems that Thomasson's usage of the story operator relies on a more fundamental point of the reader's competence; this point will be further expounded on in the following section.

Another realist position view is proposed by Recanati,¹⁷¹ who goes in a slightly different direction than that taken by Thomasson. Like Thomasson, Recanati considers fictional objects along the artifactual theory. Utilising a mental file framework, he argues that we have both a fictional and a metafictional file on fictional characters. Crucially, he argues that the metafictional file is dependent on the fictional one, since, "it *is* possible to think about the flesh and blood Sherlock Holmes, and to imagine states of affairs

¹⁶⁸ Thomasson herself does not make use of the term 'metafictional,' yet speaks instead of "real contexts." (Thomasson 1999, 106)

¹⁶⁹ (Lewis 1978) Despite making reference to Lewis, the term "story operator" is coined by Thomasson.

¹⁷⁰ (Thomasson 1999, 107)

¹⁷¹(Recanati 2018). His main aim is to delve into the nature of reference in parafictional utterances; that is to say, utterances that are not strictly found in the fiction, but which still form part of the fictional world, such as "Sherlock Holmes does not have four ears." Parafiction is more problematic fictional and metafictional discourse, and will not be discussed here.

involving ‘him’, without referring to or thinking about the abstract artefact.”¹⁷² Recanati further strengthens his point that fictional discourse is more fundamental than metafictional since, following Evans,¹⁷³ one can understand and participate in fictional and parafictional discourse without being committed to any particular metaphysics of fictional objects. This is not to say, however, that the two files supposedly refer to different things.

“To be sure, there is no proper engagement with fiction, however immersive, without awareness of the fictional status of the fiction. But that awareness may come in the form of a specific mode of entertaining propositions (the pretence mode), which young children can distinguish from the serious mode, even if they have not yet developed the conceptual ability to think/talk about fictional stories, fictional characters, and so on.”¹⁷⁴

Finally, Recanati expounds very briefly on how we come to token such mental files regarding fictional objects (both in a fictional and metafictional sense); somewhat similar to Thomasson (and making reference to her), he relies on acquaintance with the ‘fictional practice’:

“whenever reference to abstract objects is at stake, the following issue arises: how can reference be based on acquaintance relations in such cases, since we are not acquainted with abstract objects? This is a general issue which I will put aside here—I assume that mental files can be based on epistemically rewarding relations even if the referent of the file is an abstract object, provided one is acquainted with something that bears an appropriate relation to the abstract object. In the case at hand, since fictional objects supervene on acts of fictional reference, acquaintance with the

¹⁷² (Recanati 2018, 49 Emphasis original.)

¹⁷³ (Evans 1982, 367)

¹⁷⁴ (Recanati 2018, 49)

fictional practice will provide the relevant source of information, as will more indirect relations to the practice via the testimony of others.”¹⁷⁵

Firstly, Recanati makes no mention of whether or not the author, *qua* creator of a specific fictional objects, should be acquainted in a similar or different manner than, say, readers of fiction. This will be discussed later on. However, there is a more pressing problem present here.

While admitting that acquaintance with abstract objects is problematic, Recanati proposes to resolve the problem with regards to fictional objects by appealing to acquaintance with a ‘fictional practice.’ This, however, is perplexing. Given that the problem of acquaintance in this case arises precisely due to the non-physical nature of fictional characters, it seems difficult to see how this is overcome by appealing to practices – themselves also non-physical and abstract. Now a practice might involve as a component of it some physical object, however I believe that this would still not solve this issue. We would require a way in which we can explain how the subject, being acquainted with whatever physical object is part of the practice, is also in the same instance, acquainted with the fictional object.

We recall that the conception of acquaintance that Recanati is employing here falls under the broad family of CAV first presented in Chapter 1. On such views, what makes it the case that a thought a subject has about *o*, is indeed about *o*, is that fact that *o* is in some way the cause of one’s *o*-thought. Hence, what Recanati is proposing here is tantamount to saying that the physical objects involved in the relevant practice mentioned above, are the cause¹⁷⁶ of the subject’s thoughts about i) those objects, about ii) the

¹⁷⁵ (Recanati 2018, 46)

¹⁷⁶ Given that we are running with the assumption that abstract objects are causally inert, as stipulated in Chapter 1.

practice they are part of, and about iii) the fictional object in question; the same causal-perceptual input is thus the source of acquaintance with more than one object. This is, I argue, an unsavoury consequence, and one which we should seek to avoid. We have no way of explaining how a subject might become acquainted with one of these three entities, as opposed to another. Furthermore, if we were to adhere to CAV, the framework has no tools to explain what differentiates a subject's thoughts about i), ii), or iii), given that they have the same cause; if causal relations individuate reference, the view struggles to show how a subject can succeed in differentiate between referring to i), ii) or iii) given that they are all the result of the same causal input. The view, then, suffers from an underdetermination problem.

§IV. Skill-based Acquaintance

After having presented Thomasson's and Recanati's realist positions, in this section I shall move to present an alternative which, I argue, is a more attractive way of overcoming the problem of acquaintance with fictional objects. The Skill-based Acquaintance (SBA) view, presented in Chapter 2, understands acquaintance in terms of discriminating knowledge, and relies on the subject's capacities and skills. On SBA, a subject is said to be acquainted with an object if they satisfy Russell's Principle.¹⁷⁷ Evans elaborates and builds on the Principle by articulating that a subject 'knows which' object they are thinking about if they have discriminating knowledge of that object – if they can pick out and identify that object from all other objects within a given context. Crucially, Evans held that this discriminating knowledge is achieved in virtue of the subject's basic

¹⁷⁷ "[A] subject cannot make a judgement about something unless he knows which object his judgement is about." (Evans 1982, 89) Paraphrasing from (Russell 1912, 58)

cognitive capacities. However, SBA shows how a particular category of skills – discriminating-skills (D-skills) – also function similar to capacities in securing discriminating knowledge for the subject in certain contexts. We can consider, therefore, a spectrum of cognitive functions ranging from basic capacities on one end, progressing on to D-skills of ever-increasing complexity and specificity. SBA can thus be summarised as follows:

SBA: i) A subject is acquainted with an object once they have discriminating knowledge of that object (i.e.: RP is satisfied).

ii) Discriminating knowledge is obtained via the subject's use of their capacities or of the 'discriminating skills' (D-Skills) which they possess.

According to Jeshion's 'Standard-Standard on Acquaintance,' the three main sources of acquaintance are generally taken to be perception, memory and testimony (via communication chains).¹⁷⁸ In Chapter 2, Evans' understanding of how acquaintance takes place in each of the three 'modes' was explicated. Furthermore, the novelty of SBA – particularly in the case of perception – is a widening of Evans' framework in order to be able to explain how we are acquainted with a greater variety of objects. However, the discussion there only centred around physical objects. We are here concerned with a totally different category of objects which, arguably, is a greater challenge to theories of acquaintance; how a subject can become acquainted with an object that is abstract.¹⁷⁹

¹⁷⁸ (Jeshion 2010, 109)

¹⁷⁹ Cognizant of the fact that there are varying definitions of what constitutes abstract objects, I will reiterate here what was stated in §IV of Chapter 1. I will take abstract objects to generally mean those objects which do not occupy a point in space and time and are causally inefficacious. However, it seems to me that the same problem of acquaintance with abstracta arises in the case of many, if not all, of the definitions one may adopt for abstracta. In the specific case of this chapter, in treating fictional objects as abstract artifacts, we are considering that they have themselves been caused into existence by their authors, but they do not themselves produce effects. In the case of abstract objects that are not artifacts (such as will be discussed in subsequent chapters), such objects will be considered as admitting of neither causes, nor effects.

Let us sketch a first pass at what the view I am proposing looks like. We have seen how, on the realist position, fictional objects are considered as a type of abstract artifacts, that is, created abstract objects. An author of fiction (such as Conan Doyle) is thus also the creator of fictional objects (such as Sherlock Holmes). Unlike Thomasson's and Recanati's views presented above, the account presented here will assert that the relationship that exists between creator and artifact has a special epistemic status. I argue that the author, in virtue of being the creator of the fictional object in question, is in a privileged position in being acquainted with that object in a unique way. This is because, as shall be shown, the creator-artifact relationship grants the creator with epistemic access to the artifact in question, that is not available to anybody else.

Furthermore, the proposal here is that Conan Doyle is the producer of the naming practice surrounding the fictional object Sherlock Holmes, given his being acquainted with it. Other subjects then come to be acquainted with the fictional object as a result of the author's acquaintance with it – either from reading his book, or even from talking with him (such as Conan Doyle telling his publisher about this new character he's created). On this view, testimonial acquaintance of Sherlock Holmes gained from reading Conan Doyle's novels is no different than testimonial acquaintance of Boris Johnson gained from reading the newspaper, or of Ludwig Wittgenstein gained from reading Monk's biography. The novelty here is that this account does not need to appeal to the notion of pretence, since the difference in testimonial acquaintance between Johnson, Wittgenstein, and Holmes boils down to different skills or capacities the subject employs.

In order for this to be a robust view available for the realist, the account must be fleshed-out. However, before doing so, a more fundamental question must be answered

as to why this proposed view should be preferred over those already presented by Thomasson and Recanati. There are three main reasons for this.

Firstly, as has already been mentioned above, and as shall be explored in greater detail further on, both Thomasson's and Recanati's accounts rely on the subject becoming acquainted and referring to the fictional object in question in a roundabout way by means of some physical object – generally some sort of book or manuscript. Apart from being an indirect way of coming to know of a fictional object,¹⁸⁰ such a view is also unnecessarily restrictive. What are we to say, for example, about instances in different cultures or eras where stories were recounted and passed on orally? This should already be enough to motivate us to seek an alternative.

Secondly, both Thomasson and Recanati, in passing, indicate towards the need for the subject to understand what fiction 'involves.' That is to say, that a subject must be aware of the existence of a particular practice that involves giving accounts which are based on one's imagination, which never really happened – at least not in the physical sense these stories seem to imply. Furthermore, contrary to lying or deception, subjects aware of the practice of fiction know that such recounting is indeed not literally true – otherwise they would not be competent in the fictional practice at all. However, it seems that Thomasson and Recanati do not give adequate weight to this fact. More specifically, they do not indicate precisely *why* a subject must understand what the fictional practice is, and what is it about this understanding that enables a subject to be acquainted with fictional objects. The upshot of the SBA account is that we can speak of a category of skills pertaining to fiction, and thus demystify how is it that an understanding of the fictional practice leads to acquaintance. We can call this subset of skills as 'fictional

¹⁸⁰ We are reminded here of the two-step approach mentioned in §II of Chapter 1.

practice D-skills.’ These D-skills are what enables authors to create, and readers to read, thus leading both come to know about some fictional object or other. The SBA account thus has a greater explanatory power.

This leads to the third reason for preferring the SBA account. Thomasson’s and Recanati’s views presented above treat the author and readers of fiction as ‘epistemologically equal.’ By this it is understood that, according to them, the author and the readers of a particular fictional account come to be acquainted with the relevant fictional objects in the same manner. This does not seem to me to be correct given that the author (and only the author) is the creator of the fictional object in question. It would seem more fitting to state that the author, *qua* creator of the relevant fictional object, has a different epistemic relation with that object than the rest of the subjects who might come to know of the same object.¹⁸¹ In later writings, speaking about artifacts in general (and not specifically abstract artifacts), it seems that Thomasson also comes to agree with this idea that creators of artifacts are in an epistemically privileged position with respect to their created artifacts.¹⁸² This is why, following the Evansian dichotomy of producers and consumers in naming practices, I argue, *contra* Thomasson, that readers of Conan Doyle’s novels fall under the category of consumers of the naming practice related to Sherlock Holmes, and Conan Doyle is the producer of this naming practice.

However, in order to provide a fully fleshed-out account of what I am proposing detailed replies must be given to the following two questions:

¹⁸¹ In this respect, we would do well to examine the experience and intuitions of authors of fiction themselves. Tolkien speaks of this point in *On Fairy-stories*: “[I]nvention is the most important and fundamental, and so (not surprisingly) also the most mysterious. To an inventor, that is to a storymaker, the other two must in the end lead back. *Diffusion* (borrowing in space) whether of an artifact or a story, only refers the problem of origin elsewhere. At the centre of the supposed diffusion there is a place where once an inventor lived. Similarly with *inheritance* (borrowing in time): in this way we arrive at last only at an ancestral inventor.” (Tolkien 2008, 40–41 Emphasis original.)

¹⁸² (Thomasson 2003b; 2007)

FICTIONAL ACQUAINTANCE: In what manner can Conan Doyle be said to be acquainted with Sherlock Holmes?

FICTIONAL TESTIMONY: In what way is testimony about Sherlock Holmes similar to, or different from testimony about, say, Ludwig Wittgenstein, or Boris Johnson?

It is to these questions that I now turn to.

FICTIONAL ACQUAINTANCE

Of the three ‘sources’ of acquaintance that Jeshion mentions above, perception is the most fundamental. This is because memory and testimony rely on the previous perception of that object by the subject or by a speaker that the subject is hearing. In a sense, one can say that perception is a primary way of being acquainted while testimony and memory are secondary, or derivative ways of being acquainted. Thus, in order for a subject to be able to have singular thoughts about an object, they must either be acquainted with that object in a primary way, or acquainted in a derivative way given that they themselves, or some other individual, was once acquainted in a primary way with that same object.

How, then, can we explain acquaintance in a primary way with a fictional object such as Sherlock Holmes, given that abstract objects cannot be perceived? Put in different terms, if acquaintance is to be articulated as a type of causal relation existing between subject and object, how can causally inert abstract object be objects of acquaintance. If one utilises a broadly causal view of acquaintance, then it seems difficult how this problem could be overcome. Recanati – himself using a causal notion of acquaintance – comes close to attempting to articulate this. He asserts that one can become acquainted

with fictional objects in virtue of “acquaintance with the fictional practice”.¹⁸³ Yet, as we have already seen, this does not seem adequate enough; how are we to understand ‘being acquainted with a practice’ on CAV, given that practices themselves are also non-physical objects? While practices might have physical objects as elements of them, we are still left with the same problem elaborated elsewhere of causal underdetermination; how does acquaintance with a physical object give us also, in addition, acquaintance with a fictional object. It seems that any theory that considers acquaintance in causal terms is unable to provide an explanation of how a subject can become acquainted with abstract objects.¹⁸⁴

Thomasson also provides a framework to explain how we successfully refer to fictional objects, which relies on Evans’ theory on proper names. In the previous section, it was underlined that, according to Thomasson, authors and readers of literary works are the producers of the naming practice surrounding a specific fictional object. Thomasson states this by arguing that the readers (and the author themselves) must be acquainted with some physical spatiotemporal object in order to then further become acquainted with the fictional object. Yet a problem arises which she duly notes, yet insufficiently answers. She argues that a subject must be acquainted with a physical object in order for reference to succeed. Since fictional objects are abstract, then one must be acquainted with the literary work the fictional object is ‘found in.’

However, this seems to be open to the same underdetermination problem mentioned further above with respect to Recanati and his claim of acquaintance with the fictional practice. Things get complicated, for example, if we think of e-books of which

¹⁸³ (Recanati 2018, 46)

¹⁸⁴ This much is already asserted by Bach: “any object of *de re* thought must be or have been an object of perception, if not one’s own then someone else’s. Of course this does not apply to *de re* thoughts about oneself or about abstract objects... Abstract entities simply cannot enter into causal relations.” (Bach 1987, 11–12)

there are no physical copies of, but only data, which is itself stored in physical hardware. Following Thomasson, in these cases we should say something like: reference to fictional objects is mediated through an abstract literary work, which in turn is instantiated in non-physical virtual objects, which are in turn instantiated through a physical object such as a tablet or a laptop.

Thomasson's view, then, is susceptible to the same challenge as Recanati's; acquaintance with the tablet, the e-book, the literary work, and the fictional character are all based on the same single causal relation, and it is not clear what explanation one can provide of how one could be acquainted with one of these objects as opposed to another. The problem is ultimately the very same problem that is the scope of this thesis; one cannot make use of a notion of acquaintance that relies on causation in order to secure acquaintance with abstract objects.

This is where I propose that the SBA view can overcome these challenges. On this alternative view to acquaintance that we are articulating, acquaintance is secured if the subject has discriminating knowledge of the object in question. In Evansian terms, this discriminating knowledge is had when the subject grasps the *fundamental Idea* of that object, and they do so when they think of the object in question in terms of its *fundamental ground of difference*. The subject succeeds in doing this in virtue of the capacities and skills that they possess. However, before proceeding, one must explain what Evans intends by the terms italicised.

FUNDAMENTAL GROUND OF DIFFERENCE: "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 to objects of that sort."¹⁸⁵

FUNDAMENTAL IDEA: "Let us say that one has a fundamental Idea of an object if one thinks of it as the possessor of the fundamental ground 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.)"¹⁸⁶

In fact, the first examples that Evans gives in order to illustrate the terms above are of abstract objects; the number three and the shape square. There is a reason for this which Evans goes on to make explicit in a note to the above: "Proper names of abstract objects are typically such that understanding them requires a fundamental Idea of the referent; this is not so with proper names of material objects."¹⁸⁷ Unfortunately however, Evans does not elaborate much further than this. This is where the SBA can account can furnish that which is lacking.

So far, this account has only been applied to show how skilled individuals succeed in becoming acquainted with physical objects that unskilled individuals would not, or with virtual objects. In the examples provided in Chapter 2, the doctor or the sommelier receive the same perceptual input (the goitre they are touching or the wine they are tasting) as any other subject, but only they succeed in becoming acquainted. I shall now attempt to apply this argument to abstract artifacts in particular.¹⁸⁸

The argument I am proposing can be summarised as follows:

FICTIONAL ACQUAINTANCE:

¹⁸⁵ (Evans 1982, 107)

¹⁸⁶ (Evans 1982, 107)

¹⁸⁷ (Evans 1982, 107 n.30)

¹⁸⁸ The following argument is not applicable to every category of abstracta, but only to abstract artifacts, given their being created by a subject, as opposed to other types of abstracta (such as mathematical objects) which are generally considered as being eternal.

(FA1) A fictional object *f* comes into existence upon being created by an author *a*.

(FA2) The act of creation, which is a skilled act, involves – as a necessary part –
a's intention to create *f*.

(FA3) Subjects know their intentions through self-knowledge (or introspection).

(FA4) The intention to create *f* constitutes discriminating knowledge of *f*.

Therefore, *a* is acquainted with *f*.

As has already been articulated previously, on the SBA account, acquaintance is not necessarily achieved by the deployment of a single skill or capacity that a subject possesses, but possibly by a combination of abilities,¹⁸⁹ as is the case here. The above argument primarily considers the abilities of creating abstract artifacts as well as that of introspection, or self-knowledge as being central to fictional acquaintance. However, the above argument now needs to be unpacked.

It should be reiterated that the aim of this text is not to argue for why we should be realists about fictional objects, but rather to offer a route for the realist to explain how we are successfully acquainted with and refer to such objects. In light of this, then, FA1 will not be defended here, but taken as given. The very definition of artifact implies creation, that is to say that we can speak of a time when Sherlock Holmes or Beethoven's 5th Symphony did not exist. This view, dubbed 'creationism,'¹⁹⁰ is defended by a number of authors,¹⁹¹ and can be considered as the preferred position for the fictional realist.

Yet what does this act of creation involve, according to creationists? This is where FA2 comes into play. Some variations exist here, but it seems that authorial intention is

¹⁸⁹ "Abilities" should here be understood as a catch-all term for capacities and skills.

¹⁹⁰ (Brock 2010, 338)

¹⁹¹ (van Inwagen 1977; Searle 1979; Salmon 1998; Thomasson 1999; Braun 2005; Voltolini 2006; Kripke 2013)

a central part of almost all explanations put forward. One such articulation of this act of creation, presented by Brock, is labelled the “Intended Creation by Pretense View.”

ICP: “[A] fictional object is created when and only when an author pretends to refer or pick out an individual as a consequence of his or her intention to create such an individual. Where the appropriate intention is lacking, no such individual is created.”¹⁹²

ICP can be considered as a minimalist account requiring only the author’s intention and their pretending to refer. Other theories include further requirements such as the need for such intentions to be accompanied with specific events or objects.¹⁹³ What is crucial for the argument presented above in order to motivate FA2 is that authorial intention is considered as a necessary component of creationist accounts. Furthermore, this creative ability can be easily considered as a part of what it means to be skilled at being an author of fiction. We can view writing fiction as an act which requires a specific skill, or set of skills, in order for a subject to be able to carry out such a task. This, at least for now, shows FA2 as conforming to the overall SBA account.

FA3 – the claim that ‘subjects know their intentions through self-knowledge (or introspection)’ – is a more challenging premise to motivate due to the rather nebulous nature of the debate on self-knowledge and introspection. The claim is based on the notion that we do in fact have access to our mental states. Some would term this as self-knowledge, while others as introspection. However, even within these two different terms, there are a multiplicity of interpretations as to what self-knowledge or introspection amounts to, and which (if any) mental states does a subject have access to. To delve into this debate would take us too far afield and beyond the scope of this text.

¹⁹² (Brock 2010, 360)

¹⁹³ For example, see: (Irmak 2021)

We are here concerned with a specific subset of mental states – intentions – and a number of theorists do, in fact, hold that a subject can come to know of their intentions.¹⁹⁴ Here I will specifically focus on a specific understanding of self-knowledge understood as agentialism.¹⁹⁵

Agential accounts move away from traditional accounts that consider self-knowledge as some sort of higher-order function that a subject requires in order to gain access to one’s own mental states. Such accounts – dubbed by McGreer as “reporter-predictor model” of self-knowledge,¹⁹⁶ generally view self-knowledge as some sort of second-order belief that one has about one’s first-order mental states. Instead, agentialist accounts understand self-knowledge as derivative of the fact that we are rational agents who take responsibility for our decisions, actions and commitments. This implies that we also exert this agency over our mental states, and hence we must have knowledge of them. Briefly put, it does not make sense, agentialists argue, to assert that we have responsibility over that which we do not know.

McGreer’s account, for example, relies in part on the assertion that “first-person authority is an acquired capacity instilled in us...”¹⁹⁷ While fictional acquaintance need not rely on one specific account of self-knowledge in order to run, I here choose to use agentialism – and McGreer’s account in particular – as an example given the articulation of agency as a capacity that a subject acquires and deploys. For evident reasons, this fits in well with the wider SBA account that is being proposed. While it would seem that all self-knowledge accounts can be presented in such a manner as to articulate self-

¹⁹⁴ (Shoemaker 1988; 1994; Paul 2012)

¹⁹⁵ Some examples of this are (Burge 1996; McGeer 1996; Moran 2001; Bilgrami 2006; Boyle 2009)

¹⁹⁶ (McGeer 1996, 506)

¹⁹⁷ (McGeer 1996, 506)

knowledge arising as a result of a skill or capacity that a subject possesses and deploys, agentialist accounts such as McGreer's makes this fact explicit.¹⁹⁸

In this manner the case for accepting FA3 can be made. By focusing on agentialism, and McGreer's account in particular, we can see how numerous arguments have been advanced to show how subjects are aware of their intentions. It should be noted, however, that while I have here focused on agentialism as a manner of motivating FA3, this is not meant to indicate that the above argument can only run on this specific interpretation of self-knowledge. Any account of self-knowledge suffices as long as one's intentions are amongst the target objects of one's self-knowledge.

We can finally turn to FA4. The SBA account we are running with requires us to show what form does discriminating knowledge of a fictional object take, and what skills or capacities are employed in order to achieve it. FA2 and FA3 have answered the latter question, FA4 must now answer the former. Before delving specifically into fictional objects, we would do well to examine what discriminating knowledge for abstract objects more generally looks like. It has been noted that for physical objects, discriminating knowledge takes the form of a spatiotemporal location, but this route is not available for abstracta. Curiously, however, as already mentioned, Evans begins his elaboration on discriminating knowledge by focusing not on physical objects, but on abstract ones. He takes the example of the number three, or the shape square are presents as discriminating knowledge those identifying facts about them – “being the third number in the series of numbers... having four equal sides joined at right angles.”¹⁹⁹

¹⁹⁸ One other such example can be found in (Bilgrami 2006)

¹⁹⁹ (Evans 1982, 107)

This already points us towards the direction of some sort of a solution with regards to fictional objects. What facts, however, about fictional objects should be considered as being identifying and count as discriminating knowledge? Let us take Sherlock Holmes as an example. Would facts such as ‘the fictional object which lives in 221 Baker Street,’ or ‘the fictional object that is a detective’ suffice? In short, no. Firstly, we can imagine that it would have been possible for Conan Doyle to write subsequent novels about Sherlock Holmes wherein he changed lodging or profession, and he would still be Sherlock Holmes. But on a more fundamental level, these facts are also ‘fictional facts’ in that they are true only in the fiction. We cannot ascribe to an abstract object the property of residing at a particular address or of having a certain profession. Thus, we can see from the above that in order for a fact to count as discriminating knowledge, it must be a fact about the abstract artifact – a metafictional fact. Given that artifacts are created, facts regarding their creation should suffice as discriminating knowledge.

Now, as we have seen further above, the intention to create a fictional object is necessary to the creation of that object. There might be other elements that are also necessary to the creation of a fictional object, and these might also only be jointly sufficient (i.e.: the intention to create *alone* might not be sufficient for creation). However, from all these necessary elements, it could be argued that singling out the author’s intention as counting as discriminating knowledge of the target object is a better option for a number of reasons. Firstly, choosing knowledge of the author’s intention as the right kind of discriminating knowledge of the target object (as opposed to knowledge of some physical object such as, say, the very first physical manuscript) can accommodate situations wherein fictional objects (and fictions as a whole) exist only in oral form. Secondly, related to this point, classifying the author’s intention as discriminating

knowledge will avoid many underdetermination problems that might arise if we choose a physical text; in the same manuscript where Conan Doyle introduces Holmes, he also introduces Dr Watson.

An important qualification should be added here. We can imagine that Conan Doyle had been thinking for some time of creating a character that would become Sherlock Holmes, yet only got round to actually doing so after a prolonged period of thought. While we may say that Doyle had the intention to create Sherlock Holmes, this intention can only begin to be classified as discriminating knowledge of Sherlock Holmes once Doyle actually created the object.²⁰⁰ This, however, also means that it is only the author, *qua* creator of a fictional object who has access to this particular discriminating knowledge, given that no other subject, unless told by the author, is aware of the author's intention to create a fictional object. In light of this, then, if we can show how the author is capable of picking out intention_f, then this will guarantee acquaintance with fictional object *f*. This is because the fundamental ground of difference of *f*, that picks it out from all the other possible abstract objects, is precisely intention_f. And since, as we have seen above, a subject can in fact know and pick out their intentions, then an author can have discriminating knowledge – and hence be acquainted – with whatever fictional object they have created.

Thus, the argument for why we should regard the author of a particular fiction to be acquainted with the fictional object they have created has been laid out. Creationism asserts that the subject's intention is a crucial part in the creation of an abstract artifact. Given that we can argue for the fact that subjects have self-knowledge of their own

²⁰⁰ On the Evansian view we are working with, there can be no discriminating knowledge if there is no object in the first place, or at least it would not be the type of discriminating knowledge of the kind relevant to acquaintance.

intentions – as has been seen in the particular case of agentialism – then this knowledge counts as discriminating knowledge of the fictional object in question. In this manner, author_f can be said to be acquainted with fictional object *f* in a manner unlike anybody else can be.

FICTIONAL TESTIMONY

The road is now prepared for us to move on to the second part of our question. Given that we have articulated how an author comes to be acquainted with *f*, how do the rest of us – readers, viewers, audience members, and the general public – come to be acquainted with the *f*? I shall argue that this is through a specific type of testimony which I shall term as ‘fictional testimony.’²⁰¹

We receive testimony on a variety of objects and in a multitude of different ways. I would like to present here four particular cases:

COLLEAGUE: A subject S goes to the pub to meet their friend for a few drinks. Their friend starts recounting a peculiar incident that happened to them at work involving a colleague, Mr. Smith.

PICARDO: A subject S buys a copy of a respectable daily newspaper and sits down to read it. They read a story about an incident involving the Chief Minister of Gibraltar, Fabian Picardo.

MORRELL: A subject S is reading a biography on Bertrand Russell, and learns of his affair with Lady Ottoline Morrell.

WATSON: A subject S buys *A Study in Scarlet* from the fiction section of a local bookseller and reads about Holmes’ trusted confidant Dr Watson.

²⁰¹ This is different to the other usage of fictional testimony which refers to the phenomenon of readers gaining testimonial knowledge about the actual world from reading fiction. For more on this, see: (Marsili 2023)

In each of these instances, S comes to know of individuals (or objects, in the case of Watson) they have never heard of before. I will here defend the claim that all of the above cases (including, most importantly, WATSON) are genuine cases of testimony that allow S to become acquainted with the individuals (or objects) in question.

In order for S to be acquainted with some person or object via testimony, a number of criteria must be met; (i) the target object must exist, or have existed,²⁰² (ii) S must receive testimony from a source that is itself already acquainted with the target object, and – following Evans – (iii) S must have the capacity to pick up the naming practice surrounding the target object. In the cases above, (i) is met in the first three cases given that they are about individuals who exist or have existed in the past. In the case of WATSON, (i) is fulfilled on any realist interpretation of fictional objects.

With regards to (ii), this is evidently satisfied in the first case. In PICARDO, we can imagine that the newspaper article was written by a journalist who was present at some press-conference where Picardo spoke. In MORRELL, it could be the case that the author of the bibliography was relying on first-hand evidence written by individuals who knew or spoke with Russell or Morrell. In this manner, the author of the bibliography is also acquainted via testimony with the target object via some other source. Finally, the argument presented above in Fictional Acquaintance gives us a way in which we can argue that, in the case of WATSON, the reader of *A Study in Scarlet* comes to be acquainted with Dr Watson in virtue of Conan Doyle's testimony.

²⁰² This is a general criteria for any instance of acquaintance that has already been argued elsewhere.

This view is therefore similar to Recanati's and Thomasson's in that the reader does come to be acquainted with Watson by reading a literary work, but in an altogether different manner. What is being asserted here is different in that the reader here is said to be acquainted in a derived way, and not in a primary way as Conan Doyle is. Some might not be entirely convinced with treating works of fiction as instances of testimony. We can amend WATSON slightly in order to further illustrate this point. Let us imagine that Doyle has not yet published *A Study in Scarlet*, but has only written a rough draft which he might have shown to only a few people, or maybe just his publisher, or possibly to nobody at all. Doyle could have been at the pub speaking with a friend of his about his latest novel, and, in recounting the story, introduce the character of Dr Watson. This amended case is now very similar to COLLEAGUE. There does not seem to me to be any grounds on which one can say that were Doyle to be speaking about his work colleague, or his pet dog, then his friend would become acquainted with these target objects via testimony, but would fail to do so were Doyle to speak of Dr Watson. And if one accepts that testimonial acquaintance does take place in this case, then it is only a 'modular' change to go from Conan Doyle speaking of Dr Watson, to Conan Doyle writing about Dr Watson. If we accept that the former is a case of testimony, then we must also accept the latter. Works of fiction are authorial sources of testimony.

What about (iii), then? On the Evansian view that SBA adopts, acquaintance via testimony is understood in terms of the subject having the capacity of identifying and picking up a naming practice. Given the four different cases presented above, there are two possibilities available to us, both of which are compatible with the overall SBA account being proposed.

On the one hand, we might say that we need a finer-grained explanation of the skills and capacities needed in acquaintance via testimony depending on the target object, given that simply having the ‘capacity to pick up a naming practice’ does not seem to be enough. In the cases above, S was presented with testimony coming from a variety of sources; a friend’s recounting, a newspaper, a biography, and a fictional novel. Furthermore, we can argue that S’s success in becoming acquainted with the target objects in each case relied on what we can term as S’s ‘background’ awareness of the different types of testimony that each source generally provides. What does this mean?

In reading a newspaper (a reputable one, at least), one knows that the information provided can be roughly classified as ‘pertaining to physical individuals and real events that happened in the world.’ In the case of reading a book, one must distinguish whether one is reading a biography or an encyclopaedia article, for example, or a fictional novel. The former category generally provides testimony, similar to newspapers, on individuals or objects which historically existed at some point in time. Novels of fiction, however, do not. Instead, they offer a different type of testimony pertaining to fictional objects and happenings. Or rather, to be precise, it would be more fitting to say that biographies and encyclopaedia articles may have information about fictional objects, but they would be metafictional facts, as opposed to fictional ones.

It would make sense to assert, then, that S’s success in becoming acquainted via testimony does not rely *only* on their capacity to identify and pick up a naming practice, but also on being able to realise what ‘sort’ of testimony is generally provided by the different sources they come in contact with. Such a skill can be

considered as analogous to the world-discrimination skill considered in Chapter 3 with respect to virtual objects. In this case, however, we can label the skill something like ‘testimonial-source detection’ skill. A subject is thus said to be proficient in this skill if they are able to realise whether they are currently receiving testimony about the imaginings of an author about a fictional object, or about real happenings concerning flesh-and-blood individuals. This skill would involve, for example, knowing whether they are reading a trustworthy newspaper, or a satirical one. Or that certain literary styles tend to be more typical of fictional stories than non-fictional ones. In an altogether different debate, we might already see something akin to this testimonial-source detection skill in the literature on fake news, and the epistemic virtues that a subject requires in not falling victim to this.²⁰³

On the other hand, one might go in an altogether different direction and assert that the simple capacity to pick up a naming practice is sufficient in becoming acquainted with Sherlock Holmes via testimony. We recall that we are here interested specifically with reference. In cases of reference to ordinary physical objects, the subject might indeed be acquainted with an object, and successfully refer to it, but still have some false beliefs concerning it. Donnellan’s man drinking a Martini is a prime example of this.²⁰⁴ In a similar way, then, we can say that a subject might still be acquainted with Sherlock Holmes, and refer to the fictional object, despite having the false belief that Sherlock Holmes is a flesh-and-blood individual who really lived on Baker Street. Such an account might be more suitable to answering complicated cases relating to historical fiction. In cases where it is not

²⁰³ For a general overview see (Bernecker, Flowerree, and Grundmann 2021)

²⁰⁴ (Donnellan 1966, 287)

entirely clear whether a literary work is a work of fiction or not – such as Homer’s *Iliad* – we would want to assert that a subject reading the *Iliad* does indeed become acquainted with, and successfully refer to Helen of Troy despite not necessarily knowing whether she is a fictional object or a historical figure. The argument can be made, then, that successful acquaintance and reference is not dependent on the subject knowing the specific ontological status of the target object.

§V. Conclusion

The attractiveness of the SBA account should now be evident. Contrary to existing realist views, the SBA account can explain how a subject comes to be acquainted with and refer to fictional objects in a manner that does not rely on acquaintance with some sort of physical object. The upshot of this is that the view being proposed does not fall victim to the underdetermination problem explained above, and is able to accommodate different creationist theories.

Furthermore, the view also highlights and offers an explanation for the intuitive idea that authors are in some way epistemically privileged with respect to the fictional objects they create. Authors, *qua* creators, are therefore acquainted with the fictional objects they create in a primary way unlike anyone else. Readers should instead be viewed as recipients of testimony, whether via oral or written means, given by the author of the fictional objects the latter has created. Whether acquaintance via testimony can only be secured if the subject is in possession of some sort of ‘testimonial-source detection skill,’ or whether the capacity to track a naming practice alone is sufficient, the SBA account presented can accommodate either.

There is already, here, a significant consequence of adopting SBA over other theories – the rejection of Jeshion’s ‘Standard-Standard’ mentioned previously. As can be seen from what has been presented above, on the SBA view, perception is no longer the sole primary way of becoming acquainted. In this particular case of fictional objects, the author is shown to be epistemically privileged in that they are acquainted with whatever object they have created, in virtue of their ability to have self-knowledge of their intentions, and thus gain discriminating knowledge of the target object.

Chapter 5 - Skill-based Acquaintance and Mathematical Objects

§I. Introduction

Benacerraf's dilemma²⁰⁵ on mathematical knowledge and truth can be considered as one of the central issues within philosophy of mathematics. The dilemma supposedly underlines an incompatibility that exists between the semantic treatment of propositions that are about mathematical objects on the one hand, and epistemological theories that explain how we acquire mathematical knowledge in the first place on the other. Much ink has been spilled in attempting to provide solutions, or even to try and do away with the dilemma altogether.

The aim of this text, however, is to address an issue that is prior to the dilemma itself. Before we can speak of what knowledge we can gain about mathematical objects, we need an account of how we come to know of such objects in the first place. By relying on the Skill-based Acquaintance account (SBA) that has been presented in Chapter 2, I will here attempt to articulate what a theory of acquaintance with mathematical objects according to this view would look like. Furthermore, an upshot of the account proposed is its consistency with the empirical evidence arising from the domain of cognitive neuroscience. The SBA account shall be seen to explain how subjects are acquainted, at the very least, with the numbers 1, 2, and 3. Beyond this, widening the set of mathematical

²⁰⁵ Sometimes also called Benacerraf's challenge. I will clarify the varied terminology linked to Benacerraf's dilemma in the following section.

objects that a subject can be acquainted with is possible, but more work is required in order to properly show this.

First, Benacerraf's original dilemma shall be presented and explained. Some replies which have already been advanced shall be presented, including their shortcomings. Subsequently, the general form of SBA shall be laid out, along with Evans' sparse comments on identification with regards to abstract objects. SBA argues that discriminating knowledge is obtained in virtue of the skills and capacities that subjects possess. I shall show what discriminating knowledge of mathematical objects looks like and how we should differ it from purely descriptive thought, and – relying on empirical research in cognitive neuroscience – present some of the capacities and skills that are possibly employed in securing acquaintance with mathematical objects.

§II. Benacerraf's Dilemma

Brief mention has already been made above to the fact that Benacerraf's dilemma is concerned with propositional knowledge, or knowledge-that, whereas our concern here is rather with acquaintance and reference. However, as shall be evident further down, a significant amount of work pertaining to reference and acquaintance with mathematical objects has arisen as a result of a wider engagement with the dilemma. For this reason, it would be useful to briefly elaborate on Benacerraf's argument in order to be able to make sense of the different positions that have been advanced.

The dilemma we are concerned with is the one Benacerraf presents in *Mathematical Truth*.²⁰⁶ Benacerraf argues that attempts to articulate mathematical knowledge and truth should abide by two particular concerns: a semantic and an epistemic one,

“[Semantic Concern:] (1) the concern for having a homogeneous semantical theory in which semantics for the propositions of mathematics parallel the semantics for the rest of the language, and

[Epistemic Concern:] (2) the concern that the account of mathematical truth mesh with a reasonable epistemology.”²⁰⁷

However, Benacerraf goes on to argue that there exists no account that satisfies both concerns. *A fortiori*, he asserts “that almost all accounts of the concept of mathematical truth can be identified with serving one or another of these masters *at the expense of the other*.”²⁰⁸ Benacerraf explains this in further detail:

“accounts of truth that treat mathematical and nonmathematical discourse in relevantly similar ways do so at the cost of leaving it unintelligible how we can have any mathematical knowledge whatsoever; whereas those which attribute to mathematical propositions the kinds of truth conditions we can clearly know to obtain, do so at the expense of failing to connect these conditions with any analysis of the sentences which shows how the assigned conditions are conditions of their *truth*.”²⁰⁹

²⁰⁶ This must not be confused with a separate problem he presents a few years earlier which deals with attempts of set-theoretic reductions of natural numbers (Benacerraf 1965). This problem, which is sometimes referred to as the ‘identification problem,’ will not be dealt with here.

²⁰⁷ (Benacerraf 1973, 661)

²⁰⁸ (Benacerraf 1973, 661 Emphasis in original.)

²⁰⁹ (Benacerraf 1973, 662 Emphasis in original.)

Let us elaborate this further. Mathematicians and laypeople²¹⁰ seem to be able to communicate and agree on many mathematical propositions, that is to say, propositions that involve names of mathematical objects (e.g.: natural numbers). Furthermore, given the importance of mathematics for many other branches of knowledge and daily life, we would also want to verify whether such propositions are indeed true or not. This is where Benacerraf's two constraints come into play; we require a manner in which we can explain how we come to know facts about such mathematical objects, and how are we to understand propositions involving them.

To illustrate this, Benacerraf takes aim at Hilbert's account in *On the Infinite*.²¹¹ Hilbert proposes a semantic account wherein quantifier statements involving mathematical objects are to be interpreted in a different manner than quantifier statements involving any other set of objects. Hilbert's account, like other "combinatorial"²¹² views, proposes that the truth of such statements should be derived from their syntactical structure, according to a specified set of axioms. This is different from our treatment of other quantifier statements involving other categories of objects since "in such cases truth is conspicuously not explained in terms of reference, denotation, or satisfaction."²¹³

Hilbert's (or any other proponent of a similar combinatorial view) roundabout approach of interpreting such statements, as opposed to treating them in the same manner as non-mathematical propositions, is done in order to satisfy something akin to the epistemological concern mentioned above. The attractive nature of combinatorial accounts lies in the fact that the truth of mathematical statements is derivable via proofs

²¹⁰ I use this term to refer to subjects who seem to exhibit a basic grasp of elementary mathematics and arithmetic, yet who are not experts in the field.

²¹¹ (Hilbert 1984)

²¹² (Benacerraf 1973, 665)

²¹³ (Benacerraf 1973, 665)

from an agreed upon set of axioms. Looking back at the dilemma, Hilbert's theory is thus an example of a theory that satisfies the epistemological concern, while failing the semantic one.

On the other hand, we have instances where a particular theory overcomes the semantic concern while failing the epistemic one. As noted above, the semantic concern is addressed if mathematical propositions are treated in the same way as non-mathematical propositions when it comes to interpreting their meaning and assigning a truth-value. The overall truth-value of a sentence is generally said to depend on its constituent parts, including the names that occur within that sentence (and its structure). Thus, the sentence 'John is smoking a cigar' would depend, in part, on the referent of 'John.' It would seem to be the case also, then, that sentences involving mathematical objects, such as '2 is the smallest prime number' must also be treated in an analogous manner in that the truth of such a sentence depends on the referent of '2.' It is here that we can turn to our focus of acquaintance and reference.

Similar to what has been carried out in the previous chapter (Chapter 4) on fiction, I will here take up the perspective of the realist about mathematical objects – specifically the so-called Platonist view. Platonism about mathematical objects considers such objects as transcendental (or eternal) abstract entities. They are eternal inasmuch as they are not artifacts created by some subject at a specific time – such as a musical piece, or a work of fiction. They are abstract inasmuch as they do not occupy a spatiotemporal location. The upshot of such a position is that the semantic constraint with regards to reference is satisfied; names of mathematical objects refer to external, mind-independent entities, as would any other name such as 'London,' or 'King Charles II.' However, the Platonist struggles with satisfying the epistemic constraint, given that – as with all other abstract

entities – we need to find a way to explain how a subject comes to be acquainted with mathematical objects in the first place.

The SBA account will here be presented as a way in which the Platonist can overcome this problem. This text, therefore, shall focus exclusively on attempting to provide an account of how the Platonist on mathematical objects can overcome Benacerraf's dilemma. I do not here defend the claim that mathematical objects *are in fact* eternal abstract entities. That is the metaphysician's battle. Furthermore, I do not wish to define which objects should be considered as abstract entities; whether it is only the natural numbers that should be considered as being such, or the whole class of real numbers, it is not for this text to assert how populated the realm of mathematical objects is. It seems to me that Benacerraf's dilemma can get off the ground even if one asserts that there are only a handful of such abstract objects.

However, before proceeding to do just this, two alternative proposals for overcoming the epistemic constraint for the mathematical realist will be presented: Maddy's and Chudnoff's. The view proposed by Maddy, albeit not strictly Platonist, does merit some analysis given that it is viewed as one of the few ways that a mathematical realist can in fact come to be acquainted with mathematical objects via perception. Evans' own view, under some interpretations, can be considered as approaching this position. Chudnoff, on the other hand, argues that we can come to know of mathematical abstract objects by means of our intuition.

§III. Maddy and Chudnoff

One route that has occasionally been taken in an attempt to overcome Benacerraf's challenge is via perception. Of course, things are not as simple as saying that we perceive

abstract objects, given everything that has already been stated thus far in this thesis. Rather, these family of views tend to make use of ordinary perception as a roundabout way to becoming acquainted and gaining knowledge of mathematical objects. Arguably, one might even venture to say that Evans himself might have held a view similar to this. In one of the appendices in *The Varieties of Reference*, on the subject of demonstrative identification of abstract objects, we find:

“Demonstrative identification of a type object would require that one have in mind the fundamental ground of difference of that object in virtue of one’s perception of it – that one’s perception of the object give one the relevant fundamental ground of difference... Why should one not be able, by perceiving a token, to be put in mind of the fundamental ground of difference of the object of which it is a token?”²¹⁴

A similar, but more elaborate view can be found in Maddy who, simply put, claims “that we can and do perceive sets, and that our ability to do so develops in much the same way as our ability to see physical objects.”²¹⁵ Maddy provides a detailed survey of the problem facing anyone who maintains some degree of realism in mathematics. Yet, in order for one to adopt Maddy’s proposal, one must subscribe to the same ontology and epistemology that she makes use of herself. Where ontology is concerned, Maddy holds a set-theoretic realist view wherein sets are instantiated and located in the world around us, such as the set of three eggs, or the set of five balls; the objects themselves form part of the set. As a consequence of this Maddy somewhat concedes that some might therefore object that such a view is not strictly Platonist in that sets are no longer understood as

²¹⁴ (Evans 1982, 198)

²¹⁵ (Maddy 1990, 58)

being abstract; in fact, she terms this set theoretic realist view as a type of “compromise Platonism.”²¹⁶

As for Maddy’s epistemology, she explains this by presenting an example of Steve who sees three eggs in a carton. Maddy asserts that:

“Steve has perceived a set of three eggs... Steve acquire[s] perceptual beliefs about it, and the set of eggs participate in the generation of these perceptual beliefs in the same way that my hand participates in the generation of my belief that there is a hand before me when I look at it in good light.”²¹⁷

Building off from a neurophysiological theory put forward by Hebb,²¹⁸ Maddy argues for this position above by stating that there is very little information that we gain via perception, and rather that the majority of the knowledge we have is more theoretical. There is a behavioural aspect to this that Maddy also appeals to; we can tell that Steve has perceived the set of three eggs from the fact that he is relieved that he has enough for his recipe. It must also be mentioned that Maddy also makes reference to intuition, yet in a very different way than shall be seen below. She considers intuitions, or rather, intuitive beliefs as forming part of the theoretical knowledge mentioned above that enables a perceiver to form higher-order beliefs about what they are perceiving. Crucially, however, these intuitive beliefs are not restricted to mathematical objects only, but one also forms intuitive beliefs about spatiotemporal objects too.

Maddy’s overall aim in this project is to seek to reconcile mathematical ontology and epistemology with naturalism and “into line with our overall scientific world-view.”²¹⁹ And while one can say that there is a convergence of motivations between her

²¹⁶ (Maddy 1990, 35)

²¹⁷ (Maddy 1990, 58)

²¹⁸ (Hebb 1949)

²¹⁹ (Maddy 1990, 78)

aim and the aim of this particular chapter, the same cannot be said of the particular theory that she advances. One might come to accept the specific view of perception that Maddy lays out, but a greater problem lies in the so-called ‘compromise Platonism’ view that Maddy defends. Ultimately, then, while Maddy’s view does in a sense provide a solution to Benacerraf’s dilemma, and (more importantly to us) to the question of how a subject comes to be acquainted with mathematical objects in the first place, it is doubtful how much the Platonist would be willing to accept this view. For the die-hard Platonist who is not willing to give up the claim that mathematical objects are ‘fully-fledged’ abstract objects, Maddy’s view is of little use. Thus, the problem we set out to resolve still stands.

Chudnoff, on the other hand, presents a different approach by arguing for a subject’s intuitive awareness of mathematical objects (and other abstract objects more generally).²²⁰ Recognising the variety of ways in which the term ‘intuition’ is employed and understood, he seeks to focus on a specific understanding which he terms as “perceptual intuition.”²²¹ By perceptual intuition, Chudnoff does not intend that this type of intuition relies on perception, but rather that it can be analogously compared to it. Thus, intuitive awareness of a particular mathematical object *o* is described as arising of the fact that one’s awareness of *o* is noncausally dependent on *o* itself. Chudnoff seeks to articulate this awareness by relying on the different phenomenal character that different objects possess. This approach is summarised as follows:

“Ground of Intuitive Awareness: If S is intuitively aware of an abstract object *o* by having intuition experience *e*, then *e* makes S aware of *o* because: in accordance with *e*’s essence, *e*’s (material) parts are so arranged that *e*’s phenomenology differentiates

²²⁰ (Chudnoff 2013)

²²¹ (Chudnoff 2014)

o from its background, and o thereby plays a role in determining e's phenomenal character."²²²

The upshots, according to Chudnoff, are that this account can be easily integrated within a wider metaphysical framework without the need to introduce any *ad hoc* concepts, and that there is no need to argue that subjects possess mysterious powers to enable them to become aware of such objects.

While this might be the case, there are two aspects that might make one cautious in adopting Chudnoff's account. The first pertains to the account's reliance on phenomenal properties and characteristics. It is, in fact, phenomenological differences that exclusively enable a subject to differentiate between one object and another on this account. However, this is not as simple as Chudnoff makes it out to be, precisely because it is not entirely clear what these phenomenal properties are.²²³ Chudnoff may have provided a solution to the problem we are investigating, but at what cost? How satisfactory is this account, given that more questions are raised than are answered? We would, for example, need to spell out how (or whether) it is the case that different subjects experience the phenomenal character of, say, the number 2, in the same way, and if not, how then can we speak of coreference between subjects. Chudnoff effectively disperses one mystery by appealing to another.

The second challenge that one might raise to this account is the lack of empirical backing. We recall that, as mentioned from the outset of this chapter, conformity with the empirical evidence is a crucial desideratum that any suitable theory must have. Chudnoff agrees as much, so much so that he explicitly states that he seeks to provide an account

²²² (Chudnoff 2013, 721). Furthermore, by the 'material parts' of e, Chudnoff intends "the reflections, such as thoughts and imaginings, that compose it" (Chudnoff 2013, 720).

²²³ For an overview of the debate, see the volume by (Alter and Walter 2007).

that does not need to postulate any “supernatural abilities”²²⁴ on the subject’s part. However, the account – while coherent and plausible – does not investigate whether this is in fact the way subjects reason and think about abstract objects. Chudnoff gives a number of examples to show how intuition is generally employed by subjects to motivate the idea, but doesn’t do much by way of showing that it is more than a term of mere folk psychology. In order to give this theory greater credibility, it would be ideal to see, for example, empirical evidence that supports the existence of this intuitive faculty and how it develops in subjects over time as they mature, or possibly its evolutionary development, as well as the cognitive markers that indicate that a subject is engaging in intuitive thought. The onus for providing such evidence lies on Chudnoff, given that in its absence we would be hard-pressed to accept this view as an attractive solution to our problem.

§IV. SBA and Discriminating Knowledge

I believe that we might be able to offer up a more robust account that will help the Platonist overcome Benacerraf’s dilemma by relying on Evans. As already stated, Evans sketches out a manner in which we can come to know and refer that is not articulated in simple causal terms. Furthermore, the previous chapters have shown in one way or another how his posthumous *The Varieties of Reference* delves into great detail on how subjects successfully refer demonstratively via perception, as well as via memory links, or through communication. However, he does not go into detail on abstract objects. In fact, apart from a few passing notes, he is silent. This despite McDowell’s comments in the appendix on demonstrative identification that “Evans seems to have planned a section

²²⁴ (Chudnoff 2013, 721)

on this question”²²⁵ which, sadly, he never got round to doing before his untimely demise. Let us first, then, look at what Evans *does* in fact say.

We have already seen how Evans’ account relies on the notion of discriminating knowledge. On the view we are working with, discriminating knowledge is that knowledge that a subject possesses that enables them to pick out an object from all other things within a given context. It is in virtue of the discriminating knowledge of an object that a subject possesses, that the same subject can be said to be acquainted with that object. Evans’ account was then further expanded in the SBA framework presented in Chapter 2 to take into consideration both a subject’s capacities, and their skills when discussing how subjects can come to gain such discriminating knowledge. SBA was thus presented as follows:

Skill-Based Acquaintance

- iii) a subject is acquainted with an object once they have discriminating knowledge of that object, and
- iv) a subject gains discriminating knowledge in virtue of the exercise of the capacities or discriminating skills (D-skills) which they possess.

Furthermore, the fundamental/non-fundamental distinction of thinking about an object must also be emphasized, as its importance will be even more manifest when considering abstract objects. We will explore this distinction in greater detail shortly.

While we are understanding Evans’ account as requiring the subject to have discriminating knowledge of an object in order to be said to be acquainted with that object, Evans restricted himself to how this discriminating knowledge is obtained in cases of perception, memory, and communication. It should be reminded that while the

²²⁵ (Evans 1982, 198)

endeavour is to explain how subjects succeed in identifying objects in each of these circumstances, the greatest importance is placed on demonstrative identification in perception, given that it is not “recursive.”²²⁶ Identification via memory or communication rely on the subject themselves, or some other subject, succeeding in becoming acquainted with the object in question via another, more fundamental, means of identification, and this is generally held to be via perception.

The presentation of SBA so far has advanced the Evansian account in a number of ways. Firstly, even in instances of demonstrative reference (i.e.: via perception) the subject’s skills might be able to furnish them with discriminating knowledge in particular contexts or situations where a finer level of detail or degree of discriminating knowledge is required in order to identify and pick out a particular object from a given context (as ‘sommelier’-type cases show, or with regards to virtual objects and the novel problems raised there). In the case of fictional objects (and arguably even abstract artifacts more generally), the SBA account provided a way of explaining how acquaintance with fictional objects is secured; via the author’s testimony in the case of readers of fiction, and in the author’s case via the privileged access and awareness they have of their own mental states, specifically the authorial intentions involved in creating the fictional object in question. This is already a move away from considering perception as the only non-recursive means of identification.

Mathematical objects, despite being similar to fictional objects in that they, too, are abstract, pose an added layer of complexity. This is because the standard Platonist view on mathematical objects does not consider them to be created artifacts, but rather eternal (or transcendental). That is to say that they are not considered to have been created,

²²⁶ (Evans 1982, 127)

but rather have always existed. Thus, the method deployed for securing acquaintance in the case of fictional objects is not here available to us. In order to make headway in providing a plausible account that the Platonist may use, we must therefore identify i) what does discriminating knowledge in the case of mathematical objects look like, and ii) what capacities and skills are required in order to place a subject in a position to secure such discriminating knowledge.

In order to give a reply to i) we need not look far. Evans' treatment of discriminating knowledge actually begins with abstract objects, and then only subsequently moves on to engage with spatiotemporal objects.²²⁷ Evans asserts:

“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 to objects of that sort. For example, the fundamental ground of difference of the number *three* is being the third number in the series of numbers; the fundamental ground of difference of the shape *square* is having four equal sides joined at right angles; and so on. Let us say that one has a *fundamental Idea* of an object if one thinks of it as the possessor of the fundamental ground 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.)”²²⁸

Furthermore, in a related note, Evans continues that:

²²⁷ Ironically enough, while acquaintance with abstracta seems to be much harder to pin down than with material objects, Evans considers the discussion on discriminating knowledge of abstract objects as being much simpler! (Evans 1982, 110)

²²⁸ (Evans 1982, 107)

“This is especially clear with abstract objects. (Proper names of abstract objects are typically such that understanding them requires a fundamental idea of the referent; this is not so with proper names of material objects.)”²²⁹

In order to clarify this, we may also contrast the above examples of discriminating knowledge with examples which are not. In the appendix on demonstrative reference, Evans illustrates this comparison with respect to shapes:

“To be thinking of a shape, for example, via its fundamental ground of difference, is to be thinking of something with such and such geometrical properties (rather than, for example, something much used by Arab draughtsmen, or something much talked about by philosophers).”²³⁰

There is a central difference one must underline here with regards to the difference in the ‘type’ of discriminating knowledge for abstract objects as opposed to for objects being demonstratively identified. In the latter cases, discriminating knowledge took the form of knowing the specific location in space (at a time) of that particular object.²³¹ This relied on the assumption that no two objects can coincide in space. In cases involving statues and lumps of clay (and similar cases), discriminating knowledge involved both the location of the object, as well as some other property in order to distinguish the two. However, with regards to the cases we are here concerned with – mathematical objects – discriminating knowledge involves the subject knowing some essential property of the object in question.

There is a worry that might creep in here. One might argue that, since discriminating knowledge in the case of mathematical objects (and other eternal, non-

²²⁹ (Evans 1982, 107 n.30)

²³⁰ (Evans 1982, 198)

²³¹ This was further elaborated on in Chapters 2 and 3.

artifactual abstract objects, more generally) consists of the knowledge of some essential property, then we have undermined the original aim of this project. From the outset, we have sought to examine whether singular thought on abstract objects via acquaintance was possible. Yet it seems that here we are asserting that one is acquainted with mathematical objects (and other similar abstract objects) by possessing some unique description of the target object. Are we not here smuggling in a descriptivist wolf dressed in the sheep clothes of singular thought? Aren't thoughts involving (as Evans terms it) "description-based identification"²³² simply descriptive? Evans argues the contrary.

While description-based identification does in fact exploit some unique property or characteristic of an object in order to pick it out from a given context, as a purely descriptive thought would do, it does so – crucially – via information that has been derived from the object itself. This is not the case for purely descriptive thoughts. This can be clearly illustrated by showing how description-based identification thoughts can go wrong in a manner that descriptive thoughts cannot. Evans states:

“Essayings of information-based thoughts, then, are liable to a quite distinctive failing: that of being ill-grounded... It follows that *even when the mode of identification employed exploits individuating facts about an object*, an information-based thought cannot be regarded as working like a descriptive thought.”²³³

By an ill-grounded thought, Evans intends that the unique descriptive information that the subject has and is employing in order to identify and pick out a particular object, has not itself derived from that object. In these instances, Evans would argue that the subject has failed to refer. By way of example, he mentions the case wherein a subject intends to deceive a hearer by telling him of some object, yet, unbeknownst to the one

²³² (Evans 1982, 136)

²³³ (Evans 1982, 134–35 Emphasis original.)

deceiving, such an object does in fact exist. Whatever thoughts the deceived hearer might have about such an object, “we should be extremely reluctant to say that he had thought something true,”²³⁴ precisely because the hearer’s thoughts are ill-grounded. In this way, then, we can put to rest any fear one might have regarding a descriptivist infection. Furthermore, we now have a sort of litmus-test going forward in order to help us examine whether we have indeed inadvertently fallen to descriptivism.

Thus far, then, we have only resolved part of our challenge. Relying on Evans, we now have an idea of what form the discriminating knowledge for mathematical objects looks like. However, we now need to investigate whether and what capacities and skills does a subject need to possess in order to gain this discriminating knowledge. Evans does not delve into this particular issue, and much less engage with any form of scientific empirical evidence or data. It is to this question that we now turn to, and it is only in providing an answer to this, second question, that we can truly say that we have shown how acquaintance is possible with mathematical objects.

§V. Capacities and Skills

We recall that a salient distinction that has been made throughout this text is between what we are terming as ‘capacities’ and ‘skill’. The terminology *per se* is not important, but the distinction they underline is. By ‘capacities’ one understands those functions and abilities that seem to be innate and not learnt, which are shared by the majority of subjects. We recall the definition advanced in Chapter 2:

²³⁴ (Evans 1982, 134)

CAPACITY (CAP): A Capacity is an innate general cognitive function (which can be composed of lower, more fine-grained functions) possessed by subjects having normal cognitive functioning, which is deployed with respect to specific objects.

‘Skills’, on the other hand, refer to those functions and abilities that – contrary to the previous group – are acquired via different means (and hence, not necessarily innate), vary significantly in degree from subject to subject, and tend to be domain-specific. Of course, our experience tells us that we do not normally find subjects divided discreetly into those having base-level capacities on one hand, and highly skilled experts on the other, but rather we see something more akin to a continuum of subjects with varying aptitudes depending on the context. Notwithstanding this, it would still make sense to maintain the capacities-skills divide for explanatory purposes.

What are we to say, then, of the capacities and skills that a subject requires in order to gain discriminating knowledge of mathematical objects? In order for this account to be plausible, philosophical theorising must be backed up and reflect, as much as possible, the empirical evidence. Already here, the distinction that SBA proposes between capacities and skills is somewhat reflected in the empirical literature. There seems to be a distinction between those capacities that new-borns, or preverbal infants, have on the one hand which is sometimes termed as ‘core knowledge,’ and the more complex abilities that mature adults possess on the other.²³⁵ A relation does exist between the two, such that, while core knowledge seems to be innate to all subjects, there also seems to be evidence pointing towards the idea that a subject’s mathematical abilities later on in childhood and adulthood are directly related to their core knowledge. Thus, the better and more refined one’s core knowledge is, the better the other mathematical abilities they will

²³⁵ (Dehaene 1992)

develop later on will be.²³⁶ Transposing this to our account, then, we can liken core knowledge to capacities, while the more complex abilities that subjects develop over time can be likened more to skills. In order to facilitate the following discussion, I shall first focus on how innate core knowledge can be understood in terms of the SBA account, and only later move on to discuss higher abilities found in adults.

In the case of the innate core knowledge, we can here make recourse to intuition once again, yet in a manner altogether different from Chudnoff's understanding presented further above. Dehaene argues that what can be considered as 'intuition', at least with regards to mathematics, is characterised as a type of cognitive processing that is "fast, automatic, and inaccessible to introspection."²³⁷ Chudnoff disagrees with this view. His dismissal of Dehaene's articulation (which he terms as "spontaneous impressions")²³⁸ is due to the fact that, according to Chudnoff, running with such an understanding of intuition would only apply to very few objects. He goes on by asserting that "even if some of the experiences we rely on in forming mathematical beliefs come to us as spontaneous impressions, most do not."²³⁹

While having a notion of intuition that can be used to explain how we can be acquainted with the majority of, if not all, mathematical objects would make our current task significantly easier, we obviously cannot do this at the expense of dismissing the empirical literature. Despite Chudnoff's objection to the narrowness of Dehaene's understanding of intuition, the fact that empirical findings seem to support Dehaene's framework should lead us to follow this view, as opposed to Chudnoff's.

²³⁶ (Starr, Libertus, and Brannon 2013; Feigenson, Libertus, and Halberda 2013; Libertus, Feigenson, and Halberda 2013)

²³⁷ (Dehaene 2009)

²³⁸ (Chudnoff 2014, 177)

²³⁹ (Chudnoff 2014, 177)

Thus I will here take core knowledge to be something akin to intuition under Dehaene's understanding of the term. Various empirical studies give prominence to two particular capacities that form part of this core knowledge.²⁴⁰ We can distinguish these two capacities as being one which deals with large numerosities and the other which deals with smaller quantities.

In the case of the first capacity, it seems that new-borns and prelinguistic infants show a capacity to distinguish between numerosities of varying magnitudes. Thus, infants have an immediate awareness and ability to judge which is larger or smaller of two numerosities they are presented with. Crucially, however, the "difference between two amounts [is] determined by their ratio, and not the absolute difference between them (a basic physiological phenomenon also known as Weber's law; ten and twenty objects are as psychologically distinct as 100 and 200)"²⁴¹

The second capacity, however, will be of more interest to us. This capacity is sometimes termed as 'subitising' in adults; it seems that it has a separate neural basis from the first capacity mentioned above, is more precise, and deals with smaller quantities – generally up to the number 3. The difference here is that while judgements on the first capacity are approximate and do not give the subject a clear idea of how many objects are present in a particular grouping (e.g. 'exactly 64'), in this second capacity it seems that numbers are presented as "'exactly 1', 'exactly 2', and 'exactly 3' objects."²⁴² Once again, this grasp is rapid and immediate, and exhibited by prelinguistic infants.

The empirical evidence surrounding subitising might also allow us to classify this ability as an Evansian 'capacity' according to SBA. We have already established that

²⁴⁰ (Feigenson, Dehaene, and Spelke 2004)

²⁴¹ (McCrink and Birdsall 2014)

²⁴² (Feigenson, Dehaene, and Spelke 2004)

capacities – on the SBA account – allow the subject to gain discriminating knowledge of the object in question. The claim I am making here, then, is that subitising gives the subject discriminating knowledge of the numbers 1, 2, and 3.

Some objections might immediately appear. Firstly, one could question whether this discriminating knowledge is of the abstract number, or rather of the objects being perceived themselves (e.g. the dots, cars, or balls presented to the subject). However, experiments carried out on newborn infants seems to indicate the former. Infants were exposed to an auditory sequence, and then shown images containing a number of items. It was observed that the newborns were able to pick out the image that had the same number of items that corresponded to the auditory sequence they were exposed to. Given the fact that “newborn infants have sharply diminished sensitivity to the visual and auditory features that characterize specific objects and events”²⁴³ this would seem to imply that, in exerting this capacity, infants are not picking up the spatiotemporal objects themselves, but rather the abstract number. Based on this, Izard et al. argue that this “provide[s] evidence for abstract numerical representations at the start of human life.”²⁴⁴

Another objection might be that might arise is more closely tied with the concept of discriminating knowledge that is so essential to the SBA account. On the account that we are working with, in order for one to be acquainted with a particular object, they must have discriminating knowledge of that object (gained in virtue of the exercise of their capacities and skills). Furthermore – as has been expounded on above – Evans asserts that the appropriate discriminating knowledge required in the case of mathematical objects is some sort of description that uniquely picks out that objects (e.g. that a certain number

²⁴³ (Izard et al. 2009, 10383)

²⁴⁴ (Izard et al. 2009, 10384)

lies in a particular position on the number line). Now in the case of subitising, one might be ready to concede that infants are making use of their innate capacities, however what type of discriminating knowledge could they have of, say, the number 2? These infants definitely have no way of verbalising what is the discriminating knowledge they have, and *a fortiori* one might go as far as saying that – lacking the apprehension of certain concepts and representations – they cannot even represent this discriminating knowledge internally to themselves. Can one be said to still have discriminating knowledge even if one doesn't have the tools or the ability to explicitly identify this knowledge, or bring it to mind?

In short, yes. I believe that this does not pose a threat to our account. We have been using the concept of discriminating knowledge in other, arguably less controversial, areas where we can see the same phenomenon happening. In these instances we do not question whether the subject is in fact acquainted with the target object. For example, in the case of 'simple' demonstrative identification via perception, we have seen how discriminating knowledge relies on an implicit awareness of a few facts; such as that (generally) no two objects coincide in space, and that one's particular Idea of an object is to be identified with one's Fundamental Idea of that object. In the majority of instances of demonstrative identification, we are never really aware of what the discriminating knowledge of a particular object is, unless we are, say, held to account by someone to explain ourselves. It also seems to me that an explicit understanding and articulation of the fact that two objects generally never coincide is not something that a subject is able to do unless after a few months or years of development (and at that, not without much prompting and coaxing to get the subject to become aware of this fact), and yet such

subjects seem to behave in such a way (even if still unable to verbalise) as to indicate that they are demonstratively referring to objects they perceive.

Anyone presenting the above objection, then, is forced to accept one of two choices. Either they can either assert that infants and toddlers are also not able to demonstratively refer to objects they perceive until they can fully articulate the discriminating knowledge they possess about the target. Alternatively, they can give up the objection altogether and accept that one can still be said to be acquainted with an object and have implicit discriminating knowledge of a target object without necessarily being able to articulate it. This seems like the more appropriate thing to say, given the unsavoury consequences the former choice entails.

In this way, then, despite being unable to explicitly verbalise this discriminating knowledge, we can still assert that the subitising capacity does in fact give the subject discriminating knowledge of the numbers 1, 2, and 3. This is seen in the subject's success at, for example, ordering these numbers appropriately, and matching a set of objects with the corresponding right number or as was seen in the cross-modal example. The subject's reliable success exhibited by their behaviour is an indication that the capacity they possess has indeed provided them with the necessary discriminating knowledge to become acquainted with the relevant number and to successfully refer to it. In some way, subitising allows prelinguistic infants to pick out a specific number, as opposed to another. Furthermore, in being prelinguistic infants, it would also seem to be the case that a particular infant might not know that the number 1 is, in fact, called '1.' Yet it seems that such infants have thoughts that might resemble something like '*That*₁ is different from *that*₂ and *that*₃.' This would constitute discriminating knowledge along the lines that

Evans asserts, thus leading us to accept subitising as an Evansian capacity, and one which we may accept as suitable on the SBA account to allow a subject to become acquainted.

So far, we have looked at the core knowledge that new-borns and infants possess, and how that can be mapped onto Evansian capacities as understood in the SBA account to give us – at the very least – acquaintance with the number 1, 2 and 3. Unfortunately, with capacities alone, there is not much more we can gain acquaintance of in terms of other mathematical objects. Feigenson et al. articulate this succinctly:

“Neither system supports concepts of fractions, square roots, negative numbers, or even exact integers. The construction of natural, rational and real numbers depends on arduous processes that are probably accessible only to educated humans in a subset of cultures, but which nevertheless are rooted in the two systems”²⁴⁵

So how are we to move forward, now? There are a few paths open to us. The first option would be to simply stop here. Some might want to say that, beyond what has been elaborated on above, we cannot become acquainted and think singularly of any more mathematical objects beyond the first three numerals, and the rest of our mathematical knowledge and thinking of such objects is descriptive and general, building on this very small foundation. This would also be the ‘safest’ position, in that it is the one most supported by empirical backing, and – at least for the main question we have set out to answer – sufficient. We are indeed acquainted with mathematical objects, but only just a few of them.

While this is one possibility, I shall here attempt to explore how far we can push the bounds of philosophical exploration along the lines of the SBA account. The best outcome would be a fully fleshed-out account illustrating how a subject can indeed

²⁴⁵ (Feigenson, Dehaene, and Spelke 2004)

become acquainted with many more mathematical objects. At worst, we will uncover what the limitations of the SBA account and spell them out more clearly. In either case, progress is achieved.

We already know what discriminating knowledge of mathematical objects looks like. We can also think of what different cognitive abilities a subject must acquire as they develop in order to be able to move beyond the ‘foundational’ mathematical objects grasped by subitising; abilities ranging from the more elementary such as those relating to basic arithmetic, to abilities of ever-increasing complexity such as, for example, those dealing with the understanding of the principles of calculus. These mathematical abilities would fall under what we are terming as skills on the SBA account. What we must do, however, is attempt to show that discriminating knowledge of more complex mathematical objects (i.e.: those not grasped by subitising) is based on a description-based identification, as opposed to being purely descriptive.

We need a way to discern between thoughts involving mathematical objects that are simply descriptive, and those that are the result of description-based identification. This is even more important given that two thoughts or utterances may ‘look the same’, and yet be classified differently due to the manner in which they were tokened by the subject.

Let us take the following example. Jack is at a crowded party and sees a man struggling to walk and evidently drunk. Jack utters, “The tallest man in the room must be drunk by now.” John, on the other hand, is standing outside the party venue and utters “The tallest man in the room must be drunk by now.” In the case of Jack, despite the utterance *seeming* descriptive in nature, we can say that we have a well-grounded information-based thought, wherein the subject has gained information about an object

through the exercise of their capacities – in this case perceptual. So much so, that even if the man in question was not in fact the tallest man in the room, Jack’s thought would have still been appropriately related to the target drunk.²⁴⁶ Yet, in the case of John, we cannot say the same. John’s thought seems to be the same as Jack’s, yet we cannot say that John’s thought is grounded at all. John’s thought about the tallest man is not the result of information appropriately derived from the target object itself. In fact, it could be the case that there is no man drinking in the venue at all and, hence, no target object to John’s thought.

We have seen how, along Evans’ lines, a proper information-based thought (i.e.: a singular thought) is achieved by means of the subject’s use of their capacities and skills. Furthermore, such thoughts, contrary to simply descriptive thoughts, need to be well-grounded. An information-based thought is properly grounded if “the object (if any) which that mode of identification would identify is the object (if any) from which the information derives.”²⁴⁷ This means, then, that for a thought to be truly information-based, the discriminating knowledge the subject possesses must have derived – and hence must be appropriately related to – the target object.

However, how do we verify, in the case of thoughts involving mathematical objects, whether it is descriptive or information-based? In the above example of Jack and John, Jack’s (information-based) thought allowed him to identify a target object due to discriminating knowledge that he gained. This does not feature at all in John’s (descriptive) thoughts. In a sense, then, we can characterise descriptive thoughts as being ‘indiscriminate’ in that such thoughts seemingly reach out into the world ‘blindly fishing’

²⁴⁶ Exactly like Donnellan’s ‘man drinking a martini.’ (Donnellan 1966, 287)

²⁴⁷ (Evans 1982, 132)

for whatever object happens to be the suitable referent.²⁴⁸ On the other hand, information-based thoughts are characterised by particular procedures or activities that a subject carries out in order to gain such discriminating knowledge. It might be the case, then, that for thoughts involving mathematical objects, we can verify *whether* a thought is suitably related to its target object by verifying *how* the thought was tokened; was the subject exercising the capacities and domain-specific skills, or were they ‘blindly fishing’?

A mathematical example may illustrate this difference. Within the field of abstract algebra in mathematics there are what are known as simple sporadic groups, the largest of which is known as the monster group.²⁴⁹ What is interesting and relevant for our purposes about the monster group is that, up until a certain point, there were only predictions that the monster group could exist, yet this was only proven later. The below incident is recorded relating to the history of the discovery and naming of these groups:

“...the naming involved some ambiguity, since ${}^2E_6(2)$ can be called M^{21} or M^{22} according to which system of names is accepted. In order to avoid this ambiguity in the internal communications, John Conway suggested calling the extensions of ${}^2E_6(2)$ the *Baby Monster*, the double extension the *Middle Monster*, and the triple extension the *Super Monster*. ... When it was shown that ${}^2E_6(2)$ can only be extended twice and therefore that the Super Monster does not exist, the prefix *Middle* was dropped and the name *Monster*, as we know it, emerged. After Fischer’s visit to Cambridge in 1973, John Conway went to the USA to give a series of lectures where he freely used the terms Monster and Baby Monster. This way the names became official.”²⁵⁰

²⁴⁸ This difference is somewhat similar to the relational-satisfactorial divide between singular and descriptive reference.

²⁴⁹ For more on what monster groups are, see (Gardner 1980)

²⁵⁰ (Ivanov 2009, 241)

This example could be taken, then, as showing the difference between a description-based identification thought, and a simply descriptive one, about the same target object. Prior to proving the existence of the extension, and double extension of ${}^2E_6(2)$, one can argue that thoughts having the content of ‘the extension/double extension/triple extension of ${}^2E_6(2)$ ’ were merely descriptive. They are no different than John, standing outside the venue, thinking ‘the tallest man in the room must be drunk by now.’ The fact that ‘the triple extension of ${}^2E_6(2)$ ’ did not pick anything at all, further reinforces this claim.

It is only after mathematicians investigated and explored, by means of what we can call their skilful action, was it discovered that only the extension and double extension of ${}^2E_6(2)$ exist, but the triple extension does not. It is only at this point that we can say that the mathematicians’ thoughts were no longer descriptive, but now based on information derived from the object itself. We are no longer ‘blindly fishing’ for a referent, but rather these expert mathematicians can be said to have gained discriminating knowledge of the target objects in virtue of their capacities and skills. The presence of a skilful activity on the part of a subject in order to arrive at information and knowledge about a target object, is thus indicative of the fact that thoughts about that object are information-based. The fact that, through the same process, another object (i.e.: the triple extension of ${}^2E_6(2)$) was shown to not exist is further proof of this.

One must underline a great upshot of this view. It is amply evident that a great deal of subjects can refer in thought and speech to very complex mathematical objects with respect to which they can be said to be unskilled in gaining discriminating knowledge of. We can imagine a mathematician speaking to a group of, say, philosophers (or elementary school students), about the imaginary unit i . The philosophers can still talk and think, for example, how ‘Descartes was one of the first to countenance i ’ or that ‘Euler

was the first to employ the particular notation for i ,’ despite arguably not being in possession of the type of knowledge that would count as discriminating. On the SBA account, this is not a problem, since their successful use of such a term is parasitic on there being some subjects (i.e.: expert mathematicians) who can still identify i in virtue of the discriminating knowledge that they possess. In Evansian terms, the philosophers (and any other non-skilled subjects with respect to i) are said to be the consumers of the naming practice surrounding i , while mathematicians are considered as the producers of this naming practice. This means that a vast majority of the mathematical knowledge that non-skilled subjects have on mathematical objects is gained not via their capacities and skills, but rather via testimony of those who do indeed possess these skills.

§VI. Conclusion

The argument here, then, can be condensed as follows. The SBA account does indeed provide the resources necessary in order to explain how we are indeed acquainted with mathematical objects, while still fulfilling the semantic constraint set up by Benacerraf and as adapted in the modified dilemma with regards to reference. This is good news for the mathematical Platonist. In the case of the numbers 1, 2, and 3, acquaintance is secured in virtue of the core knowledge innate to human subjects at birth as evidenced by the empirical literature above. The capacity of subitising grants infants discriminating knowledge of these basic numbers.

In the case of more complex mathematical objects, this is not as straightforward. One may choose to stop there and argue that the rest of our mathematical knowledge is built from acquaintance with the basic numbers mentioned above (along with, presumably, knowledge of some operators). Alternatively, I have sought to sketch a way

in which the SBA account can also be employed to account for acquaintance, and hence, reference, with more complex mathematical objects. However, this is not without a significant caveat. For acquaintance to be secured, and a singular, information-based thought be tokened (as opposed to a descriptive thought) the discriminating knowledge that a subject possesses must have derived from the object in question. The Monster example shown above seeks to overcome this caveat by means of an inductive claim; given that subjects have particular capacities and skills to gain discriminating knowledge about a mathematical object m , then it would seem likely that that knowledge did indeed derive from m .

Chapter 6 - Reference of 'God' and SBA

§I. Introduction

As opposed to dealing with another category of abstract objects, this chapter shall discuss acquaintance with a specific object (or rather being) – God. The possibility of knowledge of (and about) God is a central aspect of the majority of the world's great religions and, arguably to some degree, a central feature of the study of theology. In this regard, much has also already been written on what we can come to know about God,²⁵¹ however, we are not here concerned with theological debates as to the nature and attributes of God, nor how do we come to obtain such knowledge. Our present endeavour, rather, is to advance the proposal that the SBA account can offer an explanation as to how agents can come to be acquainted with, and hence refer to, God.

Now, there are already a myriad of arguments for the existence of God – like Aquinas' *quinque viae* – but all these rely on some sort of description of what God could (or should) be. In these cases then, the description is used in order to 'fix' reference. These can be likened to Evans' example of the name 'Julius' used to refer to the inventor of the zip.²⁵² Here, however, I shall not consider 'God' to be like 'Julius.' Rather, the specific focus of this text is to explore whether and how can reference be secured via a more direct

²⁵¹ A central source is (Plantinga 2000). Other examples include: (Mitchell 1973; Swinburne 1996; Forrest 1996)

²⁵² (Evans 1982, 31)

way, by means of acquaintance. In this light, the SBA account can contribute to the already ongoing debate regarding the reference of ‘God.’

An important caveat that has been mentioned before must be repeated here. We have been working with the premise that in order for reference to be successful, the referent *must exist*. As with previous chapters that took into consideration fictional or mathematical objects, here too, the aim of this particular inquiry is not to determine whether or not such objects exist, but rather to articulate how are we acquainted with them *if they exist*. In light of this, the SBA account (and a host of other accounts of reference, for that matter) are conditional on the existence of the object one is acquainted with, since one cannot be acquainted with an object that does not exist. For this reason, this chapter shall assume that at least some minimal form of theism is true; there exists at least one God. Whether this God is a personal god, a Trinity, benevolent, omniscient, or even whether there are more than one God²⁵³ is beyond the scope of our present concern.

This chapter shall proceed as follows; after giving an overview of the salient views within the debate on the reference of ‘God,’ the focus will shift towards how subjects can become acquainted with God in a primary (non-derivative) way.²⁵⁴ After examining paradigmatic examples of individuals becoming acquainted with God, I will – following the SBA account – attempt to draw from them an account of i) the capacities or D-skills that are required in order for acquaintance to take place, and ii) what discriminating knowledge of God looks like.

²⁵³ If it is the case that there are more than one God, it would make the following account slightly harder to articulate, but not impossible. While it might be difficult to assert how the SBA account can secure acquaintance with one god as opposed to another, we can instead say that SBA allows us to refer to God as a ‘natural’ kind, similar to how one would become acquainted with water, or gold. To articulate acquaintance with a kind, as opposed to an object, we would need to add further steps in order to provide a fully fleshed-out account. For simplicity, this text shall work on the assumption that there exists only one God.

²⁵⁴ As mentioned elsewhere, this means not via one’s memory, or via testimony.

§II. Reference of ‘God’

Trying to understand how and to what does ‘God’ refer to is of significant importance within philosophy of religion and theology more broadly. This is because of the wider implications that follow depending on which theory one adopts. To illustrate this, we can observe two fundamental issues that depend on this question of reference which, following Burling, I shall label as ‘accessibility’ and ‘scope.’²⁵⁵ Different theories of reference, as shall be seen, can thus be ordered depending on how accessible and how wide the scope is for ‘God.’

The issue of ‘accessibility’ pertains to prayer. Prayer is here understood, in its most basic form, as a type of communication with, or address to God. While theologians and different faith traditions may argue as to what the necessary and sufficient conditions for ‘successful’²⁵⁶ prayer are, it would seem uncontroversial to assert that one such necessary condition would be that prayer is indeed addressed to the right Being, that is to say that the utterances of ‘God’ made by the subject praying do indeed refer to God. What is required, then, on the part of the subject praying that enables them to fulfil this condition? Put differently, “how easy [is it] for individual “God”-users to meet the conditions on successful reference...[?]”²⁵⁷

This question becomes more crucial given the great variety of people who do, in fact, pray; from learned theologians who are knowledgeable on the intricacies of the nature of God; to subjects who, despite being ardent theists, do not have any formal theological expertise; to young children. If, for example, a subject must have some degree

²⁵⁵ (Burling 2019)

²⁵⁶ ‘Successful’ prayer should be understood as a successful act of communication with God, irrespective of whether or not – to speak crudely – one’s prayer has been ‘answered’.

²⁵⁷ (Burling 2019, 343)

of knowledge on the nature of God (in the form of, say, a description as shall be seen below) in order for them to successfully refer to God, then are we to say that only theologians can successfully pray? Therefore, the more a theory of reference requires that subjects have some knowledge about God in order to successfully refer, the less accessible it is.

The second issue, that of ‘scope,’ pertains to coreference. Whereas in the preceding point, the challenge revolved around the varying levels of theological knowledge about God that different subjects might have, here the concern is rather about subjects who make use of ‘God’ but are coming from different faith traditions. When a Catholic and a Pentecostal utter the name ‘God’ our intuition might be that they do in fact refer to the same Being. What about a Christian and a Muslim? Our intuitions are less clear here, and become even more ambiguous if we take into account non-Abrahamic faiths. Thus, the more a theory of reference allows for coreference among a greater diversity of individuals and faith traditions, the wider its scope. While this issue is primarily a theological one and not our present concern, it is easy to see then, how the manner in which we articulate how ‘God’ does in fact refer has repercussions here. A theory of reference that allows for some level of coreference is necessary if we are to allow that theologians or believers from different faiths can have substantive disagreements about the nature of God; in order to do so, they need to be able to refer to the same Being.

The question of the reference of ‘God,’ therefore, is of great importance due to its wider theological implications. The debate here has largely mirrored – and, to a substantial degree, been influenced by – the debate on reference of proper names within philosophy of language. Broadly speaking, one can observe a dichotomy of views, from

those with a particularly Russellian bent, to those adopting a more Kripkean line, as shall be seen below.

On the one hand, some views interpret ‘God’ as referring along the lines of Russell’s descriptivist theory of names.²⁵⁸ On this view, ‘God’ is a proper name whose semantic value is some description (or set of descriptions) that the name denotes. The target object – God – is picked out in virtue of being the only object that satisfies the given set of descriptions. An example of such a theory is Burling’s ‘Worship-worthiness’ view, which straightforwardly asserts that “‘God’ refers simply to ‘the being that is worthy of our worship.’”²⁵⁹

Gale,²⁶⁰ in arguing for a similar view, goes a step further in asserting that the name ‘God’ should necessarily be understood analytically. Thus, in the same manner that a bachelor is an unmarried man, so too...

“...some of the descriptive properties that are definitionally tied to God are hard-core in that we would not allow a use of "God" to be coreferring with ours if these properties were not at least partially constitutive of the sense of the name. Soft-core descriptive properties, even if definitionally linked with "God," can alter over time without destroying sameness of reference... Examples of the hard-core descriptive properties of "God" are being a supremely great being, that is, as great as any being could possibly be, and being eminently worthy of worship and obedience.”²⁶¹

This distinction between so-called hard-core and soft-core properties is somewhat confusing. Soft-core properties can supposedly change over time. Arguably, Gale would also be willing to allow that different individuals may contemporaneously assign to God

²⁵⁸ See (Russell 1905)

²⁵⁹ (Burling 2019, 344)

²⁶⁰ (Gale 1996)

²⁶¹ (Gale 1996, 7–8)

different soft-core properties that are incompatible with each other. We desire a theory, however, that would allow for coreference, both between individuals as well as over time. Given the possible shift and difference in which soft-core properties God is taken to have, coreference would be difficult to articulate on such a Russellian view wherein both hard-core and soft-core properties would enter into the meaning determining description. In effect, then, it would seem that for the purpose of reference, soft-core properties are not semantically relevant, and only hard-core properties are. Therefore, the semantic value of 'God' then should be taken to be whatever hard-core descriptive properties God is understood as having, despite Gale's claim that such properties are only "partially constitutive of the sense of a name."²⁶²

Consequently, one may argue that such a theory would have a wide scope, given that it should not be controversial to state that different faith traditions would all consider God as "being a supremely great being... being eminently worthy of worship and obedience." At the same time, however, such theories have the unattractive feature that the name 'God' is only accessible to those subjects who already know of these hard-core properties. In the wider literature, descriptivist theories have had a number of objections levelled at them by the likes of Kripke and Putnam,²⁶³ amongst them being the fact that in order for a subject to successfully use a name, they must know the description (or set of descriptions) linked with that name. However, when it comes to 'God', proponents of a descriptivist understanding of the name must contend with the fact that it is difficult to show how a subject knows the description linked with 'God,' given

²⁶² (Gale 1996, 6)

²⁶³ (Putnam 1975; Kripke 1980)

that which descriptions or properties one can indeed ascribe to God are themselves a source of debate.

Gale's argument for restricting the relevant descriptions only to hard-core properties is in fact an attempt to minimise this problem, yet not totally overcome it. The same goes with Burling's worship-worthiness view; in restricting 'God' to pick out that being worthy of worship, Burling attempts to go a step further than Gale in further restricting and tightening the description. Milem, in a separate debate on what it actually means to be an atheist, points at this very same problem:

"There is the classical concept of God as an all-powerful, all-knowing, perfectly good, eternal creator of all things. Other concepts envision God as very powerful and intelligent, but not necessarily omnipotent, omniscient, or perfect. Some think that God knows the future, but "open theists" deny this. Some hold that God changes through time, while others say that God does not. There is disagreement over whether God is best described as a person, as well as whether God is a being or rather being itself. Some argue that God is so transcendent as to be beyond conceptualization altogether. Pantheists identify God with the universe in some way, while panentheists see God as encompassing all things rather than being identical to them. Still others uphold some form of polytheism. And there are many other concepts of the divine as well. Which concept of God, then, is being denied in atheism?"²⁶⁴

Thus, as much as proponents such as Gale and Burling seek to limit this problem, as long as there is debate as to the nature and qualities of God, there doesn't seem to be a way of definitively overcoming it.

²⁶⁴ (Milem 2019, 336–37)

The alternative to the above theory follows Kripke²⁶⁵ in asserting that ‘God’ successfully refers in virtue of some sort of initial ‘baptism’ or ‘dubbing’ that took place, linking the target object with the name. Subsequent utterances of ‘God’ are successful in referring to God due to their link in a causal-historical chain that can trace its origin to the initial dubbing act.²⁶⁶ Roughly, then, in the case of the Abrahamic religions, all utterances of ‘God’ by individuals pertaining to the Jewish, Muslim, or Christian faiths are successful in referring due to Abraham’s initial dubbing of God as ‘God.’ Similarly, within the Sikh religion,²⁶⁷ utterances of ‘God’ would refer in virtue of a causal-historical chain leading up to Guru Nanak’s revelation of *Ik Onkar* (roughly, ‘the one God’). In terms of the criteria outlined above, such views have the upshot of being highly accessible, yet not so wide in scope for the reason just illustrated.

Furthermore, in the same manner that descriptivist views on the reference of ‘God’ must also contend with the objections levelled at descriptivism more generally, the same can be said of these causal-historical views. There is no guarantee that one’s utterance of ‘God’ is linked to an uninterrupted and unchanged causal chain leading up to the first dubbing of the name. This is due to what is called reference shift. Evans’ famous Madagascar case²⁶⁸ is a prime example of how the referent of a name can change, and a significant challenge to this family of views. This challenge is applied to the question of

²⁶⁵ (Kripke 1980)

²⁶⁶ (Alston 1988)

²⁶⁷ One must here keep in mind Putnam’s water/twin-water thought experiment (Putnam 1975). By the phrase ‘within the Sikh religion’ I do not intend only those who are adherents of the Sikh faith, but also individuals who utter the name ‘God’ and are embedded within a linguistic community whose use of the name ‘God’ can be traced back to Guru Nanak. Analogously, the same holds for those who utter ‘God’ but find themselves in linguistic communities whose use of the name ‘God’ has a causal-historical link to the Abrahamic dubbing. Of course, in communities which are religiously heterogenous, which causal chain one’s utterance of ‘God’ is linking to becomes more confusing.

²⁶⁸ (Evans and Altham 1973). A similar case is also presented by Sainsbury (Sainsbury 2005, 114–15).

reference of ‘God’ and elaborated on by Sullivan, in fact.²⁶⁹ Bogardus and Urban, however, attempt to overcome the problem of reference shift by relying on an Evansian model²⁷⁰ wherein ‘God’ “refers to the object that is the *dominant source* of the information in the name’s dossier.”²⁷¹ Yet to delve further into this would take us too far afield.

More crucial to our current endeavour is the fact that there exists an issue that adherents of non-descriptivist theories – such as the ones outlined immediately above – must address that has so far not been raised. Irrespective of whether one adopts a Kripkean or Evansian framework with regards to how a naming practice develops, on these views successful reference is dependent on *at least* one individual who has been acquainted in a primary way with God – that is to say, in a direct, demonstrative way (and not via testimony, participating in the naming practice, or linking to a causal-historical chain). Articulating a response to this question becomes even more pressing given that some commentators in this debate include, as part of their framework, other individuals within a community who “have an experience where they sense God’s presence (and *God is thus the object of acquaintance*).”²⁷² This is the specific question to which we now turn and which will be the focus of the rest of the chapter.

§III. Becoming Acquainted with God

When speaking of ‘becoming acquainted with God’ one is generally confronted with varied accounts that talk of ‘inspiration,’ or ‘enlightenment,’ or other similar terms

²⁶⁹ (Sullivan 2016)

²⁷⁰ (Evans and Altham 1973)

²⁷¹ (Bogardus and Urban 2017, 185 Emphasis in original.)

²⁷² (Chan 2023, 112 Emphasis added.). Alston also argues in a similar vein to this (Alston 1993).

which are ambiguous inasmuch as they do not give us a clear explanation of what exactly is going on in these situations and experiences. So far, the SBA account has been applied to mathematical and fictional objects as categories of abstract objects. However, the account was also applied to virtual objects. There, the argument was made that despite not being abstract, virtual objects pose similar challenges with regards to acquaintance and reference. Here we are faced with a similar situation; while the debate as to the nature of God is still ongoing, it seems uncontroversial to state that whatever God's nature is, similar problems with regards to acquaintance and reference are raised here as we have seen elsewhere. And in the same manner that the SBA account has so far been applied to other categories of abstracta, such as fictional or mathematical objects, as well as other categories such as virtual objects, in order to give an account of how acquaintance with these objects could take place, we shall likewise see whether the same can be said of God.

We recall that the SBA account is formulated as follows:

- i) A subject is said to be acquainted with an object only when they have discriminating knowledge of that object (i.e.: RP is satisfied).
- ii) Discriminating knowledge is obtained via the subject's use of their capacities or of the 'discriminating skills' (D-Skills) which they possess.

Thus, in order for the SBA account to be successful in explaining how a subject comes to be acquainted with God, we must articulate what discriminating knowledge of God consists in, and what capacities or skills are involved in the attainment of such knowledge. Yet, in order to do this, it would be helpful to observe a few examples of individuals who describe their own experience of becoming acquainted with God. This will allow us to tease out certain salient points that are of interest to our present project. It should be noted that, despite the below accounts being presented as 'paradigmatic' cases for our investigation, this is not to say that they should be privileged over other accounts. Rather,

the below examples have been chosen to reflect a diversity of experiences, as well as due to the fact that these first-hand descriptions are written with sufficient clarity and detail that enable us to examine them better.²⁷³

AUGUSTINE OF HIPPO: “I entered into my inward soul, guided by you. This I could do because you were my helper. And I entered, and with the eye of my soul—such as it was—saw above the same eye of my soul and above my mind the immutable light. It was not the common light, which all flesh can see; nor was it simply a greater one of the same sort, as if the light of day were to grow brighter and brighter, and flood all space. It was not like that light, but different, very different from all earthly light whatever.”²⁷⁴

SWAMI VIVEKANANDA: “The magic touch of [Sri Ramakrishna], that day immediately brought a wonderful change over my mind. I was stupefied to find that really there was nothing in the universe but God! I saw it quite clearly but kept silent, to see if the idea would last. But the impression did not abate in the course of the day. I returned home, but there too, everything I saw appeared to be Brahman. I sat down to take my meal, but found that everything,—the food, the plate, the person who served, and even myself—was nothing but That.”²⁷⁵

SIMONE WEIL: “[a friend] told me of the existence of those English poets of the XVIIth century who are named metaphysical. In reading them later on, I discovered the poem... called “Love.” I learned it by heart. Often, at the culminating point of a

²⁷³ In contrast with, for example, Blaise Pascal’s experience, which is described somewhat vaguely in his *Memorial*, with the words “FIRE... Certainty, joy, certainty, emotion, sight, joy...” This is not to say that Pascal was in some way ‘less’ acquainted with God, but rather that his own description does not facilitate an examination of what is happening in such experiences. (Pascal 1999, 178)

²⁷⁴ (Augustine 2007 [7.10.16])

²⁷⁵ (His Eastern and Western Disciples 1960, 65)

violent headache, I make myself say it over, concentrating all my attention upon it and clinging with all my soul to the tenderness it enshrines... It was during one of these recitations that, as I told you, Christ himself came down and took possession of me. In my arguments about the insolubility of the problem of God I had never foreseen the possibility of that, of a real contact, person to person, here below, between a human being and God. I had vaguely heard tell of things of this kind, but I had never believed in them... Moreover, in this sudden possession of me by Christ, neither my senses nor my imagination had any part; I only felt in the midst of my suffering the presence of a love, like that which one can read in the smile on a beloved face.”²⁷⁶

The above examples are quite varied. Augustine lived predominantly in North Africa between the 4th-5th century and was ultimately to become a Christian bishop, Vivekananda lived in India in the latter half of the 19th century and formed part of the Hindu faith, while Weil lived in France during the 20th century and – despite hailing from an agnostic Jewish household and being influenced by Christianity – was never formally incorporated into any religion.

Upon presenting these examples, some might argue that even if one were to concede the assumption that I started off with that God exists, one may still assert that there is no way that a subject can become acquainted with God inasmuch as God is taken to be causally inert. While theologians and philosophers of religion might want to grapple with arguments in favour or against such a claim, this does not directly affect our current project. While it might be the case that God is able to enter into different causal relationships, I will here assume that God does not enter into those causal relationships which are relevant for a subject to become acquainted with Godself. Such a position, it

²⁷⁶ (Weil 2021, 29–30)

must be admitted, can be considered as a sort of minority view. Many theologians and philosophers of religion assert that God can, and does in fact, intervene in the natural order, and thus enters into causal relationships.²⁷⁷

If this is truly the case, then all the better for the question of becoming acquainted with God. Articulating acquaintance with God in such a situation could then be reducible to showing how a subject is in the right causal relation with God. While this is not entirely straightforward to articulate, it is still arguably less of a challenge than if we were to consider God as being – for the purposes of acquaintance – causally inert. In this light, then, in the same way that it has been shown in previous chapters how the SBA account is helpful precisely because it offers the abstract realist a way in which they can overcome the problem of acquaintance and reference, so too here I argue that the SBA account is useful for the theist in helping them show how subjects can be acquainted with God *even if* God is a purely causally inert object. The upshot of this attempt would also be to show how, even if the experiences shown are not themselves fruit of a causal relationship with God as their source, they are still epistemically valuable to the subject.

Having addressed this concern, we may thus return to the task at hand. In order for the SBA account to be a viable account of how one can be acquainted with God, we need to fill in the details which are lacking, namely, what does discriminating knowledge of God look like, and which capacities or skills are required in order for a subject to gain such discriminating knowledge. It is to this that I shall now turn.

Discriminating Knowledge

²⁷⁷ On some views, even necessarily participating as the first cause, the 'Unmoved Mover'!

We recall that, for Evans, for a subject to possess discriminating knowledge of an object is for them to think of an object in terms of its *fundamental ground of difference*. “This will be a specific answer to the question ‘What differentiates that object from others?’, of the kind appropriate to objects of that sort.”²⁷⁸ This counts as discriminating knowledge “since the object is differentiated from all other objects by this fact.”²⁷⁹ How, then, are we to apply this to God?

In the experiences noted above, the notion of God as being different can be clearly seen. Augustine describes a light that was “not the common light, which all flesh can see; nor was it simply a greater one of the same sort... but different, very different from all earthly light whatever.” Vivekananda sees a number of objects – “the food, the plate, the person who served, and even myself” – but there is something else that he becomes acquainted with: “That.” Similarly, Weil states that “neither my senses nor my imagination had any part; I only felt in the midst of my suffering the presence of a love.” Albeit described in very different ways, in each of these three experiences, we see some *thing* that is clearly picked up as being different. Not simply different, but rather totally different. This fits in well with a way of describing God, found in an old medieval anecdote and taken up by theologians such as Bultmann and Barth,²⁸⁰ as *totaliter aliter* – God as being totally other, completely different.

We can, I believe, begin to grasp at something that will satisfy Evans’ definition of discriminating knowledge. It is important to note that discriminating knowledge is, in a sense, a relative concept. This means that what counts as discriminating knowledge for

²⁷⁸ (Evans 1982, 107)

²⁷⁹ (Evans 1982, 107)

²⁸⁰ For an example by Bultmann, see: (Bultmann 1958). For an elaboration on Barth’s views, see: (Chung 2008).

an object *o*, might differ depending on the context one is discriminating in (and the mode of identification one is employing). This was made amply evident in the SOMMELIER case presented in Chapter 2. What counted as discriminating knowledge there was affected by the particular context the subjects found themselves in. The context should be understood as comprising of i) the domain of objects against which the subject should discriminate the target object, and ii) the specific situation. The context, therefore, affects what would suffice as discriminating knowledge for a target object. In SOMMELIER, then, the context comprised of the fact that they were blindfolded, given two wines to taste, and not told they were different.

In the experiences recount above, it would seem that the context here – in terms of the domain of objects – is not merely a small set of objects, such as two wines, or even of one's current perceptual field, or even of the set of objects one can remember and recognize. Rather, the context within which – and from which – God was differentiated, seemed to go beyond. The individuals we are examining all attest to having become acquainted with some object that is not material, but in some way described as being present before (or within) them.

This is still somewhat vague, and while we may not be able to fully articulate what this discriminating knowledge looks like, we can still approach closer. Similar to mathematical objects discussed in Chapter 5, the type of discriminating knowledge that we require here is that of description-based identification. In order for the subject to be acquainted and successfully refer to God, they must be in possession of a particular description – originating from God Godself – that allows them to 'pick out' God from all other things.

In fact, each subject in the above accounts attempts, in their own way, to emphasize that they have become acquainted with something that is not material, and in a manner that does not rely on their senses or imagination. There seems to be some quality of this ‘presence’, or ‘awareness’ that subjects seem to latch on to that enables them to differentiate and identify it as God. A solution might be found in the definition of God mentioned above of *totaliter aliter* – totally other, completely different. The subjects all seem to share this awareness; that they are here acquainted with something totally different from anything that they have experienced, and having a quality that is not shared with any other object.

The discriminating knowledge needed to enable this description-based identification, then, might have a content that roughly equates to ‘the fact that it is radically different.’ This object – God – is grasped, partly, due to it having a quality that is not shared by any other object. Yet, this is not precise enough. Does this mean that were there only a single object with the quality of being red, or of being sweet, it would be God? No. Rather, we seem to be honing in on a particular property unlike any other. The experiences recounted above can be said to be aiming at God as that ‘thing’ which is ineffable. Ineffability here is to be understood as having a particular quality that cannot be grasped by language, indicating that object’s ‘being unlike’ anything else. God’s being ‘radically different’ therefore, can be understood as God’s ineffability.

Now the topic of ineffability is not without debate.²⁸¹ Specifically, given our use of language in order to enable us to distinguish objects from each other (such as being tall, short, red, blue, wide, hot, or old), ineffability poses a challenge. In speaking of an object being ineffable, of being unlike any other thing, we are here faced with a double-edged

²⁸¹ See, for example: (Sebastian 2017)

sword. On the one hand, if we try to elucidate how God is ineffable, then God no longer remains ineffable. And yet, on the other hand, if there is nothing to say about ineffability, and God cannot be compared to or distinguished from any single object, then we risk falling into nonsense.²⁸²

However, following Arthur, there is a particular way in which we are to understand ineffability that does not fall victim to either of these challenges. God's being 'radically different' should be understood not in comparison to other individual objects, but rather in opposition to all that exists "...being taken together as a totality and viewed as a single whole."²⁸³ Arthur clarifies this further by asserting that we should "see the ineffable core of religious experience as stemming from some sort of all-encompassing view of things, from existence seen as a totality."²⁸⁴ This ineffability, then, should be understood as a subject's becoming aware of some *thing* that cannot be wholly and exhaustively grasped and explained away by comparison to other objects (such as being 'taller than' or 'brighter than', etc.). This ineffability, or radical unlikeness, should not be confused with an experience of an object which is 'novel,' such as a subject who had never seen a train or a lion would experience, but rather as a type of experience in its own right.²⁸⁵

Some might argue that this particular articulation of discriminating knowledge in terms of ineffability is not much different from stating something along the lines of 'the fact that it is God.' I disagree. Articulating this discriminating knowledge in terms of ineffability – radical difference – has the upshot of enabling subjects to possess such knowledge without requiring them to have any specific formal theological knowledge,

²⁸² For a more detailed exposition on this problem, see: (Arthur 1986).

²⁸³ (Arthur 1986, 117)

²⁸⁴ (Arthur 1986, 118)

²⁸⁵ (Arthur 1986, 121)

nor do they need to subscribe to a specific faith tradition. As a result, this would mean that i) this discriminating knowledge is widely accessible, and ii) it can be grasped without delving into theological disputes about whether God is omnipotent, omniscient, benevolent, etc., and even without the need of forming part of a faith tradition.

Capacities and Skills

What capacity or skill is required, then, in order to enable a subject to gain the discriminating knowledge mentioned above? At the start of this text, it was made clear that this account seeks to overcome the problem of reference to God, and not that of God's existence. Thus, the only criteria that one must subscribe to in order for this account to run is that God exists. Beyond this, no other claim was made about the nature of God. Furthermore, in taking into consideration 'experiences of God' of individuals coming from different faith traditions, I am assuming that God, *qua* object of acquaintance, is not accessible only to individuals coming from a particular (or any, for that matter) faith tradition. The way in which discriminating knowledge was articulated above also reflects this. In this light, then, and keeping in mind the distinctions drawn elsewhere between skills and capacities, it might initially seem to be the case that discriminating knowledge is achieved in virtue of something akin more to a capacity than skill. However, I will here make the case for the contrary.

It is interesting to note that the notion of a capacity or skill that enables a subject to come to know God is not at all novel. The Christian Orthodox mystical tradition, for example, speaks of human beings possessing a *nous* which, like the human eye, enables a subject to come to know God. Thalassios, in the *Philokalia* speaks of human being

created “with a capacity to receive the Spirit and to attain knowledge of Himself.”²⁸⁶ In a similar vein, Augustine speaks of human beings as being *capax Dei* – ‘capable of God,’ that is to say, having a capacity to come to know God. When speaking of the mind, he asserts that “it is [in God’s] image by the very fact that it is capable of [God], and can be a partaker of [God].”²⁸⁷ In the Christian Reformed tradition, Schleiermacher articulates a similar idea when stating that “[r]eligion’s essence is neither thinking nor acting, but intuition and feeling. It wishes to intuit the universe...”²⁸⁸ By ‘intuition’ here, Schleiermacher intends “some sort of immediate cognitive relation to some sort of object, namely, the universe as a single whole.”²⁸⁹ Already here, then, we have a small indication that articulating acquaintance with God in terms of the SBA account – due to the importance it places on skills and capacities – might have the upshot of providing a common framework against which different theological theories about mysticism and gaining knowledge of God can be compared and contrasted.

In previous chapters we have seen how the distinction between capacity and skill is not altogether clear. This present case further emphasizes this challenge. On the one hand, it seems that what is required is something akin to a capacity. Earlier, a capacity was defined in the following way:

CAPACITY: An innate general cognitive function (which can be composed of lower, more fine-grained functions) possessed by subjects having normal cognitive functioning, which is deployed with respect to specific objects.

In light of the above definition, then, it would seem fitting to speak of acquaintance with God as reliant on a capacity which is shared by the vast majority of subjects. As the

²⁸⁶ "On Love, Self-Control, and Life in Accordance with the Intellect," IV, n.13. (Thalassios 1990, 326)

²⁸⁷ On the Trinity, Bk.14, Ch.8.11 (Augustine 2002, 148)

²⁸⁸ (Schleiermacher 2008, 22)

²⁸⁹ (Forster 2022)

brief sketch above of some theological traditions imply, God, *qua* object of acquaintance, is accessible to all subjects with normal cognitive functioning. Unlike sommeliers, doctors, or physicists, there does not seem to be the need for any specific training or instruction in order to be able to be acquainted with God. Furthermore, this fact is also implicit in all of the great religions; none hold that being acquainted with God is possible only for the imam, priest, rabbi, etc. Articulating what is required, then, in terms of a capacity would conform to the ubiquitous nature of acquaintance with God. However, while it is true, as noted, that the predominant view amongst theologians is that all subjects are able to become acquainted with God, it is evident that not all individuals seem to actually succeed in becoming acquainted. So much so, that individuals who tend to have a greater ability to do so are labelled as ‘mystics’ in various religious traditions. These mystics are revered not because of what they know and assert about God. Such knowledge can also be attained by the theologian or the philosopher – albeit possibly with greater difficulty. Rather, what distinguishes the mystic from the rest is the manner in which they come to obtain their knowledge of (and about) God. The mystic, then, “gives clearest voice to this inner core of ineffability, and it is in his particular type of discourse that the live wire of mystery, which seems throughout the religious realm, appears closest to the surface.”²⁹⁰ We should, then, I believe, consider that which is required in order to gain the necessary discriminating knowledge about God as something more akin to skill.

Some might object to the fact that a mystic might not necessarily have undergone anything akin to formal training or instruction, as in the case of doctors and sommeliers. At the same time, however, we see experiences of acquaintance occurring within the context of particular practices, such as meditation, prayer, or contemplation which tend

²⁹⁰ (Arthur 1986, 113)

to be specific to the domain of religion and faith. In this way, then, we can see how these activities can further reinforce the assertion that we are talking of a skill rather than a capacity. *A fortiori*, given the great variety of ways in which a subject can gain a skill – as has already been mentioned in an earlier chapter – unlike professionals whose skills are acquired over years of learning, and training, a subject might already possess the skill we are investigating even from an early age. The 11th century mystic Hildegard von Bingen, answering questions about her religious experiences posed to her by Guibert of Gembloux, writes: “I am now more than seventy years old. But even in my infancy, before my bones, muscles, and veins had reached their full strength, I was possessed of this visionary gift in my soul, and it abides with me still up to the present day.”²⁹¹

What does this skill consist in, however? Unfortunately, our articulation here is somewhat speculative and metaphorical. While the content of the discriminating knowledge that is required in order to become acquainted with God is a description pertaining to ineffability, at the same time, the experiences recounted further above all seem to intimate towards something akin to a perceptual experience. Let us try and unpack this.

While becoming aware of God might be construed as a type of ‘perception,’ this is only in an analogous way. A subject doesn’t *really see* God. Hildegard, once more in the same letter quoted above, is quite explicit:

“I do not hear these things with bodily ears, nor do I perceive them with the cogitations of my heart or the evidence of my five senses. I see them only in my spirit, with my eyes wide open, and thus I never suffer the defect of ecstasy in these visions.”²⁹²

²⁹¹ (von Bingen 1994, 23 Letter 103r)

²⁹² (von Bingen 1994, 23 Letter 103r)

This presence, rather, is felt or experienced, hence all talk of ‘perception’ might be liable to misinterpretation unless it is understood in the widest possible sense as a type of awareness. This clearer sense of feeling is seen in Weil’s own description: “I only felt in the midst of my suffering the presence of a love, like that which one can read in the smile on a beloved face.” Talk of feeling or experience should not immediately be dismissed as too mysterious, or *ad hoc*. Like Weil, subjects can get a grasp or sense the emotions of others, for example. In seeing an individual laughing, smiling, crying, or grimacing, we seem to be acquainted (and, hence, able to refer) not only with the person before us, but also with ‘the pain, joy, happiness, or confusion they feel.’ In seeing van Gogh’s *Almond Blossom*, or hearing Elgar’s *Nimrod*, a subject might be overcome with emotion, while another might not be too impressed. One way to explain this discrepancy, despite a sameness in what is being perceived, is to state that the former subject has become acquainted with something *more*. The assertion being made, then, is that the skill that is required by a subject to enable them to become acquainted with God is, in some way, similar to what is going on in the examples sketched above.

In this way we have thus arrived at a close approximation of what discriminating knowledge for God looks like, and what skill is involved in achieving this knowledge. However, we recall that a crucial part of the Evansian account that SBA relies on requires that, in the case of successful descriptive-based identification, the target object must be itself the source of the discriminating knowledge that is being used to pick it out. The way in which Evans cashes this out is by asserting – as we have seen in the chapter on mathematics – that descriptive-based identification thoughts are different from purely descriptive thoughts in that the former are susceptible to being ill-grounded.

In the case of mathematical objects, or – to be more precise – in the case of the small numbers (up to 3), this was overcome by arguing in favour of a certain nativism or innateness of such knowledge. Some theologians or philosophers of religion might want to go down this route as well with regards to the discriminating knowledge subjects have about God. However, such a position is, I believe, somewhat unattractive. This is because it is evident that *even if* acquaintance with God is possible for all subjects, not all subjects are indeed acquainted with God – thus indicative of the fact that it is not the case that all subjects are in possession of this discriminating knowledge.

How can we verify, then, that the discriminating knowledge that a subject possess has indeed derived from the target object – God? Call this the ‘epistemic question’. This however presupposes another question: how could knowledge be derived from God in the first place in a non-causal manner? Let us call this the ‘metaphysical question.’ Now it would seem to be the case that any individual wishing to assert that we can indeed come to be acquainted with God must hold that there exists a positive reply to the metaphysical question. If this was not the case then, at least on the SBA account explored above, acquaintance would never be achieved as whatever the subject takes to be discriminating knowledge of God would not have derived from Godself. How exactly the metaphysical question is resolved is dependent on the nature of God, and thus part of the wider theological endeavour. It is worth mentioning here that one possibility is for a subject to choose to believe that it is indeed the case that subjects can have knowledge deriving from God in a non-causal manner, without necessarily having a worked-out reply for the metaphysical question. We could construe this as one way in which such a subject might be said to have faith.

However, with respect to the epistemic question, there are here two routes one can take. The first is to assert that we can only uncover the manner in which this discriminating knowledge is indeed derived from God once we know more about the nature of God. Thus, we can only answer the epistemic question only once we have more information and are able to give some form to the positive solution of the metaphysical question. In the case of demonstrative identification of other types of objects – specifically spatiotemporal objects – the way in which discriminating knowledge about an object is derived from that object is dependent on the nature of that object, i.e. the fact that such physical objects can be perceived by the senses. Similarly, it is only once we know more about the nature of God and what relationship holds between God and the rest of existence, and between God and epistemic subjects, then we can properly elucidate an answer to this question.

Alternatively, one may choose instead to bite the bullet and state that a solution to the epistemic question is not possible, i.e. that a subject can never verify whether the discriminating knowledge they possess has indeed derived from God. We can construe this position as another sense in which a subject may be said to ‘have faith’; that apart from believing that God does in fact interact with subjects, one also believes that the knowledge one has of God (and, plausibly also some knowledge that a subject has *about* God) is indeed derived from God. On this understanding, then, to be a person of faith is to accept that, as much as one believes that they are indeed acquainted with God, there still exists the risk of having a thought that is ill-grounded, wherein one’s discriminating knowledge has not derived from God.

This understanding of faith (but also, to a lesser extent, the first sense mentioned further up) fits in well with the SBA account as it gives greater importance to the skills

that a subject has, in that the more refined a subject's skill is, the more reliable they are of being well-grounded in their being acquainted with, and referring to, God. It would also account for why subjects who are considered as individuals of deep faith or as having an intense spiritual life, are deemed to be 'skilled' in this sense and are consulted and viewed as 'experts' in discerning and judging whether – amongst other things – their own or others' discriminating knowledge or mystical experience does indeed have God as its source.

Conclusion

This thesis set out to attempt to give an account of how we are acquainted with abstract objects, and how we are thus able to successfully refer to such objects and have singular thoughts about them. Has this attempt been successful? The short answer would be: ‘Yes!’ The Skill-based Acquaintance (SBA) account that has been put forward shows how subjects can become acquainted with abstracta. However, in philosophy we very rarely (if ever!) find unqualified and absolute replies to the questions being posed. The same holds for this present issue. Thus, as was seen in the various chapters and the progression of the thesis itself, despite employing the same SBA account throughout, different explanations were required depending on the category of objects being investigated.

After properly setting the stage in Chapter 1 and presenting what I take to be the core feature of singular thought which, following Sainsbury’s taxonomy,²⁹³ I take to be *directness*, the core problem that this thesis undertook was put forward by means of the PUZZLE OF ABSTRACT SINGULAR THOUGHT. After examining the three claims individually, the exact challenge was specified and made precise; we seek an alternative account of acquaintance that does not rely on causation in order that abstract objects can be themselves objects of acquaintance.

In Chapter 2, after elaborating in some detail on the work of Gareth Evans,²⁹⁴ the

²⁹³ (Sainsbury 2020)

²⁹⁴ (Evans 1982)

SBA account was presented. Acquaintance, on this view, is articulated in terms of the subject having discriminating knowledge of the target object. This discriminating knowledge must itself be derived from the target, and is gained by the use of the subject's capacities and skills. An extended analysis was there undertaken in order to motivate the claim that certain skills – which I labelled as 'discriminating skills', or D-skills for short – function similar to Evansian capacities in that they provide the subject with discriminating knowledge.

The focus in the subsequent chapters turned to applying the SBA account to different categories of abstract objects, with the exception of Chapter 3 which dealt with acquaintance with virtual objects. It was there argued that acquaintance with virtual objects is dependent on the subject being in possession of a world-tracking skill. The potential benefit of the use of totems as tools was also highlighted.

In fact, before proceeding to examine how the SBA account fared with the variety of abstract objects, an important upshot of the view presented in this thesis should be underlined. As already mentioned, Chapters 2 and 3 did not deal with abstract objects, but rather with physical and virtual objects respectively.²⁹⁵ Already here, the SBA account can be seen to have greater explanatory power over the traditional causal accounts of acquaintance.

With regards to physical objects, as was illustrated in *SOMMELIER* and *DOCTOR*, the SBA account was able to offer up an explanation of why it is the case that, despite the same causal relationship holding between subject and object, acquaintance is not always secured. The same can be said of virtual objects, as shown by the *VIRTUAL BIRD ATTACK* example presented in Chapter 3. In all these examples, the same feature that motivated

²⁹⁵ As was mentioned, virtual objects were here taken to be dependent upon physical objects.

the SBA account is present. This is the fact that the only difference between those subjects who succeed in becoming acquainted with the target object, and those that do not, is that the former are in some way experts or skilled users within the specific domain or context in question.

It seems to be the case that, from the current body of existing literature, this salient difference between skilled and unskilled subjects has not been adequately explored. The general implicit view was that whether or not acquaintance was possible was dependent only on factors *external* to the subject, such as the ontological status of the target object (e.g.: whether it be abstract or not), and its relation to the subject. What the above examples show, then, is that acquaintance is also further dependent on factors *internal* to the subject, chiefly the capacities and skills that they possess. Hence, even if one were to be an irrealist about any and all abstract objects and thus have no need to put forward an account of acquaintance with such objects (given that, as has been stated numerous times, the object of acquaintance must exist for acquaintance to take place), the SBA account presented in this thesis would still be useful to them and, I believe, preferable over other traditional causal accounts of acquaintance.

But of course, the claim that the SBA account is to be preferred is not only due to its greater sensitivity in explaining acquaintance when it comes to physical and virtual objects, but rather for explaining how subjects are acquainted with abstract objects, which was the main focus of this thesis.

Two categories of abstract objects were investigated: fictional objects (Chapter 4), mathematical objects (Chapter 5), along with God (Chapter 6) as a *sui generis* case which, nonetheless, poses similar questions. For each category, it was shown how the SBA account can be utilised to explain how a subject comes to be acquainted with the

objects under investigation. The upshot of the SBA account here was that, given its reliance on skills, the account can be utilised and employed with regards to a great variety of objects, as long as one identifies the relevant skills and capacities being employed in each case. Furthermore, in each of these chapters, the account provided also largely aligned with our intuitions on how acquaintance occurs, and who can or cannot become acquainted with the relevant objects.

In the case of fictional objects, the way in which a subject becomes acquainted depends on whether they are the author of the fictional object in question, or a reader.²⁹⁶ On the SBA account, the author inasmuch as they are the creator of the fictional object in question, are acquainted with it due to being in possession of a specific form of discriminating knowledge that is not available to anybody else. This knowledge takes the form of the author's intention to create the target object, as was elaborated on in detail in FICTIONAL ACQUAINTANCE.

In the case of readers of fiction, they are acquainted by means of the author's testimony of their (the author's) imaginings pertaining to the target fictional object. As explained in FICTIONAL TESTIMONY, on this view, there is no need to appeal to pretence; testimony is testimony, regardless of whether it is of real flesh-and-blood individuals (living or dead), or of fictional objects. The question of whether what is involved here on the part of the reader should be construed as a capacity or a skill has been put to one side, and could possibly also be the subject of further research. Whatever the answer to this might be, what is important for the account presented is that the subject be able to identify and pick up the relevant naming practice surrounding the target, as well as possibly

²⁹⁶ Of course, in this text, only literary fictional objects were discussed, but the same could be said of fictional objects which appear elsewhere, such as in film, for example.

knowing whether one might be talking about an object of fiction, or a historical figure, or a living individual, depending on the context.

Another area of further research that should be mentioned here concerns other categories of abstract artifacts. It was briefly mentioned that the account presented for fictional objects could quite possibly be extended to cover other types of abstract artifacts.²⁹⁷ Given that artifacts are, by definition, created objects, then the account provided in Chapter 4 can plausibly be adapted wherein the creator of the abstract artifacts in question could be said to be acquainted with the target in a primary, non-derivative way, while other ‘consumers’ would become acquainted in a manner relying on, or analogous to testimony.

Chapters 5 and 6 put artifacts aside and instead dealt with objects which are, on the contrary, generally considered as not being created, but rather eternal or transcendental.²⁹⁸ As was seen, explaining how acquaintance is secured in these cases was slightly more complex than in the previous chapter on fiction.

With regards to mathematical objects, the account offered was twofold. Firstly, when considering those mathematical objects that are captured by the subitising capacity (i.e.: the numbers 1, 2, and 3), the prevalent empirical evidence seems to indicate that subjects already have an innate grasp of the discriminating knowledge linked to each of these objects. As to the rest of the mathematical objects that exist, especially the more

²⁹⁷ The most common category of abstract artifacts apart from fictional objects is musical works. However, some theorists have also added artworks as examples of abstract artifacts or even languages and computer programs. See: (Dilworth 2008; Evnine 2016, chap. 4; Irmak 2021). Furthermore, Thomasson would also add certain social objects, such as laws and corporations, to the list of abstract artifacts (2003a, 273).

²⁹⁸ At least, this is how mathematical objects and God were treated in this thesis, despite the existence of views that argue that such objects either i) do not exist at all, or ii) are created artifacts. The justification for the positions taken regarding mathematical objects and God being eternal abstract objects was given in each chapter respectively.

complex ones, the Monster group example seemed to indicate that the expert skills that mathematicians are in possession of does allow them to ‘grasp’ at something and refer to it in a manner different to were they to have just picked it out in a descriptive way.

Here, however, an inductive claim was made. It has been stated numerous times over the course of this thesis that, in order to be truly acquainted with an object, the discriminating knowledge that a subject has must have derived from the object itself. In the case of these mathematical objects, the empirical evidence and the examples presented seem to strongly indicate that the discriminating knowledge had does originate from the target objects given the process by which this knowledge was secured. However, this could not be asserted in a definitive manner. This remains, therefore, an area of further research in order to further solidify and strengthen the SBA view.

The final chapter, subsequently, dealt with God. Given the active ongoing debate within theology and philosophy of religion as to the reference of the name ‘God’, the need for an account of acquaintance with God is all the more pressing. After a brief survey of the existing views was made, the focus shifted to the first-hand experiences of Augustine, Swami Vivekananda, and Simone Weil. From the great variety that there exists between the personal lived experiences of these individuals, as well as the time period and location which they inhabited, the commonalities in their experience of becoming acquainted with God were distilled and examined.

In doing so, two objectives were achieved. Firstly, the content of the discriminating knowledge required in this case was also elucidated by relying on the notion of ineffability – God as *totaliter aliter*. Secondly, in exploring whether what is involved on the part of a subject can be likened more to a capacity or a skill, the views of a few different Christian traditions were explored, along with the first-hand comments of

the 11th century mystic Hildegard von Bingen. The conclusion here was that acquaintance with God seems to be more dependent on a skill which, despite not necessarily requiring formal training to obtain, is still not shared by the vast majority of subjects.

Here too, a similar question arose as in the case of mathematical objects of how do we determine whether the discriminating knowledge that one is in possession of – in this case, about God – has indeed derived from God. It seems to me that the reply here, however, should be a bit different from what was given in the previous chapter. While still an avenue of further research, it would seem to be the case that with respect to God, this research must necessarily delve into theological reflections as to both the nature of God as well as the nature of faith. Therefore, it is only through interdisciplinary collaboration that this account of acquaintance can be further fleshed-out.

This novel SBA view that has been put forward, then, is shown to have the necessary resources and explanatory tools to articulate acquaintance and reference with abstract objects. However, only a few categories of such objects were thoroughly investigated here. There are other categories of abstract objects and examples that merit further exploration and research as to how the SBA account can be implemented in order to secure acquaintance also in these cases. We seem to have singular thoughts about many other objects that are not, strictly speaking, physical. From ethics where we can speak of justice, or the moral value of the human person, to events such as the Big Bang, or World War II, or even in logic where we speak of arguments, propositions, or logical operators. The list can go on. Given what has been presented and articulated in these pages, it would not be too bold to assert that the SBA framework should be able to account for acquaintance and reference in these cases, too.

The SBA account, therefore, should be considered as a promising and altogether

preferable account of acquaintance over its rivals. Taking into account the subject's capacities and skills when speaking of acquaintance results in a theory that not only aligns with our intuitions more than other competing views, but affords us greater explanatory power in explaining how and why subjects succeed (or fail to succeed) in referring and having singular thoughts about abstract objects.

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