

Chapter 2

Formal Objects and the Argument from Knowledge

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Abstract As well as the familiar objects of everyday life, some philosophers talk about objects such as propositions, facts, states of affairs, and so on. Across a number of works, Mulligan describes these as formal objects. Mulligan has offered an ‘argument from knowledge’ for the existence of certain formal objects, namely, facts or obtaining states of affairs. After presenting this argument from knowledge, the aim of this chapter is to consider two questions: Can this kind of argument be extended to other kinds of formal object, and if so, what does this tell us about the nature of formal objects? It is suggested that, given an identification account of knowledge, the argument can be extended to argue for the existence of things such as values and propositions. Mulligan makes his argument more palatable to the realist by arguing that facts, and other formal objects, are not ontologically fundamental. This, together with the argument from knowledge, suggests that formal objects are to be understood as things which are ontologically dependent upon intentionality and hence on creatures capable of having intentional states and performing intentional acts.

Keywords Apprehension · Fact · Formal object · Identification · Knowledge

2.1 Introduction

In everyday life, we come across all sorts of objects: tables, chairs, trees, sandwiches, and so on. Philosophers often make reference to and talk about other kinds of objects which do not seem so familiar: propositions, facts, states of affairs, properties, classes, concepts, and so on. Across a number of works (Mulligan 2006a, b, 2007), Mulligan describes these as *formal objects* (FOs) and discusses, amongst other things, why we should think that there are such things. In this chapter, my aim is to explore Mulligan’s ‘argument from knowledge’ for the existence of certain FOs, namely, facts or obtaining states of affairs. First, I will present the argument, and consider its strengths and weaknesses. Second, I will consider whether the same kind of argument can be used to argue for the existence of other kinds of FOs.

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Finally, I will consider whether this tells us anything about the nature of FOs, what these things all have in common to be labelled together in this way.

A preliminary clarification is in order. The terms ‘proposition’, ‘state of affairs’, and ‘fact’ are often confused, with different philosophers using them to mean different things in different places. In this chapter, I will understand a *proposition* to be something that can be believed, understood, or thought, composed of concepts, which may or may not be true. I will understand a *state of affairs* to be a complex of worldly things—objects, properties, states, etc.—which may or may not obtain. A *fact* is sometimes taken to be a true proposition, sometimes an obtaining state of affairs, sometimes a *sui generis* entity. Mulligan inclines towards the second option, so in this chapter I will understand a *fact* to be an obtaining state of affairs. Note that this ties facts and states of affairs closely together: Any argument for the existence of facts will serve as an argument for the existence of states of affairs (or at least obtaining ones), and any argument for the existence of states of affairs will go some way to providing an argument for the existence of facts (as long as the argument yields some *obtaining* states of affairs).

2.2 Other Arguments for Formal Objects

One of the most well-known arguments for the existence of facts is the *truthmaker argument* (Armstrong 2004, 1997). In brief, the argument runs something like this:

1. There are truths.
2. For any given truth, there must be something that makes it true, i.e. a truthmaker.
3. The best candidate for playing the role of a truthmaker is a fact.
4. Therefore, there are facts.

As long as we agree that there are some things which are true, we should agree that there are facts to make those things true.

In fact, I have overstated the argument. As it stands, this argument includes a principle of *truthmaker maximalism*, i.e. that *every* truth has a truthmaker. This is a highly controversial principle for a number of reasons. For example, there are certain truths which it is not clear require their own truthmaker, such as necessary truths, logical truths, or true conditionals. There is also the worry that this strong truthmaker principle will yield an overabundance of facts, clogging up our ontology. If our interest is only in arguing that some facts exist, then the argument would achieve this just as well by taking a weaker premise, that for *some* truths, there must be something to make them true. This more restricted principle allows us to ignore the more controversial cases, and promises to yield fewer facts into our ontology.

I am not going to consider the truthmaker argument in detail in this chapter. But it is worth noting that as an argument for the existence of FOs, it may not be of much help. The argument is premised on there being *truths*. One must therefore be able to say *what those truths are*, i.e. what the truth-bearers are. If you think

they are something like propositions, then the existence of facts, one kind of FO, is premised on the existence of another kind of FO, propositions. This is not a problem for someone whose interest is only in states of affairs and facts, who already accepts propositions. But it fails to tell us anything interesting about how we can be sure that there are any FOs. We only learn that (perhaps) the existence of one kind of FO entails the existence of another. Furthermore, there are going to be other objections to the argument. For example, there are candidates other than FOs to play the role of truth-bearers, such as concrete utterances, beliefs, thoughts understood as mental entities, and so forth.

The truthmaker argument looks at some things in the world, truth-bearers, and asks why they have a certain (formal) property, truth. Mulligan's strategy is different. He asks instead what the nature of *intentionality* can tell us about FOs. The distinctive feature of intentional states (ISs), acts, or activities is that they are supposed to be *about* something. Examples include, but are not limited to, belief, judgment, knowledge, desire, fear, hate, and admiration. There is a division in ISs and acts between those that can 'miss their mark' or get things wrong, and those that are always correct. So, for example, beliefs can turn out to be false, and we can fear things which pose no threat, but something like *knowledge* is different. If we know that *p*, then *p* is true. We can never turn out to have 'false knowledge'; that would be, for example, a false belief that we know that *p*, or something similar, not *knowledge*. There are two points to be highlighted here. First, Mulligan argues that ISs such as belief do not give us a reason to believe in facts or states of affairs. Second, that an account of ISs and activities that can miss their mark in terms of *correctness conditions* relies on a prior commitment to the existence of FOs which itself needs justification.

First, then, can the nature of ISs which can go wrong provide an argument for the existence of FOs? Take, for example, belief. One can give an account of how belief can miss its mark in terms of a satisfaction condition:

A simplified version of Searle's account of the satisfaction conditions for belief is that a belief that *p* is satisfied only if *p*. (Mulligan 2007, p. 207)

This makes no appeal to FOs. However, an alternative approach is to give an account of how belief can miss its mark in terms of a correctness condition. It looks as though correctness conditions for ISs do make reference to FOs. For example:

If *S* believes that *p*, then *S* correctly believes that *p* only if the proposition that *p* is true/the state of affairs that *p* obtains/the fact that *p* exists.

This looks promising, but one can object that the reference to FOs here is superfluous. We can simply say:

If *S* believes that *p*, then *S* correctly believes that *p* only if *p*.

Independent of other philosophical reasons, there is no need to add to this simple schema. For example, the following instance is well formed:

If Sam believes that Sally is silly, then Sam correctly believes that Sally is silly only if Sally is silly.

Reference to FOs in an account of non-factive ISs and acts can be eliminated, at least in the case of belief and judgment (see Mulligan (2007, § 2)). It does not look like an account of this kind of intentionality is going to justify a belief in the existence of FOs.

The second point is that not only does an account of these kinds of ISs and acts not provide an argument for the existence of FOs but also such an account in terms of correctness conditions seems instead to make an appeal to the existence of FOs. Here are some of Mulligan's examples of putative correctness conditions for some ISs and acts: psychological reports on the left, putative correctness conditions on the right:

x desires to F	x ought to F
x values y	y is valuable
x admires y	y is admirable
x regrets that p	It is regrettable that p
x prefers y to z	y is better than z
x judges (believes) that p	The state of affairs that p obtains
x judges (believes) that p	The proposition that p is true

(See Mulligan 2007, p. 207)

Each of these correctness conditions 'refer to formal objects (propositions, states of affairs) or are dominated by formal predicates or functors (truth, obtaining, value, ought, probability)' (Mulligan, 2007, p. 209). Hence, one objection that can be raised against this approach by the sceptic about FOs, standardly the nominalist, is to claim that FOs and formal properties do not exist, and so the approach must fail:

So what now?

How should a friend of correctness conditions react to the many different objections I lumped together under the claim that correctness conditions are problematic? To the objections that there are no propositions or states of affairs, no values and no norms?... To the claim that correctness conditions for judgment and belief can be given without mentioning states of affairs or propositions? (Mulligan 2007, p. 212)

Mulligan proposes to consider an account of the other kind of intentionality, the kind that is always correct. The paradigm case of this kind of intentionality is *knowledge*:

A philosopher who intends to provide a philosophy of intentionality and thinks that an account of the intentionality of attitudes, acts and states which can miss their mark can be given in terms of correctness conditions must in any case provide a complementary account of the intentionality of knowledge. Suppose that a plausible account of the intentionality of knowledge could be shown to entail that there are facts, values, norms, probabilities etc. Were that the case our philosopher would be able to kill two birds with one stone. He would have an account of the two main types of intentionality and his account of the intentionality of knowledge would give him the very best of reasons for holding that correctness conditions are unproblematic. (Mulligan 2007, p. 212)

2.3 The Argument from Knowledge

First, we need to set in place two distinctions between different kinds of knowledge. Mulligan notes that knowledge can be *episodic* or *non-episodic*, *propositional* or *non-propositional*. Our familiar standard *knowledge that p* is classed as non-episodic propositional knowledge. It is a constant state or disposition of knowing that *p*. There is also the episodic and propositional *coming to know that p*, which is properly expressed by the German phrase ‘*erkennen, dass p*’, and less properly expressed by the English phrase ‘to apprehend that *p*’. We can understand apprehension that *p* as marking the beginning of knowledge that *p*.¹ Non-episodic non-propositional knowledge is acquaintance with an object, i.e. knowing *x*. Episodic non-propositional knowledge is becoming acquainted with an object, and again can be understood as marking the beginning of the non-episodic state of being acquainted with *x*.

The argument from knowledge appears in at least two places, Mulligan (2006b) and Mulligan (2007), with some slight differences, but this is what I take to be the general form:

1. There is non-episodic, propositional knowledge, i.e. *knowledge that p*.
2. The beginning of knowledge that *p* is marked by episodic, propositional knowledge.
3. Therefore, there is episodic, propositional knowledge, i.e. *apprehension that p*.
4. The best account of apprehension that *p* includes *identification* of things.
5. The best candidates for the things which are identified in apprehension that *p* are FOs.
6. Therefore, there are FOs.

The most important step to understand is the introduction of *identification*. Mulligan begins by discussing the non-propositional case, of coming to know an object. As with the propositional case, episodic knowledge is taken to mark the beginning of non-episodic knowledge. So, what account should be given of the episodic case? Take the example of coming to know an object through seeing the object. Is it sufficient for the object merely to appear in one’s visual field? No. Just because my eye is cast over a scene including a particular rock, *R*, it does not mean that I become acquainted with *R*. Most importantly, *I would not know R if I saw it again*. There has to be more to knowing something (i.e. knowing some thing) than having come across it. In coming to know the thing, one must *identify* it. Continuing knowledge of the thing can then be understood as at least the ability to *reidentify* the object. The beginning of being able to reidentify an object is the initial identification of it:

¹ One might object that in the case of innate knowledge that *p*, there is no coming to know that *p*, one always knows it. If one finds this point compelling, the following discussion can simply be restricted to cover cases of knowledge that *p* which do begin with episodic knowledge. As long as there are such cases, then the argument can still run through.

If x comes to be visually acquainted with y , then x sees y at t_1 and then at t_2 and sees y at t_2 as the same object. (Mulligan 2007, p. 215)

In cognitive science, this ability to identify and track objects is known as *object constancy*. Mulligan tells us a little more about identification:

Identification is a mental act which has correctness conditions: x correctly identifies y and z only if $y = z$. Such identification may but need not take the form of a judgement. Simple seeing has no correctness conditions; it is an intentional relation we stand in to things and processes. Coming to be visually acquainted with something has no correctness conditions either. But it involves identification, which does have correctness conditions. (Mulligan 2007, p. 215)

To clarify then: Visual acquaintance is not identification, but it does involve identification. Visual acquaintance does not have correctness conditions—as a kind of knowledge, it is one of the kinds of intentionality which cannot get things wrong—but identification, which is involved in acquaintance, does have correctness conditions. Sometimes identification is a judgment of identity, but it need not be. An additional detail is that Mulligan claims that what we ‘simply see’ in the visual field and the objects of visual acquaintance are different.

What we simply see are substances, states, processes and events. Episodic visual acquaintance is acquaintance with objects and properties. It is based on a relation to substances, states, processes and events. (Mulligan 2007, p. 215)

This point will become important later on.

So, acquaintance of an object involves identification. Mulligan’s suggestion is that apprehension that p analogously involves identification. When we come to (propositionally) know something, we identify something. Now, we might try to present this kind of account of knowledge without making reference to any FO, as in the case of the account of belief above:

S apprehends that p only if S ‘sees’ p and S ‘sees’ q and S correctly identifies p and q .

(Where $p = q$.) The problem is that this account is ill formed. The letters ‘ p ’ and ‘ q ’ are placeholders for a sentence expressing a proposition, they are not names of things that could be identified. See what happens if we flesh this out with an example:

Sam apprehends that Sally is silly only if Sam ‘sees’ Sally is silly and Sam ‘sees’ Sally is silly and Sam correctly identifies Sally is silly and Sally is silly.

Things are just as bad if we try to frame the identification between that-clauses, i.e.

Sam apprehends that Sally is silly only if Sam ‘sees’ that Sally is silly and Sam ‘sees’ that Sally is silly and Sam correctly identifies that Sally is silly and that Sally is silly.

To properly be able to express identity, we need to add a locution, such as ‘the proposition (that)’ or ‘the state of affairs (that)’ or ‘the fact (that)’:

S apprehends that p only if S ‘sees’ the fact that p and S ‘sees’ the fact that q and S correctly identifies the fact that p and the fact that q .

(Where the fact that p = the fact that q .) This account of apprehension that p requires that someone who apprehends that p , comes to know that p , makes an identification of a fact. This might be across time (as with the visual acquaintance example), i.e.

S apprehends that p only if S 'sees' the fact that p at t_1 and S 'sees' the fact that p again at t_2 and S correctly identifies the fact that p at t_2 as the same fact.

This might also be through different media, i.e. S correctly identifies the fact S has just seen with the fact that S is wondering about:

S apprehends that p only if S 'sees' the fact that p and S 'wonders about' the fact that p and S correctly identifies the fact that p about which S is wondering as the same fact.

At first glance, this view might seem strange, but in fact, it seems to account for the 'eureka' moment we have when we come to know something new. Sometimes we find ourselves thinking about facts, but not knowing which fact we are thinking about. For example, I might be wondering what the capital city of Oman is. I am representing the fact descriptively, but I am not yet able to identify the fact. I then google 'capital city Oman' and read the fact that Muscat is the capital city of Oman. 'Aha!', I say to myself, '*that* is the fact I was thinking about'. I have identified the fact I was thinking about with the fact I just read. I have apprehended the fact that Muscat is the capital city of Oman. It is perhaps worth noting that other going accounts of knowledge do not really seem to account for the phenomenology of coming to know something. For example, if I form a belief that tracks the truth, it is not clear how this would give me a 'eureka' feeling.

Clarifying the notion of identification should make it clear how the argument from knowledge works. We assume that there is propositional knowledge. Either we can simply assume that there is apprehension that p or we can take an extra step and assume that there is knowledge that p , and argue that knowledge that p requires apprehension that p to get started. Then, the best account of apprehension that p , it is argued, involves identification. But any formulation of this view is ill-formed unless reference is made to FOs. Reference to FOs is taken to be ontologically committing. So on the assumption that there is propositional knowledge, we conclude that there exist FOs. What those FOs are will depend upon whether you think the best candidates for knowledge are true propositions, obtaining states of affairs, or facts. This looks a lot like the question above concerning whether facts are true propositions, obtaining states of affairs, or *sui generis*. One could leave this open, but assuming that facts are obtaining states of affairs, this argument can be taken to conclude that states of affairs exist.

One objection which Mulligan anticipates to the identification theory of knowledge is the following.

The identification theory of apprehension has implications which not all philosophers will find equally acceptable. For example, that to apprehend that p by inferring validly from known premises to p involves going through the inference at least twice. And, another example, that coming to know that p through testimony requires a double-take. (Mulligan 2007, p. 216)

However, Mulligan is unfair to his own view here. As I understand it, this view of apprehension requires that two presentations of a fact be identified as the same fact. In Mulligan (2007), the view is presented in terms of facts seen at different times, i.e.

Sam identifies the fact that Maria is sad, which he perceives at t_1 , and the fact that Maria is sad, which he perceives at t_2 . (2007, p. 216)

However, in another paper, the view is presented simply in terms of identification between facts presented differently, i.e.

x identifies the obtaining state of affairs that Sam is smiling, *which x sees*, with the obtaining state of affairs that Sam is smiling, *which x represents*. (2006b, p. 39, my emphasis)

The requirement that we go through the same procedure *twice* to apprehend that p in certain cases, such as in proof or testimony, seems only to apply if we adhere to the more restrictive account whereby facts must be identified *across time*. If apprehension can also occur when facts are identified across different media, then we can avoid the unacceptable implications. For example, in the case of inferring validly from known premises to p , apprehension might involve identification of the fact that p , which occurs as the conclusion of the inference, as the fact that p , which was represented as a question in the example sheet. There is no need to do the work twice. Likewise, in the case of testimony, apprehension might involve identification of the fact that p , to which a reliable witness testified, as the fact that p , which the policeman represented as potentially important. No double takes. Not only does this more permissive understanding of the view avoid difficult implications but this is also the view which I have argued gets the phenomenology of learning right.

Another objection anticipated by Mulligan is that the realist metaphysician will not be interested in an argument from knowledge:

Although no ontology should be incompatible with epistemology, a realist metaphysician will not attach much importance to an argument for facts from knowledge or from any other mind-dependent phenomenon. (Mulligan 2006b, p. 31)

The realist metaphysician is interested in the fundamental furniture of the world, say, and we should not expect what we know and how we come to know it to tell us about fundamental reality—we might miss out a part of reality which is unknowable, or which is distorted by our knowing it. Mulligan's response is to argue that facts are not ontologically fundamental. If they are not fundamental, then the realist cannot complain that an argument based on knowledge is inappropriate insofar as it is inappropriate for discovering the nature of fundamental reality. Mulligan also notes that if one does not take facts to be ontologically fundamental, then this takes some of the bite out of accepting truthmaker maximalism (cf. Sect. 2.2). If facts are not ontologically fundamental, then one cannot complain that the principle that every truth has a fact for a truthmaker clogs up one's (fundamental) ontology.

I am not going to assess Mulligan's arguments for facts being non-fundamental here. Rather, I want to draw attention to a similarity between this view and the view about visual acquaintance which will become important later. Recall, Mulligan takes the things in the world which impinge on our (visual) senses to be substances,

states, processes, and events, but he takes the things with which we may become visually acquainted to be objects and properties. Likewise, although we apprehend *facts*, these are not ontologically fundamental. What is (at least more) ontologically fundamental (than facts) seems to be objects (Sam), substances (Sam), events (Sam's jump), states (Sam's sadness), and so on:

...the following are all plausible:

- 47. Sam makes the state of affairs that Sam exists obtain
 - 48. Sam's sadness makes the state of affairs that Sam is sad obtain
 - 49. Sam's jump makes the state of affairs that Sam jumps obtain
 - 50. Sam's jump over the fence makes the state of affairs that Sam jumps over the fence obtain
- (Mulligan 2006b, p. 45)

Just as in the case of visual acquaintance, the things we identify (objects and properties) are less fundamental than whatever we are related to in order to elicit this response (processes, states, etc.), so in the case of propositional apprehension, the things we identify (facts/obtaining states of affairs) are less fundamental than whatever we are related to in order to elicit this response (objects? states? etc.). I will return to this point and its consequences for the nature of FOs below.

2.4 Extending the Argument

So far, I have presented Mulligan's argument from knowledge for the existence of one kind of FO, namely facts (obtaining states of affairs). What I want to consider now is whether this kind of argument, from the nature of a kind of IS to the existence of a kind of FO, can be extended to FOs other than facts. If it can, what does this tell us about FOs?

This is the rough general form of the argument from knowledge:

1. There is some (factive) IS.
2. In order for IS to occur, it must begin with a related (factive) intentional episode (IE).
3. Therefore, there is IE (from 1, 2).
4. The best account of IE involves the identification of some things.
5. The best candidates for identification in IE are a certain kind of FO.
6. Therefore, there are FOs (from 3, 4, 5).

An argument for the existence of facts or (obtaining) states of affairs took IS to be non-episodic propositional knowledge that p , IE to be episodic propositional knowledge, or apprehension that p , and FO to be facts or obtaining states of affairs. Can we flesh out this general argument form to yield arguments for the existence of other kinds of FOs?

Mulligan (2007) goes some way towards doing so in his discussion of knowledge of value. Mulligan does not give us an analogous argument for the existence of value, but he does give us an analogous account of knowledge of value. In knowledge

of value, we encounter or ‘feel’ a value, and we come to know that value when we are able to identify it with (as) another value felt elsewhere:

“Feel” in the sentence “Maria felt the injustice of the situation” is veridical. If Maria felt the injustice of the situation, then the situation was unjust. If she is struck by the beauty of the building, it is beautiful. Maria’s indignation is a reaction either to a felt disvalue, the injustice of the situation or to a merely apparently felt value. In the latter case she is the victim of an illusion. Her admiration of the elegance of Giorgio’s gait is a reaction to a felt, positive value or it is a reaction to an apparently felt value. (2007, p. 224)

Is feeling value an exception to the principle that all knowledge involves identification? No.... Aesthetic experience is perhaps the clearest example of the phenomenon of continuously feeling the same value as the same under different modes of presentation. Just as we distinguished between simple seeing and episodic visual acquaintance, so too, we should distinguish between (a) feeling value which is no form of knowledge but rather the analogue of simple seeing and perception and (b) the case where feeling value does constitute knowledge because it involves identification. (2007, p. 224)

Maria knows injustice in seeing the situation only if she not only minimally experienced the injustice but also felt and identified it. Perhaps Maria saw some injustice last week, or perhaps Maria read about injustice in her politics class. She is now properly acquainted with that value. Mulligan concludes the discussion with the following general view:

If x favours y , then x feels the value of y or x merely seems to feel the value of y or x believes y to be valuable. (2007)

How could this view be used in an argument for the existence of values as FOs? With only a little deviation from the general form, such an argument might go something like this:

1. It is sometimes the case that x values y , for some subject x , and some entity y .
2. If x values y , then x feels the value of y or x merely seems to feel the value of y or x believes y to be valuable.
3. Sometimes, x feels the value of y (FV).
4. The best account of FV involves the identification of some things.
5. The best candidates for identification in FV are values.
6. Therefore, there are values.

The crucial factive IS here is *feeling the value of y* . Then, it is argued, the best account of this involves identification of values.

The disjunction in (2) opens up the argument to a challenge. What if all cases of valuing are covered by mere feeling of value or mere belief of value? The argument assumes, in other words, that the correctness conditions of valuing are at least sometimes met, i.e. in some cases where x values y , y is indeed valuable, and x is able to feel that value— y is not *merely* seemingly valuable or *merely* believed to be valuable. If this assumption turned out to be false, then one would need to provide some kind of error theory: Why do we value things when we are never correct in doing so? Assuming that we are sometimes correct in our valuing avoids having to answer this kind of question.

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