

# Analogies and Other Minds

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**Abstract:** The argument by analogy for other minds is customarily rejected as a weak inference because the argument is based on a single instance. The current paper argues that this objection fundamentally misunderstands the inferential structure of analogies and so misrepresents the role analogy plays in the justification of belief in other minds. Arguments by analogy can be uniquely suited to draw inferences from single instances. This defense does not remove all difficulties faced by the argument by analogy for other minds.

**Résumé:** Puisque l'argument par analogie qui appuie la croyance qu'il existe d'autres personnes et que leurs expériences personnelles correspondent aux nôtres se fonde sur un cas unique, généralement on considère son appui faible et on rejette cet argument. Cette objection se fonde sur une mauvaise compréhension fondamentale de la structure des inférences analogiques et par conséquent représente mal le rôle joué par l'analogie dans la justification de cette croyance. Certains arguments peuvent être appropriés pour tirer des conclusions à partir de cas uniques. Nos commentaires en faveur de cet argument par analogie n'éliminent pas toutes les difficultés qui l'affrontent.

**Keywords:** Analogy, hasty generalization, other minds, inference to the best explanation, relevance

## 1. Introduction

The problem of other minds is to justify belief in the existence of minds (i.e., conscious experiences) in individuals other than oneself, given that one has access only

to one's own conscious experiences. The argument by analogy is the most well known of the solutions offered to this problem: Others are like me in their behavior, physiology, and other traits; I have conscious mental states or experiences; therefore, in virtue of the analogy, others probably have conscious mental states as well. However, at least since the mid-twentieth century, philosophic opinion is that the argument by analogy ultimately fails because it exhibits a fundamentally weak type of inference based on a single instance (a hasty generalization) that makes it either insufficient or unreliable as the basis for belief in other minds. The current paper argues that the hasty generalization objection fundamentally misconstrues the inferential structure of arguments by analogy by running together two distinct concerns about warranted inferences, and so misrepresents the significance of analogy in the justification of belief in other minds. The inferential strength of arguments by analogy rests on the degree of similarity between analogues, and not the number of analogues, as the hasty generalization objection would have it. Understanding this point about arguments by analogy deflects the hasty generalization objection, even though other problems may remain for the argument by analogy for other minds (e.g., relevance of similarities). Additionally, a result of the current analysis is that the argument by analogy for other minds is not replaced by an inference to the best explanation; in fact, the two arguments may be mutually interdependent as a solution to the problem of other minds. The point of the current paper is to focus critical attention where it is most salient in the assessment of the argument by analogy for other minds.

## **2. Hasty Generalization Objection**

The hasty generalization objection to the argument by analogy for other minds has been formulated in a variety of ways.<sup>1</sup> John Dupré's reaction against the argument by analogy is a representative example:

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<sup>1</sup> Norman Malcolm (1958) is most often associated with this criticism. An informative survey of this and other objections to the argument by analogy can be found in Hyslop & Jackson (1972), Hyslop (1995), and Plantinga (1966).

An inductive argument based on observation of one case to a generalization over a population of billions is hardly deserving of the title ‘argument.’ The reason we do not accept inductive arguments based on a single instance is that we cannot, in general, have any reason to suppose that the observed case is typical. One would be in error, for example, in concluding on encountering a radio that all hard rectangular objects emitted complex and cacophonous sounds. In the present case, the very point at issue is whether consciousness, the property at issue in the argument from analogy, is a property peculiar to myself or more widely distributed. If the former, skeptical hypothesis is correct then the inductive argument—the argument from analogy—is worthless; to accept it is thus to beg the skeptical question entirely. (Dupré, 1996: 325.)

Inferences from a single case are notoriously impoverished because the amount of evidence provided by that single instance is simply too small to warrant any substantive generalization. Thus Dupré’s criticism targets the argument by analogy for other minds as drawing a general conclusion on the basis of an extremely small sample size, a sample of one. But Dupré conjoins this claim with another, that because the sample size is so small, it raises concerns about the representativeness of that sample, which is a chief question in the argument by analogy for other minds: whether consciousness is a property peculiar to myself or more widely distributed. If the argument by analogy from one’s own case is to get any traction, according to Dupré’s hasty generalization objection, it must show that a single instance is sufficiently representative of the population over which the inference ranges. The problem of other minds is especially troubling in this regard. In order for one’s own experience to provide justification for belief in other minds one’s own case must be taken as representative of the population. Yet, the problem of other minds is set up so that the only source of information about minds and the distribution of conscious mental states in the population is one’s own case. As Dupré puts it, the argument by analogy for other minds “begs the skeptical question” regarding the representativeness of that single case; if the argument is intended to establish a rational grounds for inferring other minds, it does so only by assuming that the single instance of

one's own mind is representative of others, when that is the question at hand. A single case can't reasonably be expected to provide a representative sample.

It doesn't help the proponent of the argument by analogy for other minds to counter this objection by suggesting that the inference to other minds is not an inference from a *single* instance, but rather is actually based on numerous instances of self-observation spread over a variety of situations and times (Ayer, 1953; Hampshire, 1952). Nor does it help to claim that the argument by analogy does not generalize over a large population as a whole, but instead draws an inference from oneself to one other individual, and then to another individual, and so on (Sikora, 1977). The cumulative effect of these moves is the same: The collection of instances upon which the inference is based, though various or established one by one in sequential order, are still drawn from a single individual. The hasty generalization objection still applies.

The proper response to the hasty generalization objection is not to deny that the argument by analogy for other minds is an inference from a single instance, but rather to demonstrate that the hasty generalization objection misunderstands the inferential claim made by the argument by analogy. The hasty generalization objection runs together two related but distinct concerns about warranted inferences, namely the concern about sufficient sample size and the concern about the representativeness of the sample. Although related, these two concerns are logically independent. For instance, an argument may possess a large sample size, but still be subject to the worry that the sample is not representative of the population. Inductive generalizations often are concerned to have a sufficiently varied sample, not merely a large sample. On the other hand, an argument may have a very small sample size but not be subject to worries regarding representativeness. Provided that the population lacks a certain degree of variation, the sample size of an argument may be small. That is to say, the greater the homogeneity of the population, the smaller the sample size required to warrant a general conclusion.

Although sample size and representativeness of sample are often related, there is no necessary connection between the two. The hasty generalization objection treats these two concerns as identical: if one draws an inference from a single case, then one is automatically subject to problems of representativeness of the sample. This may be true of inductive generalizations, but the argument by analogy for

other minds is strictly speaking not a form of inductive generalization. In fact, arguments by analogy may be uniquely qualified to support inferences from a single case, in part because the logical structure of the analogy attempts to address the need for representative evidence in a limited sample. Arguments by analogy have inferential structures distinct from inductive generalizations that the hasty generalization objection wrongly disregards.<sup>2</sup>

Inductive generalizations are arguments that reason from a sample of a population to a claim about the population as a whole. If I want to draw a conclusion about the color of all or most swans, I take a sample from a variety of different swans. Generally speaking, the more swans I observe, the stronger the inference. The inferential strength of an inductive generalization about swans is based primarily on the size and variety of the sample for the simple reason that the more swans sampled, the greater my confidence that whiteness is a property of all or most swans. It demonstrates the sample is more likely representative of the population over which one is generalizing. The inferential structure of inductive generalizations can be schematized as follows:

(I1)  $A_1, A_2, A_3, \dots$  and  $A_n$  each have property  $z$ .

(I2) Therefore, All (or most)  $A$ s probably also have property  $z$ .

Thus, when it comes to inductive generalizations, it is reasonable to object that a small sample size ( $n$ ), especially a sample size of one, is inadequate to generalize over a population, largely because it is likely to be unrepresentative of the population; that is the thrust of Dupré's objection.

However, when we look at arguments by analogy we find that the inferential structure is significantly different. Analogical arguments draw a conclusion about one thing on the basis of its *similarity* to another thing.  $A$  and  $B$  are analogous because they share a number of properties, say,  $w$ ,  $x$ , and  $y$ . Since  $A$  and  $B$  (the analogues) share properties  $w$ ,  $x$ , and  $y$  (the similarities); and  $B$  has this further property  $z$  (the target property), the argument recommends the conclusion

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<sup>2</sup> I am not alone in arguing that analogical arguments are distinct from inductive generalizations, see Govier (1989) and Shaw & Ashley (1983). However, I am not aware of anyone using this distinction as a basis for defending against the charge of hasty generalization in the way I propose.

that *A* probably also has this further property *z*.<sup>3</sup> An argument by analogy can be expressed in the following schema:

- (A1) *A* is similar to *B* in that they share the properties *w*, *x*, and *y*.
- (A2) *B* has the further property *z*
- (A3) Therefore, *A* probably also has the further property *z*.

Even though it may be desirable to have more than a single coupling of analogues so that *A* is similar to *B1*, and *B2*, and *B3*, and so on, thus establishing a stronger inference base, this is not a necessary condition for a good inference from analogy. The inferential strength of an argument by analogy, its ‘inferential hinge-pin’ as it were, is derived from *the degree of similarity that holds between the analogues*. This is in contrast to inductive generalizations, in which the inferential hinge-pin is the number of cases used to infer a general conclusion. Yet, similarity serves essentially the same purpose in analogy as sample size does in inductive generalizations. The similarity between the analogues is meant to provide greater confidence in the representativeness of the one analogue with respect to the target property. As the degree of similarity between *A* and *B* increases—by whatever measure appropriate—the probability and confidence that *A* and *B* share further properties is increased. That is to say, the degree of similarity gives reasons to think—provides some warrant—that there is an underlying systematic or structural commonality between *A* and *B*, from which one would expect further similarities to be likely. In effect, the degree of similarity provides reasons for thinking that a single pairing of analogues can address the representativeness problem of inferences from a single case. Thus, the argument by analogy is uniquely situated to address inferences from a single case – from a single pairing of analogues – such as we find in the problem of other minds. So long as there is a high degree of similarity between myself and others, the argument by analogy provides some warrant for belief in other minds.

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<sup>3</sup> This type of analysis is well entrenched in the literature. The modern philosophical account can be traced back to David Hume (1739-40) and John Stuart Mill (1850); more recent analyses include Barker (1980) and Govier (1992).

I have simplified the inferential demands of arguments by analogy. The strength of an argument by analogy requires more than mere similarity, it requires similarities *relevant* to the target property. More accurately, the strength of an argument by analogy depends on the number of relevant similarities, and inversely the number of relevant dissimilarities. But the main point against the charge of hasty generalization remains intact: because of the inferential structure of arguments by analogy it does not matter that the analogy is drawn only from one instance. In the case of the argument by analogy for other minds, what matters is the degree or number of relevant similarity (and degree or number of relevant dissimilarity) between myself and others. The charge of hasty generalization fundamentally misunderstands the inferential structure of the argument by analogy and so mistakenly applies a standard rule of inductive generalizations to another species of inductive argument. Even if the analogy can't conclusively establish knowledge of other minds, it provides rational grounds for the belief.

### 3. The Value of Analogy

At this point it might be objected that the differences between the argument by analogy and inductive generalization are really not all that significant. The differences may be surface differences or simple notational differences of a common underlying logical form. Thus, it has been argued that the logical form of arguments by analogy should be understood as essentially the same as inductive generalization. For instance, Ehninger and Brockreide (1963), Copi (1982), and Lycan (1988) treat arguments by analogy as reducible to a form of inductive generalization, what has been referred to as 'induction by enumeration' or 'inference from parallel cases'. (See also Grennan 1997: 215-16). Consider Michael Scriven's account of arguments by analogy as a form of inductive generalization.

The logical structure of this argument [by analogy] is essentially reasoning from the existence of some similarities to the presence of another similarity. It could be described as reasoning from a sample of properties, which turn out to be common to two

systems, to the conclusion that another property is also probably common to both systems. If you think back to the type of inference that's involved in going from a sample to properties of a population, you can see that this is a case of inferring from samples of the properties of two objects to a generalization about most of their properties, and hence to the conclusion that a particular one of interest will be shared by both of them. (Scriven, 1976: 211).

Although there is merit in thinking such a reduction is possible—because the proper form of arguments is always a matter of debate—I do not see the value of such a reductive move in the case of arguments by analogy. To put it simply, a reduction removes what is unique and intriguing in analogical reasoning merely for the sake of simplicity and without any added insight. In fact, such a reduction loses explanatory grasp of arguments by analogy. Analyzing the inferential structure of analogical arguments as inductive generalizations does away with any necessary mention of *similarity* between analogues as the basis for the inference, in essence rewriting the argument form so that it explicitly excludes mention of the analogy except as incidental. Scriven's (1976) account does exactly this by redescribing the inferential basis of the analogy as “a sample of properties, *which turn out to be common to two systems*” (emphasis added), as if it was accidental to the inference that the properties are shared or common to the two systems. This defeats the purpose of understanding analogical arguments as analogies. I argue above that the inferential hinge-pin of arguments by analogy is not simply a sample of properties of the analogues, but instead the degree or number of relevant similarity (and degree or number of relevant dissimilarity) that holds between the analogues. The logical analysis of the argument should capture this feature. Moreover, researchers on analogy, such as Helman (1988), Gentner (2003 and 1998), and Holyoak & Thagard (1995) are explicitly interested in analogy understood as a form of reasoning which maps properties across two or more domains, where “[a]nalogies are partial similarities between different situations that support further inferences.” (Gentner 1998: 107). The emphasis on similarity is important because there appear to be deep psychological differences in the way inductive generalizations and analogies are carried out;



different types of insights and errors are exhibited in the different forms of reasoning. Computer models and simulations of analogical thinking pick out these insights more accurately if designed as picking out similarities that map across domains under certain constraints. (Gentner, 1983; Hellman, 1988; Holyoak & Thagard, 1995). I suspect these features of the psychological models should be reflected in our understanding of the logical form and normative assessment of these analogical argument types as well.

Nevertheless, even if the analysis of arguments by analogy favored a reduction to the logical form of inductive generalization, it would do little to deflate the main point regarding the analogy to other minds argued above. For even with inductive generalizations there may be times when it is perfectly legitimate to infer from a single case, namely when one suspects there is a great deal of (relevant) similarity between the instance at hand and the population over which one wants to generalize. It is not unheard of to draw conclusions about, say, the element gold, from the basis of some experiment on a single lump of gold. We assume, justifiably so, that the similarities between this single instance of gold and the general population of the element gold are quite stable (invariant), and thus does not merit extensive reduplication of the experiment on other lumps of gold to establish the generalization. That is to say, judgments about the variance in the population determine the requisite sample size: the less variance in a population (relative to the target property) the fewer samples needed to warrant a generalization (see also Holland, et al., 1986: 231-32). Here, invariance and similarity are conceptual siblings. Explicitly emphasizing the role of similarity in such inferences is more productive for theorizing and evaluating this type of inference.

The similarities shared between two objects offer a degree of confidence that those objects will resemble each other in some other respect. I believe this is the intuitive appeal of the argument by analogy when thinking about the problem of other minds. In addition, pragmatic considerations suggest analogy is a useful way of overcoming the stipulated deficiency of the inference base in the problem of other minds. Of course, the analogy to other minds does not guarantee one's knowledge in this regard, since it is a defeasible argument type. But this lack of guarantee shouldn't lead one to think that there is no basis

for the inference. Theoretical concerns might motivate a skepticism about the warrant provided, but only if they improperly identify the logical structure of the inference. The logical point about arguments by analogy, as Shaw & Ashley (1983: 426) reaffirm, is that the perceived similarities provide some “positive epistemic warrant, however small.” At the very least, the argument by analogy for other minds gets the inferential ball rolling.

#### 4. Additional Challenges

I have dispatched one traditional problem raised against the argument by analogy for other minds. However, there remain other challenges that still face the argument by analogy for other minds. One challenge that faces the argument by analogy for other minds involves the degree of dependence or independence the analogy has with other argument forms, such as inference to the best explanation (e.g., Stemmer, 1987; Melnyk, 1994; Pargetter 1984). Even if it is conceded that the form of the argument is a genuine analogy distinct from inductive generalizations and that arguments by analogy are uniquely situated to provide inferential warrant from a single instance, it may be objected that the argument has an extremely limited application for establishing belief in other minds. At best, it shows that other humans are only *possible candidates* for possessing mental states. On this objection, analogical arguments don’t provide genuine warrant for believing that others have minds, they only provide possible hypotheses in need of further testing; that is, the argument by analogy can provide only a pre-theoretical warrant. As such, the argument by analogy for other minds, on its own, provides little warrant beyond mere possibility. That is to say, what is needed is something like an inference to best explanation in order to determine the acceptability of the hypotheses produced by the analogy. For instance, Davis (1997) argues that analogies may provide us with hypotheses about the existence of other minds, but the source of the hypotheses may be irrelevant or unimportant in justifying belief in the existence of other minds. What is important is not the source of the hypotheses, but instead the manner in which the hypothesis is stated and how or whether it is tested by further evidence. This latter condition gives warrant to epistemic claims—not the mere formulation of the hypothesis or pre-theoretical warrant. If that is so, according

to this objection, the argument by analogy for other minds provides such a weak inferential warrant that we might as well do away with it so long as we have a better alternative. By using an inference to the best explanation, for instance, certain behaviors can be explained by appealing to hypothesized mental states of the person without having to appeal to problematic notions of similarity or inferences from a single case. The veracity of an inference to best explanation would be borne out by the predictive and explanatory success of the hypotheses (when compared to alternative hypotheses) not to the analogy between myself and others. In this way the argument by analogy for other minds is highly dependent on other inferences, such as inference to the best explanation, to provide justification for belief in other minds. Given the dependence of the argument by analogy on other inferences to warrant belief in other minds, according to this objection, it is disposable in favor of other arguments, such as the inference to the best explanation.

In response, it is not clear that an inference to the best explanation can actually replace the argument by analogy as a warrant for belief in other minds. First, the source of the hypothesis does have some relevance to the future testing of the hypothesis, contrary to Davis' (1997) claim. An inference to the best explanation will be successful only if it can show that appealing to conscious mental states better explains behavior than does a competing hypothesis. One such competing hypothesis is that behavior is explained by non-conscious or non-mental internal states of the person. What recommends the conscious mentalistic hypothesis over the non-mentalistic one? Predictive and explanatory success of the hypothesis will be crucial, of course, but one obvious answer is the argument by analogy: it provides a greater prior probability to the conscious mentalistic hypothesis than to the non-conscious or non-mentalistic alternative (Melnik, 1994), if for no other reason than one's experience strongly argues against the non-conscious hypothesis. There would be no reason to think that the best explanation of another's behavior is mentalistic if we did not first appeal to some analogy with our own case. Analogical arguments don't provide mere *possible* hypotheses, but *plausible* hypotheses and so provide some warrant to believe others have minds. Thus, there is an obvious disanalogy between scientific inferences to unobserved phenomena (i.e., inferences to the best explanation) and inferences to other

minds. In the latter, but not the former, we have reason to appeal to our own "introspective" experience as the epistemic warrant. Analogy with one's own case plays a central role in motivating the hypothesis as well as providing justification for belief in other minds.

As an aside, there may be independent reasons for not attempting to replace the argument by analogy for other minds with an inference to best explanation. If the inference to best explanation were the rational foundation for belief in other minds then it seems reasonable to expect that one should attribute conscious mental states to any number of other creatures or artifacts that behaved similarly. For instance, we should be equally comfortable with a mentalistic explanation of non-human animals and robots as we are with the mentalistic explanations of humans, because of the explanatory power of such attributions. But there are many who are reluctant to do so, and for good reason. How can this disparity be explained? According to the argument by analogy, the greater the (relevant) similarity between myself and others the greater the support for belief in other minds. But since other non-human animals and robots all have interesting differences with ourselves (or are more dissimilar to oneself than other humans) we have reason to be cautious when attributing conscious mental states to these non-human creatures and artifacts. This is not to say that other non-human animals and artifacts do not or could not have mental states, but rather that the argument by analogy explains the typical reluctance one might have when attributing mental states to non-human entities. The inference to the best explanation does not appear to be able to account for this difference.

Second, we should be careful not to confuse the role that arguments by analogy and inferences to the best explanation are playing in the justification of belief in other minds. Justification of belief and explanation are not identical projects. The argument by analogy for other minds is meant only to provide warrant for the belief in the existence of conscious mental states in others, not necessarily explain what role these conscious mental states play in behavior. The inference to the best explanation is concerned with the latter. And it is always possible that better explanations of behavior will be had that don't appeal to conscious mental states. However, the possibility that non-conscious or non-mentalistic hypotheses may do a better job of explaining behavior does little to threaten the warrant provided by the

argument by analogy for other minds. The argument by analogy for other minds is only supposed to warrant the plausibility of belief in other conscious mental states, not necessarily the explanatory function of conscious mental states. If it turns out that competing hypothesis that don't appeal to conscious mental states are more successful at explaining behavior, this does not show that conscious mental states don't exist in others, only that conscious mental states don't play the role that the inference to best explanation originally suggested (e.g., if epiphenomenalism is a better explanation). Yet, in order to explain behavior by reference to conscious mental states, as the inference to best explanation attempts to do, one must first have reasons for believing there are such mental states that plausibly explain observed behavior. This is what the argument by analogy supplies.

It would be convenient if the argument that justifies belief in other minds could also provide some explanatory direction. However, this is not a requirement for justifying belief in other minds. Explanatory support for belief in other conscious minds might be provided by argumentative strategies other than the argument by analogy for other minds, such as inference to the best explanation, but this would be *in addition to* the core function of the argument by analogy. In order to warrant the belief in other conscious minds, all the argument by analogy for other minds has to do is get the ball rolling, it doesn't have to keep it rolling. No single analogy provides all relevant relations; analogies don't stand alone, and probably never should (Holyoak & Thagard 1986). For that matter, no single argument should be expected to do all the work. So it is not clear that an inference to the best explanation can replace the argument by analogy, nor can it do without analogy. One might go so far as to say that the argument by analogy and the inference to best explanation for other minds are mutually interdependent; each relies on the other to counteract their respective shortcomings. The argument by analogy for other minds needs the inference to the best explanation to extend its epistemic warrant by providing additional evidence to support the hypothesis of other minds, and an inference to the best explanation needs the argument by analogy to suggest plausible hypotheses and to temper its explanatory progress.

Another challenge that still confronts the argument by analogy for other minds involves how we make sense of

relevance in arguments by analogy. I remarked earlier that good analogical arguments require not just similarity, but numbers of *relevant* similarities (and low numbers of *relevant* dissimilarities) with regard to the target property. One might raise a skeptical worry regarding relevance: even though the argument by analogy may rely on similarities to draw the inference to other minds, it is not clear how the similarities are shown to be relevant to the target property, without begging the question. (Goodman, 1972; Pargetter, 1984; Lehman, 1997). For instance, there are many similarities between myself and others, but there are also many similarities between myself and, say, the table at which I am sitting: we both have three spatial dimensions, are equal distances from San Diego, are not identical to the number 3, and so on. Given the degree of similarity between myself and the table, why should I not also conclude that this table has conscious mental states like my own? We may in fact believe that these similarities are not very important, but—as the objection goes—it is very difficult to see how we can argue that these similarities are not important, without begging the question about why these and not those similarities are relevant. In some cases, it is argued that the inference to best explanation avoids this problem of relevance and thus should replace the argument by analogy as justification for belief in other minds (e.g., Pargetter, 1984).

Since the inferential value of arguments by analogy relies crucially on relevant similarities, relevance is a challenging problem, perhaps the most challenging problem facing the analysis of analogical arguments in general, and argument by analogy for other minds in particular. We may have intuitive ideas about which similarities are relevant to the target property in analogical inferences, but intuition is not sufficient for an analysis of the argument. Relevance of similarities to the target property may be determined by any number of properties: perceptual properties, underlying structural properties, or even higher order properties of the analogues. There is no simple solution. Strategies for determining the relevance of similarities in the argument by analogy for other minds will likely be couched in terms of background knowledge, practical demands of the inference, and any number of entrenched assumptions about warranted inferences.

However, we should keep in mind that the problem of relevance is not restricted to arguments by analogy alone. Inductive generalizations face a version of this problem:

determining the representativeness of a sample will require some account of what properties of the sample are relevant for the conclusion. Likewise, an inference to the best explanation will have to employ a notion of similarity in identifying the class of objects to be explained, so it is also faced with the challenge of relevance. The same can be said of most other forms of inductive inference. Also, concerns about relevance can provide a basis for skepticism about induction more generally. Thus the fate of the argument by analogy rests with the fate of inductive generalizations, inferences to best explanations, and other inductive inferences; relevance is a challenge inherent in any inductive inference. In this regard, the argument by analogy for other minds fares no worse than other inductive arguments aimed at solving the problem of other minds. But we need not wait for a comprehensive philosophical account of relevance nor a defense against skepticism about induction before we can appreciate the merits of the argument by analogy for other minds. At the very least, recognizing relevance as a central problem for the argument by analogy for other minds has the virtue of placing critical focus where it belongs, on the appeal to similarities between oneself and others, and not on the fact that it is an inference from a single case.

## **5. Conclusion**

I have argued that the argument by analogy for other minds can be defended against the hasty generalization objection because the objection wrongly identifies the inferential structure of arguments by analogy. If the current analysis of analogical inferences is on target, then arguments by analogy may be uniquely situated to deal with a limited inference base because its inferential value, its inferential hinge-pin, rests on the similarities between analogues, not the quantity of analogues. If one objects that belief in other minds is not adequately warranted by arguments by analogy, then the alternatives may not be any more promising in their rejection of analogical inferences. An inference to the best explanation may supplement the argument by analogy for other minds, but the inference to the best explanation doesn't successfully replace the argument by analogy for other minds. Nor can the inference to best explanation do without the argument by analogy, suggesting a mutual interdependency relationship between the two inference types. Yet, the problem of

relevance remains a serious challenge for analogies, and for inductive inferences more generally. Nevertheless, it appears that the argument by analogy for other minds is indispensable in warranting the belief in conscious mental states of others and thus cannot be so easily dismissed, as contemporary philosophic opinion would have it.<sup>4</sup>

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