

INDUCTION AND OTHER MINDS

ALVIN PLANTINGA

I WISH TO CONSIDER a line of objection to the traditional Analogical Argument for other minds. Perhaps we may introduce it by considering A. J. Ayer's statement of that argument: "On the basis of my own experience I form a general hypothesis to the effect that certain physical phenomena are accompanied by certain feelings. When I observe that some other person is in the appropriate physical state, I am thereby enabled to infer that he is having these feelings; feelings which are similar to those that in similar circumstances I have myself."¹ Noting that this formulation seems open to the "one case alone" objection, Ayer suggests that

the objection that one is generalizing from a single instance can perhaps be countered by maintaining that it is not a matter of extending to all other persons a conclusion which has been found to hold for only one, but rather of proceeding from the fact that certain properties have been found to be conjoined in various circumstances. . . . So the question that I put is not: Am I justified in assuming that what I have found to be true only of myself is also true of others? but: "Having found that in various circumstances the possession of certain properties is united with the possession of a certain feeling, does this union continue to obtain when the circumstances are still further varied? The basis of the argument is broadened by absorbing the difference of persons into the difference of the situations in which the psychophysical connections are supposed to hold."²

This version of the Analogical Argument may bear fuller statement. Initially it is pointed out that while a person can observe another's behavior and circumstances, he cannot perceive another's mental states. "The thoughts and passions of the mind are invisible," says Thomas Reid³; "intangible, odorless and inaudible," we might add; "and they can't be tasted either." Hence we cannot come to know that another is in pain in the way in

¹ *The Problem of Knowledge* (Harmondsworth, 1956), p. 249.

² *Ibid.*, pp. 250-251.

³ Reid, *Works*, p. 450.

which we can learn that he has red hair; unlike his hair, his pain cannot be perceived. And, on the other hand, although some propositions ascribing pain to a person are incorrigible for *him*, no such proposition is incorrigible for anyone else. We cannot observe the thoughts and feelings of another; so we cannot *determine by observation* that another is in pain.

But here a preliminary difficulty must be dealt with: can't we sometimes *see that* a man is in pain? Can't we sometimes see that someone is thinking, depressed, or exuberant? And if *anything* would be "determining by observation" that another is in pain, surely *seeing that* he is would be: so why is a tenuous analogical inference necessary?

The Analogical Position must concede that there is an ordinary use of "see that" in which one can see that someone else is in pain. In that same use, one can see that a child has measles, that a pipe will give a sweet smoke, and that electrons of a certain sort are sporting in the cloud chamber. One can even see (if one reads the newspapers) that John Buchanan of the House Un-American Activities Committee referred (no doubt mistakenly) to the Imperial Wizard of the Ku Klux Klan as the "Inferior Lizard." In the same use of the term the theist, impressed by the harmony and beauty of the universe or the profundity of the Scriptures, may justifiably claim to see that God exists.

And so of course the Analogical Arguer's use of "determine by observation" will have to be a technical use. How is it to be explained? Perhaps he can't explain it fully; perhaps he must give examples and hope for the best. One can determine by observation that Johnny's face is flushed and covered with red spots; one cannot determine by observation, in this special sense, that his blood contains measles germs. One can determine by observation that today's newspaper contains the sentence "Mr. Buchanan referred to the Imperial Wizard as the 'Inferior Lizard'"; but if one is not present at the hearings one cannot determine by observation that Mr. Buchanan thus misspoke himself. Furthermore, in the technical (but not the ordinary) use of the term, the sentence "S determines by observation that S' is in pain only if S is the same person as S'" expresses a necessary truth, as does the sentence

“S determines by observation that a bodily area contains a pain only if he feels a pain in that area.”

Now suppose we use “determines₁” for the narrower sense and “determines₂” for the broad. Then, the Analogical Arguer continues, a man can determine₂ that Mr. Buchanan referred to the Wizard as a lizard only if he determines₁ the truth of some *other* proposition, and knows or believes a proposition connecting what he determines₁ with the proposition about Mr. Buchanan and the Wizard. In the same way I can determine₂ that Jones is in pain only if I know or believe some proposition connecting what I determine₁ with his being in pain; and it is this knowledge that, according to the Analogical Position, I can get only *via* an Analogical Argument.

Whether this response to the objection is altogether satisfactory is not my concern here; let us suppose for the sake of argument that it is. According to the Analogical Position, therefore, I cannot determine₁ by observation that some other person is in pain or that some person is feeling pain in a bodily area in which I feel nothing. Nevertheless I have or can easily acquire evidence for such propositions. Let us say that *S*'s *total evidence* is the set of propositions such that *p* is a member of it if and only if (1) *p* is either necessarily true or solely about *S*'s mental states or solely about physical objects, or a consequence of such propositions⁴ and (2) *S* knows *p* to be true. According to the Analogical Position, my total evidence yields an argument for each of the above conclusions. For

- (1) Every case of pain behavior such that I have determined by observation whether or not it was accompanied by pain in the body displaying the behavior in question *was* accompanied by pain in that body.⁵

Applying the so-called “straight rule” of induction, I conclude that:

⁴ Where a necessary (but not sufficient) condition of a proposition's being solely about my own mind or physical objects is that it not entail the existence of mental states that are not mine.

⁵ Where the term “pain behavior” is simply a label for a recognizable pattern of behavior (and hence from the fact that a man displays pain behavior it does not follow that he is in pain).

- (2) Probably every case of pain behavior is accompanied by pain in the body displaying it.

But then on a certain occasion I observe that

- (3) *B* over there (a body other than my own) is displaying pain behavior.

From (2) it follows that *B* is pained; since I don't feel a pain there, I conclude that

- (4) Some other sentient creature has a pain.

But here an objection arises. Consider how I establish (4): I observe that *B* is displaying pain behavior, and no matter how intensely I concentrate, no matter how carefully I canvass my feelings, my attempt to feel a pain in *B* is futile. I feel no pain there. But does not this state of affairs provide me with a *disconfirming instance* of (2)? Should I not reject the suggestion that *B* contains a pain in favor of the conclusion that (2) is false? Consider the following analogy. Justice Douglas is walking through Racehorse Canyon, idly inspecting his surroundings. It occurs to him suddenly that every maple in the Canyon of which he has determined by observation whether it has leaves, has indeed had leaves. (Peculiar things occur to Justice Douglas.) So, he concludes, probably all the maples in Racehorse Canyon have leaves. Walking a bit further, he encounters another maple. Carefully inspecting this one, he fails to see any sign of leaves. He concludes that the maple has leaves he cannot see.

This procedure on Justice Douglas' part is surely perverse and absurd. What he should have concluded is not that there are leaves he cannot observe but that some of the maples in Racehorse Canyon lack leaves. And, by analogy, should not I take my failure to observe pain in *B* to provide me with a *counter instance* to the generalization that every case of pain behavior is accompanied by pain in the body displaying it?

One who accepts the Analogical Position, of course, will be quick to reject this suggestion. And perhaps his answer could proceed along the following lines. There is a difference, in general, between failing to observe the presence of *A*'s and observing

the absence of *A*'s (observing that no *A*'s are present).⁶ A man may fail to see the mountain goats on a distant crag without thereby seeing that no mountain goats are there. But just as there are circumstances in which killing someone constitutes murdering him, so there are circumstances in which failing to perceive a thing constitutes perceiving its absence. If, for example, a person with good eyesight is looking at a maple 10 feet away to see if it has leaves (and the light is ample, his view of the tree is unobstructed, etc.), but he does not see any leaves, then in failing to see leaves he sees that the tree has no leaves. We might call any set of conditions in which failing to observe leaves on a tree constitutes observing that it has no leaves, an *optimal* set of conditions for observing the presence or absence of leaves. And though it might be a bit difficult, perhaps, to specify the members of such an optimal set, there is no doubt that we are sometimes in circumstances of just that sort. Now if a man justifiably believes that he is in an optimal set of conditions for observing whether or not a tree has leaves, and fails to observe that it does, then he can justifiably believe that he is observing the absence of leaves there; perhaps, indeed, he is *rationally obliged*, in these circumstances, to take it that there are no leaves on the tree.

On the other hand, of course, if he knew that he was *not* in a position to observe whether leaves were present or absent, then his failure to observe leaves could scarcely oblige him to take it that he has a counter instance to the generalization in question. More generally, under what conditions is a man obliged to take his observing an *A* and failing to observe that it is *B* as providing him with a counter instance to *All A's are B*? Consider the following three conditions:

- (5) There are no possible circumstances in which failing to observe that an *A* is *B* constitutes observing that it is not *B*.
- (6) No one can ever be in a position to determine by observation that an *A* is not *B*.
- (7) It is not possible to determine by observation that an *A* is not *B*.

(6) and (7), I believe, entail each other and each entails (5).

⁶ I owe this way of putting the distinction to Professor Robert C. Sleigh Jr.

I am also inclined to think that (5) entails (6) and (7) on the grounds that the proposition *If it is possible to determine by observation that an A is not B then there are possible circumstances in which failing to observe that an A is B constitutes observing that it is not B* appears to be necessarily true.

These three conditions hold with respect to determining by observation whether or not a given bodily area is pained. There are no circumstances in which failing to feel pain in a body other than my own, for example, constitutes determining by observation that it is free from pain; I cannot observe the absence of pain in a body other than mine. But of course the same really holds for my own body as well; as Wittgenstein says, it is logically possible that someone else feel a pain in my body; hence I can not determine by observation that my body is free from pain (although of course I can tell that *I* do not feel a pain there). Now a man who *knows* that one cannot tell by observation that a given bodily area contains no pain is not obliged to conclude that he has a counter instance to (2). So presumably

- (8) A person *S* is obliged to take his observing that something is *A* and failing to observe that it is *B* as providing him with a counter instance to *All A's are B* only if (a) he does not know that it is impossible to determine by observation that an *A* is not *B*, and (b) he does not know that there are no circumstances in which failing to observe that an *A* is *B* constitutes observing that it is not *B*, and (c) He does not know that he cannot be in a position to determine by observation that an *A* is not *B*.

Since, of course, I might very well know any or all of these three things, I am not obliged, in discovering that (3) is true, to take it that I have a counter instance to (2); and hence this objection to the Analogical Position fails.

The fact that one cannot observe the absence of pain delivers the Analogical Position from the above objection; that fact, nevertheless, is the rock upon which it founders. To see this we must characterize more fully the sort of argument which, on the Analogical Position, is available to each of us. Let us say that a *simple inductive argument for S* is an argument of the following form:

Every *A* such that *S* has determined by observation whether or not

A is B is such that *S* has determined by observation that *A* is *B*.⁷
Therefore, probably every *A* is a *B*.

And let us say that a *direct inductive argument for S* is an ordered pair of arguments of which the first member is a simple inductive argument *a* for *S*, and the second a valid deductive argument one premiss of which is the conclusion of *a*, the other premisses being drawn from *S*'s total evidence.

The contention of the Analogical Position, then, is that for any person *S* (or at least for most persons) there is a direct inductive argument for *S*, for such conclusions as that at a given time *t* someone other than *S* is in pain. But this is not all that the Analogical Position holds. For it is of course possible that there be for a person *S* a direct argument for *p* although *p* is improbable on *S*'s total evidence. What the Analogical Position must hold here is that for any person *S* there are direct arguments for the propositions in question and no comparable evidence against them: they must be *more probable than not* on his total evidence.

Finally, according to the Analogical Position, the bulk of my common sense beliefs⁸ about minds and mental states must be more probable than not on my total evidence. It is not sufficient that my total evidence confirm the proposition that there are other sentient beings; it must also confirm, in one way or another, the whole range of common sense belief about the behavioral accompaniments or aspects of anger, joy, depression, pain, and our beliefs about the connections between body and mind generally. It need be no part of the Analogical Position to maintain that for *each* of these propositions there is, for me, a direct argument. For some of them, perhaps, my only evidence is the fact that they are probable with respect to *other* propositions for which I do have direct arguments. But each (or most) of us must have a basic set *K* of such propositions for each member of which he has

⁷ This account would be complicated but not essentially modified if it were so generalized as to take account of the sort of argument where, of his sample of *A*'s, *S* determines by observation that *m/n* of them are *B* and concludes that probably *m/n* *A*'s are *B*.

⁸ The term "belief" is here so used that "Jones believes *p*" is not inconsistent with (and indeed is entailed by) "Jones knows *p*."

a direct argument; and perhaps the remainder of his relevant common sense beliefs can be shown to be confirmed by the conjunction of the members of K . Furthermore, then, not only must each member of K be more probable than not on my total evidence; their *conjunction* must be. This, of course, is a much stronger claim; it is possible that $p_1 \dots p_n$ are individually more probable than not on q while their conjunction is not.⁹ And among the members of K we should certainly find such propositions as the following:

- (a) I am not the only being that feels pain.
- (b) There are some pains that I do not feel.
- (c) Sometimes certain areas of my body are free from pain.
- (d) There are some pains that are not in my body.
- (e) There are some cases of pain that are not accompanied by pain behavior on the part of my body.
- (f) I am the only person who feels pain in my body.
- (g) Sometimes someone feels pain when I do not.

(a)-(g), of course, are stated for *me*; but there is for any person an analogue, in an obvious sense, of each of those propositions. Now, perhaps, we can summarily restate the Analogical Position as follows:

- (9) For any (or almost any) person S there is a set of propositions K such that the appropriate analogues of (a)-(g) are members of K ; and S 's total evidence *directly supports* each member of K (i.e., for any member m of K there is a direct argument for S supporting m but no direct argument for S against m); and the conjunction of the members of K is more probable than not on S 's total evidence.

So stated, this position is false. The conjunction of (a)-(g) is not more probable than not on the sort of evidence to which the Analogical Position directs our attention; nor (with one exception) does the Analogical Position give us any reason for supposing that (a)-(g) are individually more probable than not on that evidence.

⁹ Let q be *a fair die is about to be thrown*; let p_1 through p_5 be, respectively, *face one will not come up*, *face two will not come up*, *face three will not come up*, *face four will not come up*, and *face five will not come up*. Each of p_1 through p_5 is then more probable than not on q ; but their conjunction is not.

B

Suppose we begin with propositions (a) and (b). Recall that my argument for (a) involves a simple inductive argument from

- (1) Every body which is displaying pain behavior at a time t , and is such that I have determined by observation whether or not a pain was occurring in it at t , is such that a pain *was* occurring in it at t ,

to

- (2) Probably every body which is displaying pain behavior at a time t contains a pain at that time.

But

- (3) B over there (a body other than mine) is displaying pain behavior,

hence

- (10) Probably B contains a pain.

And since I feel no pain in B , I conclude that

- (b) I do not feel every pain.

Of course if B contains a pain, then some sentient creature or other is feeling a pain in B ; hence

- (a) I am not the only being that feels pain.

Such is my evidence, on the Analogical Position, for (a) and (b). There is a peculiarity about the inference of (2) from (1), however, that ought not to pass unmentioned. As we have noted, I determine by observation (in the Analogical Arguer's technical sense) that a given body or bodily area contains a pain just in case I feel a pain there. Further, I cannot determine by observation that a bodily area does *not* contain a pain—not even if the area in question is part of my own body. The best I can do along these lines is to determine that *I* don't feel a pain there; but of course it does not follow that *no one* does. So, for any bodily area, I determine by observation whether or not that area is pained *only if*

what I determine is that it *is* pained. And consequently no counter instance to (2) (the argument's conclusion) can possibly turn up in my sample. There are other arguments of this same sort and most of them deserve to be regarded with grave suspicion. Consider, for example, the inductive argument for epistemological idealism:

- (11) Every physical object of which it has been determined whether or not it has ever been conceived (i.e., perceived or thought of) *has* been conceived.

Therefore,

- (12) Probably every physical object is conceived; so there are no un-conceived physical objects.

Now it might be said that an alleged inductive argument of this sort clearly proves nothing at all. For if there were any counter instances to the conclusion, it would be logically impossible for one of them ever to turn up in the sample; and hence we know, in any instance of this sort, that there is no reason to suppose that our sample is a random or fair one. Suppose we are drawing colored marbles from an inexhaustible urn and know that Descartes' evil genius is so guiding our hands that we draw only red ones; ought we then to take the fact that all the marbles we have so far drawn have been red as evidence for the view that all the marbles in the urn are red? If it is impossible for a counter instance to the conclusion of a simple inductive argument to turn up in its sample (where the conclusion is not itself necessarily true), then the argument is unacceptable. Perhaps we do well, therefore, to accept some such principle as the following:

- A A simple inductive argument is acceptable only if it is logically possible that its sample class contain a counter instance to its conclusion.

Now *A* appears to be inadequate¹⁰ on the grounds that it fails to eliminate certain arguments that such a principle ought to eliminate. Consider, for example, the following argument for the

¹⁰ As I was reminded by Lawrence Powers.

conclusion that I am not the only human person. Let us say that x is a *crowman* just in case x is either a crow or a human body and that a thing is *minded* if it is the (human) body of a human person. Then

- (13) Every crowman such that I have determined by observation whether or not it was either black or minded, *was* either black or minded.

So probably

- (14) Every crowman is either black or minded.

But

- (15) B over there (a human body other than my own) is a crowman and is not black.

Hence B is probably minded; hence there is at least one other human person.

This argument will not meet with instant approval. And yet its premiss will be true for any of us. For any crow in my sample will have the sample property (i.e., the property of being black or minded); my own body will be in my sample and will have the sample property; and of no human body will I be able to determine by observation that it lacks the sample property. Furthermore, the inference of (14) from (13) does not violate A ; clearly it is *possible* (though it will not happen) that my sample class contain a counter instance (a white crow, for example) to (14).

An interesting peculiarity of this argument is that it will not serve to establish that *Negroes* are minded or are human persons; the analogue of (15) will not be true for a Negro. Emboldened by this unexpected turn of events a Southern white segregationist (let us call him Jim Clarke) might go on to insist that for each of us Whites, there is an argument of the following kind for the conclusion that no Negroes have minds:

Where x is a swaneg if x is either a Negro or a swan,

- (16) Every swaneg such that I have determined by observation whether or not it was either white or non-minded *was* either white or non-minded.

So probably

- (17) Every swaneg is white or non-minded.

But

- (18) *S* over there (a Negro) is a swaneg and *S* is not white.

So probably

- (19) *S* is non-minded.

Jim Clarke's argument clearly has a true premiss. Furthermore, it does not run afoul of *A*. But Jim Clarke probably fails to anticipate the reply that we might call "the Black Muslim Retort"; any Negro can argue as follows:

- Where *x* is a *croite* just in case *x* is either a crow or a white human body
- (20) Every *croite* such that I have determined by observation whether or not it was either black or non-minded, *was* black or non-minded.

So probably

- (21) Every *croite* is either black or non-minded.

But

- (22) Jim Clarke over there is a *croite* and Jim Clarke is not black.

So probably

- (23) Jim Clarke is non-minded.

None of these arguments violate *A*; and this is best construed as a deficiency of *A*. Perhaps, therefore, we can restate *A*. Let us suppose for the moment that we know what it is for a property to have a disjunct or conjunct: the property of *being black or minded*, for example, has as a disjunct the property of *being black*. And let us say that a property *P* is a part of a property *P'* just in case *P* is the same property as *P'* or *P* is a disjunct, conjunct, antecedent, or consequent of *P'* or of a part of *P'*. Then

- A'* Where α , β , is an inductive argument for *S*, β is of the form *All*

A's have B, and where C is any part of B, α , β is acceptable for S only if the propositions S has examined an A and determined by observation that it lacks C and S has examined an A and determined by observation that it has C are both logically possible.

I am not certain that A' rules out all of the sorts of arguments it is designed to. With sufficient patience and ingenuity we could perhaps construct an argument that does not violate A' but is nonetheless preposterous in pretty much the same way as the above arguments. But at any rate A' seems to be *true*. And if it is, the argument from (1) to (2) must be rejected, so that we are left without a direct argument for (a) or (b).

The following (merely suggestive) argument indicates that *any* direct argument for (a) will run afoul of A' . To get a direct argument for (a) we must first, presumably, get a direct argument for (b) (there are some pains I do not feel). (b) will presumably follow from some proposition of the form

(24) Every case of φ is accompanied by pain meeting condition ψ ,

together with a premiss asserting that I have observed a case of φ but feel no pain meeting condition ψ . The proposition (call it 24') of the form exhibited by (24) will not, of course, be necessarily true; it will require inductive support. But any simple inductive argument for (24') will run afoul of A' , since its premiss will be of the form

(25) Every case of φ such that I have determined by observation whether or not it was accompanied by pain meeting condition ψ was so accompanied.

(24'), of course, need not be the conclusion of a simple inductive argument; perhaps it follows from propositions of the forms

(26) Every case of φ is a case of β .

and

(27) Every case of β is accompanied by pain meeting condition ψ .

But then obviously the same problem will arise with the proposition of the form depicted in (27) (which is of course the same form

as depicted in [13]). It looks as if any direct argument from my total evidence for (a) will involve a simple inductive argument for a proposition like (24'); but in that case we will find that no such direct argument for (a) is palatable if we accept A' . The fact that one can't observe the absence of pain appeared earlier to deliver the Analogical Position from disaster; here it returns to wreak vengeance upon it.

But perhaps we should ask at this juncture whether the argument I gave above for A' is conclusive. (It *does* seem a bit harsh to insist that my observing that *some* cases of pain behavior are accompanied by pain, gives me no reason at all for supposing that all such cases are so accompanied.) I think the argument is indeed conclusive; but on the other side it might be urged that we never have good reason to suppose that the sample of an inductive argument is a fair sample. This last is a large and complex question. Fortunately we need not enter it at present. For we cannot succor the Analogical Position by rejecting A' ; if we reject A' (and adopt no similar principle) we then open the gates to direct argument from my total evidence *against* (a) and (b):

- (28) Every pain which is such that I have determined by observation whether or not it was felt by me, was felt by me.

So probably

- (29) Every pain is felt by me

which is the denial of (b), and of an essential premiss in our argument for (a). This, no doubt, is a preposterous argument. And yet its peculiarity consists just in the fact that it violates A' ; if we reject A' we must accept this argument as of equal weight with the argument *for* (b). But then so far as direct arguments are concerned, the *denials* of (a) and (b) are as probable on my total evidence as (a) and (b) themselves, in which case my total evidence does not directly support the latter. Whether or not A' is to be accepted, therefore, my total evidence does not support (a) and (b).

C

Next, let's consider

- (c) Sometimes certain areas of my body are free from pain.

Each of us takes a proposition like (c) to be evidently and obviously true. What sort of evidence, according to the Analogical Position, do I have for (c)? I can't, of course, *observe* the absence of pain in my body any more than I can observe its absence in some other body; it is logically possible that when I feel no pain in my arm, someone else does.

However, it does not follow from this (contrary to what one might be tempted to suppose) that I can never, on the Analogical Position, get evidence for the proposition that a certain area of my body is at a certain time free from pain. For evidence of the following sort is available to me:

- (30) Every pain which is such that I have determined by observation whether or not it was accompanied by pain behavior on the part of the body in which it was located, has been so accompanied.

So probably

- (31) Every pain is accompanied by pain behavior on the part of the body in which it is located.

(And of course this inference does not violate *A'*.) But

- (32) At present my body is not displaying pain behavior.

Hence probably

- (33) No area of my body is presently pained.

From which, of course, (c) follows. Accordingly my total evidence provides me with a direct argument for (c). We might be tempted to think that it also provides me with a direct argument against (c). Consider those ordered pairs (a, t) whose first members are areas of my body and whose second members are times:

- (34) Every ordered pair (a, t) which is such that I have determined

by observation whether or not *a* was pained at *t*, has been such that *a* was pained at *t*.

So probably

- (35) Every ordered pair (*a*, *t*) is such that *a* is pained at *t*.

But then

- (36) Probably every area of my body always contains a pain.

But the inference of (35) from (34) runs afoul of *A'*, along with, apparently, any other direct argument from my total evidence against (c). If we accept *A'*, therefore, we get a direct argument for (c) but none against it; hence on *A'* the Analogical Position with respect to (c) appears to be vindicated.

We might note parenthetically that if *A'* is to be rejected, my total evidence provides me with direct arguments for propositions even more preposterous than (36); if we let "a" range over human bodies generally, the analogue of (34) will remain true and we get the conclusion that probably every area of every human body is always pained. If we let "a" range over areas of physical objects generally the analogue of (34) still remains true and we get the outrageous result that probably every area of every physical object is always pained. Leibniz and Whitehead apparently overlooked this fertile source of evidence for certain of their conclusions.

D

- (d) There are some pains that are not in my body.

and

- (e) There are some cases of pain that are not accompanied by pain behavior on the part of my body

may be considered together. What presents itself as the direct argument for (d) is the following:

- (1) Every body which is displaying pain behavior at a time *t* and is such that I have determined by observation whether or not a pain was occurring in it at *t*, is such that a pain *was* occurring in it at *t*.

Hence

- (2) Probably every body which is displaying pain behavior at a time t contains a pain at that time.

But

- (3) B over there (a body other than mine) is displaying pain behavior,

hence

- (10) Probably B has a pain.

Hence

- (d) There are some pains that are not in my body.

The argument for (e) shares steps (1), (2), (3), and (10) with the above argument. If in addition

- (37) My body is not now displaying pain behavior

is part of my total evidence, (e) follows.

The inference from (1) to (2), again, is ruled out by A' . And, as in the case of (a) and (b), if we accept A' we appear to have no direct argument at all for either (d) or (e). On the other hand, my total evidence appears to provide me with direct arguments *against* both (d) and (e):

- (38) Every pain which is such that I have determined by observation whether or not it was in my body, *was* in my body.

Hence probably,

- (39) All pains are in my body.

This argument does not violate A' . But is it an acceptable inductive argument? It might be objected that it is *causally impossible* for a person to feel pain anywhere but in his own body, and that, where it is impossible to observe an A which is B (although possibly some A 's are B), it is illegitimate to conclude that no A 's are B from a premiss reporting that no observed A 's are B . Now if a man *knows* that it is impossible to observe an A

which is *B*, then indeed he cannot reasonably conclude that no *A*'s are *B* from the fact that every *A* which is such that he has determined by observation whether or not it is *B*, has turned out not to be *B*. But things are quite different if he does not know this: ignorant of the fact that one cannot see mountain goats on a glacier at 800 yards, a tenderfoot might sensibly conclude, after futilely inspecting Kulshun Glacier from that distance several weeks running, that no mountain goats frequent it. And, of course, as an Analogical Arguer I don't initially know that one can feel pain only in his own body; it is just this sort of belief that the Analogical Argument is supposed to ground and justify. This argument, therefore, is apparently successful.

A similar direct argument holds against (e). Every case of pain which is such that I have determined by observation whether or not it was accompanied by pain behavior on the part of my body *was* so accompanied; probably, therefore, every case of pain is accompanied by pain behavior on the part of my body, in which case (e) is false.

If we accept *A'*, therefore, we get direct arguments against (d) and (e) but no direct arguments for them. If we reject *A'*, of course, we get direct arguments both for and against them; hence in neither case does my total evidence directly support either (d) or (e).

E

This brings us to

(f) I am the only person who feels pain in my body

and (g)

(g) Sometimes someone feels pain when I do not.

Does my total evidence provide me with a direct argument for (f)?
Apparently not.

(40) Every pain in my body which is such that I have determined by observation whether or not it is felt by me, has been felt by me

presents itself as the relevant premiss; but of course the argument

from (40) to (f) flatly conflicts with A' . Nor, on the other hand, does my total evidence seem to provide me with a direct argument against (f). To get such an argument we should need a direct argument for

(41) Sometimes my body contains a pain I do not feel.

And in order to do that we should need to employ some such premiss as

(34) Every ordered pair (a, t) such that I have determined by observation whether a was pained at t is such that a was pained at t .

But as we have already seen any simple argument with (34) as its premiss will violate A .

Now suppose (as seems to be the case) that my total evidence yields no direct argument for (f) but does yield a direct argument for p and for q , where p and q are logically independent of each other, of (f), and of my total evidence; and where the conjunction of p with q entails (f). (In such a case, let us say that my total evidence provides an *indirect* argument for [f].) Would it then follow that my total evidence supports (f)? No. It is of course true that if p is more probable than not on q , and p entails r , then r is more probable than not on q . But from the fact that p is more probable than not on q , and r is more probable than not on q , it does not follow that p and r is more probable than not on q . And of course where p and q are logically independent and q supports p and q supports r , q supports the conjunction of p with r to a lesser degree than it supports either p or r . So even if my total evidence yielded an indirect argument for (f), it would not follow that my total evidence supports (f). But the fact is that we seem to be unable to find even an indirect argument from my total evidence. That evidence, as we have seen, yields a direct argument for

(42) Whenever my body is pained, it displays pain behavior

and for

(43) Whenever my body displays pain behavior, I feel pain.

But (42) and (43) do not entail that I feel every pain in my body

or that I alone feel pain in my body; they entail only that whenever *anyone* feels pain there, I do. We seem, therefore, to be able to find neither a direct nor an indirect argument for (f) if we accept *A'*; if we reject *A'*, of course, we will find direct arguments both for and against (f).

(g) Sometimes someone feels pain when I do not

resembles (f) in that there seems to be no direct argument from my total evidence either for or against it. It differs from (f) in that there seems to be an indirect argument *against* it. My total evidence directly supports

(44) Every case of pain is accompanied by pain behavior on the part of my body.

It also yields an argument for

(45) Whenever my body displays pain behavior, I feel pain.

But (44) and (45) entail

(46) Whenever any sentient being feels pain, I feel pain,

which is the denial of (g).

The upshot of the above is clear. If we reject *A'*, we find that a person's total evidence provides direct arguments both for and against each of those common sense beliefs which, of the Analogical Position, it is alleged to support. But if we accept *A'* (as I believe we should) we still find that a man's total evidence does not support the conjunction of those common sense beliefs. It does not even support the conjunction of the members of *K*. Indeed, it does not so much as support the members of *K* individually; (c) alone appears more probable than not on my total evidence while (d), (e), and perhaps (f) appear to be improbable on it. What the Analogical Arguer should conclude is that every pain occurs in his own body and is accompanied by pain behavior on

the part of his body (so couldn't he perform a splendid humanitarian service by *destroying* that wretched body?)

The conclusion to be drawn, I believe, is that the Analogical Position is untenable.¹¹

Calvin College.

¹¹ I wish to record my gratitude to Hector Castañeda, Edmund Gettier, Keith Lehrer, and Robert C. Sleigh Jr. for stimulating discussion and acute criticism. I am especially indebted to Sleigh and Gettier, with whom I have discussed the topics of this paper often, at great length, and over a period of several years. The ideas in the paper grew out of these discussions and are theirs as much as mine. (So of course they must share responsibility for all of my errors.)