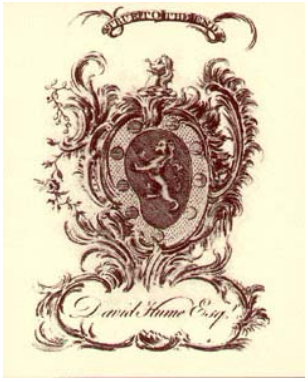

Is there a Prussian Hume? Or How Far Is It from Konisberg to Edinburgh?

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Hume Studies Volume VIII, Number 1 (April, 1982), 1-18.

IS THERE A PRUSSIAN HUME?

or

How Far Is It from Könisberg to Edinburgh?

Lewis White Beck has recently argued[1] that Hume, in spite of his empiricist commitment, implicitly recognized the limitations of that position when he incorporated in his thinking ideas that are essentially Kantian and incompatible with his official empiricism. Beck is not, of course, the first so to argue; Robert Paul Wolff made a similar claim some years ago in a well-known paper.[2] Wolff's case has, however, been challenged,[3] and it is the aim of the present paper to challenge Beck's somewhat different case.

Beck argues[4] that Hume has two causal principles:

(1) Every event has a cause

(2) Same cause, same effect

the second of which he claims Hume defends, and the first of which he claims Hume does not defend. He then turns to the case of perception, where we observe an object once intermittently and once continuously. The result is a gappy series of impressions in the first case, and a non-gappy one in the second. The existence of the gap falsifies principles (1) and (2). In order to save principle (2), Beck argues,[5] Hume relies on principle (1). The latter enables Hume to "feign" unobserved events to fill the gap. But (1) is also falsified by the empirical data, that is, the existence of the gap. So this appeal to (1) is illegitimate. At least it is illegitimate if the only support we are permitted to use is observational data. And that is all that the official Hume, committed to empiricism, is permitted to use. However, Hume does use (1), contrary to what his official position allows. This suggests that he recognizes, what Kant explicitly argued, that there are non-empirical reasons justifying the acceptance

of (1).[6] And it is here that we see the Prussian aspects of the Scots sceptic.

Beck's case depends upon three points:

(a) He must separate principles (1) and (2).

(b) He must argue that gappy series of impressions are filled by appealing to (1).

(c) He must argue that gappy series of impressions falsify (1), rendering its use to fill those gaps illegitimately.

In what follows it is argued that the distance from Königsberg to Edinburgh cannot thus be bridged. Specifically, it is argued, first, that (a) is false, or, more specifically that for Hume (2) entails (1); second, that, when (1) and (2) are so understood, then (b) is partially correct; and third, that, when (1) and (2) are taken as Hume takes them, then (c) is incorrect: the gaps do not falsify (1), its use remains legitimate.

I

Let us begin with principle (2), the "same cause, same effect" principle.

This principle is Rule 4 of Hume's *rules by which to judge of causes and effects.*[7] He states it as *The same cause always produces the same effect, and the same effect never arises but from the same cause.* (T173) Rules 1-3 give the analysis of the causal relation insofar as it is an objective relation among things.[8] Rule 4 then makes a claim about events and causes. Rule 4 is followed by four rules which are the best statement of Mill's Methods of eliminative induction prior to Herschell's Preliminary Discourse. When one of these methods is used, the data eliminate all possible hypotheses but one, and the conclusion is that this uneliminated hypothesis must be true, correctly describing the relevant causal relation. Hume carefully points out that we draw this conclusion not from the data alone, but

also from the "same cause, same effect" principle. Thus, when Hume states Rule 5, the method of agreement, he writes

> *There is another principle, which hangs upon this* [i.e., upon Rule 4, "same cause, same effect"], *viz. that where several different objects produce the same effect, it must be by means of some quality, which we discover to be common amongst them. For as like effects imply like causes, we must always ascribe the causation to the circumstance, wherein we discover the resemblance.*
> (T174, italics added)

We can bring out the logic of the situation if we translate this into the symbols of logic. Suppose we have three hypotheses:

(i) $(\underline{x})\,(\underline{G}_1\underline{x} \equiv \underline{D}_1\underline{x})$[9]

(ii) $(\underline{x})\,(\underline{G}_2\underline{x} \equiv \underline{D}_1\underline{x})$

(iii) $(\underline{x})\,(\underline{G}_3\underline{x} \equiv \underline{D}_1\underline{x})$

and the observational data

(iv) $\underline{G}_1\underline{a}\ \&\ \underline{G}_2\underline{a}\ \&\ \underline{G}_3\underline{a}$

$\underline{G}_1\underline{b}\ \&\ \sim\underline{G}_2\underline{b}\ \&\ \sim\underline{G}_3\underline{b}$

These date eliminate (ii) and (iii) as false, and tend to confirm (i). But the tendency is only modest. Clearly, we cannot from these alone infer that (i) obtains. In order to draw the latter conclusion we need an additional premiss. If we have

(v) $\mathit{G}\underline{g} \equiv :\ \underline{g} = \underline{G}_1 \vee \underline{g} = \underline{G}_2 \vee \underline{g} = \underline{G}_3$

then (i) follows from (iv) in case that

(vi) $(\exists\underline{g})\ [\mathit{G}\underline{g}\ \&\ (\underline{x})\ (\underline{g}\underline{x} \equiv \underline{D}_1\underline{x})]$

Now, since this is the premiss that is required to make the eliminative mechanisms work, and since Hume asserts that it is Beck's principle (2) of "same cause, same effect" that makes those mechanisms work, then we should, I suggest, use (vi) to help us understand the logical import of Hume's principle.

(vi) asserts that for every $\underline{D}_1$-event there is a unique event-sort of genus G such that an event of this sort

is necessary and sufficient for the D_1-event. Paraphrasing, this asserts that for this effect there always is a cause. But

(vii) $(x)[(\exists g)(Gg \ \& \ gx) \equiv D_1x]$

also says that. However, (vii) permits both

$$G_1a \ \& \ D_1a$$

and

$$G_2a \ \& \ D_1a$$

whereas (vi) asserts this to be impossible. (vii) asserts the effect always has a cause but allows it to be a different cause on different occasions. (vi), in contrast, asserts that the effect always has a cause and that it is always the same. In other words, if (vi) holds, then, for this effect anyway, "same effect, same cause".

What I am suggesting, of course, is that (vi) gives the logical form of Beck's principle (2). In contrast, (vii) gives the logical form of Beck's principle (1). If this is so, then the logical relation between the two is evident: (vi) entails (vii) and therefore, similarly, (2) entails (1). This in turn makes it clear why Hume finds it "more convenient" to answer the question why same-cause-same-effect and then to "sink" the question why every-event-same-cause in it, in the expectation that *'twill, perhaps, be found in the end, that the same answer will serve for both questions.* (T82) Hume describes how (2) is supported, but never returns to (1). Beck suggests that therefore (1) is never defended by Hume (cf. T171) though, as Beck then goes on to argue, Hume later implicitly uses the principle (1) when he comes to discuss gappy series of impressions. However, since (2) entails (1), if Hume gives reasons for accepting (2) he has eo ipso given reasons for accepting (1). Once we understand the logic, we understand why Hume has no need to return to (1), once he has defended (2). Thus, if we interpret Hume as I am suggesting, then we can make sense of what he says and avoid Beck's accusation that Hume fails to defend a principle upon which he must rely at a crucial point.

The preceding remarks constitute the core of the case against Beck's claim that Hume defends principle (2) but not principle (1). A few more remarks are called for, however. For, (vi) is not exactly Hume's Rule 4; (vi) is in fact far too specific. We can get to Hume's Rule by noting that (vi) would normally be taken as an application of a more general principle. If we have, say,

(viii) $D\underline{f} \equiv : \underline{f} = \underline{D}_1 \vee \underline{f} = \underline{D}_2 \vee \underline{f} = \underline{D}_3$

so that

(ix) $D\underline{D}_1$

holds, then (vi) follows from

(x) $(\underline{f})[D\underline{f} \supset (\exists : \underline{g})[G\underline{g} \ \& \ (\underline{x})\ (\underline{g}\underline{x} \equiv \underline{f}\underline{x})]]$

In general, however, we may expect the general G and D to be given, not by enumeration or extension, as in (v) and (ix), but only intensionally. If we now take D to be the most generic of predicates, "is a property of events", and if we take G to have built into it the ideas of contiguity and temporal priority,[10] which Hume's Rules 1 and 2 lay down as definitory of causes, then (x) asserts that for every sort of event there is a causal law that explains events of that sort--i.e., "the same effect never arises but from the same cause." The converse, "the same cause always produces the same effect," will have a similar logical form.

We should also note, however, that even though the form of (x) is more complex than that of (vi), our point against Beck remains. For, we can still distinguish (x)--"same effect, same cause," that is, Beck's principle (2)--from

(xi) $(\underline{f})[D\underline{f} \supset (\underline{x})\ [(\exists \underline{g})(G\underline{g} \ \& \ \underline{g}\underline{x}) \equiv \underline{f}\underline{x}]]$

which asserts that "for every event there is a cause," that is, Beck's principle (1). As (vii) is entailed by but does not entail (vi), so (xi) is entailed by but does not entail (x). If, therefore, Hume can give reasons for accepting (2) = (x), then he has given reasons for accepting (1) = (xi), and Beck's criticism that Hume defends only (2) and not (1) does not stand.

II

Hume says of principle (2), the rule "same cause, same effect," when he introduces it with the "rules by which to judge of causes and effects," that

> *This principle we derive from experience...* (T173) *It, and therefore, as we have just argued, principle (1), receives inductive support from experience. Just how does Hume conceive this?*

We can become clear on this if we look at an example Hume has used earlier in order to illustrate the role that this principle of "same cause, same effect" plays in our attribution of causes.

> *The vulgar, who take things according to their first appearance, attribute the uncertainty of events to such an uncertainty in the causes, as makes them often fail of their usual influence, tho' they meet with no obstacle nor impediment in their operation. But philosophers observing, that almost in every part of nature there is contain'd a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find that 'tis at least possible the contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark, that upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual hindrance and opposition. A peasant can give no better reason for the stopping of any clock or watch than to say, that commonly it does not go right: But an artizan easily perceives, that the same force in the spring or pendulum has always the same influence on the wheels; but fails of its usual effect, perhaps by reason of a grain of dust, which puts a stop to the whole movement. From the observation of several parallel instances, philosophers form a maxim, that the connexion betwixt all causes and effects is equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes.* (T132)

We have an event of type $\underline{C}$ (the watch is wound) followed sometimes by an event of type $\underline{D}_1$ (the watch hands turn) and sometimes an event of type $\underline{D}_2$ (the watch hands are stationary).

$\underline{D}_1$ and $\underline{D}_2$ are contrary; the two cannot occur together. The vulgar attribute the contrariety of effects to chance. Philosophers, in contrast, accepting the "same cause, same effect" principle, must attribute the different effects to different causes. Assuming $D\underline{D}_1$ and $D\underline{D}_2$ then it follows by the principle (x) that

(xii) $(\exists : \underline{g})[G\underline{g} \ \& \ (\underline{x})(\underline{g}\underline{x} \equiv \underline{D}_1\underline{x})]$

and

(xiii) $(\exists : \underline{g})[G\underline{g} \ \& \ (\underline{x})(\underline{g}\underline{x} \equiv \underline{D}_2\underline{x})]$

Note that these are existential hypotheses: they assert that certain G's exist, that there are these event-types, but they do not say what, specifically, these types are. (xii) permits us to introduce a definite description, say 'ϕ_1', to refer to the type it asserts is there; and (xiii) permits us to introduce another, say 'ϕ_2', to refer to the type it asserts is there. This permits us to rewrite (xii) and (xiii) respectively as

(xiv) $(\underline{x})(\phi_1\underline{x} \equiv \underline{D}_1\underline{x})$

and

(xv) $(\underline{x})(\phi_1\underline{x} \equiv \underline{D}_2\underline{x})$

Since $\underline{D}_1$ and $\underline{D}_2$ are contrary, it follows that ϕ_1 and ϕ_2, whatever they are, are also contrary, and therefore, of course, non-identical.

Once we know that the ϕ_i exist, there is a research task, namely, to identify these causes. What the "artizan" has done, in contrast to the vulgar, is carry out this task. He has discovered that the watch doesn't run ($\underline{D}_2$) when a speck of dust is present (call this property '$\underline{G}_2$'), and that it does run when it is absent (call this '$\underline{G}_1$'). What the artizan has discovered, in other words, is that

(xvi) $\phi_1 = \underline{C} \ \& \ \underline{G}_1$

and

(xvii) $\phi_2 = \underline{C} \ \& \ \underline{G}_2$

or, what amounts to the same, that

(xviii) $(\underline{x})\ [(\underline{C}\underline{x}\ \&\ \underline{G}_1\underline{x}) \equiv \underline{D}_1\underline{x}]$

and

$$(\underline{x})\ [(\underline{C}\underline{x}\ \&\ \underline{G}_2\underline{x} \equiv \underline{D}_2\underline{x}]$$

The discovery of these laws confirms the existential hypotheses (xii) and (xiii) by actually identifying the causes that the hypotheses assert are there.

Indeed, it is precisely because there are discoveries like this that the "same cause, same effect" principle may be taken as confirmed. Let us suppose we have confirmed the laws that $\underline{G}_1$ is the unique cause of $\underline{D}_1$, $\underline{G}_2$ the unique cause of $\underline{D}_2$, and $\underline{G}_3$ the unique cause of $\underline{D}_3$. Assuming the $\underline{G}_i$ are all $\underline{G}$'s, it follows immediately that for $\underline{i}$ = 1, 2, 3

(xx) $(\exists:\underline{g})[G\underline{g}\ \&\ (\underline{x})\ (\underline{g}\underline{x} \equiv \underline{D}_i\underline{x})]$

Assuming the $\underline{D}j$ are all D's, we can immediately generalize from these specific laws to the law about laws (x). We now come across a hitherto unexamined D, say $\underline{D}_4$. From (x) we infer that

(xxi) $(\exists:\underline{g})[G\underline{g}\ \&\ (\underline{x})\ (\underline{g}\underline{x} \equiv \underline{D}_4\underline{x})]$

and the research task is then to identify the G that this existential hypothesis asserts to exist. Suppose we do identify such a unique G; let it be $\underline{G}_4$. We have then confirmed the law that $\underline{G}_4$ is the unique cause of $\underline{D}_4$. But this entails (xxi) which was what we predicted about $\underline{D}_4$ by means of (x). Since we have thus confirmed what (x) predicts, we have thereby confirmed (x).[11]

The pattern is this: we discover regularities among events. But then we discover that these various specific regularities themselves share a certain form, that is, that there is a regularity about regularities. We move from laws to laws about laws.[12] These laws about laws enable us to predict the sort of law that holds in hitherto unexplored areas. The discovery that a specific law of this sort obtains confirms the law about laws. Of the laws about laws that guide research, the most generic is "same cause, same effect."

By virtue of our success in discovering causes, "experience" testifies to the truth of Hume's causal Rule 4, that is, Beck's principle (2)--though, of course, the testimony of "experience" in these matters can, as Hume has argued, never be more than fallible, can never yield absolute certainty; but, as Hume also argues, since such absolute certainty is humanly impossible, it is unreasonable to demand it, and, on the other hand, reasonable to settle for the fallible knowledge that alone we can aspire to with respect to causation.[13]

The watchmaker can actually discover the cause of the watch's stopping. Most of us do not carry our researches through so far. But if we are philosophers we do not do as the vulgar, and attribute the stopping of the watch to chance. Rather, we rely upon the "same cause, same effect" principle to conclude that there is a cause for the watch's stopping. This principle he has found to hold in other cases; this experience justifies his extending to the present case, using it to justify asserting the existential hypothesis that there is a cause operating, even though he has not actually observed this cause that he has justifiably inferred is there. As Hume puts it:

> *From the observation of several parallel instances, philosophers form a maxim, that the connexion betwixt all causes and effects is equally necessary, and that its seeming uncertainty in some instances proceeds from the secret opposition of contrary causes.* (T132, italics added)

Now, observed constant conjunctions give rise to, i.e., cause,[14] causal inference habits. This is direct only at the specific level. For the more generic inference habits, which are habits controlling habits, the causal process is more complicated. Having given his example, Hume proceeds immediately (T133ff) to outline the process by which these complex habits arise and control other habits. We need not go into the details of Hume's account. It is important to notice, however, his characterization of the process: *our reasonings of this kind arise not directly from the habit, but in an*

oblique manner.... (T133) It is important to note, too, that this appeal to general rules corrects more specific judgments, (T150) that is, when it is based upon a rule like that of "same cause, same effect," that experience has adequately testified to, and not, of course, when it is based upon a rule like "Irishmen lack wit" (T146) that experience does not support. As Hume puts it in his slightly ironic way:

> *The following of general rules is a very unphilosophical species of probability; and yet 'tis only by following them that we can correct this, and all other unphilosophical probabilities.* (T150)[15]

We are now in a position to turn to the case of gappy series of perceptions. We watch a fire: events proceed in an order. This order repeats itself when we watch fires: it is a regular pattern. But then we turn our head away, and then turn back: the series of events now has a gap in it. Schematically, we have several series like this

(α) $\underline{H}a_1 \quad \underline{I}a_2 \quad \underline{J}a_3$

(β) $\underline{H}b_1 \quad \underline{I}b_2 \quad \underline{J}b_3$

where we have $\underline{a}_1$ and $\underline{a}_2$ standing in the relation $\underline{R}$ of spatio-temporal contiguity[16] (Hume's Rules 1 and 2); and similarly $\underline{a}_2$ and $\underline{a}_3$, $\underline{b}_1$ and $\underline{b}_2$, and $\underline{b}_2$ and $\underline{b}_3$. But now we observe a series

(ε) $\underline{H}e_1 \quad \underline{J}e_3$

where $\underline{e}_1$ and $\underline{e}_3$ are not spatio-temporally contiguous. Hume's story (T196ff) is that in order to make our perceptions coherent (T195)[17] we fill in the gappy series: we "feign" (T208)[18] the existence of an $\underline{I}$-type event between $\underline{e}_1$ and $\underline{e}_3$. The sequences (α), (β), etc., give rise to a habit of inference, that of inferring an $\underline{I}$-type event will succeed an $\underline{H}$-type event. If we define

$$\underline{W}x =_{Df} (\exists \underline{y}) \ (\underline{R}xy \ \& \ \underline{I}y)$$

then to have this habit amounts to asserting as a law that the

generality

(L_1) (x) ($\underline{H}x \equiv \underline{W}x$)

However, (c) is contrary to this inference habit. (T196) In order to eliminate this contradiction, Hume supposes, that is, forms the existential hypothesis, that there is an I-type event succeeding $\underline{e}_1$.

> *And this supposition, which was at first entirely arbitrary and hypothetical, acquires a force and evidence by its being the only one, upon which I can reconcile these contradictions.* (T197)

The question is, of course, whether our acceptance of this existential hypothesis can be justified.

Hume describes this reasoning as follows:

> *But tho' this conclusion from the coherence of appearances may seem to be of the same nature with our reasonings concerning causes and effects; as being deriv'd from custom, and regulated by past experience; we shall find upon examination, that they are at the bottom considerably different from each other, and that this inference arises from the understanding, and from custom in an indirect and oblique manner.* (T197)

The inference is one of the understanding, and not merely of the imagination. (cf. T148) This by itself shows Hume takes it to be reasonable. He also characterizes the reasonings as arising from custom in *an indirect and oblique manner* -- which is just the way he characterizes reasonings based on the "same cause, same effect" principle when the latter is used to correct the contrariety in our judgments that occurs when secret, i.e., unobserved causes operate. This of course argues that it is similar reasoning that is going on when the gaps are filled. Let us see if we can reconstruct it along these lines.

It might go something like this. Suppose that I is of genus *I*, and, correspondingly, that W is of genus *W*. We can use the "same cause, same effect" principle, i.e., principle (x), or more specific instances of it, to infer about H-type events, that

(L_2) $\quad (\exists :g)[Wg \ \& \ (\underline{x}) \ (\underline{Hx} \equiv \underline{gx})]$

We may suppose that the data about $\underline{a}_2$, $\underline{b}_2$, etc., eliminate all *I* save $\underline{I}$ and therefore all *W* save $\underline{W}$. (L_1) and these data then permit us to conclude that

$$(\underline{x}) \ (\underline{Hx} \equiv \underline{Wx})$$

i.e., (L_1), holds. Thus, (L_1) is both derived directly by custom from, that is, is directly confirmed by the data (α), (β), etc., and is also supported indirectly by the "same cause, same effect" principle, and all the data that support this law about laws. Now, if the inference habit represented by (L_1) were supported only directly by custom from (α), (β), etc., then (ε) would indeed undermine it. However, it also receives indirect support from the "same cause, same effect" principle. And this justifies retaining (L_1) in the face of the apparently contrary (ε). Using (L_1) we can deduce from

$$\underline{He}_1$$

that

(Δ) $\quad (\exists :\underline{y}) \ (\underline{Re}_1\underline{y} \ \& \ \underline{Iy})$

This existential hypothesis permits one to introduce the definite description[19]

$$\delta = (\imath \underline{y}) \ (\underline{Re}_1\underline{y} \ \& \ \underline{Iy})$$

It follows that

$$\underline{Re}_1\delta$$

and

$$\underline{I}\delta$$

which permits us to fill in the gappy series (ε) as

(ε^*) $\quad \underline{He}_1 \quad \underline{I}\delta \quad \underline{Je}_3$

We may conclude, then, that Beck is correct when he suggests that Hume uses his causal principles to fill in gappy series of impressions. But he is wrong in suggesting that Hume

uses only the weaker principle (1), "every event has a cause." For, if the above reconstruction is correct, then what Hume relies on is the stronger principle (2), "same cause, same effect." On the other hand, the crucial point that Beck makes, that Hume needs a principle that justifies an existential hypothesis like (Δ) is perfectly correct.

III

Beck's argument for a Prussian Hume is that a gappy series like (ε) falsifies the "same cause, same effect" principle, and that Hume must rely on some principle that is not based on experience in order to justify the existential hypothesis (Δ). This necessity of relying on a causal principle that lacks empirical support shows that Hume implicitly recognizes the Kantian insight that experience can be filled in only on the basis of synthetic a priori causal principles. Whether Kant is correct, we cannot here discuss. But whether Beck is correct in arguing that Hume must rely on an a priori principle is another thing. In fact, Beck is mistaken.

The question is, does the gappy sense (ε) falsify the law (L_1) that is inferred from the non-gappy series (α), (β), etc.? If it does, then it also shows (as Beck claims) that the "same cause, same effect" principle is false, since we are assuming that the data eliminate all alternatives permitted by (L_2) except (L_1). Now, the principle will be false only if the prediction (Δ) which it yields is false. So the crucial question is equivalent to the question whether (ε) shows (Δ), or, what is the same, (ε*) is false.

But what does the gap in a series like (ε) represent? For Hume, anyway, it represents the failure to observe an event of the I-type between e_1 and e_3. So the question can also be put this way: does the failure to observe an I-type event in relation R to e_1 establish that (Δ) is false, that no such event exists?

And when it is put this way the answer is clear enough. If we have a claim that there is a so and so then a failure to observe a so-and-so does not falsify the existential claim: existential claims are not falsifiable. We may say, then, that so far as concerns the logic of the situation, Beck is mistaken: the existence of gappy series of impressions does not falsify the "same cause, same effect" principle; hence, insofar as that principle is justified, Hume is justified in using it to fill in the gaps in the gappy series; and that principle can in fact be justified by appeal to experience; which means that Hume has no need to appeal to a principle that has no foundation in experience; or, in other words, there is nothing Prussian about the reasoning by which Hume fills in the gappy series.

Of course, to say that the "same cause, same effect" principle is not falsifiable is not to assert that the principle is somehow non-empirical. The non-empirical is not falsifiable but (Popper notwithstanding) the non-falsifiable is not the non-empirical. Nor is it to say that no experience would ever count against the principle. Thus, if we have conducted a search for an I-type event and failed to discover one, and can normally expect to discover such an event in the course of such a search if such an event exists, then that would provide grounds for questioning the causal principle that leads us to conclude such an event exists.

We can lay out the logic of this somewhat more formally as follows. We have it as a law about perception something to this effect:

(O) For any person x, under normal conditions, if place p is in x's visual field, then x sees an I-type event at p if and only if an I-type event exists at p

Assume that our observer h is a person and that conditions are normal. If we have

Place p is in h's visual field

and

h does not see an I- type event at place p

then it follows that

(u) No I-type event exists at place p

if the "same cause, same effect" principle leads us to predict an I-type event exists at p (let p be precisely that place that is R-ed by the place at which e_1 occurs), then we have in (u) grounds for calling that causal principle into question. Of course, we can also argue that since the conclusion drawn from the causal principle contradicts (u), the causal principle calls into question the law (O). This is indeed so: either the causal principle or the law (O) concerning perception must be rejected as false. Which one will be questioned first will depend on their relative inductive support. But however the decision is made it will involve reference to data beyond the state of affairs described by (u). In any case, however, given that (O) has some inductive support, then failing to observe an I-type event, does, to some extent at least, tend to call into question the causal principle.

On the other hand, even if it is true that

h does not see an I-type event at place p

if it is also true that

Place p is not in h's visual field

then we cannot infer from (O) that (u)

No I-type event exists at place p

holds. Thus, if one is not in a position to observe something, then failing to observe such a thing in no way implies that that thing does not exist. If one is watching a series of events, and then turns one's head away for a moment, the failure to observe an event in the series does not enable us to conclude that such an event does not exist. The causal principle leads us to fill in the gap in the series, and in such circumstances nothing in the series of observations calls into question the legitimacy of such a "filling in."

> *...I am naturally led to regard the world, as something real and durable, and as preserving its existence, even when it is no longer present to my perception.* (T197)

It would seem, then, that there is no reason for supposing that Hume must rely on some Kantian principle in order to defend his position on how the understanding can reasonably develop a picture of the world as coherent by filling in the gaps in gappy series of impressions. This is not to say that there are no problems in Hume's theory of the external world. But it is to say that Beck has not succeeded in making an ur-Kantian out of Hume: it is further from Königsberg to Edinburgh than Beck suggests.

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1. Lewis White Beck, "A Prussian Hume and a Scottish Kant", in D. F. Norton, N. Capaldi and W. Robison (eds.) McGill Hume Studies (San Diego: Austin Hill Press, 1976). Also in Lewis White Beck, Essays on Kant & Hume (New Haven and London: Yale University Press, 1978) p.111.

2. R. P. Wolff, "Hume's Theory of Mental Activity", in V. C. Chappell (ed.) Hume (Garden City, N.Y.: Anchor Books, 1977). Beck, op. cit., fn.3, p.63, cites Wolff as arguing a similar thesis.

3. F. Wilson, "Hume's Theory of Mental Activity", in D. F. Norton et al., McGill Hume Studies.

4. Beck, op. cit., p. 71.

5. Ibid., p. 72.

6. Ibid., p. 75.

7. D. Hume, Treatise of Human Nature, ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1888), p. 173.

8. That is, these are the conditions imposed by Hume's first definition of "cause", T172. Hume of course has a second definition of "cause". For the relation between the two definitions, see N. K. Smith, The Philosophy of David Hume (London: Macmillan, 1941), pp.91-2; T. Beauchamp and A. Rosenberg, Hume and the Problem of Causation (London: Oxford, 1981), Ch. I; Wilson, "Hume's Theory of Mental Activity".

9. "Cause" relates, primarily, species of events; cf. Hume, Enquiries concerning Human Understanding and concerning the Principles of Morals, ed. L. A. Selby-Bigge, second edition (London: Oxford, 1902), p. 148.

10. One could also put in anything else one argued ought to be included in the concept of "cause". For example, one could make a reference to process laws in the sense of G. Bergmann, Philosophy of Science (Madison: University of Wisconsin Press, 1957), Ch.II.

11. Compare somewhat similar ideas in I. Lakatos, "The Methodology of Scientific Research Programmes", in I. Lakatos and A. Musgrave (eds.) Criticism and the Growth of Knowledge (London: Cambridge, 1970); and T. Kuhn, The Structure of Scientific Revolutions, Second Edition (Chicago: University of Chicago Press, 1970). Both these thinkers emphasize that what renders a theory or paradigm acceptable is its capacity to successfully predict new (i.e., hitherto undiscovered) laws.

12. Cf. J. S. Mill, System of Logic, Eighth Edition (London: Longmans, 1961), p. 213, pp. 371-2.

13. Cf. N. Capaldi, David Hume (Boston: Twayne Publishing Co., 1975); Beauchamp and Rosenberg, Hume and the Problem of Causation; Wilson, "Hume's Theory of Mental Activity".

14. Cf. Wilson, "Hume's Theory of Mental Activity".

15. For a discussion of another, but related use of the "same cause, same effect" principle, see F. Wilson, "Hume and Ducasse on Causal Inference from a Single Experiment", Philosophical Studies, 35 (1975).

16. One must, of course, attribute a logical structure to R, properties like, e.g., transitivity. Some considerations concerning the relevant structure appear in J. A. Foster, "Psychophysical Causal Relations", American Philosophical Quarterly, 5 (1968).

17. Cf. H. H. Price, Hume's Theory of the External World (London: Oxford University Press, 1940).

18. Note that "feign" need not imply "fictitious"; it can also be used to mean "create" in the way poets create. See fn. 19 below.

19. A definite description, for Hume, would have to be an idea that is both complex and abstract, and therefore created by the mind rather than derived, like simple ideas, directly from impressions. Because it is created by us rather than derived from a direct encounter with the sensible object that it denotes, it is appropriate to say that with non-simple ideas of this sort we are feigning certain hypothetical, i.e., non-observed entities. See fn.18, above.

    Notoriously, Hume had problems with definite descriptions. One has only to think of the missing shade of blue, which is denoted by the definite description "the shade of colour between this shade and that".

18. But everyone prior to Russell had problems with definite descriptions, so Hume is not seriously to be faulted on this matter. The remarks of H. A. Prichard, Knowledge and Perception (Oxford: Clarendon Press, 1950), pp.176-7, on the missing shade of blue are totally unreasonable and unfair.