



OXFORD JOURNALS
OXFORD UNIVERSITY PRESS

The British Society for the Philosophy of Science

The White Shoe: No Red Herring

Author(s): Carl G. Hempel

Source: *The British Journal for the Philosophy of Science*, Vol. 18, No. 3 (Nov., 1967), pp. 239-240

Published by: Oxford University Press on behalf of The British Society for the Philosophy of Science

Stable URL: <http://www.jstor.org/stable/686596>

Accessed: 27/09/2009 21:35

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=oup>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.



Oxford University Press and The British Society for the Philosophy of Science are collaborating with JSTOR to digitize, preserve and extend access to *The British Journal for the Philosophy of Science*.

<http://www.jstor.org>

THE WHITE SHOE: NO RED HERRING

In a recent note,¹ Dr I. J. Good argues that the paradoxes of confirmation are spurious on the ground that one of the two assumptions underlying them is false. I wish to show that Dr Good's argument fails to establish his point.

The paradoxes of confirmation² follow deductively from two assumptions: (a) Whatever confirms a given hypothesis also confirms any logically equivalent one; (b) A hypothesis of the form 'All *F* are *G*' is confirmed by any of its instances, i.e. by any object that is *F* and also *G*; or rather, by any sentence of the form '*i* is *F* and *i* is *G*', where '*i*' is a name of some particular object.

Reasons for construing a hypothesis as confirmed or disconfirmed by evidence sentences rather than by objects were offered in section 6 of my article in *Mind*; to these, there may be added the consideration that one and the same object may have properties that make it confirmatory, and others that make it disconfirmatory for a given hypothesis. A particular bird may be a crow and black, but may also have an albino crow for a sister; in virtue of these properties, it would both confirm and disconfirm the hypothesis 'All crows are black'. This consideration suggests that an object can be said to confirm or to disconfirm a hypothesis only *under a particular description*, and it is descriptions, therefore, that should be counted as confirmatory or as disconfirmatory for a hypothesis.

The two assumptions (a) and (b) imply the paradoxes of confirmation. For example, the hypothesis 'All crows are black', being equivalent to 'All non-black things are non-crows', is confirmed, *inter alia*, by a white shoe, or rather, by the evidence sentence '*s* is not black and *s* is not a crow', where '*s*' is a name of some white shoe. Dr Good argues that assumption (b), which he states in the form 'A case of a hypothesis supports the hypothesis', is simply false, and that, therefore, 'the white shoe is a red herring.'

To establish his point, Dr. Good considers two worlds, let us call them W_1 and W_2 , about which the following information *S* is given: W_1 or W_2 is the world we are in. W_1 contains 100 crows, all of them black, and one million other birds; W_2 contains 1001 crows, of which 1000 are black and one white, plus one million other birds. One bird has been selected equiprobably at random from all the birds in our world. It turns out to be a black crow.—This information, Dr Good argues, provides strong support (in a technical sense which need not be considered here) for the hypothesis that we are in world W_2 , where *not* all crows are black; and he concludes: 'Thus the observation of a black crow, in the circumstances described, undermines the hypothesis that all the crows in our world are black.'

But whatever the merits of this argument may be, it clearly does not refute the assumption (b). For to do so, it would have to show that an evidence sentence of the form *E*: '*c* is a crow and is black' considered by itself and without reference

¹ I. J. Good, 'The White Shoe is a Red Herring', this *Journal*, 17 (1967), 322.

² The paradoxes were stated briefly in my article 'Le problème de la vérité', *Theoria* 3 (1937) (specifically, p. 222) and were developed more fully in subsequent publications, among them 'Studies in the Logic of Confirmation', *Mind*, 54 (1945), section 5; this essay is reprinted, with a 'Postscript (1964) on Confirmation' in my book, *Aspects of Scientific Explanation*, 1965.

to any other information,¹ may fail to support the hypothesis that all crows are black; whereas Dr. Good's example concerns the confirmatory role, not of *E*, but of the vastly stronger evidence sentence *S* stated above. That an evidence sentence which contains *E* as one conjunctive component may be disconfirmatory for the hypothesis in question is perfectly obvious; the sentence '*c* is a crow and is black, and *d* is a crow and is non-black' will do. But assumption (*b*) concerns only the case where the given evidence consists exclusively of a sentence of the form *E*; and that this sentence must be taken to support the hypothesis seems to me undeniable. I conclude, therefore, that the white shoe is not a red herring, after all.

CARL G. HEMPEL

Princeton University

¹ The crucial importance of disregarding additional information in judging the confirmatory relevance of a given evidence sentence for a hypothesis was emphasized in section 5.2(*b*) of my article in *Mind*, where it was pointed out that the very appearance of paradoxicality in cases like that of the white shoe results in part from a failure to observe this maxim.