

Use Novelty: Autopsy or Reanimation?

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In this paper, I examine the main problems that use novelty accounts of confirmation face. In spite of these problems use novelty accounts are very appealing because they try to provide a logical, objective, atemporal and apsychological account of confirmation relations but also because they have quite a few intuitive things to say about what's wrong with ad hoc-ness and what's right with predictions of unknown and even of known phenomena. I suggest a number of potential fixes to the problems and reflect on whether what many consider to be a lifeless theory can be reanimated.

Broadly speaking, predictivist accounts of confirmation hold that predictions of phenomena are confirmationally superior to accommodations. Use novelty accounts are a subfamily of predictivist accounts. They hold that evidence used in the construction of a given theory cannot support that theory, or, at best supports that theory less than non-use constructed evidence. The focus of my discussion is John Worrall's intricate account of use novelty. Worrall is primarily interested in modelling the sort of confirmation relations deterministic theories enter into, namely theories from which we can *deduce* the relevant phenomena (with the help of suitable auxiliaries). In his account these relations hold between a general theory T with one or more free parameters, a specific theory T' developed out of T and evidence e , which may be instrumental in fixing the free parameters of T to yield T' . Worrall adheres to the strict form of Duhem's thesis and thus believes that T is not specific enough to entail any evidence on its own and hence T does not entail e . Only T' may be able to entail e with the help of auxiliaries and the specification of initial conditions. In those cases that it does, we ask whether e supports T' and whether e supports T . According to Worrall, so long as e has not been used in the construction of T it supports T via T' . Similarly, so long as e has not been used in the construction of T' it supports T' . The main difference is that if e has been used in the construction of T' then T' still gets support from e , though such support is *conditional* on accepting T .

Worrall's account is one of the best articulated and most resilient. Having said this, it is afflicted by a number of problems. After considering some problems that have already been discussed in the literature, I expose some new ones. One problem is the failure to recognise that the generality and specificity of theories are relative notions. A theory that is general relative to some other theory may itself be the specific version of another more general theory in which case conditional support for such a theory may also be accrued. Conversely, a theory that is specific relative to some other theory may itself be the general version of a still more specific theory in which case it may earn support also through the non-use constructed evidence of that more specific theory. Another problem is the failure to recognise, especially because of the relativity of the generality and specificity of theories, that general theories entail (and hence gain support from) evidence even without the help of auxiliaries or initial conditions. Even rather general theories put some constraints on what we should expect to observe. This violates the strict form of Duhem's thesis on which Worrall's account is based. Yet another problem concerns an obscure distinction between natural and unnatural auxiliaries that Worrall draws upon. In elaborating his theory, Worrall identifies a special case where support 'spills over' from T' to T . The special case involves the use of what he brands 'natural auxiliaries'. Together with T , these auxiliaries allow for the derivation of e –the conjunction of T with the natural auxiliaries is T' . Worrall says very little about the identity conditions of natural auxiliaries. I take up the task of proposing a number of conditions that such auxiliaries must satisfy in order for them to play the role use novelty accounts demand.