

Contemporary epistemology and IS methodology

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Introduction

Few researchers in IS explicitly link the theoretical foundations of IS with *contemporary* epistemology. This short paper attempt to begin to redress this. This work will be informed by Haack [1]. In contemporary epistemology, a distinction is usually made between *foundationalist* and *coherentist* accounts of epistemology. In essence, the distinction is concerned with the question as to whether any beliefs are privileged over others. It will be argued that both hard and soft systems approaches adopt predominantly foundationalist strategies.

Coherentism

It is doubtful whether coherentist approaches could be sensibly employed within systems analysis, as such approaches are not intended to explain the acquisition of “piecemeal” knowledge:

The characteristic theses of coherentist theories of justification are that justification is exclusively a matter of relations among beliefs, and that it is the coherence of beliefs within a set which justifies the member beliefs. [1] (p. 17)

The “nearest thing” to an example of a coherentist strategy in IS analysis might be the prescriptions to carry out “cross-referencing” between different products, as should be done when using the UK’s Structured Systems Analysis and Design Method (SSADM), for example. If anomalies are generated during the cross-referencing process then this would require some further analysis to be carried out to rectify the situation. However, no methodology (of which the author is presently aware) relies entirely on the procedure of cross-referencing to generate the “true” requirements. Such faith in this procedure would imply that because cross-referencing between different products can be successfully carried out it follows that the products resulting from the analysis of the information system are entirely correct. What happens in such approaches would seem to be that the “elementary” elements of analysis (DFDs, entity models, etc) are seen to be epistemologically foundational - but fallible. Cross-referencing exposes some of the errors made during “elementary” (i.e. foundational) analysis.

Foundationalism and empiricism

Foundationalist epistemologies assume that some beliefs are “privileged” (fundamental, or

more basic) than others:

... [A] theory qualifies as foundationalist which subscribes to the theses:

(FD1) Some justified beliefs are basic; a basic belief is justified independently of the support of any other belief;

and:

(FD2) All other justified beliefs are derived; a derived belief is justified via the support, direct or indirect, of a basic belief or beliefs. [1] (p. 14)

Both IS approaches (hard and soft) subscribe to this thesis; it is in which *type* of beliefs that they privilege that their real differences lie. Haack finds that there are many variants of foundationalism. The two, which are of most importance in this analysis, are (what she characterises as):

1. The experientialist version of empirical foundationalism.
2. The extrinsic version of empirical foundationalism.

Now, 'empiricist' should not be assumed to be "objectivist":

'Empirical', here, should be understood as roughly equivalent to 'factual', not as necessarily restricted to beliefs about the external world... one style of empirical foundationalism [the experientialist version] takes beliefs about the subject's own, current, conscious states as basic, another [the extrinsic version] takes simple beliefs about the external world as basic... [1] (p. 15)

It can now be concluded that, broadly speaking, soft systems approaches assume the experientialist version to be the case, whilst the hard approaches assume the extrinsic version to be the case:

...[A]ccording to the experientialist version of empirical foundationalism, basic beliefs are justified, not by the support of other beliefs, but by the support of the subject's (sensory and/or introspective) experience; according to the extrinsic version of empirical foundationalism, basic beliefs are justified because of the existence of a causal or law-like connection between the subject's having the belief and the state of affairs which makes it true... [1] (p. 15)

Now, what is one to make of statement such as this?:

With regard to epistemology we may identify two extreme positions of positivism

and interpretivism. Positivism is characterised by a belief in the existence of causal relationships and general laws that may be identified and investigated through rational action. In contrast, interpretivism allows that no individual account of reality can ever be proven as more correct than another since we are unable to compare them against any objective knowledge of a 'true' reality. [2] (p. 138)

The "extreme" called 'positivism' may be identified with the extrinsic version of empirical foundationalism, and the "extreme" called 'interpretivism' may be identified with the experientialist version of empirical foundationalism. However, these positions should not be presented as being in binary opposition to each other; both are variants of foundationalism. Furthermore, the more general distinction between foundationalism and coherentism does not even get a mention in such accounts. Consequently, confusion abounds.

Conclusion

There is much to be done to reconcile and re-conceptualise the philosophical foundations of IS methodologies with the categories used in contemporary epistemology. However, a number of current confusions in IS may be avoided by so-doing. This short paper sets out to how such a re-conceptualisation might proceed.

References

- [1] Haack, S. *Evidence and Inquiry*. Oxford: Blackwell, 1993
- [2] Lewis P. *Information-Systems Development*. London: Pitman, 1994