Subjectivity in developing and validating causal explanations in positivist accounting research

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ABSTRACT

Eliminating alternative causal explanations plays an important role in establishing causality. We analyze two strategies researchers use to eliminate alternatives to their preferred causal explanations: providing persuasive evidence against other plausible explanations and developing a preferred explanation in such a way as to limit the number of alternatives against which evidence needs to be provided. Although positivist accounting research aims at objectivity in the use of these strategies, we argue that subjectivity plays an important role as well. We identify and discuss relatively more objective and more subjective components of these strategies for validating and developing causal explanations.

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Introduction

The accounting research that is sometimes labeled as positivist aims at empirically validating general causal explanations of accounting-related phenomena—that is, causal explanations that apply to many instances of a given phenomenon. This research aims at objectivity, in the sense that empirical results and the inferences drawn from them are meant to be independent of the characteristics of the individual researcher. Thus, results of such research are intended to be:

- replicable by other researchers in the same setting;
- reliable across settings that meet the conditions stated by the relevant theory; and
- persuasive within a community of researchers (that is, the results have the power to change the beliefs of other researchers in the community).

Paradoxically, the objective development and validation of causal explanations in this literature are often dependent on subjective judgments and decisions. We identify key

sources of subjectivity and trace their influence on developing and validating causal explanations.

The remainder of our article is organized as follows: The next two sections lay the groundwork for our analysis by providing definitions of key terms and identifying the role of eliminating alternative explanations in establishing causality. The following sections analyze how researchers eliminate alternatives to their preferred causal explanations by validating their preferred causal explanations through persuasive evidence against other plausible alternative explanations and/or by developing their preferred causal explanations in such a way as to limit the number of alternatives against which evidence needs to be provided. In these sections we identify important subjective judgments and decisions that researchers make in both validating and developing their preferred causal explanations. The final section concludes.

Definitions

Positivist research

The accounting research that is sometimes labeled as positivist investigates elements of accounting practice that are common to many instances rather than the unique configuration of common and non-common elements that

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occur in any single instance. Researchers attempt to draw inferences about these common elements from a limited sample of observations. Thus the validity of inferences from the particular to the general is a core concern for this research.

The term "positivist" has been used loosely in accounting research, as in other contemporary social science research, often to denote quantitative hypothesis-testing research. Scholars who do such research often do not accept the classic positivist program of treating the social sciences as identical to natural sciences and discovering stable "laws."[1] Nor do they share the position of some earlier major advocates of positivism, from Comte (Andreski, 1974) to Friedman (1953), that social science should aim at predictions based on observed regularities rather than an understanding of causal processes.

Objective and subjective

Objectivity in developing and validating causal explanations is often considered important in positivist research. We use the term "objectivity" in the sense of epistemic, not ontological, objectivity (Searle, 1995). "Assertions (knowledge and judgments) can be considered [epistemically] objective to the extent that the community in question has agreed-upon criteria for evaluating the justification or evidence for those assertions." (Shapiro, 1997, p. 166). Many accounting phenomena are ontologically subjective, in the sense that they are socially constructed, but analysis of these phenomena can be epistemically objective. As an example of this distinction, paper money is ontologically subjective: it is money because people treat it as money, not because of properties of the paper that are independent of human judgments and decisions. But money is epistemically objective: there are agreed-on criteria for evaluating whether a particular piece of paper with "5 dollars" on it is really money rather than a counterfeit, a toy, or a note about the price of tea.

The objective–subjective distinction is a continuum, not a dichotomy. At the purely objective end of the continuum, a large community agrees completely about the criteria for evaluating assertions (e.g., inferences) and applies these criteria in uniform ways. At the purely subjective end, there is no agreement about criteria for claiming that one assertion is more valid than another: diverse individual judgments cannot be reconciled or ranked. In the middle range of the continuum are degrees of agreement that vary both with respect to the breadth of the community that agree on criteria and the completeness of their agreement.

Causality

We assume that the concept of causality in accounting research is consistent with a probabilistic version of the counterfactual-conditional account of causality. In this concept of causality, "If event x and event y are distinct actual events, then event y causally depends on event x if and only if, if event x had not occurred, then the probability of event y's happening would be less than if event x had happened". (Menzies, 2009) Thus, for example, developing an argument that managers' use of a particular accounting practice x causes high levels of performance y means developing an argument that high levels of performance would be less probable if x were not used.

This definition of causality may seem to exclude many variables used in accounting research, because accounting variables are often represented as facts (e.g., precision of accounting information) rather than events. But in many cases the "fact" is a summary representation of an event or set of related events. For example, to say that accounting information in a given setting has high precision as a measure of managers' efforts is to say that a certain set of events—managers' effort choices and accountants' recording and analysis of indicators of these effort choices—has occurred in this setting.[2]

The role of alternative causal explanations

The concept of causality described above has important implications for developing and validating causal explanations in accounting research, because it makes the role of *alternative explanations* for y salient. For example, evidence that organizations with high performance (y) use accounting practice x more often than low performers does not by itself provide strong support for an argument that x has a causal influence on y, because it does not provide strong evidence about other plausible counterfactual conditionals. That is, it does not provide evidence that the high-performing organizations probably would have had lower performance if they had *not* used x, and that the low-performing organizations probably would have had higher performance if they *had* used x, other things equal. It is possible in principle that the high-performing organizations would have had high performance even without using x—thus causality cannot be claimed—because there is an alternative explanation: the higher performance of these organizations was caused by some other factor z that tended to co-occur with x.

Because the counterfactual by definition is an event that does not occur, researchers do not have direct evidence of what would have happened to a given set of organizations at a given time if they had used different accounting, all else equal. Much of the process of validating a causal explanation consists of finding or creating high-quality proxies for these non-existent counterfactuals, such as:

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[1] For example, Mayntz (2004, p. 239) identifies a large body of social-science research that aims "to avoid the vain search for social laws;" and Engel (2013, p. 6) summarizing behavioral economic research, argues, "Behavioral researchers have no reason to expect natural laws. They may at best find typical patterns."

[2] Some versions of the counterfactual–conditional approach to causation also allow for the use of variables that cannot be represented as events: "The [counterfactual conditional] definition of causal dependence ... takes the primary relata of causal dependence to be *events*. ... However, very different conceptions of events are compatible with the basic definition. Indeed, it even seems possible to formulate it in terms of facts rather than events (For instance, see Mellor, 1995, 2004.)" (Menzies 2009).