

## DIVIDED BY A COMMON LANGUAGE? A RESPONSE TO MARSHALL SCOTT POOLE

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### Abstract

Marshall Scott Poole identifies some important issues in the treatment of adaptive structuration theory in our review of the use of Giddens's structuration theory in IS research (Jones and Karsten 2008). We argue, however, that a number of his criticisms reflect differences in our respective use of particular terms and that the statements made in Jones and Karsten are reasonable, especially in the light of Giddens's own writings. There are some substantive differences between our position and that of Poole, though, especially in relation to the distinctiveness and compatibility of positivist and interpretive research, and the immateriality of Giddens's structures. Arguments are presented to show that, as Jones and Karsten discussed, Giddens's position is able to offer a plausible and self-consistent account of IS phenomena, including those such as the role of material artefacts in the U.S. legal system,

"distributed cognition," and the use of GDSS that Poole suggests are incompatible with Giddens's account of structuration.

### Introduction

We are grateful for Marshall Scott Poole's thoughtful comments on Jones and Karsten (2008) and welcome this opportunity to debate some important issues and to clarify a number of points that we were evidently unable to address adequately in the original paper. Our discussion will focus on the two aspects of the argument presented in Jones and Karsten with which Professor Poole takes issue: our "reading" (Poole 2009, p. 583) of adaptive structuration theory (AST) and associated empirical work and the contention that structures exist only as memory traces. Before addressing these points, however, we briefly set out the central argument of Jones and Karsten, to establish the context within which the statements that Poole challenges were made, and provide definitions of some key terms to establish the specific sense in which they were used in that paper.

### The Central Argument of Jones and Karsten

Jones and Karsten is a review of the ways in which Giddens's work has been used in the IS field. It does not claim that his views are necessarily correct—indeed a range of potential problems with his structuration theory in the IS context are identified—but rather that the implications of Giddens's distinctive position on a number of issues are not always recognized by the many IS scholars who cite his work and that this offers potentially fruitful opportunities for further research.

## Defining Key Terms

With respect to definitions, three particular terms would seem central to Poole's concerns regarding Jones and Karsten's treatment of AST: *positivism*, *functionalism*, and *determinism*. Consistent with Giddens, Jones and Karsten use the term *positivism* to refer to an epistemological position, characterized by the pursuit of causal laws, that assumes the unity of natural and social science methods (see Giddens 1979, p. 231; Johnson and Duberley 2000, p. 39).

While, as Giddens (1984) notes, epistemological positions are often associated with certain ontological assumptions, a particular ontology may be compatible with different epistemologies. Thus the adherence of AST to a Critical Realist ontology, as Poole describes, does not define its epistemological stance. Moreover, although a positivist epistemology may often be associated, in practice, with the use of quantitative data, as Jones and Karsten note, this is not a necessary relationship (see Guba and Lincoln 1998; Hammersley 1992).

In the IS field, positivism is generally identified as one of three epistemological positions adopted by researchers (the other two being interpretivist and critical; see Chua 1986; Orlikowski and Baroudi 1991). Although it is sometimes acknowledged that other positions such as post-positivism (Guba and Lincoln 1998) are possible, these are not widely used to characterize IS studies, and key research sources in the field, such as the AIS research resources website (<http://home.aisnet.org>), endorse the tripartite classification. While we recognize that this is an over-simplification, the definition of positivism adopted in Jones and Karsten is consistent with both Giddens and common usage in IS research.

In Jones and Karsten, *functionalism* refers to a branch of sociology, associated with the work of Talcott Parsons. For Giddens, functionalism and positivism are closely related (1976, p. 138; 1984, p. 1) and, along with structuralism, form a sociological tradition that Giddens (1981, p. 26) sought to transcend with the development of structuration theory.

Finally, *determinism* refers to the doctrine that everything that happens is determined by a necessary chain of causation. A syllogism of the form "given conditions x and y, then outcome z will result" expresses a deterministic logic. Giddens himself takes an even stronger position, proposing that almost any denial of agency amounts to a form of determinism, and that deterministic notions of "event causality" (which presuppose laws of invariant connection) are inappropriate for the study of social phenomena (Giddens 1993, p. 91).

## Is Jones and Karsten's Characterization of AST Reasonable?

With these arguments and definitions in mind, we can now turn to Poole's comments in more detail. The first of these, at the most general level, is that the account of AST is "too narrowly drawn" (p. 583). If by this it is meant that the review of AST literature in Jones and Karsten is incomplete, then we would readily agree. The explicit focus on the use of Giddens's work in IS research, however, precluded coverage of AST studies in other fields and the possibility that our searches may have missed some IS AST studies (and other structural IS literature) was clearly acknowledged. Having had access to Poole and DeSanctis (2004) prior to publication of our own paper, though, we were able to review as many of the studies that they cited as were generally accessible, and we are pleased to note that Poole does not identify any significant omissions in our coverage of IS AST studies.

The first subheading of Poole's response, however, would suggest a more specific criticism: that Jones and Karsten claim that AST research is functionalist and positivist (p. 2). The term *functionalist*, however, is only used twice in Jones and Karsten and both times in the Parsonian sense discussed above. Nowhere is it applied to AST, rather this is described as "functional" (Jones and Karsten 2008, p. 15), something quite different, as Poole takes care to explain, which is Poole and DeSanctis's (p. 215) self-description of an important strand of structural research, and is used by Poole in the same sense in his response.

The objection could, therefore, be to the term *positivist*, as applied to functional research. For Poole, the term *positivism* would seem to be associated with a "distant" (p. 584) strong form, akin to logical positivism that insists on an exclusively empiricist approach to data and would preclude the use of actors' subjective interpretations. In the IS and management literatures that were the reference points for Jones and Karsten, however, the term has a much more general meaning, as discussed above, and is employed non-pejoratively as describing nomological research that adheres to a natural science model.

According to Poole and DeSanctis, moreover, functional structural research "focuses on the system itself and depicts it as a network of causal, moderating, and correlational relationships among abstract variables" (p. 216), which would seem to be consistent with the earlier definition of positivist epistemology. As noted earlier, however, there is no necessary relationship between an epistemological position

and the type of data (qualitative or quantitative). Thus positivist studies can use either quantitative or qualitative data, as can interpretive studies. Poole's examples of AST studies using qualitative data do not show, therefore, that their epistemology is interpretivist or preclude it being positivist, and statements such as "this does not, however, mean that these concepts cannot be studied via quantitative as well as interpretive methods" (p. 584) or that a "[quantitative] coding system...[could be regarded] as a positivistic method of identifying structuration processes" (p. 584) are making an incorrect distinction from an epistemological perspective. In associating AST research in the IS field with positivism, Jones and Karsten were thus making no claims about the type of data employed in these studies (as is explained in their discussion of Giddens's "methodological scalpel" quote, that Poole also cites). There is thus no disagreement with Poole that structurational researchers can use quantitative data (indeed Jones and Karsten [p. 152] specifically mention this as a possible direction for future research).

Even if Jones and Karsten do not use the terms functionalist and positivist in relation to AST in the way that Poole suggests, he states that it is "simply not the case" that "AST and associated empirical work...[is] organized around an 'agenda heavily oriented to deterministic, functional research'" (as Jones and Karsten, he argues, portray it) (p. 583). The words Poole quotes, however, are used by Jones and Karsten not in reference to AST in general, but in reference to Poole and DeSanctis (2004), who Jones and Karsten describe as having recently "proposed an agenda heavily oriented toward deterministic, functional research, especially around AST" (p. 146). Examination of this agenda shows that Poole and DeSanctis discussed 44 papers, of which five were identified as illustrating "promising ventures" (p. 238) for the future of structurational IS research. Of the 44 papers, 13 (including one of the promising ventures) were in grey literature, such as working papers and unpublished conference proceedings, and therefore not generally accessible. Of the remainder, more than three-quarters were papers that Jones and Karsten classified as AST-related, as were three of the four accessible papers described as promising ventures. This would indeed seem heavily weighted toward AST-related studies, compared to the 20 percent of such papers among the 331 identified by Jones and Karsten.

With regard to the implication that the agenda of Poole and DeSanctis predominantly focused on functional research, we would accept that Jones and Karsten did not discuss Poole and DeSanctis's category of "constitutive" structurational research (which Poole also refers to in his response). This is described as revealing the "interpretive processes that figure in the operation of causal relationships" (Poole and DeSanctis

2004, p. 217). Not all interpretive researchers would consider this a suitable description of their objectives, however, or of how their findings should be understood. Not all structurational research that isn't functional is necessarily constitutive therefore. Even if all the studies reviewed by Poole and DeSanctis that are not evidently functional are counted, though, these comprise less than 40 percent of all the papers they addressed and less than a quarter of the AST-related studies on which, we have argued, their agenda is focused. Poole and DeSanctis's agenda around AST would thus seem plausibly described as heavily oriented toward functional research.

This relative lack of attention to constitutive studies would also seem to be supported by Poole and DeSanctis's proposal that for IS structuration research

to move ahead...much greater specificity and quantification are needed, both with regard to the structural potential of IT and the social processes in which IT operates. The most valuable embarkation at this juncture is to articulate structuration models that provide more detailed accounts of...constructs and relationships (p. 238).

Although Poole and DeSanctis suggest that this may be pursued by both functional and constitutive studies, the emphasis on quantification, constructs, and relationships would seem clearly to be indicative of an orientation toward the former.

In questioning Jones and Karsten's description of Poole and DeSanctis's agenda as being oriented to functional research, Poole (p. 584) makes a further claim that he and DeSanctis have consistently argued for a "social constructionist and reflexive view of [AST's core] concepts." While some of these concepts, such as "spirit" and "attitudes" may be recognized as potentially socially constructed, this would not seem so evidently the case with others such as "features," which includes elements like the presence of voting algorithms and anonymous recording of ideas in GDSS (DeSanctis and Poole 1994, p. 126). Moreover, it is not clear that this social-constructionist view is always recognized by researchers using AST. Chin, Gopal, and Salisbury (1997), for example, seek to advance AST by developing a scale to measure faithfulness of appropriation.

The only remaining word in the Jones and Karsten quote to which Poole might have taken exception would, therefore, seem to be "deterministic." It is difficult to see what the objection to this might be, when associated with functional structurational research, since Poole and DeSanctis are

explicit in their rejection of Giddens's view that there is no place for determinism in structuration theory and in their advocacy of functional analysis which adopts what Giddens (1993) would describe as deterministic "event causality." While there may therefore be many (and no doubt better) ways in which Poole and DeSanctis's position may be described, we would suggest that Jones and Karsten's characterization of the research agenda in Poole and DeSanctis was, on the basis of the analysis above, not wholly unreasonable.

As Jones and Karsten emphasized, moreover, this characterization does not invalidate AST, dismiss its contribution to the field, or refute Poole and DeSanctis's claims for its potential. Rather the argument was that AST deliberately, and for possibly very good reasons, rejects some key tenets of Giddens's position (as Poole and DeSanctis acknowledge, and Poole's comment about functional research not getting at structuration processes directly might also suggest). Its potential, therefore, does not rest specifically on Giddens (even if it is often cited as representing his ideas). Since a central point of Jones and Karsten was that IS research might benefit from a more sympathetic exploration of the implications of Giddens's own position, AST did not form part of the research agenda put forward, especially as Poole and DeSanctis had already recently set out their own AST-oriented agenda. The existence of two, largely distinct, agendas, however, does not mean that either precludes the other. These agendas have different aims and concerns and may be pursued in parallel, without prejudice to one another.

### **Substantive Differences 1: The Compatibility of Positivism and Interpretivism**

Lest it should appear, however, that the differences between Poole's and our own position are simply a matter of semantics, there are at least two points where our views diverge significantly. The first relates to Poole's questioning of the distinction made by Jones and Karsten between positivism and interpretivism. This brief response does not allow this question to be addressed in detail (a fuller, if still preliminary, discussion is given in Jones [2000]), but a number of points can be made. First, Poole's description of the claims for the distinctiveness of positivist and interpretive research as a "common move" (p. 584) would seem to underplay longstanding "divisions" (Giddens 1984, p. 1) in sociology that are a central aspect of Giddens's arguments for structuration theory. While IS researchers' contributions to these debates have advanced the discussion of multi-methods in the field, as Jones (2000) argues, they do not definitively resolve them. Often what is claimed to be an integration of positivist and interpretivist research amounts to a combination of quan-

titative and qualitative data gathering, which, we have argued, is not epistemologically significant. Or it involves sequential studies, the transition between which relies on debatable assumptions (often regarding the nature of the interpretive project). Poole's equation of qualitative data with interpretivism may be seen as illustrating an argument of this type. As Jones (2000) notes, such arguments are not exclusive to the IS field and whether they are seen to overcome objections to epistemological integration may be related to differing conceptions of (methodological) pluralism.

In suggesting that positivism and interpretivism (in the IS sense) are distinct and incompatible, we would emphasize that the aim is not to privilege one or the other. Nor, as Jones (2000) argues, does such incommensurability preclude complementarity, rather it questions the possibility of combination or integration. Instead, a dialectical or dialogical model is proposed, that requires respect for and understanding of the others' views, but does not attempt to subsume or co-opt them.

### **Substantive Differences 2: Structures and Materiality**

The second point of divergence relates to Poole's rejection of Giddens's view of structures as memory traces. As was previously described, the position of Jones and Karsten is not that Giddens's views are necessarily correct, but that it could benefit IS researchers to explore critically their applicability in the IS field. It may be that in this, and other, areas, Giddens's ideas prove unworkable, but this argument has not yet been adequately proven, and that to reject Giddens's ideas *a priori* may be to miss significant opportunities, both in applying these ideas and, potentially, in suggesting ways in which they might be developed to address phenomena in which IS are strongly implicated.

As Jones and Karsten discuss, the immateriality of structures is a necessary corollary of Giddens's idiosyncratic definition of structure. Other conceptions of structure may be material, and may be more useful in an IS context, but showing this does not mean that the structures referred to in Giddens's structuration theory can be material, as would be the case, for example, if they were embodied in technology, or that his conception of structure necessarily prevents us from addressing the examples that Poole cites as illustrating the materiality of structures.

In making this argument, we need to recognize that Giddens does not restrict structures to memory traces, as Poole implies. Rather, Giddens's claim is that structure "*exists, as time-space*

*presence*, only in its instantiations in [reproduced social] practices *and as* memory traces orienting the conduct of knowledgeable human agents" (1984, p. 17, emphasis added). The point here is that this is where we can find evidence of the structural properties of social systems. What is preserved in physical artefacts may therefore be "traces" of structuration processes, but are not themselves structures, at least as Giddens defines them.

As Jones and Karsten describe, Giddens's concept of structure does not deny the material world or its influence on social practices. What Giddens's structuration theory would suggest, however, is that the influence on the U.S. legal system of the thousands of books that Poole refers to depends, as Poole acknowledges, on the way in which their contents are used by lawyers in particular practices. The books, as Giddens puts it, "do nothing, except as implicated in the actions of human beings" (Giddens and Pierson 1998, p. 82). For example, there could be codes, regulations, and laws written in these books that are never actually used and that no lawyers remember and that therefore play no part in the structuring of the U.S. legal system. What is written in these books, moreover, may be used in different ways over time. Indeed, famous lawyers are often noted for their ability to employ the apparently fixed resources presented by these books in creative ways. These new interpretations do not become structures, from Giddens's point of view, however, unless they are instantiated in the lawyer's practice and are accepted by other lawyers (becoming part of the memory traces orienting their conduct) such that they form part of the regular social practice of law. While we would not claim that this is an adequate account of the role of physical artefacts in the U.S. legal system, it perhaps suggests that Giddens's concept of structure may be more effective in addressing such settings than Poole implies.

Regarding Poole's second example of distributed intelligence, we share his interest in this topic, and would extend it further to include work such as that of Hutchins (1995) that considers the social dimension of such processes as well as the more individually focused research to which he refers. Again, though, we believe that the idea that cognition may be physically, socially and symbolically distributed is not inconsistent with Giddens's conception of structure, especially if we follow the arguments of Stones (2005, pp. 8-9) whose "strong" account of structuration emphasizes the "external" structures conditioning action that are present in Giddens's account of structuration, but are arguably neglected in much of his writing. Indeed Giddens's view of structures as "rules and resources, organized as properties of social systems" (1984, p. 25) would seem to recognize them as inherently social. Similar to the last example, therefore, social actors

may "do things in relation to" (Giddens and Pierson 1998, p. 83) physical artefacts in structurational processes, but this does not make these artefacts (repositories of) structures, nor do they have social effects, according to Giddens, except through actors' engagement with them in their practices.

Poole's third example of people learning "structures and structuring moves from IT" (p. 586), gets closer to the issue where Giddens's lack of attention to technology and to detailed empirical work makes it difficult to be clear about the specific implications of his work. Some, at least, of Poole's account, however, would not seem to be problematic from Giddens's point of view, albeit that this might be interpreted differently. Thus, as Jones and Karsten discuss, the notion of affordances (Hutchby 2001) would seem to be potentially compatible with Giddens's position and might be a fruitful way of understanding the interplay of social actors and technology. Similarly, the notion that technological artefacts "make a contribution to the structuration process" (p. 586) does not seem to be inconsistent with Giddens. According to Giddens's argument, the way in which a GDSS is used would not be seen as involving either an activation of the structuring potential of features that had been deliberately created by designers, or the delivery of norms and patterns for behavior by the technology. Rather, Giddens's position would suggest that the intentions of the GDSS designers inevitably under-determine its potential uses and whether, and in what ways, the affordances created (intentionally or otherwise) by the designers' actions influence social practices (of which GDSS use is a part).

In a similar manner, structuring potential is not latent in the technology, waiting to be released by users, nor do technologies supply norms themselves. Rather, structuring occurs continuously in the ongoing practices of social actors, some of which may involve interaction with technology. Norms are created, reproduced, and transformed in this process and any influence of technology will be mediated through structures internal to the social actor. As before, we do not claim that this is the only way to understand the use of GDSS, or any other type of IS, but we do claim that Giddens offers a well-developed and self-consistent position that would seem able to offer a plausible account that merits further investigation.

Poole's final example of "'intelligent' groupware" (p. 586) raises questions of machine agency. This is an area of considerable current debate (see Rose et al. 2005) with contributions from a variety of sources including Latour (2005), Collins and Kusch (1998), Pickering (1995), and, more recently, practice theory (Reckwitz 2000), object-oriented philosophy (Harman 2002), and sociomateriality (Orlikowski and Scott 2008; Suchman 2007) that challenge notions of

agency and conceptions of the distinctions between humans and machines. As it would be impossible to do justice to these questions here, we would simply note that not all of these approaches would seem to be incompatible with Giddens's ideas. For example, as Jones (1998) discusses, there are parallels between Pickering and Giddens. Similarly, Reckwitz (2000) identifies Giddens as offering a version of practice theory (even if this is not always evident in the way he is used in management and IS studies). What this would suggest, therefore, is that an account of "machine agency" need not rely on notions of structures embedded in IT or "the operation of the IT channels structuration," as Poole (p. 586) describes it, and that Giddens's ideas may yet be adaptable to the task. We recognize that this will not be without challenges, as Giddens has a specifically human-centered view of agency (as befits a sociologist with little apparent interest in technology), but, as Jones and Karsten sought to argue, there may be significant opportunities for IS researchers in exploring this question.

## Conclusion

We very much agree with Professor Poole that this debate is not closed and we did not seek to close it off in Jones and Karsten. We also agree that Giddens's position may have limitations, but believe that these remain to be proven. The thrust of Jones and Karsten, however, was to suggest that there continue to be significant opportunities to explore Giddens's position sympathetically, yet critically, in the IS field. Such work does not (as Professor Poole would appear to read Jones and Karsten as arguing) invalidate AST-related research, and can be pursued in parallel with the agenda of Poole and DeSanctis. Indeed the debates that may be provoked between researchers pursuing the two agendas could be a significant contribution to the IS field as they go to the heart of some critical methodological and theoretical debates. Some of these, such as the relationship between positivist and interpretive research and the status of the material in IS research, have been touched on in this response. Others include the nature of theory, the conceptualization of structure and agency, and the relationship between individual strategic conduct and institutional analysis.

There is not space in this response to elaborate on the details of these debates, nor would it seem helpful to do so without some specific focus of discussion. Professor Poole's engagement with Jones and Karsten, however, suggests some possible ways in which this might most effectively proceed. Thus, exchange of ideas would seem likely to be facilitated by seeking to maintain common topics of interest (rather than

each approach pursuing a wholly separate agenda), thus enabling direct comparison of analyses. Focusing on specific empirical examples that are perceived to be problematic for the alternative position should also help to sharpen the challenge. Given the different assumptions and concerns of the two approaches to structurational research, however, it should not be expected that the debate would arrive at a definitive conclusion, but the process may help both parties to refine and clarify their positions and increase mutual understanding.

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