American and European social embeddedness in IS research: the case of structurational approaches.

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Abstract:

Whether in Europe or in North America, Structuration Theory has been widely applied in Information System research. Looking at some structurationists' trajectories, it seems that European and American researchers correspond each to specific sub-theoretical streams. After having put forward institutional explanations of the overall dynamic, we suggest analysing the situation from an epistemological point of view: the various conceptions of management enacted by the different structurationist leaders. This results in the disappearance of the apparent continental dichotomy we first raised. As a conclusion, we propose two perspectives for the new European academy of management.

Key-words:

Structuration theory; social embeddedness of management research; research trajectories; epistemology.

IS research, whether in North America or in Europe, often bases its theoretical frameworks on structuration theory (Jones, 1999; Poole and Desanctis, 2000) as developed by Giddens (1979, 1984) himself, or using competing approach like Archer's (1982, 1995) morphogenetic model. Without considering intrinsically the underlying theoretical debate here, we propose to achieve an analysis of European and American research trajectories. The underlying question we will deal with is the following: **are there some continental specificities linked to each local research? And if so, how could we account for it** (from an institutional and an epistemological point of view[1])?

First, we propose here to briefly describe the constitution and evolution of the structurational approach in IS, by distinguishing within the overall research stream trajectory different leaders' individual trajectories (1.). Then, we put forward an analysis of the previous results using institutional and epistemological analysis (2.).
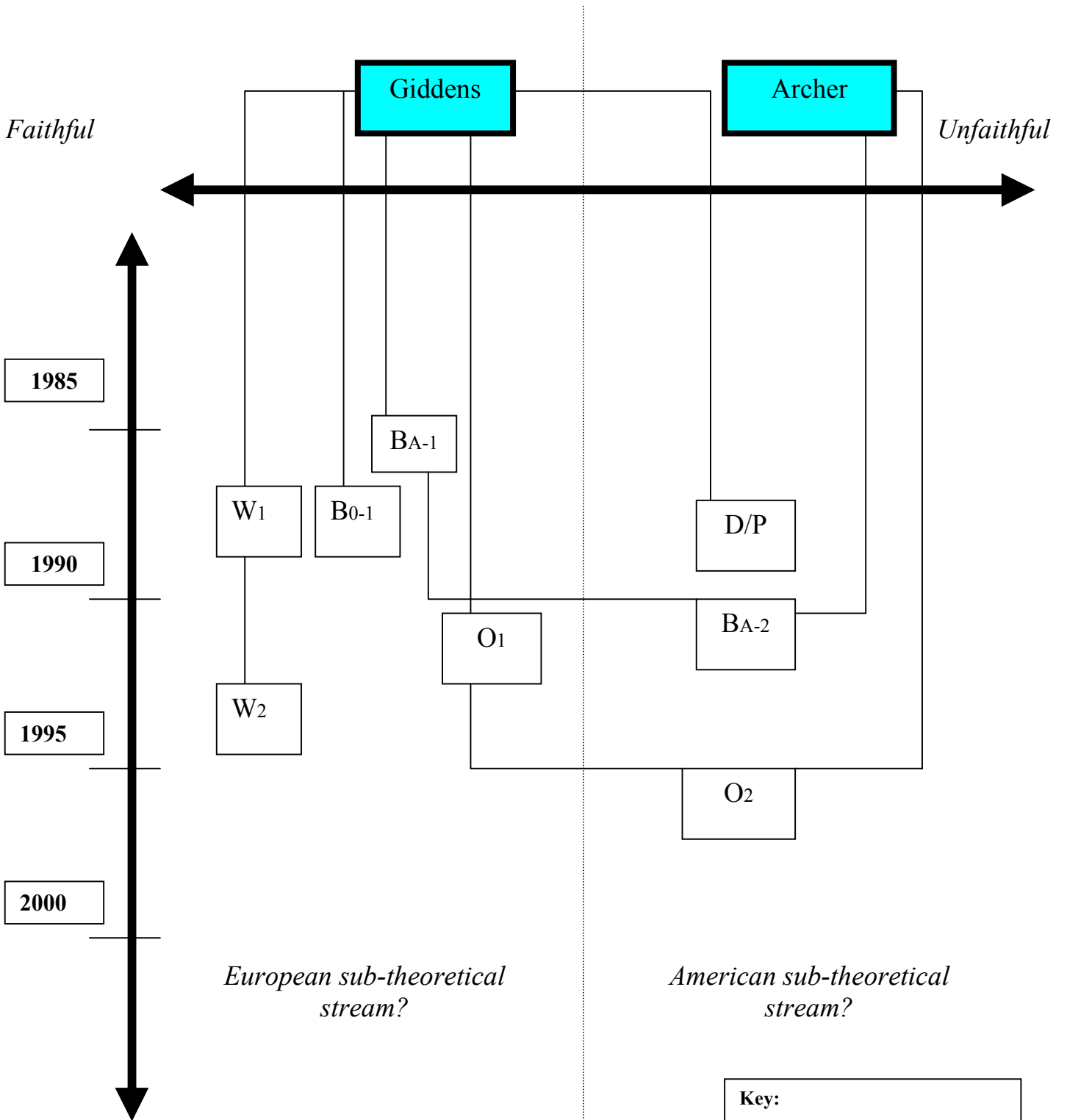
1. AMERICAN AND EUROPEAN STRUCTURATIONAL RESEARCH: A STATE OF THE ART.

Structurational approach's starting point is related most of the time to Barley's (1986) studies about the implementation of CAT scanners within hospitals. Several researchers had nonetheless already adopted Giddens' theory in their studies. This was the case of Greenwood, Hinings and Ranson (1980) that drew on structuration theory to understand organisation's evolution.

Here, we propose to focus more precisely on IS structurational research. What allows us to speak about it as a whole? Apart from an axiomatical point of view[2] the co-citation mechanism clearly reveals a collective dynamic that we could translate diagrammatically as follows:

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[1] By institutional analysis, we mean that we will try to relate each author's theoretical framework to his or her continental belonging. By epistemological analysis, we mean that we will try to find out if each theoretical approach does not translate a specific interpretation of what management research consist of, looking at the trajectories at a more meta-level.
[2] See de Vaujany (2000).

Faithful

Unfaithful

Giddens

Archer

1985

1990

1995

2000

B_{A-1}

W_1

B_{0-1}

D/P

O_1

B_{A-2}

W_2

O_2

European sub-theoretical stream?

American sub-theoretical stream?

Key:

B_{0-i}: Bouchikhi
B_{a-i}: Barley
D/P: Desanctis and Poole
O_i: Orlikowski
W_i: Walsham

Using Giddens, a European author, as the main source of their work, most researchers have tried to apply his theoretical framework more or less faithfully, **sticking more or less closely to his structural properties and his instantiation mechanism.** Some proposed to re-build the structuration theory, others, after a more or less direct use of Giddens, have decided to draw on competing approaches like Archer's morphogenetic model.

We propose now to describe more precisely each leader's trajectory[3].

(1) Beginning with the English researcher Geoff Walsham[4], we could divide his research trajectory into two periods: a first one where he used mainly the structuration theory scheme (Walsham and Han, 1993). A second one, where he has been insisting more on his interpretative epistemological stance, than on his belonging to the structurational stream. But structuration theory integrated in his theoretical framework[5] as a "sensitive device" still plays an important role coupled with the middle-range theories he proposes to implement.

(2) The French researcher Bouchikhi (1990) also proposed to apply Giddens' theory to the structuring of organisation linked to IT. He crossed structuration theory with another theory[6] as well, but unlike Walsham, he used them at the same level.

(3) The American researcher Barley (1986), initially at the frontier of faithfulness, today proposes a more explicitly unfaithful approach drawing directly on Archer's (1982, 1995) sociological research, still by using his fundamental script's methodology.

(4) Desanctis and Poole (1990, 1992, and 1994), since their early work, which is unfaithful with Giddens ideas, have suggested rebuilding his sociological framework proposing the Adaptative Structuration Theory[7].

(5) Finally, Orlikowski (1992)[8], who proposes at first a "structurational model" rather consistent with Giddens theory, has more recently developed unfaithful constructs making reference to Archer's morphogenetic approach, especially in her formulation of the genre theory or metastructuration[9].

In the end, these five different trajectories seem to result in two different sub-theoretical streams:

- A faithful European research based on European social science research.
- An unfaithful American research also using European social science research.

What conclusions can be drawn on it? Are there other axes of analysis that would enable us to overcome this apparent continental dichotomy?

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[3] Assuming that most of the time other structurationnists based their work on those leaders. This was clearly the case of Gopal, Bostrom and Chin (1992) and Chin, Gopal and Salisbury (1997) in the AST case.

[4] Who did an interesting study about the presence of interpretative research in IS journals, whether American or European (Walsham, 1995).

[5] Based either on Pettigrew's content-context-process model (Pettigrew, 1987) in Walsham (1993), or Calon and Latour actor-network theory in Walsham and Sahay (1999).

[6] Especially Piaget psychological structuration theory.

[7] According to Jones (1999), keeping on making reference to Giddens in a rather inconsistent way with structuration theory initial statements.

[8] Along with Orlikowski and Robey (1991).

[9] See Orlikowski and al (1995, 1999).

2. SHEDDING LIGHT ON THE TWO CONTINENTAL TRAJECTORIES: PROPOSITION OF AN INSTITUTIONAL AND EPISTEMOLOGICAL ANALYSIS.

From our point of view, two significant conclusions can be drawn from the previous overlook:

(1) The influence of European social science research on American research.

Whether in information system specifically, or in management science on the whole, one cannot but notice that European social science traditions exerts a strong influence on American managerial research. Giddens, Foucault, Bourdieu, Calon and Latour[10]… are widely quoted authors. On the contrary, we could argue that European managerial studies on their own exert a rather weak influence on American studies. The contrast is even more obvious if we look at how strongly the latter inspires the evolution of the former[11].

(2) Beyond this apparent dichotomy, we suggest that a stronger epistemological tension divides both communities regarding what management research consists of, especially in IS[12]. We suggest here that two conceptions are at stake in both communities:

(a) Management science as concerned by **organisational phenomenon**, as defined as a firm or any kind of social collectivities trying to achieve more or less shared goals. This is a point most researchers would agree on, which does not imply that they will not be interested in societal processes linked to the organisational phenomenon they study as well[13].

(b) Going a bit further, researches in the structurational stream also sometimes try to understand how to influence the structuration processes. Two sub-trends can also be distinguished:
- the first stream proposes a soft interpretative management of the process, implying a very large scope of people. These generally include an IS manager who will be some kind of "facilitator" (cf Walsham, 1993) helping people develop share representations and goals;
- a second stream promotes a more focused sort of management, especially Desanctis and Poole (1990, 1992, 1994), based on the level of restrictiveness of the technology itself (procedural restrictiveness) or actions around the tools (rule-setting restrictiveness)[14].

From this very managerial point of view, some French or American researchers, like Barley, Bouchikhi or Orlikowski have a rather neutral position, linking management's specificity

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[10] Along with many "father" sociologists like Weber and Durkheim, or Philosophers like Kant or Hume.

[11] This statement probably works for each managerial sub-discipline (finance, strategic management, marketing…).

[12] We find it is strange that many management sub-communities wonder what their discipline may consist in, without linking the debate on a more general level about what is the essence of managerial disciplines on the whole. The recent book in information system edited by Currie and Galliers (1999) perfectly epitomises this trend.

[13] Walsham (1993), along with Desanctis and Poole (1994) in IS, or Whittington in management on the whole, clearly insist on this point.

[14] See for example Desanctis, D'Onofrio, Sambamurthy and Poole (1989).

among social sciences to the organisational construct. Orlikowski, invoking other theoretical constructs proposes some managerial tools, for example her improvisational model (see Orlikowski and Hoffman, 1997). In one research, she also proposes to study metastructuration processes (Orlikowski and al, 1995), saying that some actors can play a more important role than others in the structuration process. But she avoided any kind of normative discourse, whether substantive or procedural.

3. CONCLUSION:

On the whole, it seems that if European and American trajectories diverge in structuration theory from the faithfulness dimension point of view, their differences are overcome if we consider some strong epistemological debates that divide both communities.

Thus, the creation of an academy of management, in view of this short analysis, could have two advantages:

(1) **Making some European specificities**[15] **more sustainable.** This can be achieved by developing a real network of partnerships, between different European universities.

(2) **Developing a theoretical and an epistemological platform** that could result in higher quality debates, taking place within a larger community, which could of course include researcher from the American community, or of any continental belonging. **Instead of participating a bit further in management research segmentation, the European Academy of Management could then improve the epistemological, theoretical and methodological frameworks of the various transcontinental streams on which it relies.**

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[15] Which, in the case we studied, are probably not as strong as we would have expected them to be.

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