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CONFESSIONS of an IS CONSULTANT

OR

THE LIMITATIONS of STRUCTURATION THEORY

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WP 01/2004

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Abstract

This paper argues that the 'structurational tradition' within interpretive information systems has revealed some useful aspects of the organizational implementation and use of ICT, but that usually this has been achieved at the expense of an intuitively convincing account of human motivation. Although Giddens' 'dimensions of the duality of structure' is an important aspect of his thought, many IS studies have tended to focus almost exclusively on this model, in isolation from the broader canvas of his ideas. It is argued that such an approach offers an unbalanced and incomplete view of social interaction, which reflects neither organizational realities, nor Giddens' wider theoretical position. In response, the paper resituates the structurational model within the broader context of Giddens' work, offering researchers a practical framework with which to further sensitise their analyses to actors' more biographical motivations. The explanatory power of this framework is illustrated with reference to the author's own biographical experience as an IS consultant working for a major systems integrator in the early 1990s.

Keywords: Giddens, structuration, biography, narrative, self-identity, embodied self, confessional

1. Introduction

Giddens' sociological thought has become an increasingly common component of IS research, applied with varying degrees of literalness to interpret empirical material (Jones, 1999). This paper argues that, whilst the application of his ideas has borne considerable fruit within the IS domain, there has been a tendency within IS

and organizational studies to take and use his ‘dynamics of the duality of structure’ (Giddens, 1984:29) narrowly, out of the context from which it derives its significance and wider coherence. The argument builds on a similar contention (e.g. Whittington, 1992) in relation to a perceived neglect by structurational studies of Giddens’ equal attention to peoples’ active negotiation of the intersections and tensions between the different social communities in which they participate. However, this paper proposes that there is an additional, serious omission, of particular importance to IS studies: Giddens’ emphasis on the centrality of human motive, so pivotal to his writings – and, indeed, to the growing literature addressing the link between artefacts, organizational culture and employee identification (e.g. Barker, 1998).

The paper therefore seeks to develop a case for a greater incorporation of this broader, and fundamental, aspect of Giddens’ thought within IS studies seeking to apply his structurational framework, as follows. The first section presents an overview of the arguably pivotal importance of biographical narrative throughout Giddens’ work, of which it is argued that his structurational model *per se* is not sufficiently representative to be used on a standalone basis as the sole theoretical foundation for a piece of IS research. The second section then develops a practical framework to complement Giddens’ structurational model, intended to assist IS researchers to address this perceived ‘skewedness’, by factoring in considerations of these wider components of Giddens’ thought, resulting in a more balanced analysis which is more representative of his ideas. In the third section, I draw upon my own biographical experience to provide an illustration of the sort of additional insights and sensitivities available to researchers who include this framework within their analyses. Finally, the paper concludes by addressing some limitations and implications of the framework.

2. The pivotal role of motive in Giddens' work

It is arguable that a keen attention to the importance of peoples' motives for behaving in the way that they do runs throughout the broad canvas of Giddens' thought, and indeed, endows it with much of its integrated character. Underlying his ideas is his treatment of the deeply embedded dualism within the social sciences between objectivism and subjectivism – the extent to which the social object of study should be 'society', as opposed to the individual. An awareness of this dualism – and the 'duality' which he proposes for its resolution - runs throughout Giddens' work, underlying several of his key ideas. Perhaps the most fundamental form occurs in *The Constitution of Society* (1984), where Giddens reinterprets Max Weber's *verstehen/erklaren* (understanding/explanation) dichotomy, proposing, in the 'double hermeneutic', the impossibility within social science of keeping the conceptual apparatus of the observer free from involvement in the situation being studied. In circulating in and out of the social world, a person's thoughts are deeply linked to wider social structures – an observation responsible for the theory (like activity 'theory', and actor network 'theory', also really an ontology) of structuration, which describes the process whereby the 'absent totality' of social context is continually drawn upon and reconstituted in social interaction.

The important point to be made immediately upon presentation of this basic foundation is that this 'duality', and hence the majority of Giddens' thought, is built upon a particular understanding about the *centrality of individual motive* in social production and reproduction, and hence of the realm of individual interpretation and action, wherein this duality is played out. Giddens achieves this understanding by developing Bourdieu's *habitus* to place more emphasis on the primacy of the

individual as knowledge agent, which allows him to redress the structuralist/poststructuralist decentring of the subject within structuralist linguistics. Indeed, in *The New Rules of Sociological Method*, he places peoples' interpretive activity at the centre of his analysis, citing it as a key differentiator of his ideas in relation to structuralism, which

“bears the limitations of its origins in its inability to confront issues of the genesis and temporality of meaning” (1976:126).

In contrast, meaning is central for Giddens, who is influenced by Goffman's thought on the interaction between the conscious and unconscious in the individual, and the role this plays in the way in which they make sense of the world. Indeed, Goffman's 'frame analysis' has helped to structure Giddens' understanding of the micro-level interactions between individuals, and between individuals and wider society – and, significantly, to address the relationship between the two. However, in his consideration of the agency/structure divide, Giddens differs from Goffman in blurring the line between front and back regions (1984), and distinguishing between three types of consciousness: 'discursive consciousness', 'practical consciousness', and the 'unconscious' (in the Freudian sense). Of these, practical consciousness (as a rational, if 'unaware', response) is the most significant, since it mediates between the agency/structure divide and the conscious/unconscious divide.

Giddens' structuration dynamic integrates the above concepts into an approach to the study of social interaction. In their everyday encounters of 'co-presence', Giddens argues (following Wittgenstein) that individuals both follow and re-create social rules. Since the 'absent totality' of social rules necessarily frames, conditions,

and mediates social interaction, the process whereby (like any ideology) motivated people succeed in reflecting their interests within such rules within an organization is shaped by differences in power and resources at their disposal – both in terms of material resources and (after Bourdieu) cultural ‘capital’ (which might be termed as a collection of acquired social skills which reinforce the individual’s ability to meet expectations within social contexts). Once organizational inequalities have been formed (although these are clearly not static in nature), Giddens argues that institutions employ ‘surveillance’ techniques in attempts to extend and maintain the existing status quo (1984). Giddens conceives of surveillance as taking many forms, from the extension of control over time-space through clock-time, to the future (for example, legislation, commodity speculation), to simple organizational hierarchies.

In offering a conceptual tool with which to look for “connections between legitimation and domination in the constitution of societies” (1981:65), Giddens encourages the researcher to seek such connections in the interaction between consciously and unconsciously motivated, ‘purposive, reasoning behaviour’, and social constraint/enablement. It is thus fitting that the following passage is to be found in, of all his works, *The Constitution of Society*:

“The actors have ‘good reasons’ for what they do, reasons which the structural sociologist is likely to assume implicitly rather than explicitly attributing to those actors...all explanations will involve at least implicit reference both to the purposive, reasoning behaviour of agents and to its intersection within constraining and enabling features of the social and material contexts of that behaviour” (1984:178-9).

The position of individual motive as the driving logic behind social production and reproduction is especially visible in *The Consequences of Modernity*, which centres on the individual's experience of modernity, rather than 'modernity' itself. Thus characteristics of modernity such as time-space separation, disembedding mechanisms, and reflexive appropriation of knowledge, are all emergent properties linked to the individual's perceived risk, and capacity for trust, in relation to his or her attempts to moderate an irreducibly personal experience of modernity and maintain ontological security.

In turn, Giddens proposes that such attempts are only explainable in relation to their "reflexive constitution of self-identity" (1991:86) within the narrative of a perceived trajectory of the self. Drawing on Heidegger and the time-geographer Hagerstrand, he proposes that there is an inherently temporal character to human existence - the "temporality of meaning" alluded to earlier. Such a position entails a distinction between three types of temporality, "of very considerable importance"(Giddens, 1984:36):

"Daily life has a duration, a flow, but it does not lead anywhere; the very adjective 'day-to-day' and its synonyms indicate that time here is constituted only in repetition. The life of the individual, by contrast, is not only finite but irreversible, 'being towards death'. 'This is death, to die and know it'"(1984:35).

These two types of experienced temporality – reversible and irreversible - intersect with each other, and with "the 'supra-individual' *durée* of the long-term

existence of institutions, the *longue durée* of institutional time” (1984:35) – like daily life, another reversible dimension. Crucially for the thrust of this discussion:

“Theorizing the self means formulating a conception of motivation (or so I shall argue) and relating motivation to the connections between unconscious and conscious qualities of the agent. The self cannot be understood outside ‘history’ – ‘history’ meaning in this case the temporality of human practices, expressed in the mutual interpolation of the three dimensions I have described” (1984:36).

Although Giddens’ works can appear at times to resemble the Bible, in the way in which it is usually possible to find a passage supporting (out of context) whatever standpoint one wishes to adopt, it is arguable that the above statement is consistent with a view throughout his work that the constitution of society through the intentions and practices of people is closely related to dimensions of time-space – the “temporality of meaning” - in particular, the non-reversible dimension. This is because the irreversible temporality of the human agent’s bodily involvement – their lifespan – and thus the desire for a coherent narrative trajectory which stems from this – comes to infuse the more empirically ‘visible’ and reversible dimensions of daily interaction, and of organizational existence. Although invisible, the individual’s irreversible condition of “being towards death” – and, crucially, “knowing it” - thus affects both of the visible, reversible, dimensions, by infusing his or her motivations within day-to-day social interaction, which come over time to condition wider structures at the institutional level. It is thus no exaggeration to say that an awareness of the irreversible dimension in time-space interaction must be a prerequisite to making sense of Giddens’ ideas, since this underlies his conception of motivation – of

human experience itself - and thus underpins his view of social production and reproduction in the manner explained earlier.

The link between temporality and motive appears most clearly in *Modernity and Self-identity*, a discussion of the way in which the need reflexively to maintain a consistent biography which stems from a physical awareness of finite lifespan, comes to condition peoples' perception of, and actions in, the world. Thus Giddens' ideas come full circle, since social production and reproduction are seen to consist in the intended and unintended consequences of the conscious/unconscious interpretive activity of myriad agents, *as they pursue the logics – the motivations* - of their own reflexively-maintained biographies, within the enabling and constraining conditions of high modernity.

In this way, although its focus is the conditioning action of 'social' structure, the underlying logic of Giddens' theory of structuration may be said to derive from his more fundamental view of the *motivated* self-as-process which underpins his work, and from which structuration may not be disconnected as a result. 'Stranded' in repeatable time, purely structural accounts of human interactions lose the hidden urgency, and explanatory narrative, through which they derive their meaning and organizational portrayals become literally lifeless: there is no sense of events being driven by and occurring within, peoples' irreversible lives. Interestingly, this is exactly the criticism Giddens directs at Goffman:

...Goffman's analyses of encounters presume motivated agents rather than investigating sources of human motivation, as many of his critics have complained. The lack is a serious one and one of the main reasons...why Goffman's work has something of an 'empty' feel to it" (1984:70).

3. Analysis of ‘social’ structure is necessary, but insufficient

Having emphasised the need to use structuration alongside, rather than separate from, Giddens’ wider ideas on human motive, this section discusses his ‘dimensions of the duality of structure’ model (Fig.1.) in greater detail. As a schematic to show what its title indicates it was intended by its author to show – dimensions of the duality of structure, no more, and no less – Giddens’ model represents a useful concept with which to approach both an *aspect* of his thought, and an *aspect* of the organizational domain. This is because, although it tells us a lot about the nature of social structure, and the way in which this is replicated or subverted through human action, Fig.1. tells us comparatively little about human motive, or about any of the other rich insights about subjectivity which run throughout Giddens’ thought, from which the model ultimately derives its logic, as argued earlier. It is unsurprising, therefore, that Giddens entitles his model ‘the dimensions of the duality of structure’ – and not, for example, ‘the emergent condition of subjectivity’, ‘domains of the emergence of narrative’, or ‘conscious and unconscious motive in addressing existential anxiety’ – since the model is not intended to address these, equally vital, aspects of his thought. We can say this with some certainty, since the model brackets out *individual* reflexivity to concentrate on *social* structure:

“Concentration upon the analysis of the structural properties of social systems, it should be stressed, is a valid procedure only if it is recognized as placing an *epoché* upon – holding in suspension – reflexively monitored social conduct” (1984:30).

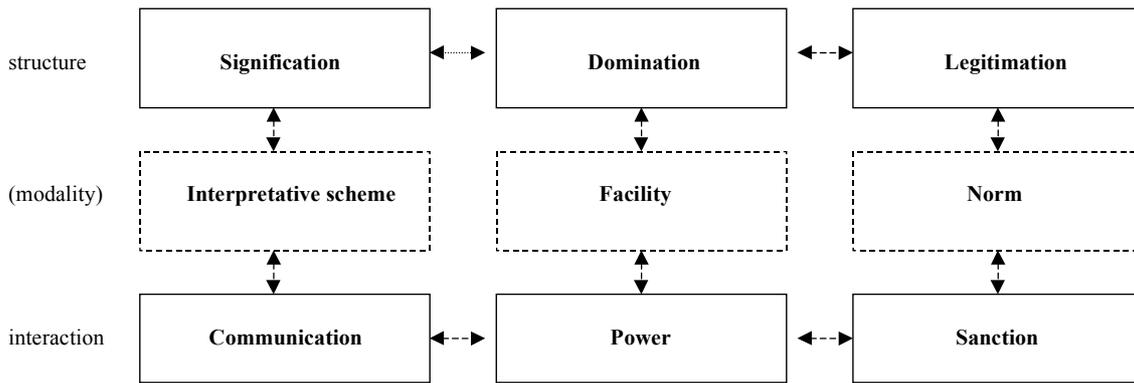


Fig.1.: Giddens' dimensions of the duality of structure (1994:29)

'Structurational' analysis is therefore useful as a framework with which to study the production and reproduction of social *structure* – but represents an insufficient basis for IS researchers seeking to study human-IS interaction in any complete sense – since the (for Giddens) equally important, co-ordinating effect of human reflexivity is bracketed out. Put another way, although the *Dimensions* portray a duality, they portray the social structural side of this duality, rather than the biographical, reflexive side, of which researchers should continue to be aware:

“Reflexive awareness...is characteristic of all human action, and is the specific condition of (that) massively developed institutional reflexivity” (1991:35).

However, it is arguable that IS researchers have shown a tendency to make exclusive use of Giddens' *Dimensions* to interpret human-IS interaction, to the exclusion of this wider awareness. Perhaps the best-known examples of the application of structuration theory within the IS context occur in Orlikowski and Robey (1991) and Orlikowski (1992). Offered as a 'Framework for investigating the

interaction of human actors and social structure during information systems development' (1991:159), in a way which presupposes some attention to explaining the actions of the human actors themselves, Orlikowski and Robey's structurational analysis nonetheless focuses almost exclusively on an observation of the structures which may intentionally or unintentionally be created by human action. In the absence of attention in their wider analysis to the complex of ideas surrounding emergent subjectivity which underpin Giddens' pre-1991 work (their article obviously predates *Modernity and Self-Identity*), and bathed in the exclusively structurational light of their framework, Orlikowski and Robey's systems developers appear shorn of personal motive, and driven exclusively by organizational structures. Instead of 'the interaction of human actors and social structure', Orlikowski and Robey's analysis appears to address just the 'dimensions of the duality of information systems' – which is, of course, unsurprising given their use of Giddens' *Dimensions of the duality of structure* as their exclusive analytical framework.

In turn, this framework formed the groundwork for Orlikowski's (1992) landmark application of structuration theory within an IS case study the following year, which develops a 'structurational model of technology'. Although its title acknowledges its (social) structural focus, a close look at this model reveals the same assumptions about human motivation as was evident in the Orlikowski-Robey article of the previous year. In other words, recalling Giddens' earlier comment about Goffman's work, Orlikowski's structurational model of technology *presumes* motivated agents, rather than investigating sources of human motivation within structural constraints. Thus, although technology is seen as both product and medium of human action (a valid and important point, deriving directly from Giddens' dimensions of the duality of structure), human action itself is viewed in an almost

completely unproblematic light – people are ‘agents’, whose actions are influenced by both technology and institutions – but not, it seems, by their reflexive perceptions of their historical selves in the manner described in the first part of this paper. As will be seen in the next section, actions in Orlikowski’s model occur in repeatable time – at the micro-level, and at the macro-level – but are not affected by the critical third, non-repeatable, temporal dimension, so vital to Giddens’ oeuvre, which factors peoples’ reflexive biographies into the analysis.

Nonetheless, as was the case with Orlikowski and Robey’s ‘framework’, Orlikowski’s (1992) ‘structurational model’ is a useful way of conceptualising the fluid co-emergence of technology and organizations – together with an appreciation of the way in which these may both constrain and enable human actions. Her summary of the structurational model in relation to the case material is very revealing about the duality of technology, together with an aspect of the institutional context. It describes the duality of *social* structure very well: how the consultants’ use of tools is influenced by Beta’s institutional context, the way in which the tools mediate consultants’ perceptions through interpretive schemes, norms, and resources, and the way in which the use of the tools reaffirms these modalities. It also describes well how deviant actions by the consultants, “if sufficiently vigorous and sustained” (1992:420) may induce managers to authorise alterations to the design of the tools to include more flexibility, thus altering Beta’s institutional context.

As a description of the operation of social structure within information systems, Orlikowski’s study is undoubtedly a landmark contribution within interpretive IS. However, statements such as “for these researchers, structuration offers a solution to the dilemma of choosing between subjective and objective conceptions of organizations, and allows them to embrace both” (1992:403) are misleading, since in

fact what is being offered is an account of social structure only: intersubjectively convergent *social/cultural* understandings (the sense in which “structure” is used in Giddens’ *Dimensions* at Fig.1. – e.g. Giddens, 1984:185), uncoloured by the biographically-derived motives of the person doing the understanding.

Indeed, despite Giddens’ emphasis on the importance of unconscious/conscious sources of motivation in biographical, hence irreversible, time in explaining social action, and of other, periodical ‘bow shots’ from commentators such as Knights and Willmott (1989), and Boland (1993), accounts of motivation are almost entirely absent from the majority of IS and organizational studies which seek to apply Giddens’ ideas (see Jones, 1999, and Jones and Karsten, 2003, for a useful review). This is particularly evident within the IS literature, where ‘adaptive structuration theory’ and the ‘structurational model of technology’ have arguably pursued a relentless transformation of the structurational model into the mechanical approximation of ‘technology=structure’, vs ‘organizational actors = agency’ leaving the dynamic stripped almost entirely of supporting theoretical context – and, in particular, stranded in reversible time (e.g. Orlikowski, 1992; Jones and Nandhakumar, 1993; DeSanctis and Poole; 1994, Rose, 1999; Maznevski and Chudoba ,2000).

A somewhat rare exception in the literature is the type of study which seeks to apply Giddens’ ideas in a ‘meta-theoretical’ (Jones, 1999) manner, thus arguably avoiding the need to uproot the structurational dynamic from the more ‘subjective’ aspect of Giddens’ writings and transfer it into another context. Two examples will be mentioned here. In the first, Hayes and Walsham (1999) examine the very different experiences of computer hardware engineers in their use of a laptop-based

work co-ordination system for travelling repair agents. Summarising three of these, Walsham notes:

“What is immediately striking about these stories is the radically different conceptualisations of the nature of their job, their own identity, including their work identity, and the role and perceived value of IT systems in their work life” (2001:73).

The role of peoples’ identities in conditioning peoples’ reactions to, and manner of using, the IS appears clearly from this study. In the second, Barrett and Walsham (1999) make an innovative attempt to interpret the impact of the introduction of new electronic trading systems into the London insurance market using a more rounded set of Giddens’ ideas. In so doing, Barrett and Walsham succeed in preserving the anchoring of these ideas to individual motivation and meaning - which I have argued is so important - through an explicit treatment of the emergent co-evolution of traders’ self-identities and wider organizational structure, although they do not adopt the sort of explicit focus on the conditioning effects of narrative structure developed below. However, the study appears to succeed in achieving the opposite of Giddens’ criticism of Goffman: it has a ‘full feel’ to it, grounded as it is in an intuitively plausible account of human motivation. The remainder of this paper constitutes an attempt to build on this foundation.

4. Dimensions of the duality of Self: a complementary focus

Fig.2. shows Giddens’ *Dimensions*, with an additional, ‘biographical’ realm of interaction added below, indicating that social interaction draws upon a

biographically, as well as merely socially conditioned, realm of structure. It should be emphasised immediately at this point that in introducing this modification to Giddens’ diagram, the intention is merely to draw IS researchers’ attention to aspects of his wider work regarding human subjectivity which the structurational model, in placing an *epoché* upon biographical reflexivity, was not intended to illustrate. The additional terms in Fig.2. are thus intended to be used alongside Giddens’ *Dimensions* only in a temporary sense, to illustrate the importance of his wider considerations of such biographical reflexivity in complementing the structurational model as an explanation of social life. Although, as shown earlier, such considerations are germane to all his work, the additional terms used in Fig.2. come from *Modernity and Self-Identity* (1991), in which Giddens addresses the issue of biographical reflexivity in detail.

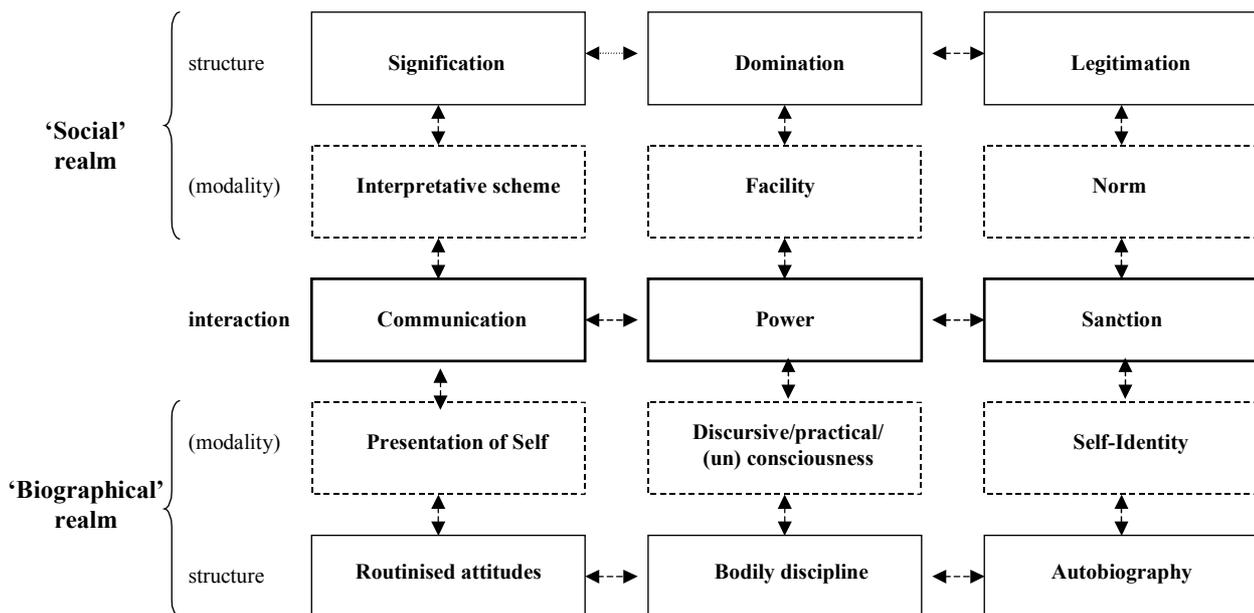


Fig.2.: Dimensions of the dualities of social and biographical structure

In Giddens’ words, “analysing the structuration of social systems means studying the modes in which such systems, grounded in the knowledgeable activities

of situated actors who draw upon rules and resources in the diversity of action contexts, are produced and reproduced in interaction” (1984:25). Thus, structurational analysis involves examining how, in the process of communication, people draw pragmatically upon interpretive schemes to produce and reproduce structures of signification; how they express particular, situated relations of power in interaction by drawing on allocative facilities which both produce and reproduce structures of domination; and how they morally sanction, or justify, these relations by drawing upon social norms which both produce and reproduce structures of legitimation - and how these three dimensions are fused in the instant of activity, since “structures of signification are separable only analytically either from domination and from legitimation” (1984:33). As stated earlier, such structures are all social in nature: “rules and resources, or sets of transformation relations, organized as properties of social systems” (1984:25). Below, I explain how IS researchers using the structurational model may wish to consider the reflexive production and reproduction of biographical structures in social interaction.

Just as (social) “structure has no existence independent of the knowledge that agents have about what they do in their day-to-day activity” (1994:26), so “the self is seen as a reflexive project...dependent on the reconstructive endeavours in which he or she engages” (1991:75) i.e. both concepts are non-substantive, and emergent in human (inter)action. Just as in Giddens’ attempt, in structuration, to deconstruct social structure into three dimensions (his three columns in Fig.1.), he advises that when discussing the self “rather than talking in general terms of ‘individual’, ‘self’ or even ‘self-identity’...we should try to break things down into finer detail” (1991:75). Just, also, as it is necessary to bracket out biographical considerations from structuration in order to study the operation of social structure, so in *Modernity and*

Self-Identity Giddens temporarily brackets out social structure when discussing the trajectory of the self. Thus it is argued that IS researchers seeking to make use of structuration risk applying an incomplete – and therefore misleading - theoretical framework unless they ensure that this is balanced by a consideration of Giddens’ equal concerns regarding biographical motivation.

Turning to Fig.2. in detail, within the dimension of legitimation, people draw upon normative values to justify, or legitimate, their actions, and in so doing create and recreate social structures of legitimation. However, as in the case of the other two dimensions of Giddens’ structuration model, although this tells us about the way in which social structure is produced and reproduced, it tells us little about the conditioning effects of individual reflexivity which temper this process – which are bracketed out. For underlying peoples’ actions in drawing on social norms to appeal to ‘moral’ structures of legitimation is a desire to fulfil another, irreducibly personal, morality: “The morality of authenticity (which) skirts any universal moral criteria” (1991:79), and is “based on ‘being true to oneself’” (1991:78). As indicated in the first part of the paper, it is arguably this desire to enact a coherent personal narrative within the “reflexively actualised trajectory of self-actualisation” (1991:79) - i.e. as understood by a person at any one particular moment - which forms the driving motor, or logic, co-ordinating their actions in relation to the social structures with which they are confronted.

In this way, “The autobiography is a corrective intervention into the past” (1991:72), since it is reflexively produced and reproduced in response to the way in which people perceive themselves; indeed, “Reconstruction of the past goes along with anticipation of the likely life trajectory of the future” (1991:72). Thus “It is made clear that self-identity, as a coherent phenomenon, presumes a narrative”

(1991:76). In their continuous generation of self-identity, or ‘self-actualisation’, - a particular, unifying conception of themselves at any one moment – people thus draw upon and revise a deeper, narrative ‘biographical’ structure which extends reflexively into both past and future.

At any moment, therefore, a person has a sense both of social norms, and of their own particular temporary positioning within such norms (self identity) – *and one cannot be experienced independently of the other*. Just as social structures of legitimation form a referential framework within which social norms at any one moment can ‘exist’, so, biographical structures of autobiography also form a referential framework within which an equally temporary self-identity can ‘exist’. It therefore makes as little sense to consider emergent social norms without the vantage point of emergent self-identity from which they must be viewed, as to consider emergent self-identity in isolation from the emergent social norms in which it must be located.

Within the dimension of domination in Fig.2, people draw upon allocative facilities available to them, and in so doing create or reproduce wider power structures at the social level. However, the way in which this occurs is likely to be conditioned, not just through the action of structural constraints on their discursive/non-discursive awareness, but at the phenomenological level of practical consciousness, which “is integral to the reflexive monitoring of action” (1991:36). Expressed as tacit, embodied skill (e.g. Polanyi, 1958; Nonaka, 1991), practical consciousness has, of course, formed a core element of the recent interest in knowledge management (e.g. Blackler, 1995; McDermott, 1999). However, Giddens adopts a more political emphasis, citing Merleau-Ponty and Goffman’s contention that

“Bodily discipline is intrinsic to the competent social agent...and it is a continuous feature of the flow of conduct in the *durée* of daily life. Most importantly, routine control of the body is integral to the very nature both of agency and of being accepted (trusted) by others as competent” (1991:57).

From this it follows that social agency is conditioned not just by the way in which people exploit ready-at-hand allocative facilities, rooted in social structures of domination, but also by the nature of reflexive, embodied awareness which each individual brings to, and with which they interpret, their every social encounter. Although not cited by Giddens, it is arguable that Bourdieu’s description of ‘hexis’, below, most accurately describes such embodied awareness:

“Bodily hexis is political mythology realised, em-bodied, turned into a permanent disposition, a durable manner of standing, speaking and thereby of feeling and thinking . The principles em-bodied in this way are placed beyond the grasp of consciousness” (Bourdieu, 1977:93-4).

In this view, the extent to which individuals’ actions are conditioned by (social) structures of domination through the modes of facilities is thus always tempered, or conditioned, by the extent of the individual’s discursive, practical, or even unconscious level of absorption or resistance to such facilities – which is rooted, in turn, in the disposition of the embodied self. Just as social structures of domination can emerge replicated or altered as a result of a social encounter, so, too, can the individual’s embodied receptiveness to the operation of power within future encounters: Bourdieu’s “durable manner of standing, speaking and thereby of feeling

and thinking”. Within the dimension of domination, it therefore makes little sense to consider the (structural) operation of power via facilities, rooted in social structures of domination, in the absence of the conditioning effect on such power of individuals’ levels of consciousness, and even acceptance, of such facilities, in which bodily discipline at both conscious and unconscious levels is both conditioning and resulting structure.

Within the dimension of signification, actors draw upon interpretive schemes which are readily available to them within a particular interaction, and in doing so reproduce or perhaps alter underlying structures of signification at the social level. Although, however, the interpretive schemes available to individuals engaged in the act of communication may be constrained by social structures of signification, Giddens argues that such individuals remain able to exercise a degree of choice over which schemes to use:

“All individuals actively, although by no means always in a conscious way, selectively incorporate many elements of mediated experience into their day-to-day conduct” (1991:188).

The various acts of communication which may characterise any social encounter therefore represent individuals’ own situated responses to the choices and dilemmas posed by “living in the world” (1991:188) of mediated information: of available interpretive schemes. By choosing some over others, individuals are affirming a position in relation to such schemes (and the social structures by which they are enabled and constrained), and thus defining themselves in relation to these. Thus

communication is literally an act of self-presentation – i.e. the offering up of a stance towards society and its structures:

“As the individual leaves one encounter and enters another, he sensitively adjusts the ‘presentation of self’ in relation to whatever is demanded of a particular situation” (1991:190).

In other words, the communicative stance adopted by an individual in a social encounter is constrained not only by ready-to-hand interpretive schemes, but also by the presentation of self, or assumed identity, that the individual offers ‘the other’ as a response to the particular social (structural) configuration within that encounter. Finally, an individual will form a socially appropriate ‘self’ from the more structural, personal vocabulary of routinised attitudes (1991:188) associated with the avoidance of ontological anxiety. In this way, it has been argued that people enact routinised scripts (Schank and Abelson, 1977) in relation to their individual perceptions of their unique perceived ‘position’ within social structures. Like all structure, such routinised attitudes can constrain, as well as be altered in turn by, social interaction.

To summarise the discussion of Fig.2, it is proposed that Giddens’ ideas concerning social structure, contained within his structuralist model, are complemented by a further set of his ideas concerning personal, *biographical* structure, which act to constrain the operation of social structure at every turn. On the one hand, there is, indeed, a duality between fleeting social interaction and relatively enduring shared social structures, which generates appropriate mental ‘modalities’ that are approximately shared by social interactants, and which thus come to condition

their interaction. On the other hand, Fig. 2 shows a mirrored duality - between the same fleeting social interaction, and relatively enduring *non-shared*, personal structures, which generates its own appropriate modalities, which also come to condition the way in which people interact. For social researchers, the implication is that a compelling account of social interaction is likely to comprise an analysis not just of the structuration of social systems, but also of the structuration of *personal*, or biographical, systems – equally acknowledged by Giddens in his work, but never developed into a *dimensions* model. Fig. 2 represents an attempt to begin to conceptualise how such a ‘balanced’ model might operate.

5. The importance of the ‘biographical’ realm: a personal experience

In order to illustrate why I believe a balanced account of social interaction should incorporate such an analysis of the biographical, as well as the social, realm, I offer an account of my own experience between 1990-1994 as an IS consultant working for Andersen Consulting, the organization widely believed to be Alpha, the large systems integrator described by Orlikowski in her landmark paper discussed earlier – using the Method/1 toolset that many believe she is describing. Regardless of Alpha’s real identity, however, it is arguable that the organizational environments – and toolsets - which appear within both Orlikowski’s study and these recollections are broadly representative of the approach of major systems integrators in the early 1990s. On the ‘social structural’ side, my own experience with these tools supports her structural analysis of their conditioning effects: deployed on my first client

assignment following five weeks' induction training on the use of these tools, and as a raw graduate with no prior business experience, my ability to learn the discipline required to remain within the constraints of the tools formed a large factor in my first evaluations. For junior staff, therefore, systems development work was "mediated by the assumptions and rules built into the tools" (Orlikowski, 1992:415), which thus contributed to "Beta's structure of domination" (1992:417) in just the way predicted by Orlikowski, since Method/1 occupied the entire discursive space; it simply would not have occurred to new staff that there might be any other way to operate on a client project. Method/1 indeed had "low interpretive flexibility" (1992:419), and we exhibited a "'trained incapacity' to do systems development work in any other way" (1992:420).

In her discussion of her (for me, as an ex-employee, remarkably accurate) findings, Orlikowski comments that

"...there is flexibility in how people design, interpret, and use technology, but (that) this flexibility is a function of the material components comprising the artifact, the institutional context in which technology is developed and used, and the power, knowledge, and interests of human actors (developers, users, and managers)" (1992:421).

However, although Orlikowski's use of Giddens' *Dimensions of the duality of structure* allows her to address the institutional and material components of Beta's systems development projects in a revealing way, it is arguable, following the discussion thus far, that her resulting view of "human actors" in terms solely of their organizational 'roles' as "developers, users, and managers" leads to an

underestimation of those other influences at work which are bracketed out of Giddens' structuration model. Thus her structural analysis of human agency (already short at less than a page of a total of over 25), can conceive of people voicing opposition to the tools only in terms of their job – e.g. when “perceiving this as unnecessarily time-consuming”, or wanting to assume more “control over their task execution” (1992:419). Whilst, again, my own experience confirms this as a useful observation, it would also indicate that such an analysis of the human-technology relationship is incomplete. In the manner suggested by the analysis of Giddens' work on biographical motive in the first part of the paper, and in terms of the analytical extension of Giddens' *Dimensions* into the subjective realm in the second part of the paper, I can confirm that my own organizational experience was affected by other equally (and, to me at the time, more) important modalities – which I discuss below in terms of the three dimensions shown in Fig.2.

Within the dimension of legitimation, my own use of the tools was certainly conditioned by institutional structures as Orlikowski describes, and can thus be seen as reproducing “a set of norms about what is and what is not acceptable “professional” social practice” (Orlikowski, 1992:418). However, our organizational behaviour was conditioned equally by factors within the biographical realm: as fresh-faced 21 year-olds, I and several of my peers were equally beset by doubts of a reflexive nature about whether we had made an appropriate decision in joining an organization which appeared upon closer inspection to have designed out opportunities for initiative – of which Method/1 is a good example. My own self-identity at the time, the standard against which my desire for self-authenticity was expressed and measured, indicated that I might indeed have taken a wrong decision, defined in Giddens' terms of being “true to oneself”. My continued reproduction of

this identity was based on an autobiography which included a humanities background at odds with the strongly engineering-based organizational culture, a broad interest base which appeared incompatible with the long hours and exclusive work orientation of the company, and a value set which placed the ability to live at home and pursue a regular social life above a more itinerant, client-based lifestyle over which we had little control.

The result, for me, of this apparent contradiction between my perceptions of the structures of legitimation and norms within Andersen Consulting and my own, biographically-derived, reflexive self-identity as I perceived it at the time, was a lack of commitment to the organizational values of the company as enshrined within Method/1, to which my desire for authenticity could not allow me to sanction a full personal endorsement – and, as I was informed by my superiors on more than one occasion, a low productivity and accuracy in terms of completed deliverables. Whilst, therefore, my reflexively derived psychological state at the time – borne of an experienced incompatibility between the ‘social’ and ‘biographical’ realms shown in Fig.2. - was undoubtedly my own problem to address, there is little doubt in my mind either of its existence as an issue with which I had to deal, or of its material consequences for Andersen Consulting – which eventually included my decision to leave the organization four years later. Nor was this a unique situation within my peer group: several close colleagues were experiencing similar difficulties in reconciling the interaction between social and biographical structure in their working lives. It is interesting that it appears that the company’s present incarnation – Accenture – retains a relatively high staff turnover (Vault Guide, 2002); arguably a result, at least in part, of such comparative organizational inflexibility.

Within the dimension of domination, my ‘effective and efficient’ use of Method/1 was constrained not just, for example, in the way in which the interface’s design conditioned my available ways of thinking about systems development (the structural approach), but also through a combination of my physical and mental subjectivity – incorporating not just the current state of compromise between the demands of my organizational self and my wider self-identity – addressed in the previous dimension - but also physical self-consciousness (for example, upon my first client assignment, I felt acutely awkward in my only - cheap and ill-fitting – suit, which drew comments from several colleagues). This also included a less articulable, physically experienced desire to escape at intervals from the (to me) stifling gaze of my superiors, in a work environment where long hours were viewed as a sign of commitment, and expectations of unbroken physical presence, or ‘overtime’ formed a ready source of organizational control.

My response to organizational structures of domination is thus not explainable solely in terms of the allocative facilities upon which I was able to draw (the structural approach), but recalls, again, Bourdieu’s “durable manner of standing, speaking and thereby of feeling and thinking”. An emphasis upon protracted physical presence – first in the long hours at client sites and then later in corporate hotels for dinner, dressing in a certain manner, sitting at a certain desk with ‘junior’ analysts - even upon the use of certain mannerisms – helped, in my case, to perpetuate a particular bodily discipline, mediated by a demoralized mode of consciousness. I have little doubt that such a physical and mental ‘state of mind’ contributed to my low effectiveness in using the tools that Orlikowski describes; in other words, the technology was rendered less effective as a result of the conditioning action of the biographical realm.

Within the dimension of signification, my presentation of self within the organizational context was not simply a matter of acquiescence to “resources which are deployed in order to control the work of consultants” (Orlikowski, 1992:417), although this undoubtedly played a role. In addition, I suggest that such presentation was a mask behind which I attempted to hide my overall self-identity as a ‘non-Andersens person’, though the deployment of routinised behavioural ‘scripts’ appropriate to the role of junior consultant on such projects. In turn, my temporary following of such scripts as a ready-made set of attitudes and activities enabled a certain cynical suspension of the sort of underlying ontological anxiety which resulted from my growing awareness that I was perhaps doing the ‘wrong’ job.

Finally, of course, as new employees, it was acknowledged on the projects on which we worked that our effectiveness with the Method/1 toolset would increase over time, as we learned at a sub-conscious, tacit level to operate the function-key strokes and routines which enabled more experienced consultants to work more quickly and effectively. As mentioned earlier, such tacit knowledge, resident in the embodied selves which we brought to the keyboard, represents a further way in which our interpretive schemes of the structures of signification within the software were moderated by a more embodied reflexivity.

The intention in retailing a set of such uncomfortable biographical details is to show, in the only unequivocal way available to me – my own experience - the limitations of a purely structural approach to explaining human-IS interaction, which would have been incapable of any of the above considerations. As a result, I have little doubt that the way in which people deal reflexively with their own unique set of biographical contradictions – and, in turn, reconcile these with the demands of ‘social’ structure - is as important as social structure *per se* in conditioning such

interaction. I know that in the case of Method/1, the perceived authority of the technology within many client projects was directly threatened at one point by an interesting (if unauthorised) release entitled ‘Resign/1!’ – a software routine which allowed the user to “type a standard resignation letter and fax it to head office without leaving your seat”. However, like Orlikowski’s unauthorised screen example, this particular circumvention of Andersen’s structural modalities enjoyed a particularly short lifespan before being removed by ‘structures of domination’.

6. Conclusion

I do not mean to portray an unequivocally negative picture of my early experience at my first employer, which provided an, often efficient, working environment to which many people found themselves well suited – as well, in my own case, as an invaluable training. However, the point emerges that, although the modalities of signification, domination, and legitimation were substantially the same for all employees across the organization, Andersen Consulting experienced considerably different patterns of behaviour – and varied effectiveness in use of its toolsets - amongst its employees, variance of some considerable importance to the organization which remains substantially unaddressed within a structural framework.

The first and second parts of this paper thus argued, from a theoretical perspective, that the way in which social structure is always interpreted by, and moderated through, biographical narrative forms a core theme of Giddens’ work – and that, although this theme is not directly addressed within his *Dimensions of the duality of structure*, analysts wishing to make use of structuration to address the dynamics of power within organizations should thus consider complementing their framework

with a discussion of the sorts of biographical contradictions which employees may be experiencing. Yet the practical need to understand more about the sort of marked variance in employee behaviour noted in the third part of this paper constitutes possibly the most compelling reason for IS researchers to ensure that they address both the ‘social’ and ‘biographical’ aspects, or polarities, of structure. In Alvesson and Willmott’s words:

“The potency and influence of the media of regulation is always conditional upon organizational members’ responses to them. Discourses may be comparatively familiar and readily interpreted within an on-going identity narrative and associated emotional condition; or they may be disruptive of it...People may distance themselves from the company as a key source of identification and draw upon the occupation, subunit or non-work sources of self-definition (“I am a family man rather than a career person”)” (2002:27).

At the practical level it is arguable that IS researchers seeking to complement their structural analyses with a consideration of the possible workings of such ‘biographical structure’ need not be daunted by the non-material nature of the dimensions of the biographical domain, which are no less concrete than the ‘memory traces’ of Giddens’ *Dimensions of the duality of structure*. Analyses of both ‘social’ and ‘biographical’ structural domains can only ever seek to make speculative observations regarding the possible intersubjective interactions underlying observable phenomena, since both are explanatory theoretical frameworks, rather than ‘mappable’ analytical grids.

Since ‘true’ objectivity is not possible within an interpretive context, it is thus arguable that studies which seek explicitly to include subjective accounts of motivation, or biographical structure, are no more open to concerns regarding ‘authenticity’ than studies which seek to include equally subjective accounts of the operation of *social* structure. Both accounts are typically retrospective interpretations on the part of the research subject, and furthermore are offered ‘second hand’ through the further interpretive layer of the researcher. Indeed, by removing this second interpretive layer altogether, it is arguable that accounts such as the above ‘confession’ offer the reader greater, not less, authenticity.

The theoretical framework proposed in this paper is especially amenable to being used by researchers in an autobiographical, or ‘confessional’ sense (van Maanen 1988), in a similar manner to that employed in the previous section. However, it could also be used within the more traditional context of the researcher/research subject. Whilst, of course, it may be true that research subjects may be reluctant to wear their hearts on their sleeves – to disclose underlying motivations – to a researcher of merely passing acquaintance, my own organizational experience suggests that many people are willing – even keen – to talk about themselves within a research situation once a degree of trust has been established, especially within a more sustained research setting of ethnographic involvement. Since visible social structures are considered an acceptable basis for structural analysis - even though they can never be more than an approximation to the memory traces in which they reflexively exist in the minds of research subjects - so, too, such subjects’ disclosures about themselves should be considered an acceptable – if necessarily approximate – basis for a complementary analysis of the biographical motivations by which social structures may be conditioned.

Finally, it should be emphasised that the organization of Giddens' wider ideas concerning motive into the dimensions in Fig.2. is not intended in any normative sense as a definitive framework; had Giddens himself intended such a framework to balance his structurational model, he might surely have provided us with one. However, in as much as Giddens' ideas are applied in a variety of ways to illuminate social issues within various disciplines, without making normative claims about his original intentions (as Orlikowski notes in her 1992 paper, structuration itself was not designed with IS researchers in mind), the *Dimensions of the duality of Self* in Fig.2. is intended primarily as a way of illustrating that the interrelationships between several of his key ideas concerning biographical motivation deserve greater attention within the IS canon – particularly by those who seek to apply his structurational model, which Fig.2. shows such ideas to complement. In this vein, the short confessional in this paper is intended as a talking piece which it is hoped may contribute further to the ongoing debate about the application of Giddens' ideas within the organizational and IS fields.

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References

Alvesson, M., and Willmott, H. (2002). Identity Regulation as Organizational Control: Producing the Appropriate Individual. Forthcoming in *Journal of Management Studies*.

Barrett, M., and Walsham, G. (1999). Electronic Trading and Work Transformation in the London Insurance Market. *Information Systems Research*, 10 (1), 1-23.

Barker, J. (1988). Managing Identification. In D. Whetton and P. Godfrey (Eds.). *Identity in Organizations: Building Theory Through Conversations* (pp.257-267). London: Sage.

Blackler, F. (1995). Knowledge, Knowledge Work and Organizations: An Overview and Interpretation. *Organization Studies* 16 (6), 1021-1046.

Boland, R.J. (1993). Accounting and the interpretive act. *Accounting, Organizations and Society* 18 (2/3), 125-146.

Boland, R.J. (1996). Why Shared Meanings Have No Place in Structuration Theory. *Accounting, Organizations and Society*, 21 (7/8), 691-697.

Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bradbury, H, and Lichtenstein, B. (2000). Relationality in Organizational Research: Exploring the Space Between. *Organization Science* 11 (5), 551-564.

Checkland, P. (1990). *Soft Systems Methodology in Action*. Chichester: Wiley.

Ciborra, C. (Ed.). (1996). *Groupware and Teamwork*. Chichester: Wiley.

Engeström, Y., Mietinen, R., and Punamaki, R-L. (Eds.). (1999). *Perspectives on Activity Theory*. Cambridge: Cambridge University Press.

Giddens, A. (1976). *New Rules of Sociological Method*. Stanford: Stanford University Press.

Giddens, A. (1981). *A Contemporary Critique of Historical Materialism*. London: Macmillan.

Giddens, A. (1984). *The Constitution of Society: An Outline of the Theory of Structuration*. Cambridge: Polity.

Giddens, A. (1991). *Modernity and Self-identity: Self and Society in the Late Modern Age*. Cambridge: Polity.

Grint, K., and Woolgar, S. (1997). *The Machine at Work: Technology, Work and Organization*. Cambridge: Polity Press.

Hayes, M. and Walsham, G. (1999). 'Shifting customer-engineering relationships: Archetypes of identities and the role of information systems'. *Working Paper WP25/99*, The Judge Institute of Management Studies, Cambridge: University of Cambridge.

Jones, M.R. (1999). Structuration theory. In W.J. Currie and R.D. Galliers (Eds.). *Re-thinking Management Information Systems* (pp.103-135). Oxford: Oxford University Press.

Jones, M.R., and Nandhakumar, J. (1993). Structured Development? A Structural Analysis of the Development of an Executive Information System. *University of Cambridge Research Papers in Management Studies* 1992-3 no. 5, University of Cambridge.

Jones, M.R. and Karsten, H. (2003). Review: Structuration Theory and Information Systems Research. *University of Cambridge Research Papers in Management Studies* WP 11/2003, University of Cambridge.

Knights, D. and Willmott, H.C. (1985). Power and identity in theory and practice. *Sociological Review* 33 (1), 22-46.

Latour, B. (1988). *The Pasteurization of France*. Cambridge: Mass.: Harvard University Press.

Lave, J., and Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Maznevski, M.L., and Chudoba, K.M. Bridging Space over Time: Global Virtual Team Dynamics and Effectiveness. *Organization Science* 11, 473-492.

McDermott, R. (1999). Why information technology inspires but cannot deliver knowledge management. *California Management Review* 41 (4), 103-117.

Nonaka, I. (1991). The Knowledge Creating Company. *Harvard Business Review*, Nov-Dec, 96-104.

Orlikowski, W. (1992). The duality of technology: rethinking the concept of technology in organizations. *Organization Science* 3 (3), 398-427.

Orlikowski, W. and Robey, D. (1991). Information technology and the structuring of organizations. *Information Systems Research* 2 (2), 143-169.

Orr, J. (1990). Sharing Knowledge, Celebrating Identity: Community Memory in a Service Culture. In D. Middleton and D. Edwards, D. (Eds.). *Collective Remembering* (pp.169-189). London: Sage.

Polanyi ,M. (1958). *Personal Knowledge: Towards a Post-critical philosophy*. London: Routledge.

Rose, J. (1999). Towards a Structural Theory of IS, Theory Development and Case Study Illustrations. *Proceedings of the 7th European Conference on Information Systems, Copenhagen*, J. Pries-Heje, C. Ciborra,, K. Kautz, J. Valor, E. Christiaanse, D. Avison, and C. Heje (Eds.). Copenhagen: Copenhagen Business School.

Schank, R. and Abelson, R. (1977). *Scripts, Plans, Goals, and Understanding*. Hillsdale, N.J.: Erlbaum.

Suchman, L. (1987). *Plans and Situated Actions: The Problem of Human-Machine Communication*. Cambridge: Cambridge University Press.

Walsham, G. (1993). *Interpreting Information Systems in Organizations*. Chichester: Wiley.

Walsham, G. (2001). *Making a World of Difference: IT in a Global Context*. Chichester: Wiley.

Weick, K. (1995). *Sensemaking in Organizations*. California: Sage.

Whittington, R. (1992). Putting Giddens into action: social systems and managerial agency. *Journal of Management Studies* 29 (6), 693-712.