Power Relations in IS Projects – A Critical Review and a New Research Agenda

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Abstract

This paper seeks to review and examine the major theoretical underpinnings of research into power relations in IS projects. In order to keep the review manageable and to furnish a reasonable explanation of the ideas and papers referenced, the review is restricted to the ideas of Foucault, Giddens and Clegg. Partly, this restriction was due to the wish of the authors to deal seriously with the ideas presented, and not to produce an exhaustive but terse and taxonomic style review. Partly, the selection of the above theorists is due to the fact that the major IS papers on power relations have drawn on their work. This paper concludes with the presentation of a new theory of power and social influence from social psychology suitable for use in IS research. The ideas of this theory have not yet been examined empirically. Thus, IS researchers are challenged to employ these ideas in their empirical research.

Keywords

Power, influence, Information Systems projects, resistance, psychological group formation

INTRODUCTION

Despite significant research, and many books and research papers offering prolific advice on the issues involved (for example, Avison and Torkzadeh 2008; Iacovou et al. 2009; Keil and Mahring 2010; Seddon et al. 2010), Information Systems (IS) project management is a task with many challenges. Indeed, a large number of IS projects fail to meet their objectives, and some fail disastrously (Standish Group 2004). The research into IS project management has identified many critical success factors along with corresponding reasons for failure (Flowers 1997; Kappelman et al. 2006; Oz and Sosik 2000). The factors identified as being implicated in IS project failure include a lack of top management commitment to the project, lack of corporate leadership (including a weak project champion), inadequate information requirements determination, communication issues, organisational politics, lack of user involvement and participation, and change management problems generally (Grainger et al. 2009; Kappelman et al. 2006; Liebowitz 1999; Oz and Sosik 2000). The fact that organisational politics, participation and corporate leadership issues are among the reasons for failure indicates that power relations could be an important element in IS project management. Indeed, power has been explicitly mentioned as a factor of interest and influence regarding project success/failure (Iacovou et al. 2009; Smith and Keil 2003). Given these indications of the potential importance of power relations to IS project management, this paper will review the literature on power relations in IS projects.

Most IS literature on power in IS projects is focused on the work of social and political theorists, in particular, Clegg (Silva 2007; Silva and Backhouse 2003; Smith et al. 2010), Giddens (Brooks 1997; Chu and Smithson 2007; Hussain and Cornelius 2009) and Foucault (Doolin 1999; Doolin 2004; Hardy and Philips 2004; Knights and Vurdudakis 1994). However, in the view of the authors of this paper, the work of these theorists is highly abstract and fails to deliver a clear and useful picture regarding the source of power and tactical applications of power in given situations. Thus the analyses based on their work offers little guidance regarding the effective management of power in IT projects.

Thus IS research based on the work of the theorists mentioned above, which constitutes the major portion of the insightful Information Systems research on power in Information Systems projects, needs to be refocused on tangible variables that are of relevance and interest to Information Systems project leaders. This paper will provide such a refocusing with a conceptual framework of the multiple facets of power. Further, the paper will outline a new research agenda for research in power relations in Information Systems projects.

LITERATURE REVIEW: CONCEPTUAL FRAMEWORK

The extensive review of power relations in IS research by Jasperson et al. (2002) is extremely comprehensive, but somewhat bewildering in its coverage and complexity. Further, the review, obviously enough, does not include publications post-2002, some of which have been extremely insightful and important. In order to produce a manageable and coherent set of themes and ideas with on which to base IS research in this area going forward, this review is focused specifically on research into power relations in IS projects that bases its theoretical analysis on the major social theorists with an interest in power in organisations, namely Clegg, Giddens and Foucault. Such a focus means we are dealing with ideas of significant theoretical depth and power and not with ad hoc frameworks that may lead to a superficial analysis. Building on the issues, problems and gaps in this segment of the IS research literature, the authors will then offer a new theory that provides opportunities for further research in this arena. Specifically, the Three Process Theory of Turner (Simon and Oakes 2006; Turner 2005), based on social identity theory (SIT) and self-categorization theory (SCT) is presented as a reference theory for IS researchers interested in the area of power relations.

The review will be organised by the framework shown in Figure 1. The literature on power relations in IS projects can be effectively organised via the framework's focus on the three aspects of intra-organisational power; namely the bases or sources of power, the processes and structures of power and the personal characteristics and skills, capabilities and tactics relevant to the application of power. As we shall see, the major focus of research in power relations in IS projects has been on the processes and structures.
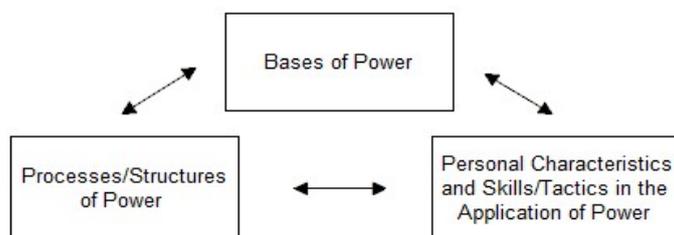

Figure 1: Multiple Facets of Power in IS Projects

IS Projects Research and the Bases of Power

More than five decades ago, French and Raven (1959) asserted that there were five bases or sources of power, namely, reward power, coercive power, legitimate power, referent power and expert power. Although these bases of power have been studied and critiqued in organisation science and other literatures (Bachman et al. 1968; Gupta and Sharma 2008; Marshall 2006; Podsakoff and Schriesheim 1985; Student 1968; Thamhain and Gemmill 1974), there has been no study of this set of sources of power in IS project research. Nonetheless, some IS-based studies, while basing their research on other theories, have referenced the French and Raven (1959) taxonomy (Chu and Smithson 2007; Smith et al. 2010).

Of the IS research studies concerning power relations in IS projects, those based on the writings of Foucault (1977; 1980; 1998), give a clear location for the source of power. The basis or source of power, as indicated in the writings of Foucault (1980; 1998), is argued to be located, not in leaders or persons in authority, but in the web of social relations and structures existing in society, institutions and in organisations (Hardy and Philips 2004). Foucault (1977) notes that for contemporary societies, control by authorities has moved from the primitive methods of the threat or actuality of torture and physical violence to more thoroughgoing psychological methods, as societies develop a network of distributed disciplinary apparatuses in prisons, military and paramilitary organisations, schools, factories and offices (Berente et al. 2010; Townley 1993). In such organisations, Foucault

(1977) argues, people are controlled by a system of control over their bodies, and to an extent, their minds. The time and location of activities is controlled as persons are required to be located at the factory workbench or machine workstation, the school desk, the office workstation and so on for prescribed times. Permitted activities and even specific actions over time are prescribed by industrial engineers, time and motion experts or business process management specialists. Thus standardised organisational processes or routines ceaselessly discipline the members of such organisations as these activities are scrutinised, measured and evaluated by supervisory authorities. Training and constant supervision and guidance by supervisory authorities via observation and/or software inculcates a discipline that perseveres beyond the constant gaze of supervisors, as individuals begin to impose self-discipline. In order to impose such discipline, the relevant authorities have to have knowledge of the situation or arena of control. Thus Foucault sees knowledge, not in terms of truth and falsity, but in terms of enabling disciplinary power. Indeed, in a play on words, Foucault (1977) uses the word 'discipline' in two ways; as a disciplinary body of knowledge and as a synonym for control. Thus, for example, the 'discipline' of project management is at once a body of knowledge, but is also a discipline in the control and power sense (Hodgson 2002). The terminology of the project management discipline and the language of project management, together with the structures and processes of project management, give a framework that guides, directs and disciplines the activities of both project management practitioners and project participants and allows performance to be evaluated and scrutinised (Hodgson 2002).

A number of IS research papers on power relations in IS projects have used Foucault's perspective on the source and nature of power as a basis for theoretical analysis (Ball and Wilson 2000; Berente et al. 2010; Doolin 1999; Doolin 2002; Doolin 2004). Doolin (2004) gives a Foucauldian analysis of a New Zealand hospital 'case-mix' system, implemented at the behest of hospital management. The system sought to monitor, scrutinise, cost and report on clinical activity in the hospital, thus bringing about more resource-aware and cost-conscious behaviour among physicians. This made clinical activity of various kinds, and hence physicians' work performance, more visible and comparable, or in Doolin's words, more 'calculable'. However, the physicians were able to mount a successful resistance to the system, and eventually the system collapsed into a minor role in the hospital. The implication of Doolin's (2004) study seems to be that whenever power relations are embedded in a social setting in such a way that user groups have significant social influence, then for an information system to be successfully implemented, either the social context and culture needs to be changed first, or there needs to be negotiation regarding the system with the powerful group or groups. Neither of these actions were taken at the New Zealand hospital concern, and hence the system failed. Thus the importance of understanding power relations in such projects is underlined by the case study.

Berente et al. (2010) also based their analysis of an ERP system implementation on Foucault's theory of power, discipline and control. The ERP system provides, the authors find, an excellent platform for management to exert some necessary controls that contribute towards organisational productivity, but also find that some elements of the implementation were geared towards control for control sake, contributing little or nothing to organisational productivity. Berente et al. (2010) term this latter phenomenon 'dressage-as-control'. Practitioners are advised by the authors to avoid such actions, particularly as the practice generates time-wasting and meaningless counterfeit compliance, which the authors call 'dressage-as-response'. Again the study contributes generally to the understanding of power relations in IS projects.

Ball and Wilson (2000) used Foucault's perspective on power to analyse computer-based performance monitoring in two UK financial services firms, namely a building society and bank. Both cases show the close interrelationship between the application of disciplinary power and the framing of resistance. In both cases, there is intense and close computer measurement of work activity and work rates in financial services work, possibly to an extent that could be regarded as oppressive. In the building society, however, feedback on the performance numbers observed tended to be constructive, and there was a general empowerment element to performance management, including coaching to improve performance. However, in the bank case, there was a highly autocratic approach to dealing with the management of the measured performance, and in this case, stress, unhappiness and resistance are all more marked among the surveilled employees.

In each of the above analyses, one can gain an understanding of the complexity and interrelationships of power relations, resistance and the success or otherwise of IS projects. However, overall, there is a lack of clear guidance for practitioners regarding particular variables to manipulate, or policies to implement in order to successfully negotiate the complexities of power relations in such projects. Further, the analyses focus on the relations between management and the users of the systems and do not include an analysis of intra-project power relations between project team members, which, one imagines is part of the total picture of power relations.

Processes/Structures of Power

IS papers that focus on the processes and structures through which power is exercised largely draw on the work of Giddens and Clegg, in particular Giddens' Structuration Theory and Clegg's Circuits of Power model (Hussain and Cornelius 2009; Silva and Backhouse 2003; Smith et al. 2010). We will first deal with Giddens' Structuration

Theory and the IS research studies on power relations that utilise this theory, and then move on to consider Clegg's theory.

Giddens' writings are focused on providing an ontology of human society, thus revealing and defining the major entities of the human social world (Craib 1992). Thus Giddens' theoretical work deals with social phenomena at a high level of abstraction (Jones and Karsten 2008; Layder 1985; Macintosh and Scapens 1990; Macintosh and Scapens 1991). The central feature of Giddens' Structuration Theory is the balanced treatment of structure and agency, so that neither is taken as primal and fundamental, but rather both interact and impact the other. Human action is taken to be guided and influenced, but not completely determined by structures or defined patterns of behaviour (Busco 2009; Huang 1997; Jones and Karsten 2008; Layder 1985). On the other hand, structures or codes of practice, templates, rules and formulas can be altered, reshaped or even redefined by individual actions that differ somewhat from existing structures. This production and reproduction of structures through human action is often referred to as the duality of structure and action (Giddens 1984). In a sense, structures only exist as memory traces in individuals, until they are instantiated by the actions of individuals. Thus actions or interactive behaviours and structures are mutually constitutive (Giddens 1984; Layder 1985; Macintosh and Scapens 1990; Macintosh and Scapens 1991).

Giddens identifies three dimensions of structure, namely signification, domination and legitimation (see Figure 2). These are related and interlinked with three corresponding dimensions of human interaction, namely communication, power and sanction. Each of the dimensions of interaction is shaped and guided by the corresponding structure, and is linked to the structure via the modalities or bridging mechanisms of interpretive schemes, facilities and norms as shown in Figure 2. We note in passing that, in human social life, the dimensions of structure and human interaction are intimately interrelated and interlinked: they are separated in Structuration Theory only for analytic purposes (Chu and Smithson 2007; Giddens 1984; Hussain and Cornelius 2009).
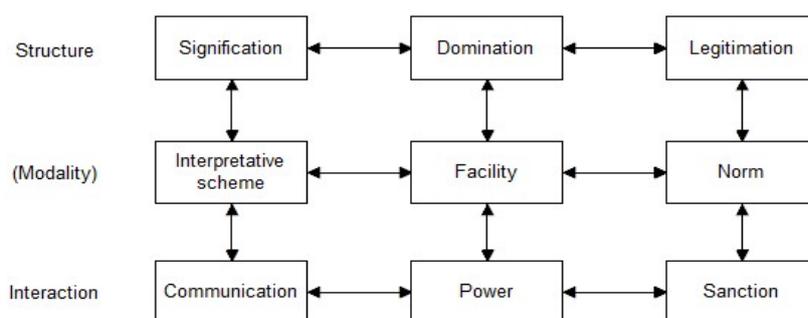

Figure 2: Dimensions of Structure and Interactions in Structuration Theory (Giddens 1984, p. 29)

Signification structures concern the making and sharing of meaning. As such, these structures consist of codes, templates, rules and formulas for the act of communicating. Actual communicative practices draw not only on the structures, but are informed by interpretive schemes which are stocks of shared knowledge and cognitive rules for making and sharing meaning. Legitimation structures consist of moral codes and rules that guide legitimate behaviours and reproduce and guide moral actions via sanctions. Legitimation structures and sanctions are mediated and informed by social norms. Domination structures guide and constrain the exercise of power. The enactment of behaviours involving power relations is not only guided by domination structures, but is mediated and enabled by facilities or resources. Such resources can be allocative resources that spring from command over material objects, or authoritative resources that involve the command and coordination of human actors (Huang 1997; Macintosh and Scapens 1990; Macintosh and Scapens 1991).

Aside from specifics of domination structures, Giddens views power as ubiquitous, being present in all actions and in all social relations (Giddens 1979; Giddens 1984; Huang 1997; Layder 1985). Power, to Giddens, represents the transformative capacity to get things done and, as such, does not tend to be limited to its dark side of coercion, bullying, oppression, and exploitation (Huang 1997). Power is possessed, to some extent at least, by all social agents, wherever they are in the institutional or organisational hierarchy. Agents can, by definition, always do otherwise, yet are needed by those in senior positions in the hierarchy by reason of their energy to get things done and their knowledge of local processes and ways to do things. Giddens refers to this feature of power as the 'dialectic of control' (Giddens 1979; Giddens 1984; Huang 1997).

There is only one study in the extant IS literature that uses Giddens' Structuration Theory as a theoretical lens to examine and make sense of an IS project, namely, Hussain and Cornelius (2009) study of the implementation of an intranet in a health care organisation in the UK. Hussain and Cornelius (2009) identify episodes in the narrative of this case study that can be viewed as the enactment of domination and legitimation structures, thus explaining the progress and success of the project in terms of these notions. Outside the identification of these

structures, however, there is little to indicate to theoreticians and practitioners what constitutes effective and ethical management of power relations in IS projects.

Turning now to the work of Clegg (Clegg 1989; Clegg et al. 2006), there are several IS studies of power relations in IS projects that use Clegg's Circuits of Power model (Backhouse et al. 2006; Silva and Backhouse 2003; Smith et al. 2010). However, before reviewing the studies, we will review the basic nature and structure of Clegg's model. The model is centred around the metaphor of circuits in which power flows silently and invisibly as in electric circuits. There are three circuits, further discussed below: the episodic circuit of causal power, the circuit of social integration and the circuit of systemic integration. The three circuits represent highly interlinked dimensions or aspects of power (Clegg 1989; Clegg et al. 2006).

The episodic circuit of power is concerned with the exercise of causal power. Causal or sovereign power encompasses the traditional notion of power whereby power is a resource or commodity possessed by someone which enables them to direct, command or coerce others. Thus, in simple terms, an episode of causal power occurs when A directs or causes B to do something that otherwise B would not do (see bolded arrow in Figure 3) (Dahl 1957). Whether this episode is successful in terms of A's design or intent is determined by the situation established by the other two circuits as indicated in Figure 3 below.
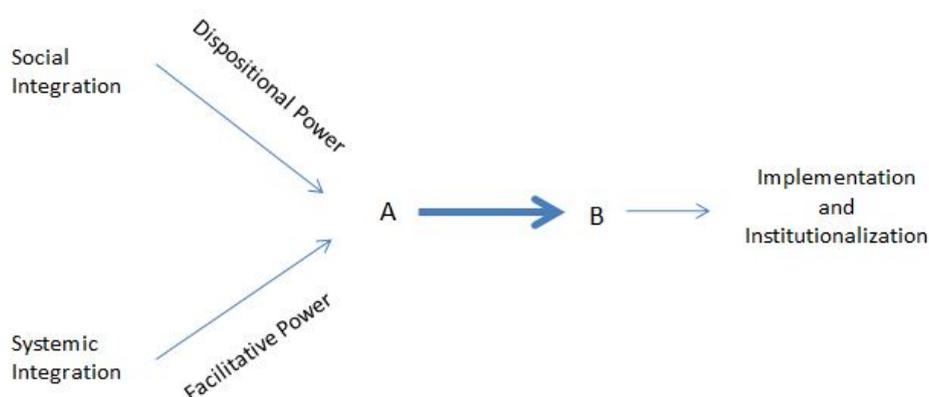

Figure 3: The Circuits of Power and Its Outcome (Adapted from Silva and Backhouse 2003, p. 301)

The circuit of social integration emphasizes dispositional power (Clegg 1989; Clegg et al. 2006; Smith et al. 2010). Dispositional power is concerned with the establishment, configuration and maintenance of the 'standing conditions' of organisational actors. The standing conditions for actors are the positions they hold in the organisational structures and their access to the resources of the organisation (Clegg 1989; Silva and Backhouse 2003). Thus dispositional power refers to the capacities of actors to make things happen. To understand dispositional power we need to study the structures, rules and policies that create meaning in organisations and give membership to groups including project team, committees and the like (Backhouse et al. 2006; Smith et al. 2010).

Dispositional power does not only refer to formal organisational rules and structures but it also refers to the informal organisation of tacit understandings, conversations and discourses. Thus considerable analysis and interpretive effort is necessary to understand the operation of this circuit. Generally speaking the circuit is concerned with issues related to legitimation, authority and access to resources (Smith et al. 2010).

The circuit of systemic integration is concerned with facilitative power in organisations (Clegg 1989; Clegg et al. 2006; Davenport and Leitch 2005). Whereas the causal power of the episodic circuit concerns power as 'power over', facilitative power concerns 'power to' (Clegg 1989; Gohler 2009). Facilitative power is thus a positive conception of power that is involved in the bending of wills so as to achieve collective goals.

Facilitative power is enacted or exercised through what Clegg (1989) refers to as the techniques of production and discipline. Clegg uses the term 'discipline' in the Foucauldian sense which includes both rewards and sanctions and the techniques of supervision, surveillance, routinization, formalization, and mechanization (Clegg 1989; Hodgson 2002). Thus management's techniques of motivation and control are relevant here, as are the associated IT-enabled systems of performance measurement (Silva and Backhouse 2003). The techniques of production refer to the methods and technologies used to deliver the organisational output of goods and/or services. In this matter, as well as in the techniques of discipline, innovations that change or transform these techniques are of particular importance (Coopey et al. 1997; Orssato and Clegg 1999).

There are three papers in the extant IS literature that are focused on power relations in IS projects and that use Clegg's Circuits of Power as a theoretical lens. In one such study, Silva and Backhouse (2003) present an in-depth longitudinal case study involving the implementation and institutionalisation of an administrative system in

a Central American research organisation. This study traces the power struggles and resistance associated with the implementation of the system, which was focused on disciplining the researchers to follow the monetary disbursement rules of an important external funding agency. As such, the system constituted an obligatory passage point for researchers requiring to expend money to progress their research projects. The episodic, social and systemic circuits were used in the analysis to reveal different perspectives on the power relations in the organisation as it undertook the implementation of this system. Without these different perspectives, the authors argue, an incomplete picture of power relations in the IS project concerned would result. The information system, the authors maintain, has to be integrated into the organisation at the three levels that correspond to the three circuits of power.

The papers by Backhouse et al (2006) and Smith et al (2010) are similar to the paper just discussed, except that the IS project studied in the research concerns, not an information system, but the formulation and implementation of a de jure information systems security standard. Further, the two studies involve, not just individual organisational actors, but private corporations and government departments and agencies as actors. Again, as in the paper reviewed above, episodes in the narrative of the cases are identified as events or situations pertaining to one or more of the circuits of power. However, it is worth noting that at times the analysis is abstract, opaque and difficult to interpret. As mentioned by Backhouse et al (2006, p. 429):

"Deploying these elements - the circuits, the obligatory passage points, the exogenous factors - can leave the uninitiated a little bemused at times ... ... the framework is not exactly intuitive."

Personal Characteristics and Skills/Tactics in the Application of Power

Aside from the structural determinants of power mentioned above, there are, in addition, various personal determinants of power including personal characteristics, personality traits, social skills and tactical influence behaviours (Anderson and Spataro 2008; Faeth 2004; Kelman 1958; Keltner et al. 2003; Kipnis and Schmidt 1980; Yukl and Falbe 1990; Yukl et al. 1993; Yukl and Tracey 1992). Certain personal characteristics, which have been found to include physical attractiveness, height and muscle mass for men, certain facial characteristics and the like, are associated with elevated levels of power in individual cases (Anderson and Spataro 2008; Keltner et al. 2003; Savin-Williams 1977). Some personality traits, for example extroversion and increased social skills are similarly associated with increased individual levels of power and influence (Anderson and Spataro 2008; Coats and Feldman 1996; Keltner et al. 2003).

Various patterns of influence behaviours are also known to be used by individuals in order to direct and change the behaviour of others, and thus, by definition, are an aspect of the application of power (Faeth 2004; Kelman 1958; Kipnis and Schmidt 1980; Yukl and Falbe 1990; Yukl et al. 1993; Yukl and Tracey 1992). Such patterns of behaviour are often referred to in the social psychological and organisational literature as influence tactics (Yukl and Falbe 1990; Yukl et al. 1993; Yukl and Tracey 1992). The studies investigating such behaviours are extensive and can be traced back to the 1950s (Faeth 2004). Notable in this research is the set of social psychological studies carried out by Yukl and his colleagues, leading, among other things, to a classification of ten proactive influence tactics including rational behaviour, coalition building, consultation, establishing the legitimacy of requests, personal and inspirational appeals and so on (Faeth 2004). Further, some of these power and influence behaviours have been found to be, generally speaking, more effective than others (Mowday 1978; Yukl and Tracey 1992). Outside the work of Yukl, there is literature indicating that participative approaches and approaches that have significant levels of organisational and procedural justice may impact the way power relations play out (Eberlin and Tatum 2008; Heller 2003; van Dijke et al. 2010).

The overall implication of the above is that the socially skilled, who can deploy such tactics with finesse and skill, will be more effective in using influence and power to successfully direct and manage change. Effective use of such power and influence behaviours would thus, arguably at least, be critically important in IS projects. However, surprisingly, the IS literature on power relations in IS projects is silent on this aspect of the application of power. Thus there are significant aspects of power relations that are absent from the analyses of power in the IS literature.

A NEW RESEARCH DIRECTION

The IS papers reviewed above have used the theories of philosophers and sociologists to analyse the IS studies concerned and to understand the phenomenon of power relations in IS projects. Possibly, in part at least, because of the nature of the disciplines of the theorists concerned, the theories used are highly general, abstract, and at times, somewhat opaque and lacking in intuitive clarity, especially when applied to particular organisational events at the level of detail appropriate to IS projects. However, a more tangible and potentially useful theory concerning the nature and operation of power has emerged in social psychology and is based on the work of Turner and other social identity theorists in that discipline (Simon and Oakes 2006; Turner 2005). Turner's Three Process Theory of power emerged in the mid-2000s and, despite its potential to shedding new

light on the exercise of social influence and power, has not been used as a theoretical lens in any studies to date. Thus, this constitutes a real opportunity to researchers in IS and other social science disciplines to increase and deepen our understanding of power relations in organisations and IS. We will now give a very brief explanation of the nature of Turner's theory, including its theoretical underpinnings.

Turner's Three Process Theory of power is based on his work with Tajfel, Oakes, Hogg and others in social identity theory (SIT) and self-categorisation theory (SCT) (Hogg and Turner 1985; Hornsey 2008; Oakes et al. 1994; Oakes et al. 1991; Tajfel et al. 1971; Tajfel and Turner 1979; Turner 1978a; Turner 1978b). SIT was developed to explain the psychological basis of intergroup behaviour, particularly the discrimination of in-group members against out-group members, that is of 'us' against 'them' (Hogg and Turner 1985; Hornsey 2008; Tajfel and Turner 1979). Different groups, of course, are characterised by differences in power, status and prestige. Belonging to a group confers a certain identity which leads to certain behaviours which includes supporting one's own group, the in-group, and being more open to persuasion by members of this group, while simultaneously discriminating against and being somewhat impervious to influence from the relevant 'others' in any social situation, that is, the out-group (Ashforth and Mael 1989; Hogg 2001a; Hogg 2001b; Hogg and Terry 2000; Reicher 2004; Schwarz and Watson 2005).

In the 1980s, Turner extended and deepened his ideas regarding SIT and psychological group formation with and through the development of SCT (Turner 1984; Turner 1985; Turner 1987; Turner et al. 1987). SCT argues that individuals have a rough hierarchy of categories that they refer to in order to give meaning and direction to their social life (Hogg and Turner 1985; Hornsey 2008; Turner 1985; Turner 1987; Turner 1991; Turner et al. 1987). Belonging to a particular category is equivalent to belonging to a psychological group in which a series of values and interpretations are shared. An example of such categories may be those categories applying to two women academics, one an accounting academic and the other a management academic, both in University X. These two persons would likely belong to such groups as University X, the Business School of University X, academics, and women; these groups being in a rough and perhaps overlapping hierarchy. In a faculty budget situation, these two women may be rivals and power players in the competition for resources, but in a different situation, may both support the University in building its reputation in competition with other universities. At an even more inclusive level, both academics may support women in general in equal pay and other social justice issues. Thus, different categories have salience in different situations.

As mentioned above, when an individual accepts and internalises (or is persuaded to accept) a category as applying to them, they act as a member of a psychological group. Such acceptance may occur over a long period of time, but can at times occur quickly in a particular situation. This will lead to an individual accepting and behaving in accordance with certain values that are regarded as typical of the category or group. Based on a number of experimental studies, Turner (1987) concluded that if individuals accepted such self-categorisation then psychological group membership was in play even in cases where members did not have personal proximity and interaction, were not directly interdependent and lacked the cohesion of some social groups. For example, membership of the nation state or a global organisation could constitute such categories. Psychological group membership offers members the potential positive effects of making sense of the world and hence reducing uncertainty, as well as support for one's self interest, and potentially (for high status groups at least) self enhancement. In terms of social influence and power, psychological group members are open to persuasion and influence from other members, particularly highly prototypical members, as they wish to retain their psychological group membership, hence the link to power.

In formulating the Three Processes Theory, Turner rejected the notion common in other social psychological and sociological theories of power that power springs from the control of resources that are valued, desired and needed by others. For Turner, power springs from psychological group membership as indicated in SIT and SCT. Thus, Turner asserts that he is formulating a way to study "how power emerges from and functions within social relationships with a definite social, ideological and historical content, rather than redefining it as an abstract external force producing generic psychological effects" (Turner 2005, p. 1) and, further notes that his theory emphasises "group identity, social organisation and ideology" (Turner 2005, p. 1), rather than dependence on resources as the basis of power.

Power in the Three Processes Theory operates through either persuasion or control, where control, in turn, operates through the processes of authority or coercion (see Figure 4). Thus the three processes through which power is exercised are persuasion, authority and coercion. Turner does not give a set of stages or steps by which these processes operate, but does discuss the principles of their operation and the advantages and disadvantages of each of these modes of power.
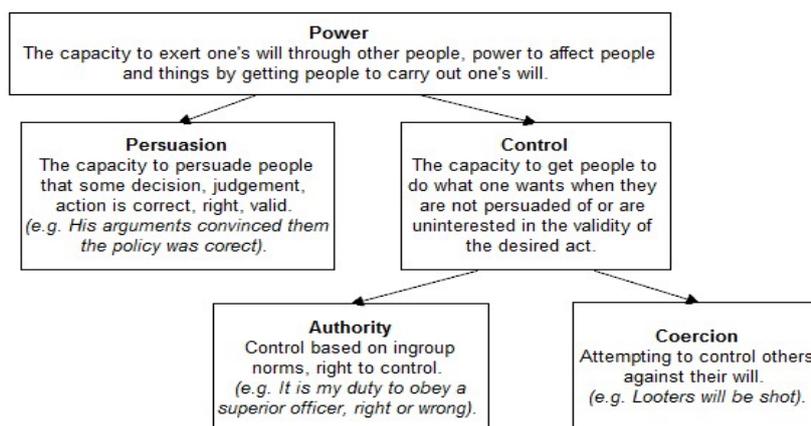
Figure 4: The Nature of Power (Adapted from Turner 2005, p. 7)

There are significant advantages in using Turner's theory and the associated underpinning theories of SIT and SCT to explain power relations and the associated phenomena. It can be argued that the theories of Foucault, Giddens and Clegg rely, implicitly at least, on the notion that power springs from the control of resources. This leads to problems in that different types of resources, such as physical and financial resources, informational resources, expertise and so on, seem to lead to different power sources (French and Raven 1959). Thus we find resource dependency theories of power with one (Festinger 1950), two (Deutsch and Gerard 1955), three (Kelman 1958) or five, six or more sources (French and Raven 1959; Raven 2001) whereas Turner's theory provides a parsimonious and coherent explanation of the source of power based simply on psychological group formation (Turner 2005). Theories that rely on resource dependency for an explanation of power also have problems explaining social and organisational change and related phenomena. Such a dependence leads to difficulties in explaining how social and organisational change movements sometimes succeed when the parties concerned have few resources, whereas Turner's theory has no such difficulties (Turner 2005). In particular, whereas resource dependency theories of power have difficulties in explaining how groups that are low in the organisational hierarchy succeed in resisting information systems innovations mandated by powerful organisational actors, social identity based arguments furnish a ready answer (Turner 2005). Turner's theory, together with SIT and SCT, also gives a more convincing explanation of such phenomena as resistance (van Dijk and van Dick 2009) and persistence with failing projects (Haslam et al. 2006). Thus there are significant potential benefits for researchers in using Turner's Three Process Theory in studying power phenomena in IS projects.

As argued above, Turner's theory presents a significant research opportunity to IS researchers. Further, the theory is moderately new, certainly in comparison to the theories of social theorists reviewed above. More significantly, no empirical research has been carried out using the theory, despite the theory being overtly credible and having a firm theoretical and empirical basis in SIT and SCT. The theory's focus on psychological group formation is relevant to IS since the project manager or leader is often an IT specialist and hence in a different group from those stakeholders who constitute the change recipients in the project. Further, Turner's theory is tangible and intuitive and has the detailed focus in the specification of both the source of power (psychological group formation) and the processes of power that is required for it to be able to be applied to particular events in organisations and IS projects. This is not always the case with Foucault and Giddens where a broader and more societal focus often seems apparent. Possibly researchers may find that although the Three Processes Theory gives new insights, full understanding of power relations may only come when be theory is combined both with some aspects of other relevant theories including Foucault, Giddens, Clegg (and perhaps others like French and Raven) and with some aspects related to personal characteristics and influence tactics.

CONCLUSION

This paper has reviewed and explained the major theoretical underpinnings of the recent research on power relations in IS projects. The paper has also reviewed the corresponding IS research. Rather than being an exhaustive and taxonomic style review, the paper has attempted to introduce the reader meaningfully to the key ideas and the way these ideas have been applied in research in the IS discipline. This review was followed by an introduction to a new thread of research on power and influence in social psychology, which was based on extensive research in SIT and SCT. Thus readers have been positioned to take up the research challenge by utilising these ideas in future IS research studies.

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