Towards a (more) critical and social constructionist approach to New Product Development projects*

Beata Segercrantz

abstract

This paper contributes to a critical debate on software product development projects. This is done by discussing certain shortcomings of mainstream new product development (NPD) literature and by offering an alternative approach to understanding NPD. The aim is not to argue against the 'existence and desirability' of NPD. However, the paper is critical of the univocal nature of most mainstream NPD literature, which potentially operates to marginalize certain voices and to limit possibilities for future actions. The paper moves towards offering a more critical social constructionist approach. Drawing on interviews with software product development experts, the paper provides an illustrative example of studying NPD projects. Here attention is shifted to the heterogeneous emergence and becoming of projects in and through which discourse, social practices, and subjectivities are dynamically produced. The approach emphasizes sensitivity to a wide range of accounts, sometimes contradicting ones, and to issues arising from them by being cautious of established conceptualizations in the outset of a study. It is suggested that such an 'analytical' approach may facilitate conceptual resources for critical debates and transformations.

Introduction

Many researchers in management and organization studies have pointed out that project based work has increased in a wide range of sectors and industries (e.g. Lindgren and Packendorff, 2006). The focus of this paper is on software product development that typically is carried out in project settings in which complexity, unpredictability, and continuous change is common (Kolehmainen, 2004). Software development projects, as a form of work, often involve complex problem solving as well as potentially changing customer requests, tasks, colleagues, and physical places of work. Therefore organizations engaged in software development activities form an interesting field of study from the perspective of (critical) project studies.

There is a well established literature on New Product Development (NPD), which explores various processes of NPD projects (e.g. Cooper, 1990; MacCormack et al., 2001). In this literature, projects are theorized and explored as processes consisting of discrete steps, often viewed as relatively linear and sequential, which potentially can lead up to new products (see e.g. Cooper 1990). Further, this large body of research has focused on developing models on the basis of which NPD teams could repeatedly commercialize successful new products. Underlying these efforts seems to be an assumption according to which projects are conceptualized in relatively static terms; NPD processes are understood as entities with certain characteristics that can be carefully planned and controlled. Understanding projects in these terms implies reifying projects, thus giving them ontological priority by drawing on an ontology of being (Chia, 1995). An implication of such attempts is that the conceptual entities are treated as unproblematic, putting them beyond critical analysis (Chia, 1999).

The aim of this paper is to address shortcomings arising from the univocal nature of NPD literature. This is done by viewing projects as discursively constructed, reconstructed, and transformed in and through relational processes rather than ascribing projects ontological priority as discrete events. This involves taking up an ontology of becoming (Chia, 1995), that is, a context-sensitive approach to understanding interaction and local orchestration of relationships through which projects and subjectivities emerge. These processes are viewed as ultimately ongoing and open-ended, therefore continuously producing multiple constructions of projects which in turn are constantly modified and contested (Tsoukas and Chia, 2002) in specific historical and cultural situations (Gergen, 1973). Understanding projects in these terms can open up projects to new critical considerations. However, although questioning the ontological assumptions underlying most mainstream NPD literature provides important insights into the becoming of projects, such efforts do not necessarily offer a critical account of the phenomenon studied. This paper is concerned with developing a critical social constructionist approach that builds on an ontology of becoming and emphasizes giving voice to a wider range of social actors, such as projects workers. This is done by shifting attention to the analysis of unfolding micro-practices that shape reality in diverse ways in an attempt to bring forward a rich array of accounts for potential critical considerations; considerations that address, for example, asymmetrical power relations and dynamics of constructing subject positions.

Drawing on a social constructionist approach, the paper provides an illustrative example from an IT company. The empirical illustrations show how product development projects are discursively constructed and organized as well as how these processes have certain implications for how project workers make sense of themselves.

Moving on from prescriptive new product development models

New software product development is typically carried out in projects. There are several established approaches to NPD, which have focused on exploring processes of NPD projects. More specifically, much mainstream NPD research has investigated how such projects are managed and how NPD processes can be improved. During the last three decades it has been argued by different writers (e.g. Cooper, 1990) that NPD involves

processes that can be carefully managed. Cooper (1990) claims that effective NPD projects are often divided into predetermined stages; in the end of each stage there is a quality evaluation to ensure that all predetermined objectives have been met before the projects moves on to the next stage. Further, it is argued that managing NPD projects through these stages involves adopting a specific process that takes into consideration factors that have been shown to drive successful NPD performance (Cooper and Kleinschmidt, 1996). Such clearly structured models are built on the assumption that successful management of NPD projects requires prevention of uncertainties and changes, as well as careful planning by determining the product concept, design, production, and market introduction at the outset of an NPD project (Iansiti, 1995).

Since the late 1990s, some mainstream NPD literature has increasingly drawn attention to how product development in many industries is carried out in highly dynamic and uncertain business environments (e.g. Bhattacharya et al., 1998; MacCormack et al., 2001). For example, companies developing software may have to deal with frequently changing technologies and customer preferences, making traditional NPD models, such as Cooper's model, difficult to adopt in the software development industry (Iansiti, 1995). How changes and uncertainties during a development project may be taken into account has been approached in various ways. Eisenhardt and Tabrizi (1995), for example, elaborate on how NPD processes can be accelerated. The objective of compression models that advocate fast product development is to compress predetermined process stages, which are assumed to be predictable, implying that uncertainties can be kept at a minimal level (Kamoche and Cunha, 2001). Hence the competitive advantage of a firm is assumed to be determined by the speed of NPD through planning, rationalization of specific stages, and reduction of uncertainty. The compression models are based on similar assumptions as traditional NPD models, although the compression models put more emphasis on time. The waterfall model, which is sometimes applied in software firms, can be seen as a version of the traditional and the compression NPD models.

Dissatisfaction with the NPD models discussed has led some writers to explore flexibility (Iansiti, 1995; MacCormack et al., 2001) and improvisation (Kamoche and Cunha, 2001). Here, flexibility refers to the development of models in which different product development activities overlap (Krishnan et al., 1997). For example, if a development process is structured into three phases such as (1) the concept development of the software product, (2) the implementation, and (3) the testing, these three stages overlap in flexible models, while such stages follow each other sequentially in traditional models (MacCormack et al., 2001). This implies that successful NPD processes are responsive to new information concerning the market and technologies throughout the project by including change as an ingredient in NPD, yet putting emphasis on certain structures and process designs (Iansiti, 1995). Models advocating improvisation in NPD support the idea of less structured development activities to improve innovation and to ensure 'self-organizing' in projects (Kamoche and Cunha, 2001).

As illustrated, many mainstream accounts on NPD have been rather prescriptive. The objective has often been to find best practices for managing optimal NPD processes. Recent mainstream debates on NPD (e.g. Kahn et al., 2006) continue to address related

issues such as the optimal level of formalization of NPD processes, adaption of models to different environments, benchmarking ,and NPD in global settings (Kleinschmidt et al, 2007).

The NPD models discussed do not provide a comprehensive classification of product development models but the review reveals some common mainstream conceptualizations of NPD. Although there are differences between different NPD models, we can discern certain concerns and assumptions that the models seem to share. For example, many mainstream models of NPD have focused on reducing product development costs, accelerating processes, and improving product quality by describing how successful NPD should be organized. Ultimately, the objective of these accounts seems to be to help practitioners choose the 'right model under the right conditions'. In this endeavour, the prescriptive or best practice accounts concerning NPD tend to emphasize reason, which is assumed to culminate in progress through increased human control of the world leading up to, for instance, new products (Prasad, 2005; Parker, 1992). In other words, much mainstream NPD literature presupposes that improved models of NPD processes and projects are likely to lead to progress. Through increased empirical knowledge about different characteristics of NPD, it is assumed that structures of the world, including NPD, can be found; structures that leave little space for margins or deviation from rules of reason (Bauman, 1992). Only increased precise predictions are assumed to produce effective NPD projects and formulating the predictions requires 'finding' a single best account or sometimes a limited number of related accounts (O'Shea, 2002). The prescriptive accounts in mainstream NPD models, however, pay little attention to various consequences of the models on individuals, for example, the models tend to take a gender-neutral stance. As Hodgson and Cicmil (2007) point out, the dangers and cost of standardization in organizations have been neglected, including impacts on subjectivities. Complex ways in which individuals respond to dominant discourses of organizations seem to be under-explored (Thomas and Davies, 2005). Next, I will discuss how these types of shortcomings can be addressed.

Towards a critical social constructionist approach to NPD projects

A commitment to the NPD models discussed in the previous section implies an emphasis on an ontology of being (Chia, 1995). More specifically, projects and NPD processes are described as objects existing 'out there' with certain characteristics such as (in)effective process stages. NPD projects are thus understood as relatively stable entities within which product development is carried out. From this it follows that projects as entities are given priority in analysis and ways of organizing are seen as secondary accomplishments, that is, organizing is assumed to come into existence through the projects. However, if NPD projects are in contrast seen as socially constructed, projects become instead a 'consequence' of organizing, that is, through organizing people construct projects rather than vice versa. This view on social phenomena privileges an ontology of becoming (Chia, 1995).

To explore the becoming of projects, this study draws on certain social constructionist accounts. There is a wide range of social constructionist approaches, which have emerged from influences of a number of writers during the last 40 years (Burr, 1995). As various versions of social constructionism differ in many respects (see, e.g. Knorr Cetina, 1994), I will outline a specific social constructionist framework, which I will show is both 'analytical' and 'critical'. The implications that follow from this framework, when adopted to study NPD projects, are significantly different from the implications that result from most mainstream NPD studies.

The becoming of NPD projects

Taking up an ontology of becoming implies exploring NPD projects beyond the specific meanings produced in mainstream NPD literature. Hence our attention shifts towards complex social processes that software product development experts engage in; the interactions and relational processes that take place between them (Burr, 1995). Through these processes, projects are socially constructed and come into existence as they are attributed with specific meanings. How the product development processes interactively unfold and construct certain shared understanding of NPD and not others are emphasized. These actions are continuous and thus meanings attributed to projects are more or less constantly modified as the actors participate in NPD (Tsoukas and Chia, 2002). Meanings are therefore always in a state of becoming, never fixed (Chia, 1995), and should be understood as primarily culturally and historically specific (Gergen, 1973). In sum, by engaging in certain process, actors seek to construct stabilized meanings of NPD but, simultaneously, as they participate in these projects various meanings are modified.

When understanding NPD projects as emerging through relational processes, discourse becomes the primary target of concern (Berger and Luckmann, 1966). By exploring discourses that software product development experts draw upon to bring certain organized states into existence (Potter and Wetherell, 1987), we can attempt to understand how they produce order and predictability to make social reality 'more liveable' (Chia, 2000). Looking at discourse in particular contexts provides insight into how NPD is '*made* to work' (Tsoukas and Chia, 2002: 578) as social actors locally take up specific actions. Further, certain contexts are assumed to provide a wide range of discourses while other contexts may provide a very limited number of discourses to draw upon. Likewise, it is suggested that various actors do not have equal possibilities to make use of discourses in specific contexts (Potter and Wetherell, 1987). Some voices gain more legitimate positions while others are marginalized or silenced (Grant et al., 2005), for example, depending on the hierarchical position, gender, age, and education of a person (Burr, 1995). In the local conditions of product development, there are then always a number of discourses that construct specific versions of NPD projects while excluding others. Hence the discursive production of projects also appears to have potentially suppressive effects (Hodgson and Cicmil, 2007). The prevailing discourses that shape NPD have implications for how project workers involved can or should act, that is, by participating in organizing practices actors simultaneously construct themselves (see e.g. Bergström and Knights, 2006). Discourses are therefore seen to be tightly intertwined with how NPD projects emerge

and how actors are addressed in these processes; they act both as resources that actors can draw on in their interaction with others and as discursive constraints. Nevertheless, software product development experts, like any other social actors, are seen to have some room for choice in relation to discourses available (Davies and Harré, 1990; Bergström and Knights, 2006).

To conclude, 'discourse is first and fundamentally the organizing of social reality', and identities are constructed through these organizings (Chia 2000: 517). Further, the notion of discourse is also viewed as continuously contested, resisted, and modified. Hence actors are seen as both users and manipulators of discourse (Burr, 1995). This means that discourse, social practices, and subjectivities are viewed as dynamically produced. It is precisely through exploring these micro-processes of dynamic production that we can develop an understanding of the actual becoming of various social realities (Chia, 1999; Tsoukas and Chia, 2002). For example, to explore the becoming of NPD projects, mainstream NPD models should be seen as discursive templates (Tsoukas and Chia, 2002), not as functional plans to be efficiently realized as intended, but as resources that may introduce new ways of understanding, constructing, and carrying out projects. Therefore, the implementation of a new NPD model in a project acts as the 'beginning' of various discursive practices through which the model is reinterpreted, sometimes institutionalized, or perhaps even ignored; simultaneously, identities and subjectivities of the product development experts engaged in these unfolding processes are constructed (Chia, 2000).

An approach to facilitating critical accounts

If we understand reality as always in flux and take as our target of concern processes of labelling and fixing experiences, we can begin to recognize how specific versions of reality are constructed and what maintains them. Here I am specifically interested in how certain discourses and voices appear to gain legitimate positions while others are ignored or silenced (Burr, 1995). In exploring such issues, the focus on processes of becoming opens up possibilities for bringing forward different, sometimes contradicting, voices that are otherwise often deprivileged in analyses. In contrast, most mainstream NPD studies seem to be engaged in a search for more and more 'accurate' portrayals of product development projects, thus producing univocal accounts. This implies winnowing out what is considered the 'false', which, from a social constructionist perspective, operates to suppress voices rather than bringing forward the rich array of accounts that constitute NPD projects (Gergen and Thatchenkery, 1996).

Some of the critics targeted by social constructionist accounts have questioned the possibilities of the approach to provide critical accounts of social phenomena in terms of ethical and moral issues (Czarniawska, 2005). Moreover, if we take an anti-realist stance to social reality, how can we privilege certain discourses or voices? Further, can any social reality be deconstructed? There is great number of issues, which writers drawing on social constructionism explicitly do not seem to approve of (Czarniawska, 2005), and therefore one could argue that there are certain cultural and ethical limits to what is seen as desirable and undesirable (Dachler and Hosking, 1995). However, social constructionist accounts, as understood here, do not privilege the researcher's voice

over the voice of the researched. Hence the aim of a study is not to produce a specific answer to how certain conditions should be organized. Instead, various actors who potentially take up the research 'findings' in ongoing relations are seen to be in key positions regarding how the conceptual resources are translated into action in local conditions. Further, in bringing about change, social constructionist accounts emphasize the *social* aspects of processes of construction, which implies that transforming established constructions is a complex social achievement and not a simple choice to be done. The role of social constructionist studies then becomes to reveal the discursive becoming of certain effects with the objective to facilitate conceptual resources to transform, for example, suppressive effects.

By unmasking the becoming of certain effects, we can produce new alternatives for the future. This objective sharply contrast to much mainstream NPD literature, which typically aims at formulating one or limited prescriptive options for the future to produce preferred effects (O'Shea, 2002). To open up new options for future action, some social constructionist studies adopt a rather analytical approach while others take a more critical starting point (Jokinen and Juhila, 1999). A critical approach may, for example, start out by assuming the existence of asymmetrical power relations. Various practices in and through which these relations are maintained and justified are critically explored, often to achieve change. However, analytically oriented social constructionist studies put more emphasis on empirical data and issues arising from it, and therefore avoid formulating specific presumptions at the outset of a study. Rather than seeing these two approaches as two extreme examples, Jokinen and Juhila (1999) suggest that they can be placed at each end of a methodological dimension; a study can move back and forth on this dimension and thus be both analytical and critical, depending on the stage of the study. For example, analytically informed studies may produce critical results, and hence not only illustrate the becoming of a particular effect but also facilitate a critical account following the analysis. It is my intention to adopt such an approach here to develop a better understanding of how product development projects are discursively organized in certain contexts. However, as it has become apparent, my ambition is not to develop a prescriptive account but, following an 'analytically informed analysis', I attempt to provide a critical discussion of the results. An important beneficial implication of this effort is the possibility to give voice to a broader array of accounts, perhaps previously deprivileged ones, and to address some consequences of project-based work on project workers.

An illustrative example of organizing software projects

Drawing on the social constructionist approach outlined in this paper, I have conducted a study that explores software product development during organizational restructurings. The study consists of 81 semi-structured interviews conducted in Finnish IT companies. In this section, a brief illustrative example is presented to demonstrate how a group of six product development experts working within the same IT company (hereafter given the pseudonym EN Systems) constructs ways of organizing projects.

The analysis began with several readings of the transcribed interviews that explored similarities and differences, consistency and variations, as well as looking at the full

range of accounts. The starting point was analytical in the sense that I carefully identified and described certain context specific performances of language, which constructed ways of organizing projects (Jokinen and Juhila, 1999). This was done by avoiding defining and imposing logics at the outset of the analysis on the phenomenon studied. This is not to argue that I stepped into the analysis without any preconceptions, nor do I suggest that any critical conclusions cannot be drawn from the results. The suggestion is that I was cautious with established conceptualizations of projects and presumptions of, for example, power relations (Jokinen and Juhila, 1999). I began by focusing on ways of organizing and attempted to be as open as possible to different micro-practices producing stable effects. When all accounts that could be interpreted as describing organizings had been located, I continued by analyzing them in detail and by allowing some patterns to begin to emerge. The analysis showed how ways of organizing and subject positions were dynamically constructed and thus I proceeded to explore subject positions and their implications.

An illustration: Product development at EN Systems

EN Systems had a few software products, but the organization was constantly engaged in NPD projects. The ways in which the projects unfolded usually followed a similar 'product development model', that is, a discursive template (Tsoukas and Chia, 2002):

> The process, according to my view, began as the person who is pulling the strings, the major guru, who sort of leads the product development, he has a long history, he has seen many products, he has even seen many versions of this product [under development], that is, of financial portfolio systems. He has seen many financial portfolio system products and systems related to them. Based on this experience he has probably during the years developed a vision and he also happens to be, let's say quite an intelligent person. Somehow he can keep all these things in his head, it helps. And then he probably got a green light from someone to begin developing his idea. In my view, it has been lead from one head. … Each [team member] has had a very narrow scope in it [the NPD project]. One hasn't let them intervene in everything. Instead they have been, well, let's say that their scope has been kept narrow with dictatorial means. It is maybe doubtful in a social sense, but on the other hand it has given good results. That is, a product has been created. And if you would start messing a lot outside your own scope, then you would suffocate very soon. It has worked in this case. Perhaps everyone has respected it. There has been a leadership style that is efficient in my opinion. (A product development expert)

As we see, product development was organized according to a vision that had emerged over time, rather than in accordance with an 'established' NPD model. The aim of the actions taken when translating the vision into product development was to strictly control practices in a rather bureaucratic manner. Hence NPD was implicitly seen as practices residing in a context of potential disorder or even chaos that in most projects needed strict ordering, implying that disorder was to be avoided.

The project leader, who was also the supervisor of the other interviewees, was located in a relatively powerful position and was able to define the vision and to further delegate tasks in line with it. As the extract above shows, these power relations were legitimized in the interaction between various actors through certain discursive moves; the project leader constructed himself and was constructed by the other interviewees as a 'major guru', a more 'experienced' and 'intelligent person', hence making it easy for

him to claim voice. Implicitly the other interviewees were simultaneously produced as 'less intelligent and experienced', thus maintaining the project leader's position.

Although the project leader and the other interviewees occupied different positions and possibilities to claim voice, all interviewees can still be seen as agents of NPD. Moreover, the 'NPD model', shaped by the project leader's vision, can be seen as a discursive template that served as a resources through which the other actors interpreted their experiences and interrelated their actions while at the same time also modifying it to varying degrees (Tsoukas and Chia, 2002). The interviewees often explained that the discursive template assigned to them 'a very narrow scope' in which to act. More specifically, as the 'NPD model' was translated into action, the product development experts constructed themselves as 'communicators'; their obligations were to follow instructions, to further delegate tasks to others (for new local reinterpretations), and to make sure that the tasks were carried out successfully. Hence the experts were constantly moving between the positions of complying with authority (project leaders) and positions as practicing authority towards others in lower hierarchical positions. Engaging in such activities was not a simple non-political process. The process of delegating task sometimes involved struggles and persuading other actors to take up specific responsibilities in certain ways. Carrying out these tasks required commitment and dedication, often experienced as stressful, as one interviewee said: 'I enjoyed it but undeniably it has been stressful and time consuming in the sense that a normal work day doesn't seem to be enough'.

In the story we see how a discourse of ordering and control was emphasized and rarely questioned, hence having significant implications for how NPD projects were organized. Projects were produced as practices that can be planned, predicted, and controlled in detail. In addition we can discern how the product development experts were offered subject positions in very specific ways within this discourse. Here, I view subject positions as achieved through the interaction between discourse and human agency (Bergström and Knights, 2006; Hardy, 2001) as individuals participate in various micro-practices. A specific subject position provides social actors with a conceptual repertoire and location that define limitations and possibilities for those who take up that position (Davies and Harré 1990). For example, the project leader was, in contrast to the other interviewees, located within a structure of rights that entitled him to a voice for defining a discursive template for NPD and including/excluding experts in projects. The other interviewees took up narrowly defined subject positions offered in discourse and were 'locked' into a structure of rights (and obligations) that addressed them as 'communicators' and instruction-followers.

The analysis of various micro-processes also illustrates how the interviewees (dis)identify with their subject positions (Fleming and Spicer, 2003); how actors are locked into structures of rights/obligations that they can accept or attempt to resist (Burr, 1995). The interviewee cited in the beginning of this section seems to dis-identify with the subject positions offered through the seemingly institutionalized 'dictatorial' ways of organizing projects. However, he still performed his obligations and even defended the practices by claiming 'it has given good results' and 'there has been a leadership style that is efficient', thus legitimizing the relations of power (Fleming and Spicer, 2003). In contrast, another interviewee explicitly seemed to identify, at least in

certain local conditions, with the subject positions offered; working under time pressure functioned as an important means through which he was constructed as 'a person who is needed by the company'. Concerning the other interviewees, it is more difficult to conclude how they related to their positionings, but nevertheless they all participated in various practices in similar ways, as illustrated in the extract, hence showing commitment to the projects and the reconstruction of certain power relations.

Conclusions

With this paper, my intention has been to draw attention to valuable implications that potentially follow from focusing on projects as discursively constructed in contrast to viewing projects as discrete events. Such a shift in focus involves a shift from an ontology of being to an ontology of becoming (Chia, 1995), that is, a shift from producing snapshots of NPD projects to exploring micro-processes of product development (O'Shea, 2002). As discussed, most of the NPD literature has attempted to 'discover' and formulate 'accurate' representations of NPD projects, which have provided thorough snapshots of projects (Tsoukas and Chia, 2002) but, simultaneously, have produced univocal accounts that potentially suppress a wide range of voices. To address such shortcomings, I elaborated on an alternative social constructionist approach through which the dynamic character and becoming of NPD projects can be better understood. More specifically, a crucial implication that follows from adopting an approach that is sensitive to the fluxing reality and the plurality of accounts is that we can open up more critical debates as it becomes possible to explore the diversity of voices.

To illustrate how marginalized voices could be brought forth and circulated in various micro-practices (Gergen and Thatchenkery, 1996), one possible path (amongst many) was sketched out. The suggestion was that by taking an analytical starting point without formulating clear presumptions at the outset of a study and by emphasizing giving voice to depreviliged actors (Jokinen and Juhila, 1999), we can generate new, more heterogeneous insights to project work; insights that later can act as critical conceptual resources for transforming the field of practice. However, in contrast to critical theory, the aim is not to 'provide direction and orchestration' (Alvesson and Deetz, 2006); rather, this study encourages a search for useful readings of various social phenomena, which may produce change when placed in motion in certain contexts (Burr, 1995).

This paper also sought to illustrate the becoming of projects and subject positions by drawing on interviews with software project workers. The 'analytical' starting point of the study focused on various discursive practices, showing how NPD projects were constructed through dominant discourses that emphasized ordering and control, thus constructing ways of organizing projects in very specific ways. These practices left little room for the interviewees, with one exception, to negotiate subject positions, therefore also limiting the interviewees' actions and possibilities to claim voice (Burr 1995). The discursive view of subject positions taken here suggests that social actors take up specific subject positions within discourse, and that this is achieved through the interaction between discourse and human agency (Bergström and Knights, 2006). Further, as Davies and Harré (1990) argue, social actors have the 'choice' to accept or

resist their subject positions while also modifying them. Nevertheless, perhaps surprisingly, although the ways of organizing in the empirical illustration seemed to provide the interviewees with little space for negotiating subject positions, the interviewees did not resist their subject positions in their accounts, with the exception of one interviewee. This humble obedience (Lindgren and Packendorff, 2007) in project settings deserve more attention in future studies, as various forms of compliance and resistance as well as (dis-)identification may contribute to complex and contradictory processes as individuals make sense of themselves.

As the illustrative example showed, the suggested social constructionist approach may prove most useful through the possibilities it offers to understand compliance and resistance, identifications and dis-identification at the level of subjectivities (Thomas and Davies, 2005). The strength of such inquiry is that it 'breaks out of the dualistic debate of "compliance with" and "resistance to"' and generates a nuanced, multidirectional understanding of the process through which different social actors come to accept specific subject positions (Thomas and Davies, 2005: 683) in, for example, project settings. This approach to resistance and compliance is in sharp contrast to mainstream NPD literature that implicitly or explicitly assumes that control can be achieved by designing optimal models that structure project work in certain ways, while resistance to such ways of organizing work is viewed as arising from unsuccessful management and design (Alvesson and Willmott, 2002; see also Hodgson, 2002). Thus one of the most important implications arising from project studies drawing on the social constructionist account presented in this paper is the possibilities offered to produce broader, more varied, multidirectional, and perhaps even contradicting interpretations by focusing on the becoming of projects in terms of heterogeneous everyday micro-practices; practices in which discourses, practices, and subjectivities are dynamically constructed.

references   Alvesson, M. and H. Deetz, (2006) 'Critical theory and postmodernism: approaches to organizational studies', in S. Clegg, C. Hardy, T. Lawrence and W. R. Nord (eds) *Handbook of Organization Studies, second edition*. London: Sage.

Alvesson, M. and H. Willmott (2002) 'Identity regulation as organizational control: producing the appropriate individual', *Journal of Management Studies*, 39(5): 621-644.

Bauman, Z. (1992) *Intimations of Postmodernity*. London: Routledge.

Berger, P.L. and T. Luckmann (1966) The *Social Construction of Reality*. New York: Doubleday.

Bergström, O. and D. Knights (2006) 'Organizational discourse and subjectivity: subjectification during processes of recruitment', *Human Relations*, 59(3): 351-377.

Bhattacharya, S., V. Krishnan, and V. Mahajan (1998) 'Managing new product definition in highly dynamic environments', *Management Science*, 44(11): S50-S64.

Burr, V. (1995) *An Introduction to Social Constructionism*. London: Routledge.

Chia, R. (1995) 'From modern to postmodern organizational analysis', *Organization Studies*, 16 (4): 579-604.

Chia, R. (1999) 'A 'rhizomic' model of organizational change and transformation: perspective from a metaphysics of change', *British Journal of Management*, 10(3): 209-227.

Chia, R. (2000) 'Discourse analysis as organizational analysis', *Organization*, 7(3): 513-518.

Cooper, R. G. (1990) 'Stage-gate systems: a new tool for managing new products', *Business Horizons*, 33(3): 44-54.

Cooper, R. G. and E. J. Kleinschmidt, (1996) 'Winning businesses in product development: the critical success factors', *Research Technology Management*, 39(4): 18-29.

Czarniawska, B. (2005). *En teori om organisering*. Lund: Studentlitteratur.

Dachler, H.P. and D.M. Hosking (1995) 'The primacy of relations in socially constructing organizational realities', in D.M. Hosking, H.P. Dachler and K.J. Gergen (eds) *Management and Organisation: Relational Alternatives to Individualism.* Aldershot, UK: Avebury.

Davies, B. and R. Harré (1990) 'Positioning: the discursive production of selves', *Journal for the Theory of Social Behaviour*, 20(1): 43-63.

Eisenhardt, K. M. and B. N. Tabrizi (1995) 'Accelerating adaptive processes: product innovation in the global computer industry', *Administrative Science Quarterly*, 40(1): 84-110.

Fleming, P. and A. Spicer (2003) 'Working at a cynical distance: implications for power, subjectivity and resistance', *Organization*, 10(1): 157-179.

Gergen, K. J. (1973) 'Social psychology as history', *Journal of Personality and Social Psychology*, 26(2): 309-320.

Gergen, K. J. and T. J. Thatchenkery (1996) 'Organizational science as social construction: postmodern potentials', *Journal of Applied Behavioral Science*, 32(4): 356-77.

Grant, D., G. Michelson, C. Oswick and N. Wailes (2005) 'Guest editorial: discourse and organizational change', *Journal of Organizational Change Management,* 18(1): 6-15.

Hardy, C. (2001) 'Researching organizational discourse', *International Studies of Management and Organization*, 31(3): 25-47.

Hodgson, D. (2002) 'Disciplining the professional: the case of project management', *Journal of Management Studies*, 39(6): 803-821.

Hodgson, D. and S. Cicmil (2007) 'The politics of standards in modern management: making 'the project' a reality', *Journal of Management Studies*, 44(3): 431-450.

Iansiti, M. (1995) 'Shooting the rapids: managing product development in turbulent environments', *California Management Review*, 38 (1): 37-58.

Jokinen, A. and K. Juhila (1999) 'Diskurssianalyyttisen tutkimuksen kartta', in A. Jokinen, K. Juhila and E. Suoninen (eds) *Diskurssianalyysi liikkeessä.* Jyväskylä: Gummerus Kirjapaino Oy.

Kahn, K. B., G. Barczak and R. Moss (2006) 'Dialogue on best practice in new product development. perspective: establishing an NPD best practice framework', *The Journal of Product Innovation Management*, 23(2): 106-116.

Kamoche, K. and M. P. Cunha (2001) 'Minimal structures: from jazz improvisation to product innovation', *Organization Studies*, 22(5): 733-764.

Kleinschmidt, E. J., U. Brentani and S. Salomo (2007) 'Performance of global new product development programs: a resource-based view', *The Journal of Product Innovation Management*, 24(5): 419-441.

Knorr Cetina, K. (1994) 'Primitive classification and postmodernity: towards a sociological notion of fiction', *Theory, Culture and Society*, 11: 1-22.

Kolehmainen, S. (2004) 'The dynamics of control and commitment in IT firms', in T. Heiskanen and J. Hearn (eds) *Information Society and the Workplace: Spaces, Boundaries and Agency.* London and New York: Routledge.

Krishnan, V., S. D. Eppinger and D. E. Whitney (1997) 'A model-based framework to overlap product development activities', *Management Science*, 43(4): 437-451.

Lindgren, M. and J. Packendorff (2006) 'What's new in new forms of organizing? on the construction of gender in project-based work', *Journal of Management Studies*, 43(4): 841-866.

Lindgren, M. and J. Packendorff (2007) 'Performing arts and the art of performing: on co-construction of project work and professional identities in theatres', *International Journal of Project Management*, 25(4): 354-364.

MacCormack, A., R. Verganti and M. Iansiti (2001) 'Developing products on 'internet time': the anatomy of a flexible development process', *Management Science*, 47(1): 133-150.

O'Shea, A. (2002) 'The (r)evolution of new product innovation', *Organization*, 9(1): 113-125.

Parker, M. (1992) 'Post-modern organizations or postmodern organization theory?', *Organization Studies*, 13(1): 1-17.

Potter, J. and M. Wetherell (1987) *Discourse and Social Psychology: Beyond Attitudes and Behaviour.* London: Sage.

Prasad, P. (2005) *Crafting Qualitative Research: Working in Postpositivist Traditions*. Armonk, NY: M.E. Sharpe.

Thomas, R. and A. Davies (2005) 'Theorizing the micro-politics of resistance: new public management and managerial identities in the UK public service', *Organization Studies,* 26(5): 683-706.

Tsoukas, R. and R. Chia R. (2002) 'On organizational becoming: rethinking organizational change', *Organization Science*, 13(5): 567-82.

the author   Beata Segercrantz is a doctoral candidate at Hanken School of Economics in Finland. In her current research she explores social processes in software product development during organizational restructurings. Prior to her doctoral studies she worked at Hanken as Project Manager for an executive program and as HR Manager in an IT company.
E-mail: mailto:beata.segercrantz@hanken.fi