Autonomy and Control when Working with Humans—A Reflection on Sociotechnical Concepts

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ABSTRACT

The sociotechnical concepts of responsible autonomy and to be in control were originally developed from men's work in order to describe and develop mostly industrial work. This article explores how these conceptions may be useful in modern service work, when working with humans. It is based on a set of development projects in mainly municipal care institutions in Norway, between 2000 and 2011. The projects were theoretically grounded in the Norwegian and international sociotechnical system theory (STS) tradition. It argues that there are many valuable lessons to be learnt from this tradition also concerning nursing and care work in the municipalities. However, the article points to a need for development of the concept control as autonomy to embrace "working with humans."

A central finding is that assistance and support from and to colleagues are prerequisites for "being in control." Moreover, that development of trust through communication alongside work is necessary in order to establish relations of mutual support. Trust and mutual support point to the social relations at work; so in this way it takes the concept control as autonomy from an individual to a more collective concept as Trist et al. (1963) and Herbst (1974/1993) defined their concept of control as collective responsible autonomy.

In a prospective perspective, the article sets up the hypothesis that an organization that combines the two, an individual together with a more collective scope on autonomy when working with humans, will meet what Kira (2006) calls as regenerative work. This means sustainability—in resources involved; health, quality, and milieu—through the staff's dominion over the conditions of their work.

KEY WORDS

Autonomy / control / the Demand–control model / job crafting / meaning & mastery / leadership & self-leadership / lifelong learning / nursing & care work / responsible autonomy / reflection

Introduction

This article explores how the sociotechnical concepts of *responsible autonomy* (Trist et al., 1963) and *control* (Karasek, 1979; may be useful in modern service work, when working with humans. It is based on twelve years of research in a set of development projects in mainly municipal care institutions in Norway (Amble, 2012a; Gjerberg & Amble, 2011). The projects were theoretically grounded in the Norwegian and international sociotechnical tradition (Engelstad, 1970; Herbst, 1974/1993, 1976; Thorsrud & Emery, 1969; Trist et al., 1963). The article argues that there are many valuable lessons to

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be learnt from this tradition also concerning nursing and care work in the municipalities. Still, the article points to a need for development of the concept *control* as *autonomy* to embrace service work, working with humans.

The article also contributes to the discourse of the meaning of work (Kamp, 2011; Thorsrud & Emery, 1969). How learning—through collective reflection—and training of mastery (Bandura, 1997) as an operationalization of meaning in daily work, can provide control as autonomy on an individual (Karasek, 1979), but also a more collective level (Herbst, 1974/1993; Trist et al., 1963).

It is the observation of "collegial isolation" and the experience of people who have worked closely together for many years, who still felt it was difficult to approach one another, for example, to ask for and give help (Amble & Gjerberg, 2009a), which triggered the subject of the article, the reflection around the concept autonomy.

In 1979, Karasek mapped a broad spectrum of occupations and trades along two dimensions: level of demand in the job and the opportunity to gain control/autonomy over the work tasks. The theory is known as *the Demand–control model* (D/C model). At that time, care work was classified as being "high strain work" with high levels of demand and little scope for control, or autonomy, as is often used in Nordic translation (Hvid, 2009), with associated risks of stress, health problems, and burnout. The point of the theory was that the situation of the care workers could be improved either by alleviating some of the demands/strains of the job or increasing autonomy by allowing more decision authority over the work tasks, which could be developed through learning, for example, as new behavior patterns in demanding work situations. The last alternative gave another name to the model, the so-called *Active learning hypothesis*. Both alternatives, reduced demands and active learning, create balance between demand and control, with the latter providing the opportunity for creating well-being through active work and a learning work role (Karasek, 1979; Karasek & Theorell, 1990). The questionnaire developed from the model is still the most frequently used measure of the psychosocial work environment (Hvid, 2009; Saksvik et al., 2013).

Hvid (2009) notes that the model was developed in the 1970s and it is conceivable that occupations have changed with regard to creating greater opportunity for development at work, or indeed the opposite. He provides empirical indications of how knowledge work in the finance sector, which traditionally has enjoyed a high level of autonomy according to Karasek (1979), through the introduction of computers and data control, has experienced reduced opportunity of autonomy. A form of "over-steering" emerged, which is not captured by the investigative parameters of the model. Kira (2006) pronounces a similar development among nurses and their middle management in a regional hospital in Sweden. Kira (2006) described workers who participated significantly but unfortunately not in their own areas of expertise nor in areas which could influence their own work conditions. This represented some sort of "displaced participation," outside—what she calls—their work frame conditions. And she hypothesizes how this displacement of energy is the cause behind a more general feeling of tiredness and fatigue in women's work (Widerberg, 2006).

In 1993, in a revised and expanded article written in 1974, Herbst (1974/1993) describes an example of a workplace where active joint learning is facilitated through an organized overlap of work tasks done together, although certain tasks must be carried out by certain professionals. This is an example of a matrix organization based on collaboration, time, and architectonic space for joint learning. A modern example of such

an organization—in the health sector—is described in Mazzacato et al. (2011), where a nurse help, nurse, and a physician form a team, partly working together and partly separately. Herbst (1974/1993) categorized six different areas for organizational learning, covering vertical and horizontal, individual and collective components. What distinguishes Herbst (1974/1993) from other theorists (Argyris og Schön, 1996; Eikeland, 2012a, 2012b, 2012c; Senge, 1990; Skår, 2010; Wenger, 2006) is that he points out *operational planning* and *resource allocation* as important issues for discussion, learning and decision making in the work community. The objective of the learning in Herbst's tradition was occupational or professional confidence and *quality in work life* (QWL) as an important contributor to the worker's general quality of life (Trist, 1981). In other words, could planning of operations and resource allocations represent participation in discussions about the work frame conditions, as Kira (2006) calls for sustainability in today's work organizations? In this context, social relationships at work are intertwined and evolved through the daily performance of the work. If the employees feel isolated, working much of the time alone, could collective problem-solving of daily operations be a cohesive solution? This is a perspective in line with the original sociotechnical tradition that stands distinct differently from the position of Nordic work environment research that "isolates" social relations from the labor process, for example, as described in Saksvik et al. (2013). To understand this sociotechnical and intertwined perspective, the reflection on how we understand and organize for autonomy is essential.

The research we have done in the municipal care sector has generated a theoretical challenge. Since the sociotechnical tradition stemming from Trist and Bamforth (1951), Trist et al. (1963), and further developed (e.g., by Trist, 1981) in opposition to specialization, such as the Taylorization of manufacturing work, it is plausible to reflect upon if this tradition is still relevant today—especially when working with humans. This I will address, first by illuminating the autonomy concept in the spirit of the sociotechnical forefathers and incorporate the self-efficacy concept of Bandura (1997). This includes going through the empirical basis, design, and methods involved. Second, a theoretical summarization of the concept(s) of *autonomy* will be provided.

The demand–control model and the intrinsic (psychological) job demands

Karasek (1979) mapped occupations along two dimensions: *demands* of the job, that is, what is required as employee, an opportunity for "decision-making freedom" as *control/autonomy* in terms of influence over one's own tasks in the job. The control dimension of the model has two variables: *skill discretion* dealing with the question of opportunities for intellectual activity as learning and development in the work and *task authority* which measures the possibility of making decisions regarding one's own work. The demand dimension is concerned with the following five areas: opportunity to go beyond role requirements, conflicting pressures, time allocation, speed of the work, and whether the work is heavy/hard. Later, Karasek expanded the theory together with Theorell (1990) where they added the social dimension of social support, which intended to capture new aspects of the psychosocial work environment. *Social support* has been criticized as being an obscure variable, which does not distinguish social relations with other colleagues in the working partnership and social support in the work itself. It is

also argued that negative relationships have a much greater effect on an individual's work situation than positive ones do (Eiken & Saksvik, 2006). Hvid (2009) argues that social support can mediate but not compensate in a high demand–low control situation such as that of nursing staff. Hvid (2009) therefore recommends that we disregard the social dimension and use the model analytically while seeing the control concept as the opportunity for *self-leadership*[1] in today's work. He also suggests that one should develop a more relational concept of control in the long term (Hvid, 2009; Karasek, 2008), which also triggered the reflection in this article and from our experience it is the variable of *skill discretion* and the implication of the collective level, the work community's role in *active learning*, which has become under "mental inquiry" (Marshall, 2001) in our work.

The control dimension is said to accommodate a critical view of work (Hvid, 2009) because it combines the opportunities of learning and development in the job together with the opportunity to manage or make decisions regarding one's own work. This overlaps with the first three of six *psychological job demands* of Thorsrud and Emery (1969). Trist (1981: 29) refers to these demands as *six intrinsic characteristics*:

1. For the content of a job to be reasonably demanding in terms other than sheer endurance and to provide some variety (not necessarily novelty).
2. To be able to learn on the job and go on learning. Again it is a question of neither too much nor too little.
3. For an area of decision making that the individual can call his own.
4. For a certain degree of social support and recognition in the workplace for the value of what he does.
5. To be able to relate what he does and what he produces to his social life, for it to have meaning and to afford dignity.
6. To feel that the job leads to some sort of desirable future (not necessarily promotion).

Trist (1981) refers however to Lewin (1935), Lewin and Bion's later work with groups (Bion, 1961), and to Emery (1964, 1976). Emery (1964) is a reference to a report from the field experiments at the Hunsfos factory in Vennesla outside Kristiansand in Norway. The Hunsfos project, which began in 1964,[2] was later described in the entirety in a dedicated book by P. H. Engelstad in 1970. A variant of the psychological job demands is referred to in appendix II as *Principles for the re-design of jobs*, which was used in the experiment. In the same appendix, a set of principles were also outlined in relation to group work where, in particular, the demands of cohesive tasks "linking the colleagues together" were specified. I will return to this last point in the discussion.

Thorsrud and Emery's psychological job demands from 1969 can therefore be assumed to have a composite background, which includes the experiments in Germany (Lewin, 1935), England (Bion, 1961; Trist et al., 1963), and Norway (Engelstad, 1970). This is known as the Tavistock[3] or the sociotechnical tradition. On an individual level, the psychological job demands specify how the job design must demand more than just endurance; more specifically it must have variation. It must include learning and the opportunity to make decisions in order to constitute rewarding work or give QWL (Trist, 1981). It is these things, *job design*, *learning*, and *opportunity to make decisions*, that the control dimension of the D/C model is concerned with. It is also not inconceivable

that Karasek (1979) and the Tavistock researchers knew of one another's research; even though they do not directly refer to one another in the reference lists, there are some common references which both use or references which are familiar with them. Nonetheless, what control in the work and psychological job demands have in common—as I see it—is that they both deal with the primary work tasks inherent conditions and the opportunity to match or balance the demands of the job in a way which satisfies the employee's need to perform in a mastering perspective. In other words, learning of *mastery* may form the basis for *meaning*, but may also be opposite. When you find, through collective reflection, meaning from understanding, for example, the patient with dementia's behavior, you also get impulses to master the situation. Thereby I understand the process of learning and training mastery as a combination of practical and cognitive, formal and informal, individual and collective seeking for meaning in work. This can be explained as "a Weickian" process where job design as job crafting is a "natural" part of the process (Kamp, 2012; Weick, 2001; Wrzesniewski & Dutton, 2001). This illustrates how focus on the works micro process' (Kamp, 2011), as crafting of your work tasks (Wrzesniewski & Dutton, 2001), becomes the basic, "bottom-up element" in organizational learning (Eikeland, 2012a).

Implicit in the D/C model is therefore an assumption that some work tasks themselves have an internal character which, given a desirable set of conditions and balance in them, have the ability to "reward" the executor through the satisfaction of having completed them, an internal motivation factor of the work task which is triggered by execution of the task. This is in complete alignment with the basis of the Tavistock tradition which is manifested in the "intrinsic" or psychological job demands (Thorsrud & Emery, 1969; Trist, 1981).

Still there seems to be differences, where Herbst (1974/1993) distinguishes from Karasek (1979) by putting weight on the collective level and discussing frame conditions as *daily operations* and *allocation of resources*. Are there by this notion aspects of modern day work, which are not captured by Karasek's concept of control, which could be captured? Of special interest are the conditions relating to organization and cooperation: the interactions between an individual and a more collectively oriented concept of control with the aim of maintaining a critical view of work, but also to try and understand how this very special work—working with humans—with meaning and prospects can suffer from strain and ever-increasing levels of sick leave (NOU, 2010: 13).

Summarization; from manufacturing to working with humans.

In post-war Britain, the mining industry was nationalized alongside investment in new technology. At the time, aspirations for the future and development were predominantly tied to economies of scale, a *technocratic bureaucracy*, an amalgamation of Weber's bureaucracy model and Taylor's "scientific management" as the optimal organization (Ramage & Shipp, 2009). As a consequence of the new technology, work had to be organized in new ways, but it happened under a *technological imperative* (Trist, 1981). With this strategy, neither the interaction between technology and people nor the human costs were factored. The research tradition which gradually evolved in connection with the British mining industry began with a three-dimensional perspective: to break away from specialization by combining models for collaboration

in problem solving, with *responsible autonomy* (Trist & Bamforth, 1951) or self-management of the work group in relation to planning and day-to-day operation and the use of social research on the practicalities of such developmental processes (Gustavsen et al., 2010). The objective here was QWL as an important contributor to general quality of life (Trist, 1981). Responsible autonomy[4] is meant to represent a bottom-up democratization of work life, and is clearly different from Friedman's monopoly capitalistic view on responsible autonomy as a manipulative, top-down management style (Friedman, 1977).

Taylorization or specialization of work in the mines resulted with an organization as *isolated dependent*; one is responsible but at the same time dependent without the possibility of being able to influence the conditions of one's own dependence. The miners were—function by function—working in parallels, without cooperation. The Tavistock researchers describe how the new technology transformed a balanced social system into an imbalanced one (Trist & Bamforth, 1951), which in Karasek's (1979) words could be transforming that type of work from *active* to *high strain*.

Kira (2006) also describes an imbalanced system in what she calls degenerative work as opposed to *regenerative work*, or sustainable, living work (Hvid, 2006). In the case study involving workers in the hospital in Sweden, her research team investigated how the workers' resources were utilized in their work. They were exhausted. The symptoms of this were unpleasant work environments and a particularly high turnover. In spite of significant investments and job enrichment where the workers had scope for discretion and a high degree of participation, they felt that their well-being was at threat. Kira (2006) discovered that without the middle management being aware of it, the time which should have been used for discussion and development of nursing processes and support for the care workers "became" time used for salary administration and work distribution.

Correspondingly, Hvid (2009) found that previously proactive workers in the financial sector were now overridden by a new information technology, which curtailed the knowledge-based autonomy of their work. Kira (2006) described workers who participated significantly but unfortunately not in their own areas of interest nor in areas which could influence their own work condition. This affects the individual and particularly the collective interplay in the organization. Kira (2006) says that work has lost its meaning; what was human- and development-oriented work has now become computer-driven work. Learning opportunities in the work have been shifted; only some are learning and middle managers learn computing skills but not what they want to learn about: in particular the development of nursing processes. Simultaneously, front-line nursing staff have reduced learning opportunities because middle management do not initiate and run developmental nursing processes as they used to. It can therefore be argued if the concept of *isolated dependent* and imbalanced systems is relevant in Kira's (2006) case, maybe it can throw light on some of our experiences of work in municipal, mostly elderly care. Is it possible that a corresponding fragmentation process is taking place in care work? Has there occurred a specialization and over-steering of work through the introduction of, for example, new management technology and information technology on one level and a new form of "isolationism" on those below? Is this a type of horizontal integration in front-line management with vertical consequences below? Or, are there any other explanations or contributors to a loss of togetherness and meaning in the frontline, the "warm hands" of care work?

Empirical data

How have we worked with the care staff in different work places? What results have been achieved? As an introduction I will frame care work as modern "working with humans," then I will briefly[5] describe the design and methods used, ending the section by presenting the result and findings relevant for this reflection.

Care work as working with humans

"Working with humans" or "people work" refers to Aagervold (2008). His concept highlights that you have to "pull in" your body and appearance as a part of your work, and how satisfaction in work also includes recognition from *the other* (Dybbroe, 2012). This concerns your private self, differently than other types of work. A typical alteration is the face-to-face situation (Hochschild, 1983).

"Modern" is used here to highlight that something has happened since the old days with regard to the services available today. Often, it insinuates a new vulnerability or increased risk of ill health (Grimsmo et al., 1992; NOU, 2010: 13). Wouters (1989) points to the changing balance of power in society in general: less inequality between servants and masters, patients and nurses. In addition, society has become more emotional in the sense that feelings are used and expressed more in all areas of society, not just in people-related work. Both in the public and private sector services, working with humans has developed from, for example, treating a passenger as a parcel to providing them with a unique experience (Amble et al., 2003; Forseth, 2002) and for care workers, the work has developed from routine nursing, to care, to client participation and personal customized care and assistance (Kamp et al., 2011; Munk-Madsen, 2006; Testad, 2010). Still, Vabø (2007) argues that "the ground bureaucracy" in elderly care—the foot soldiers and their immediate superiors in the front line, in spite of new management models and ambitions for standardization and more effective use of services (Kamp & Hvid, 2012)—do have opportunities to use their discretion and make personal assessments (Szebehely, 2006; Wrzesniewski & Dutton, 2001). The potential of high latitude of decision making is available. The new vulnerability, however, can indicate that there is a duality in this type of work, which means that it has the possibility of improving the quality of work but there is also the risk that increased autonomy can damage the quality of work as well. Rasmussen (1998) suggests that the workload increases when work becomes autonomous and that workers themselves are the driving force of this increased workload because front-line staff take responsibility and do more than the described amount. Rasmussen (1998) argues that this is a "greed mechanism." It is therefore possible to assume that modern service provision—in spite of Karasek's (1979) assumption that this is a group of workers who are at particular risk of high strain—is a type of work which, in accordance with Rasmussen (1999), Vabø (2007), Hvid (2009), and Oldham and Hackman (2010), has the space, as variation and authority in task performance, to develop into active work which offers autonomy in the form of control as self-leadership and mastery. But the responsibility hinges on the individual (Allvin et al., 1999). When times get hard, is it yet tougher on the employees? There are many explanations: Freudian as Hochschild (1983) attributes it to the suppression of the use of feelings both at home and at work, affecting mostly women. According to Wouters (1989), it is a more direct involvement of oneself in

greater society. As I see it, it can also be the organizational and individual relationships at work and the way work is organized which isolates people in an individualized position (Testad, 2010). It is this last perspective I use to investigate the two understandings of control (Karasek, 1979) as autonomy (Herbst, 1974/1993; Trist et al., 1963).

Design and method

All work organizations are learning systems (Trist, 1981). In our work the support of the work organization as a learning system has been the main focus. The experiences forming the basis of this article are taken from the development of a workplace-based learning system, a reflection tool for mastery in the nursing and care services in the period 2005–2011 (Gjerberg & Amble, 2009, 2011). The reflection tool was developed through an interactive research design (Svensson, 2002; Svensson & Nielsen, 2006) originally from studies in the air transport industry (Amble & Gjerberg, 2003; Amble et al., 2003), into municipal care work, mostly elderly nursing and care daily services, home based and in institutions, but also the staff in housing for young multihandicapped have contributed (Amble & Gjerberg, 2009a). Institutions from 9 municipalities have participated. The material is built on direct participation in the development of the method for reflection in multidisciplinary groups. As part of the reflection tool, a written situation-log was developed, which aimed to initiate individual self-reflection (Dysthe et al., 2000). These logs were later collected and used as documentation of the types of work situations where reflection took place. There are in total 50 logs from this phase of the project (Amble, 2012b). In the period 2009–2011 this type of reflection was tested through a "train the trainer" model in 19 reflection groups without the researchers directly participating in the groups (Gjerberg & Amble, 2011). During this trial period, the researchers carried out oral evaluations of reflection at mid-test and testing ends together with the "trained trainers"; both the facilitators and the participants made written evaluations of their reflection groups. There were in total 100 participants divided across 19 groups. The methods and analysis are presented more vividly in Gjerberg and Amble (2009, 2011).

The groups reflected on experientially demanding work situations and how they had or could achieve a higher degree of success in these—as *self-efficacy* and better *mastery* (Bandura, 1997) of work tasks as the basis for improved well-being, increased presence/availability, and more professionalism at work (Amble & Gjerberg, 2003; Helsedirektoratet, 2006).

In the research project with the care workers, two hours every fourteenth day became an outstanding point: is it possible to gather the same group of people who work shift, every fortnight? Some are on shift, others are not, and some are on sick leave while others must cover for them. And is there any point in gathering for two hours every fortnight? In other words, is it possible to attain results within these time constraints? This is the basis and the background for the experiences I discuss in relation to Karasek's (1979), Trist et al.'s (1963) and Herbst's (1974/1993) concept of control and autonomy.

What did we find?

Through the various oral and written evaluations (Gjerberg & Amble, 2011), we made five important observations. Firstly, we experienced that a two-hour, structured reflection

in groups with experienced staff and strong team leaders or facilitators increased mastery levels. This was the primary mission. Secondly, it transpired that it was much more difficult to gather the staff for these meetings than was anticipated. Placing added pressure and causing absences which disrupt planned routines, the meetings were an additional burden for those left holding the fort and at the same time giving the reflection group participants a guilty conscience. For these reasons, reflection groups must be incorporated into the work practices, become a part of work. Thirdly, the younger and/or inexperienced staff found that the meetings and time to reflect over difficult work situations added a new, previously lacking professionalism to the work which gave them renewed energy. Fourthly, the meetings led by nurses who are in management or have close contact with management were found to provide valuable inputs that led to general improvements. Consequently, the reflection groups became an important antecedent for operational improvements and a link between the upper and lower tiers of the institutions (Pålshaugen, 2001). Lastly, and by no means the least—but perhaps most unexpectedly: even in work organizations where people have worked closely together for many years, the reflection groups helped staff to get to know one another better such that it was easier to approach one another, for example, to ask for or give help (Gjerberg & Amble, 2009, 2011). It is the last "to know one another better that becomes easier to ask for or give help" which underlies the concept of "collegial isolation" and the experience promoting the reflection in this article.

Thus, we found that besides the fact that it was possible to learn mastery, the working day is characterized by an organization where one is working alone much of the time and there is a lack of opportunity to meet to discuss the work. People did not know their colleagues very well until they were given the opportunity to join the reflection groups. We met workers, especially those with the least formal education or in (unwanted) small part-time positions who did not go to meetings at all. They had no formal platform to take up the issue of difficult work situations. Ironically, this was more typical for nursing home staff than for residential visiting staff; the latter had organized gatherings precisely because the work organization is based on a matrix, network system. These took the form of a meeting in the morning and another at lunchtime and they would drive to the "network center" in order to meet.

In both services, home-based and in nursing homes, at the job level, we observed that the work was so fragmented and rotated (no fixed teams) that for the same workers to meet for two hours every fortnight was almost an insurmountable challenge. We had to pay staff to come in outside of work, either before or after their shift in order to maintain a system with fixed cross-disciplinary groups. At the same time, we experienced that some of the participants, mostly the young or newly employed, were insecure and bound in the reflection groups. They experienced discussions about improvement as negative with regard to the fact that they worked part-time and desired longer working hours. More specifically, speaking their mind was not compatible with being a preferred and popular substitute, the one who gets called *first* and is therefore the most likely "on the list" to have their position expanded.

However, after the workers entered the reflection groups and as they gradually developed a good rapport, the reflection work appeared to be more positive in relation to mastery and the experience of increased professionalism. They became more familiar with one another and it was easier to ask for help. Through the reflection group discussions, it also became apparent that it was more important to help when

someone approached one known from the reflection group or when one knew the department that was seeking help. As we understood it, the reflection groups became a kind of horizontal sense-making mechanism (Ravn, 2008) of seeing one's own work tasks in connection with those of others and often those of other departments, which led to familiarity about "the work over there" and therefore made it easier to help if one was asked.

Moreover what we knew generally about high rates of sick leave and the organization of small positions in the sector of municipal elderly care in Norway (Amble, 2008): we found a form of specialization or "isolationism" of the workers; an organization of *isolated dependent* (Trist et al., 1963) characterized by bilateral relations between a care worker and a patient, without a common, horizontal platform in the work environment. This is "a type of 90 degree change" in specialization; your work is not standardized by functions but by relations. The result is the same, alienation as described in the mines (Trist & Bamforth, 1951), employees working without much cooperation. "The missing talk" is a marker of this.

In this context, we were also told how in some workplaces there was a kind of "relay relief" system, nurse-to-nurse, without the traditional shift meetings where the outgoing shift would gather with the incoming shift and receive a holistic report. And a tradition of "tacit report" or "quite report," which meant the employees were responsible for electronically reading the report from earlier shift. This routine's consequence was that workers literally go in and out of the organization without having spoken with their colleagues on the same shift. The staff are working like parallel cords not knowing each other and each other's patients.

This is an experience that is not only illuminating the values and relations in care work, but through participation from the staff there is developed some sort of sociotechnical insight into new work forms of specialization and the staffs proproductive answer; organization of a more collective responsible autonomy (Amble & Gjerberg, 2009a).

What theoretical knowledge can be drawn from this experience?

In the Tavistock tradition, cohesive tasks (Engelstad, 1970) and work group/community were the way out of an organization in a state of *isolated dependent*. Cohesive tasks did not necessarily entail complete multidisciplinary work force where everyone can do everything (Herbst, 1974/1993; Qvale, 2002; Trist, 1981). Rather that everyone—in their own way—originally through some degree of cross-discipline, established sufficient relations with the work tasks, which became a part of the operations that one had joint responsibility for. These relations would be the basis and the starting point for discussion and learning during the work. The cohesive tasks would secure good *object relation*. This was a central concept in the Tavistock tradition (Menzies Lyth, 1990a, 1990b). In situations with reduced possibilities for such development in the work that consists of demanding tasks, it could give counter-productive defense mechanisms to alleviate insecurity and anxiety (Sutherland, 1990). This is particularly applicable in work, which deals with life and death, work in the mines, work with elderly people, for example, as terminal care and ethical dilemmas. This places extra demands on the staff's experience of security in order not to be experienced as a *turbulent system* (Emery & Trist, 1963).

In the industrial democracy project (Thorsrud & Emery, 1969) in the metal and process industries, for example, the above-mentioned studies at the Hunsfos Paper and Pulp Mill (Engelstad, 1970), one finds the theory of *object relations* (Menzies Lyth, 1990a, 1990b; Trist, 1981) being applied. The main concern was job design in accordance with the psychological job demands. Additionally, arrangements were made for "cohesive tasks, with job rotation and close physical proximity." The purpose was to maintain communication, create mutual understanding, and mitigate stress in high-pressure situations (Engelstad, 1970), as stop in, jams, or start of operations. This was the contribution of the social system in its interaction with a "simple" technology. According to Gulowsen (1971), in those days, manufacturing technology demanded neither personal insight as discretion nor adaptability. Perhaps it is here that working with humans is distinguished from other types of work. The needed cognitive discretion involved in the work task itself in "people work" and how it benefits from collective discussions, since the best solution is not obvious or clear-cut or permanent. "Technology" in nursing or care requires personal understanding as well as adaptability (Agervold, 2008). This particularly applied in situations which we found to be the most strenuous for the workers; demanding nursing care, for example, care for the terminally ill, work tasks which require ethical assessments and use of power (Gjerberg et al., 2010), under-staffed shift work, and situations with difficult relatives/care situations. Situations which especially require a development of insight and adaptability, but where this insight can only be fostered together with others or at least together with another colleague, pair-based on the job learning. Not in the form of guidance or teaching, but as competencies developed through openness and talk with someone in whom one has confidence, during or after completion of these difficult work tasks. If one does not have this trust in a colleague or colleagues—our observations are—one chooses *not to ask* for help. One then carries out the care work with the patient alone resulting with an unnerving experience, which perhaps remains negative forever. "Everyone has a death" was the overwhelming statement in reference to traumatic experiences, which plague them for the rest of their career. Even though the end result of the care situation was a given—that the patient would die—the course of events could go two ways for the worker, as an experience of professionalism and occupational pride or one of trauma: to carry out this type of care work in a satisfactory or unsatisfactory way. There are other examples of such care situations characterized by intimacy and nearness, where one works alone for the lack of trust in (a) colleague(s) or shyness in exposing own competence to others with a risk of increased strain and perhaps a reduced ability to work or even damage to the health.

Autonomy on an individual level, according to the D/C model (Karasek, 1979), includes both variation and the opportunity to learn at work and take decisions about how the work should be carried out. In modern service work such as emotional labor (Hochschild, 1983), this aspect of the work is very special because it combines professional competence and personal dexterity with a type of social, cognitive competence in intense work situations. On an individual level, it is not improbable that the existing model fails with regard to capturing meaning as dependent of collegial sense-making and the contribution of collective interplay in this type of work. A critical perspective can therefore be lost. This experience gives rise to the old concept of a more collective, responsible autonomy also or especially when working with humans.

Active learning as "help" and "talk"

The act of helping can be a deeply satisfying experience for the one helping and very much needed by the one receiving it. Asking for help, however, is not always easy even if one is desperately in need of it. By the same token, giving help is not always pleasurable even though one understands that it is required, in both; you expose your competence or incompetence. Effective aid work depends on receiving and delivering competence, working together, knowing one another, physical closeness, and a feeling of togetherness through good times and bad. We can either organize ourselves away from the need for help or we can organize toward facilitating better ways to help one another. Effective aid, however, based on the concept of togetherness, hinges on communication. We must talk to become familiar with one another and we need to talk to call for attention. As one manager of an organization observed, "we need to talk more," during work time, in the breaks, formally and informally, *about work*. Even in streamlined operations the need for help and cooperation will occur from time to time, in the weekends, when the staffing is low, during holidays and vacation, and in special demanding situations as terminal and dementia care.

It is not the possibility of learning or meaning or taking decisions that is lacking but rather the conditions for validating a good and wide enough decision in the course of or during the care routine and work in a more self-governed work system. This means that autonomy, as collective, responsible autonomy and individual control as self-leadership in this type of work can be about the preconditions of being able and confident to talk and ask for help, having a working day characterized by sufficient friendly conversations, which favors tasks done in togetherness, not all but some. Paradoxically enough, being in control in this type of work can mean having access to unwavering help, in a more matrix-organized organization (Herbst, 1976).

Conclusion; a regenerative primary work system

In this article, talk as *work task* is meant as a metaphor for the interpersonal element in the organization which allows for getting to know people, developing knowledge while working, and making effective aid work possible. The background to this is that in evaluations of the reflection groups discussing mastery of demanding work situations, we inadvertently discovered that in addition to improved mastery, the participants found that it was easier for colleagues to ask for help and for helpers to administer help when they got to know one another better; that the work environment actually improved when there was more familiarity between staff (Amble, 2010; Amble & Gjerberg, 2009a). In our opinion, as interactive researchers, we have become subject to a kind of "collegial solitude" in the modern work organization in spite of the fact that they walk around each other the entire day and appear to be very "close." Is this solitude possibly the result of too much of a good thing, "too much" individual control, autonomy as "too much" self-leadership at work (Hvid, 2009; Kamp, 2011) and does this solitude pass uncovered in the measurements of "Karasekian" autonomy? Our reflection was; maybe mapping the conditions for *help* and *talk* are good markers in a more collective oriented autonomy (Hvid, 2009; Karasek, 2008). By this *the relational*, first and foremost, is thought to

intertwine in the accomplishment of the work task itself. This indicates how the concept autonomy needs elaboration, not elimination. Elaborations that better capture the relational.

We have experienced how active, joint learning and *joint optimization* (Herbst, 1974/1993) of, for example, mastery of demanding work situations are possible and effective, when organized in a formal fashion. This is active learning and training which on an individual level results in *control* as autonomy in accordance with Karasek's (1979) D/C model/active learning hypothesis. This is necessary, but not enough to create well-being when working with humans, as we experience it. From the sociotechnical tradition control as *responsible autonomy* has a more collective scope, where the learning should include all employees, give occupational confidence in the purpose of being more self-governed working communities. This requires a certain organization of the daily operations, the primary work system (Herbst, 1976), where *talk* and *help* alongside executing the daily work tasks are markers of a cohesive work organization and working environment, in contrast to the Taylorized, specialized work organization as *isolated dependent*, with one-man-one-job.

In contemporary work with humans, we claim to see a new form of isolated dependency (Trist, 1981), a work situation as *isolated independent*. This is an isolated situation where the care workers work is not specialized by function but organized in parallels, independently working, creating vulnerability, which we have measured as collegial solitude. Specialization has "turned" from functions to relations. The isolated situation is constructed through a certain "longitudinal split" in the primary work organization, with one-man-one-patient, resulting from shortage of overlap in work tasks, possible to identify as lack of options to talk alongside cooperation in the primary work system. Symptoms are lack of communication over *work tasks* and *shyness in asking and offering help*, which from time to time is of critical necessity in this type of work.

I have reflected on the concept of control as autonomy in the D/C model and in STS. In a prospective perspective, it is possible to hypothesis that when combining the two, an individual together with a more collective scope, work with humans will meet what Kira (2006) calls *regenerative work*, sustainability through the staffs autonomy and dominion over the frame conditions of their work.

On YouTube Eric Trist himself claims he is the "finder," not the "founder" of STS. By this he shred the light over the work communities' innovative power: given the right conditions. Autonomy is one of this. It sounds possible. In the interview from 1988, however, a 79-year-old Eric Trist tells how he used the 1950s to try to understand why the positive results from the mine studies did not disseminate to the rest of the mines and ultimately the rest of the work life. The results of the studies were a drastic decrease in absence and a rise in productivity from 3 tons to 5 tons of coal per man-year. Even so neither the unions nor the mine owners supported the further dissemination of the results. "Between *control over people* and *efficiency* the owners chose control! While the unions give priority to a free, critical role; together a power balance in capitalism," Trist states, laconically. Control and autonomy as self-leadership and self-governance sounds easy, but is probably a demanding transaction in power if control trumps efficiency, while the Nordic model of cooperation between the parties could give hope to a greater degree of responsible autonomy in our work communities.

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End notes

[1] Language is difficult. In Nordic languages we have one word "selvledelse," which can translate to two English words, self-management and self-leadership. In the sociotechnical tradition self-management is a term. I interpret self-leadership as the best translation of "selvledelse" in accordance with Hvid (2009), where self-leadership is something more than self-management; more expansive, creative, and maybe demanding on the individual than self-management. Self-leadership is, seen from my perspective, catching a new, performative scope on all kinds of work with people, putting personal service in the forefront. I use the term self-leadership in care work to emphasize this distinction between old fashion nursing and more user-involved care.

[2] The Hunsfos factory was one out of four cases participating in The Norwegian Industrial Democracy project 1962–1968, phase B concerning the conditions for democratization of the workplace, where phase A was concerned with the representation of workers on the boards of companies.

[3] Tavistock is the name of The Institute and The Clinic, the physical building where researchs such as Trist, Bion, Emery, and Herbst had their office, still located in Tabernacle Street, close to The City of London.

[4] Responsible autonomy as a concept was first used in 1951 by Eric Trist and his coauthor, the former miner Ken Bamforth, and later in what was supposed to be the sociotechnical tradition's principal source: *Organizational Choice, capabilities of groups at the coal face under changing technologies—the loss, rediscovery, and transformation of a work tradition* (Trist et al., 1963).

[5] The projects are described in detail in the following cited papers(Amble & Gjerberg, 2009 a; Amble 2010; Amble 2012 a; b).