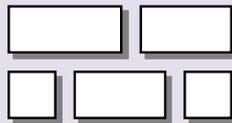




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The meaning of support from co-workers and managers in teams when working

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Abstract

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This report is part of a post-doc research project on factors that promote work motivation and occupational self-efficacy in organizations in Sweden and Canada. The purpose of this report was to investigate the relations between support for autonomy and competence by managers and co-workers and employees' work motivation, occupational self-efficacy, and team commitment. Research has shown that support for autonomy from managers has positive effects, but it has not examined how co-worker support for autonomy can affect employees' experiences and the relative importance of both sources of support. In two studies, one with a sample of 45 employees in a Swedish private research oriented company (6 females and 39 males) and one with a sample of 235 Swedish care givers (214 females and 21 males) completed surveys. Results showed that employees perceived high levels of motivation and self-efficacy. Study 2 also showed that employees perceived greater support for autonomy from co-workers than from managers but greater support for competence from managers. As in previous studies, support from managers was significantly positively related to employees' outcomes. However, results also showed that co-worker support predicted these outcomes over and above the effects of managerial support and that support for autonomy was related to motivation while support for competence was related to self-efficacy. Moreover, the effects of support from co-workers were significantly stronger than those obtained from managers for self-efficacy. Finally, motivation and self-efficacy predicted team commitment for care givers in study 2, while support from manager was related to normative team commitment in study 1. The implications of these results for how organizations may optimize employees' functioning through teamwork are discussed.

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BACKGROUND

This report is part of a post-doc research project on factors that promote work motivation and occupational self-efficacy in organizations. The purpose of this report was to investigate the relations between support for autonomy and competence by managers and co-workers and employees' work motivation, occupational self-efficacy, and team commitment in two separate studies carried out in Sweden. The first study explored these relationships in a sample of 45 employees in a private Swedish research oriented company and the second study explored the relationships in a sample of 335 care givers in the elderly care in a Swedish municipality.

Theoretical Background

The team based work structure in organizations

An important feature of modern organizations is that employees often function in teams. Team in this report is defined as a set of two or more persons who interact adaptively and dynamically towards a common goal (Salas, Dickinson, Converse, & Tannenbaum, 1992). The team-members work interdependently with each other, communicate and coordinate their actions in order to reach their goals. One effect of such a collaborative work structure is that it highlights the importance of co-workers in reaching common goals while at the same time, perhaps, reducing the importance of the traditional hierarchical relationship with a manager or supervisor. Another effect of a team based work structure in organizations is that employees' commitment to their teams would be of interest, rather than their commitment to their organization or job. This report considers the influence of co-workers on motivation and self-efficacy and whether it is as strong as the influence exerted by managers. Three important work outcomes will be examined: autonomous work motivation, occupational self-efficacy, and affective commitment to one's work team. These three work outcomes will be described in the following sections.

Autonomous motivation

Self-determination theory (Deci & Ryan, 1985, 2000) suggests that contexts that support autonomy foster autonomous motivation or internalization of the value of doing a task (Ryan, 1995). Self-determination theory proposes that people can be both externally and intrinsically motivated. People who are motivated by external factors are motivated by factors such as reward systems, grades, evaluations, or the opinions they fear others might have of them (Koestner et al, 2006). People are also motivated from within (intrinsically motivated), by interests, curiosity, care or abiding values. These intrinsic motivations are not necessarily externally rewarded or supported, but nonetheless they can sustain passions, creativity, and sustained efforts. Broadly speaking extrinsic motivation is behavior that is instrumental, but

there are distinct forms of instrumentality, which include external regulation, introjection, identification, and integration. These subtypes of extrinsic motivation are seen as falling along a continuum of *internalization*. The more internalized the extrinsic motivation, the more autonomous the person will be. Thus, people who have internalized their behavior, and who are not solely motivated by external factors, are autonomously motivated. People feel autonomously motivated when they experience self-determination in freely choosing their goals.

Autonomous motivation is associated with greater persistence in the face of difficulty, better learning, superior task performance, and more effective coping (Ryan & Deci, 2000). Autonomous motivation is facilitated when others support autonomy of an individual, which can be done by providing the person with choices and meaningful rationales, recognizing the person's feelings and unique perspective, and refraining from the use of pressuring tactics (Guay, Mageau & Vallerand, 2003).

Research has also shown that autonomy support has positive effects in organizational settings. For example, management autonomy support has been related to increased trust in the organization, satisfaction, engagement, decreased stress, and facilitate acceptance of organizational change (Baard, Deci, & Ryan, 2004; Deci, Connell & Ryan, 1989; Deci, Ryan, Gagné, Leone, Usonov, & Kornazheva, 2001; Gagné, Koestner, & Zuckerman, 2000). In this report, it is proposed that the support for autonomy both by managers and by co-workers in a work team will have positive influence on the autonomous work motivation of employees.

Team Commitment

Commitment theory and research explores the extent to which individuals feels that they have a positive relationship with their work organizations. A general definition of organizational commitment has been as the psychological identification that an individual feels toward the organization where he or she is employed (Mowday, Steers, & Porter, 1982). Suggestions from a vast amount of research and meta analyses is that organizational commitment predicts work outcomes such as job performance, job attitudes, turnover intentions, and organizational citizenship behaviors (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Neiningner, Lehmann-Willenbrock, Kauffeld, Henschel, 2010). However, since Reichers (1985) proposed that individuals can have more loyalty and ties to those who work with them in a team, the importance of teams has been recognized by numerous authors (e.g., Bishop, Scott, Goldsby, & Cropanzano, 2005; Cohen & Bailey, 1997; Sundstrom, De Meuse, & Futrell, 1990). To a team member in an organization, the team will be perceived as more proximal than the organization, and the work is performed in the team, feedback is available immediately from the team and team communications and interactions are primarily done on a face-to-face basis between team-members. Research has even found that for employees who work in teams, their teams have stronger direct influence than the organization as a whole (Anderson & Thomas, 1996), and that employees are more committed to their team than to the organization (Riketta & Van Dick, 2005). In other words, the team would be more important to employees in such organizations. Thus, in team-based environments, where the

interactions within the team are critical (Marks, Mathieu & Zaccaro, 2001) it is particularly important to not only measure the managers' motivational influence, but also that of the co-workers! In other words, with a focus on commitment to the team, it becomes essential to distinguish autonomy support from manager and co-workers.

In their review of organizational commitment literature, Meyer and Allen (1991) identified three forms of commitment; affective, continuance, and normative commitment. Employees with affective commitment remain with the organization because they want to; employees with continuance commitment remain because they do not have much of a choice, and employees with normative commitment remain because they feel they ought to. There is substantial support for these three forms of commitment (e.g. Bentein, Stringlhamber, & Vandenberghe, 2002), whereas affective commitment often shows most significant effects on outcomes such as performance and turnover intentions (e.g. Meyer et al., 2002).

Numerous studies on team commitment have focused on factors that result in high levels of commitment. For example, many researchers have examined the importance of perceived team support for team commitment (e.g. Bishop et al., 2005; Howes, Cropanzano, Grandey, & Mohler, 2000; Sheng, Tian, & Chen, 2010). However, this construct does not distinguish between the various kinds of support a team member can receive from a manager or the co-workers in the team, such as support for autonomy or support for competence.

Occupational self-efficacy

Occupational self-efficacy is the judgment people make regarding their capability to successfully carry out occupational activities and challenges, and to pursue an occupational career irrespective of occupational field (Abele & Spurk, 2009; Higgins et al., 2008). Self-efficacy theorists emphasize that judgments of self-efficacy are task and domain specific (Bandura, 1997). This means that occupational self-efficacy refers to workers' judgments regarding their capability to reach specific work-related goals. Occupational self-efficacy has also been related to psychological and physical health and job performance (Lubbers, Loughlin, & Zweig, 2005). The initial self-efficacy fluctuates as a function of ability and earlier experiences, and positive feedback can increase the self-efficacy beliefs. For example, Tolli and Schmidt (2008) found that positive performance feedback on a computerized task resulted in increased self-efficacy for solving that particular task, and it has been found that performance feedback on school tasks from teachers improves school self-efficacy (Jerusalem & Hessling, 2009). Role-models, such as managers and co-workers, are important sources of explicit efficacy information (vicarious experience) (Bandura, 1997). If managers and co-workers support their subordinates' and colleagues' perception of being competent in their jobs, it is likely that their occupational self-efficacy will be increased. Research has also found that there are relations between self-efficacy and team commitment, as social support directly influences both self-efficacy and team commitment (Joe, 2010).

Purpose

It is important to distinguish between support from a manager and from co-workers in a team because support from those different sources may contribute to the autonomous work motivation and self-efficacy of employees in different ways. In addition, it would be interesting to explore how support for autonomy and support for competence are related to work motivation and self-efficacy.

In this report, it is proposed that both support for autonomy and support for competence are important for employees, but in different ways.

Two studies were conducted. Study 1 examined the relationships between manager and co-worker support and work motivation, self-efficacy and team commitment on a sample of highly skilled employees in a private research oriented company that develops medical systems. Study 2 also made a distinction between support for autonomy and for competence on a sample of care givers without higher education working in the elderly care in an urban municipality.

STUDY 1

This study explores how much the autonomy from managers and from co-workers in a work team may contribute to the work motivation, self-efficacy, and team commitment of employees in different ways.

Method

Participants and procedure

The participants in this study were 45 highly skilled employees (6 females and 39 males) who were working full time on a permanent basis in a private research oriented company that develops medical systems. The participation in the data collection was voluntary and all employees gave their informed consent.

Questionnaires were electronically administered to the participants by e-mails. LimeSurvey, which is an open source PHP web application, was used to collect responses to the online surveys. Participants' mean age was 34.9 (sd = 8.1) years and they had worked in their current work teams during 3.8 (sd = 4.2) years on average.

Measurements

Support for autonomy and competence. This scale consists of 8 items. Four referred to support from managers, and were developed from the *Directive support scale* developed by Powers, Koestner, and Gorin (2010) and surveys assessing autonomy support in studies by Ratelle *et al.*, (2005) and Paulson, Marchant & Rothlisberg (1994). The adaptation of the scale involved making it more relevant to people working in teams in organizations in order to measure how the participants perceived that their managers are supportive of their autonomy and competence in their daily work situations. In each of the other four items, the word "manager" had

been replaced by the words “closest co-workers”, in order to measure how support from co-workers was perceived. On a 5-point scale, the employees indicated whether they agreed with items such as “My manager (closest co-workers) encourage(s) me to decide things for myself.” In this study the alphas were .60 for both the subscale referring to managerial support and the subscale referring to co-worker support.

The Work Motivation Scale (MAWS; Gagne, Forest, Gilbert, Aube, Morin & Malorni, 2010). The short version of the MAWS consisted of 12 items followed by a 5-point scale on which the respondent rates the extent to which he or she agrees with the item. The scale is composed of four subscales measuring the four types of motivation. Two of the sub scales, extrinsic motivation and introjected motivation, refer to externally regulated motivation ($\alpha = .57$) and the other two scales, identified motivation and intrinsic motivation, refer to autonomously regulated motivation ($\alpha = .65$). See Gagne et al. (2010) for a complete description of this measure. Because of the low reliability of the scale for externally regulated motivation, further analyses only used an index of autonomous motivation based on the two subscales intrinsic and identified motivation.

The Occupational Self-Efficacy Scale (Abele, Stief, & Andra, 2000). The 5 item, 1-factorial scale measures expectations of occupational self-efficacy. This scale was developed in Germany and showed good convergent and discriminant validity, and the validation with regard to external criteria was satisfactory. It has been used with satisfactory reliability in later studies (e.g. Abele & Spurk, 2009). In this study, the internal consistency was acceptable with an alpha Cronbach of .79.

Team commitment (Meyer & Allen, 1991; Meyer, Allen, & Smith, 1993). This scale is based on the three-component model for commitment developed by Meyer and Allen (1991). The organizational scale was adapted to measure the employees' commitment to their teams in their organizations by replacing the word “organization” by “team” in each item. The scale included 9 items that measure the affective, continuance, and normative team commitment. The generalizability of the original scale has been tested by Meyer, Allen, and Smith (1993) with good results. In this study the subscales of affective and normative commitment had acceptable alpha values ranging from .60 to .64, whereas the alpha for continuance commitment was unacceptably low (.43) and was thus excluded from the analyses.

All scales were translated from English into Swedish. The translation was independently carried out by two Swedish-speakers. Discrepancies were arbitrated by two consultants; one who has a Master degree in English, and one who is an English speaking professor in Psychology from Canada, and solutions were reached by consensus.

Results

Descriptives

Descriptive results are presented in Table 1. Participants were 34.9 years old, on average, and had been working in their teams for 3.81 years. Employees perceived rather high support both from their manager and their co-workers. In addition, the

employees rated their beliefs in their capabilities (self-efficacy) and their intrinsic motivation quite high. Furthermore, affective commitment to work teams was rated moderately highly while normative commitment to work teams was not rated as high.

Table 1
Cronbach alphas, means, and standard deviations for the employees in the research oriented company

	Cronbach alpha	<i>m</i>	<i>sd</i>
Managerial Support	.60	3.63	0.51
Co-worker Support	.60	3.63	0.60
Occupational Self-Efficacy	.69	3.98	0.57
Autonomous Motivation	.65	4.60	0.52
Affective Commitment	.60	3.08	0.71
Normative Commitment	.64	2.18	0.70
Age (years)		34.9	8.10
Time in current team (years)		3.80	4.20
Females (<i>n</i>)	6		
Males (<i>n</i>)	39		

Regression analyses

Separate hierarchical multiple regressions were performed with the dependent variables autonomous work motivation, occupational self-efficacy, affective team commitment, and normative team commitment. The first two regressions were performed with the dependent variables of autonomous work motivation and occupational self-efficacy. The first set of predictor in each regression was time on the team. Manager and co-worker support were entered as a second set. In the next two regressions, autonomous work motivation and occupational self-efficacy were entered as predictors and affective and normative team commitment were the dependent variables. Two final separate regressions were performed with the dependent variables affective and normative team commitment, a first set of the predictor of time on team and a second set with manager and co-worker support as predictors. All predictors were standardized before entry in the regression equation.

When the antecedents of motivation and self-efficacy were examined, the results showed that both manager and co-workers played important roles. The regression on the autonomous work motivation for the employees revealed a significant *R* of .54 and a significant multiple *R* of .30 $F(3, 40) = 5.62, p < .003$. Time on the team was not significantly related to motivation. On the other hand, motivation was significantly positively related to support from the manager, $\beta = .54, t(43) = 2.79, p < .008$, but not to support from co-workers.

The regressions on the occupational self-efficacy for the employees revealed a significant R of .42 and a significant multiple R of .18, $F(3, 40) = 2.88, p < .049$. Time on the team was not significantly related to self-efficacy. Support from co-workers on the team was significantly positively related to self-efficacy, $\beta = .60, t(43) = 2.88, p < .006$, but support from manager was not significantly related.

The first regressions on affective team commitment and normative team commitment did not reveal any significant models. Thus, neither motivation nor self-efficacy was significantly related to the two forms of team commitment. So the next step was to explore if support from manager and co-workers would predict team commitment. Affective commitment was not significantly related to any of the variables, but the model was significant and had a multiple R of .20, $t(43) = 3.27, p < .031$. The regression on normative team commitment revealed a significant multiple R of .37, $F(3, 40) = 5.70, p < .001$. Normative commitment was significantly positively related to support from the manager, $\beta = .45, t(43) = 2.43, p < .020$.

STUDY 2

The proposition in this study is that the support for competence both by managers and by co-workers in a work team will have positive influence on the occupational self-efficacy of employees and that the support for autonomy both by managers and by co-workers in a work team will have positive influence on autonomous work motivation of the employees. A second proposition is that both autonomous work motivation and occupational self-efficacy beliefs will be positively related to employees' commitment to their work teams.

Method

Participants and procedure

In this study, 235 employees who were working full time on a permanent basis as care givers in a Swedish municipality organization participated in the data collection on a voluntary basis. All employees gave their informed consent to participate.

A large majority of the questionnaires were electronically administered to the participants by e-mails, and LimeSurvey was used to collect responses to the online surveys. However, some of the questionnaires were administered in person by the author to some of the participants, and these questionnaires were filled in by hand by those participants and collected immediately afterwards. The reason for the two data collection procedures was that most of the participants daily use their e-mails, whereas there were a couple of service centers where most workers rarely use their e-mail systems.

Participants' mean age was 44.9 ($sd = 11.1$) years and they had worked in their current work teams for 5.7 ($sd = 5.6$) years on average.

Measurements

The scales were the same as in study 1, with the exception of the support scales. In this study, there were two main support scales, one for autonomy support and one for competence support.

Support for autonomy. This scale consisted of 10 items. Five items (2 negatively and 3 positively stated) referred to support from managers, and were adapted from the *Autonomy support scale* developed by Powers, Koestner, and Gorin (2010) and surveys assessing autonomy support in studies by Ratelle *et al.*, (2005) and Paulson, Marchant & Rothlisberg (1994) to measure how the participants perceived that their managers are supportive of their autonomy in their daily work situations. In each of the other 5 items, the word “manager” had been replaced by the words “closest co-workers,” in order to measure how support from co-workers was perceived. On a 5-point scale, the employees indicated whether they agreed with items such as “My manager (closest co-workers) encourage(s) me to decide things for myself.” These scales were found to be reliable in the past (alphas > .70), and in this study the alphas were .71 and .67.

Support for competence. This scale consisted of 10 items. Five items (2 negatively and 3 positively stated) referred to support from managers, and were developed to measure how the participants perceived that their managers are supportive of their competence in their daily work situations. In each of the other 5 items, the word “manager” had been replaced by the words “closest co-workers,” in order to measure how support from close co-workers was perceived. These items were adapted from the *Parental encouragement to succeed scale* (Steinberg, Lamborn, Dornbusch, & Darling, 1992) and the *Directive support scale* developed by Powers, Koestner, and Gorin (2010). They were adapted to refer to support and encouragements from managers and co-workers in a work situation rather than to refer to support and encouragements from parents. The employees indicated on 5-point scales whether they agreed with items such as “My manager (closest co-workers) is (are) proud of me and my accomplishments.” These scales were found to be reliable in the past, and in this study the alphas were .78 and .67.

The reliability for the externally regulated motivation and the autonomous motivation of the MAWS were good (respectively .70 and .80). Thus, an index for autonomous motivation was calculated based on the subscales. The reliability was acceptable for the self-efficacy scale with an alpha of .66. Finally, the subscales of team commitment had acceptable alpha values ranging from .64 to .73.

Results

Descriptives

Descriptive results of the care givers are presented in Table 2. The employees were 44.9 years old and had worked in their team for 5.7 years on average. The care givers rated their support for competence and for autonomy as moderately high both from the co-workers and the managers. Competence support was significantly higher from managers than from co-workers, $t(232) = 3.97, p < .001$, whereas support for autonomy was significantly stronger from co-workers, $t(232) = 3.87, p < .001$. Employees also rated their self-efficacy and autonomous motivation as high, while their commitments to their teams were moderate.

Table 2
Cronbach alphas, means and ns for the whole sample, for care givers

	Cronbach alpha	<i>m</i>	<i>sd</i>
Managerial Autonomy Support	.71	3.76	0.72
Managerial Competence Support	.78	3.64	0.76
Co-worker Autonomy Support	.67	3.95	0.63
Co-worker Competence Support	.63	3.51	0.69
Occupational Self-Efficacy	.66	4.09	0.67
Autonomous Motivation (index)	.75	3.99	2.43
Affective Commitment	.73	3.53	0.94
Normative Commitment	.64	2.75	0.91
Continuance Commitment	.64	2.55	1.02
Age (years)		44.9	11.1
Time in current team (years)		5.70	5.60
Females (<i>n</i>)	214		
Males (<i>n</i>)	21		

Note. $n = 221-235$

Correlations

In Table 3, Pearson's correlations between the support variables (1-4) and the outcome variables (5-9) are presented. The support measures had high correlations, ranging from .40 to .74. Furthermore, motivation and self-efficacy had a rather low correlation of .25, while the correlations between the three team commitment measures ranged from .33 to .58. Correlations between support measures and outcome variables are highlighted in the square. All outcome variables except continuance commitment had moderate to quite high correlations with the support measures.

Table 3

Correlations among the measures managerial support, co-worker support, occupational self-efficacy, autonomous work motivation and three forms of team commitment

	1	2	3	4	5	6	7	8	9
1 Managerial Aut. Support	-								
2 Managerial Comp. Support	.67*	-							
3 Co-worker Aut. Support	.49*	.40*	-						
4 Co-worker Comp. Support	.49*	.74*	.53*	-					
5 Self-Efficacy	.30*	.38*	.36*	.41*	-				
6 Motivation	.35*	.28*	.31*	.22*	.25*	-			
7 Affective Commitment	.40*	.47*	.53*	.52*	.33*	.28*	-		
8 Continuance Commitment	.00	.04	-.01	-.03	-.14*	-.11	.33**	-	
9 Normative Commitment	.35*	.51*	.23*	.48*	.25*	.13	.58*	.37*	-

Note. The n ranged from 219 to 230. * = $p < .05$.

Regression analyses

Five separate hierarchical multiple regressions were performed. In the first two, the dependent variables were autonomous work motivation and occupational self-efficacy. The first set of predictors in each of these regressions was gender and time on the team. Managerial support for competence and for autonomy and co-worker support for competence and autonomy were entered as a second set. In the next three hierarchical multiple regressions, the dependent variables were affective team commitment, normative team commitment, and continuance team commitment. Autonomous work motivation and occupational self-efficacy were entered as one set of predictors. All predictors were standardized before entry in the regression equation.

The regression on the autonomous work motivation index for the care givers revealed a significant multiple R of .15, $F(4, 226) = 9.87$, $p < .001$. Autonomous work motivation was significantly positively related to managerial support of autonomy, $\beta = .22$, $t(230) = 2.49$, $p < .014$, and to co-worker support of autonomy, $\beta = .19$, $t(230) = 2.41$, $p < .017$. Support of competence was unrelated to work motivation, p 's $> .10$.

The regression on the occupational self-efficacy for the care givers revealed a significant multiple R of .210, $F(4, 228) = 14.43$ $p < .001$. Self-efficacy was significantly

positively related to co-worker support of competence, $\beta = .20$, $t(232) = 2.04$, $p < .042$ and to co-worker support of autonomy, $\beta = .18$, $t(232) = 2.37$, $p < .019$. Both managerial support of competence and of autonomy were unrelated to self-efficacy, $p's > .10$.

The regression on affective team commitment revealed a significant multiple R of .13, $F(2, 222) = 13.30$, $p < .001$. Affective commitment was significantly related to both autonomous work motivation, $\beta = .19$, $t(224) = 2.97$, $p < .003$ and to occupational self-efficacy, $\beta = .27$, $t(222) = 4.14$, $p < .001$. The regression on normative team commitment for the care givers revealed a significant multiple R of .06, $F(2, 222) = 7.00$, $p < .001$. Normative team commitment was significantly related to occupational self-efficacy, $\beta = .22$, $t(224) = 3.29$, $p < .001$. It was unrelated to motivation. The regression on continuance team commitment did not reveal any significant model for the care givers.

GENERAL DISCUSSION

Both studies in this report showed that the employees experienced high occupational self-efficacy and high autonomous work motivation and assessed the quality of the teams as high. The studies also showed that the employees perceived the support from both co-workers and managers as moderately high to high and that both support from co-workers on the team and from the manager were significantly related to important work outcomes.

In study 1, there was no difference in the perceptions of support from manager and from co-workers. However, in study 2, employees perceived greater support for autonomy from co-workers in the work team than from managers, whereas the support for competence was perceived as higher from the managers than from the co-workers. These different results of study 1 and study 2 are not directly comparable because in study 1, no distinction between support for competence and for autonomy was made, partly because of the small sample size. Co-worker support and managerial support refer to both support for competence and autonomy in that study. In study 2, the distinction showed that co-workers are better at supporting team members' feelings of autonomy, while managers were better at supporting feelings of being competent. This may be because the work in the elderly care is associated with rules, regulations and time restraints, and the autonomy support that employees receive probably comes from co-workers who know what it is like to work in such teams and can be empathetic. The care givers are all in the same kind of situation, which makes it easier to minimize the controlling behaviors and to recognize the feelings and perspectives of each other, which is part of an autonomy supportive approach. The manager, who is responsible for the work team, is probably not associated with autonomy support as much. On the other hand, the manager is likely to have expert knowledge and is a person to whom employees turn when they need help or advice, and will naturally be in a position to support competence. Not all managers are good at supporting autonomy or competence in positive ways, but study 2 shows that the care givers perceived their managers as good at supporting competence.

Regression results in both studies showed that *both* horizontal and vertical sources of support were significantly positively related to the work outcomes. In study 1, support from the manager was related to work motivation, while support from co-workers on the team was related to self-efficacy. In study 2, both sources of support were related to motivation and self-efficacy, but the strength of these relations varied across the work outcomes. Both sources of autonomy support were related to motivation. However, only support from co-workers was related to self-efficacy, as in study 1. It is notable that managerial support was more strongly related to work motivation than was co-worker support. This suggests that employees' autonomous motivation and internalization of work-related norms and procedures may primarily depend on the behaviors of their managers rather than co-workers. By contrast, support from co-workers was related to self-efficacy more strongly than was support from managers. It is surprising that co-workers played a more important role than managers in the employees' level of occupational self-efficacy. It may be that in organizations that place a priority on working in teams, as is the case for both organizations in this report, feeling that one's colleagues support one's choices and initiatives allows employees to develop a sense of mastery and competence.

In the first study, work motivation or self-efficacy did not have predictive relations to team commitment, while the second study showed that both motivation and self-efficacy had predictive relations to team commitment. Thus, for the sample of employees in the private research oriented company, work motivation and self-efficacy was not directly related to commitment to the team. On the other hand, managerial support was positively related to normative commitment. In the second sample, affective team commitment was significantly related to both motivation and self-efficacy and normative team commitment was related to self-efficacy. It seems likely that employees who enjoy their work, who feel that there are moments that make the work agreeable and meaningful and who feel competent also will be committed to their teams because their teams have a great deal of personal meaning to them and they would be happy to stay with their teams. It also seems likely that to have high believes in the own capability to work well in the team is an important ingredient for the normative team commitment. Employees, who feel that they have important skills and competences, and believe in themselves, will likely feel that they have a sense of commitment and obligation to help co-workers in their team. In study 1, where the context of the employees is different in various ways, there may be many other aspects that play a more important role for team commitment than autonomous work motivation and occupational self-efficacy. One such different aspect is the support from the manager, which was related to normative team commitment, but there may be other important factors too, or the sample may just be too small to find the effects of work motivation and occupational self-efficacy.

The present studies had some limitations. First of all, only self-reported measures were used. Future research could assess how managers estimate for example the motivation, commitment and productivity of the team members. A future study could also collect objective data regarding work performance or absenteeism to see if there are relations with the source of autonomy support. Another limitation on study 1 was the low alpha values of some of the scales. One reason for this could be that

those scales were developed and translated into Swedish for this study. In a future study, those scales could be developed even more in order to improve the reliability.

To conclude, the findings show that both support from managers and from co-workers and both support for competence and for autonomy are important for work outcomes. These distinctions may have implications for organizational development that implies that organizations should not only train managers how to support the autonomy and competence of their subordinates, but they should also encourage and provide guidance for how employees can support the autonomy and competence of their colleagues. It seems likely that many organizations do not know, let alone encourage and help, horizontal motivational forces such as the level of support displayed among employees on a team. The findings from this report may inspire researchers and organizations to develop and optimize successful work teams. It seems to be of high importance to focus training of managers on the autonomy supportive aspects and to focus training of co-workers on the competence supportive aspects. Increased support for autonomy and competence both from managers and co-employees may result in improved group processes and performances in work teams.

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