

The downside of social support

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About negative effects of receiving social support at
work

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Chapter 1

Clarifying the concept and meaning of social support

1.1 Introduction

Social support is a popular issue in contemporary psychology, mostly because it is assumed to be beneficial to people's health and well-being. Consequently, much effort has been invested in demonstrating its positive function. To date, there is a great deal of evidence that the availability of social support is indeed associated with better mental and physical health, either because of an overall beneficial effect of social support (i.e. direct effect), or because of a so-called buffer effect (for reviews see: Cohen & Wills, 1985; B. Sarason, Sarason, & Pierce, 1990; Schwarzer & Leppin, 1992; Stroebe & Stroebe, 1996; Pierce, Lakey, Sarason, & Sarason, 1997; Sarason & Duck, 2001). A buffer effect of social support refers to a process in which social support protects individuals from potentially adverse effects of stressful events, such as financial problems, divorce, conflicts, and marital stress.

Because it is widely acknowledged that social support is one of the most important factors that can reduce and prevent stress, it has also become a major issue in occupational health research (cf. House, 1981; Buunk, 1990; Peeters, 1994). This is exemplified by the fact that over the last two decades, more than 1000 studies have been published on the role of social support *at work* in promoting and maintaining health and well-being *of employees* (for recent examples see: Mendelson, Catano, & Kelloway, 2000; Sargent & Terry, 2000; Tetrick, Slack, Da Silva, & Sinclair, 2000; De Jonge et al., 2001; Rau, Georgiades, Fredrikson, Lemne, & De Faire, 2001; Peeters & LeBlanc, 2001). The results of these studies generally show that also in the context of work, social support has a positive influence on health and well-being. Numerous studies have found that social support at work can reduce perceived strains (i.e. direct effect), that it can moderate the stressor-strain relationship (i.e. buffer effect), and that it can mitigate perceived stressors (i.e. indirect effect or 'stress preventive effect') (see for a meta-analysis: Viswesvaran, Sanchez, & Fisher, 1999).

If indeed it is this obvious that social support at work has a beneficial effect, does this issue require further research, one might wonder. The answer to this question is affirmative. Further research on social support at work is necessary, because current research on the role of social support at work has largely neglected several important issues. One of these issues is the potential negative side of social support. The overwhelming number of studies on social support at work still focuses on demonstrating its positive function, despite indications that

social support at work can sometimes have negative effects on employees' health and well-being (cf. Shinn, Lehmann, & Wong, 1984; House, Landis, & Umberson, 1988; Buunk, 1990; B. Sarason, Sarason, & Gurung, 2001; Heller & Rook, 2001). That is, several studies found that a high level of social support at work was associated with poor health and well-being (see for examples: Kaufmann & Beehr, 1986; Leiter & Meecham, 1986; Rael et al., 1995; Morrison, Dunne, Fitzgerald, & Cloghan, 1992). Generally these negative results are interpreted as evidence for the so-called support mobilization hypothesis: the more stress employees experience the more they are likely to seek or receive support. However, since most of these negative results are found in correlational studies, interpreting these results as evidence for negative effects of social support at work would be equally valid (cf. Buunk, 1990; see also Chapter 2). Yet, this alternative explanation is usually ignored, in spite of the fact that, already more than a decade ago, Buunk (1990) has argued that this possibility cannot be completely ruled out and that several psychological processes can explain why negative effects of social support at work occur. Furthermore, his recommendation that more systematic research on the potential negative side of social support is necessary to examine to what extent social support at work has harmful effects, has now over 10 years later, hardly been responded to. The same is true for his recommendation to examine the processes that might be responsible for generating such effects. Most research on social support at work is data-driven, instead of theory-driven, thereby ignoring relevant processes that can explain the effects of social support at work. As a consequence, it is still unclear whether social support at work sometimes can have negative effects on health and well-being and why such effects can occur.

A second, related issue generally ignored in research on social support at work is the effectiveness of specific supportive interactions. Social support at work is usually examined in a rather global way, suggesting that for the effectiveness of the support it does not matter how it is provided, what kind of support is provided, who provides it or in which situation it is provided (cf. Dormann & Zapf, 1999; see also Chapter 2). Intuitively we know that such a general conception of social support does not correspond with reality. We probably all have sometimes provided or received support that was eventually not helpful or that made things even worse: well-meant advice that was not appreciated and rather perceived as meddlesomeness, or efforts to help that were perceived as infringements on privacy. Hence, it can be argued that social support at work at times will be effective, ineffective and even counter-effective, depending on the circumstances (cf. Hobfoll & Stephens, 1990; Coyne, Ellard, & Smith, 1990; Ell, 1996; Badr, Acitelli, Duck, & Carl, 2001; Stroebe & Stroebe,

1996). However, no empirical evidence exists for this point of view, because virtually no systematic research has been done on the effectiveness of specific supportive interactions in the context of work. As a result, it is largely unknown when social support at work is most likely to have positive effects and when it is more likely to have negative effects.

Thus, because contemporary research on social support at work has mainly ignored the potential negative side of social support and the effectiveness of specific supportive behaviors, we do not know with certainty whether social support at work can have negative effects and why and when such effects can occur. Yet, it is essential to answer these questions in order to arrive at a more differentiated conception of the role of social support at work and to gain more insight in the nature of supportive interactions at work as they relate to health and well-being. Besides, addressing these questions is important in order to develop better social support interventions. One of the most important themes in occupational psychology constitutes designing strategies for improving psychosocial conditions at work (cf. Theorell, 1999). Based on the finding that social support at work generally has positive effects on employees' health and well-being, it is often argued that providing more support to employees may be an effective strategy to improve their health and well-being. Examining the questions whether, why and when social support at work can have negative effects will provide more insight in the kind of behaviors that can best be employed or can better be avoided.

In light of these conclusions, the present dissertation aims to address the questions *whether, why and when social support at work can have negative effects on health and well-being*. In order to find an answer to these questions, first the question has to be addressed to what extent the concept of social support leaves room for the possibility that social support sometimes has negative effects. This issue is examined in the remaining section of this chapter.

1.2 The concept of social support

Although social support seems a clear concept, it actually is an umbrella term that covers a variety of phenomena (cf. B. Sarason et al., 1990). Researchers have therefore increasingly agreed that it is important to distinguish the different aspects of social support conceptually and empirically. With respect to the concept of social support generally three different conceptualizations are mentioned: (1) the extent of social integration, (2) the perceived availability of social support (i.e. perceived support) and (3) received support. The first conceptualization conceives social support in terms of the *structure* of an individual's social

network. The latter two conceptualizations conceive social support in terms of the *functions* that social relationships can serve for the individual (for an extensive discussion see: Cohen & Wills, 1985; Barrera, 1986; B. Sarason et al., 1990; Stroebe & Stroebe, 1996). Below the three different conceptualizations are discussed in more detail.

1.2.1 Structural measure of social support

Social integration

From the perspective of social integration, social support is primarily viewed in terms of the number and strength of social relationships the individual maintains with others in his or her social environment. This means that in this perspective, the main focus is on the *size and structure* of someone's social network (i.e. quantitative properties). For example, participants are asked about their marital status, their participation in community organizations and the presence of relatives and friends. There is convincing evidence that social integration is positively related to health and well-being. Several large-scale epidemiological studies have shown that measures of social integration can predict mortality to a considerable degree (Berkman & Syme, 1979; House, Robbins, & Metzner, 1982; Blazer, 1982). According to Rook (1984), social integration may promote health and well-being by means of social regulation: providing stable and rewarding social roles, promoting healthy behavior, deterring the person from ill-advised behavior, and maintaining stable functioning during periods of rapid change. (cf. Rook, 1984; Buunk, 1990). In occupational health research, social support has only occasionally been conceptualized in terms of social integration.

1.2.2 Functional measures of social support

As mentioned previously, the functional perspective on social support conceives social support in terms of the particular functions that social relationships can serve. Although different typologies of support functions have been suggested (e.g. Cobb, 1976; Cohen & Wills, 1985; House, 1981; Peeters, Buunk, & Schaufeli, 1995), usually a distinction is made between emotional, instrumental, informational and appraisal support (e.g. House, 1981). Emotional support involves providing empathy, care, love and trust. Instrumental support refers to behaviors that directly help the person in need; for example, giving money when someone has financial problems, or assisting others in doing their work. Informational support involves providing people with practical information, which they can use in coping with their

problems. Appraisal support also involves the transmission of information, but in this case the specific information is relevant for the individual's self-evaluation. With regard to the functional approach of social support two types of measures have been used: (1) perceived support that focuses on the different types of support a person believes to be available in case he or she should need it and (2) received support that focuses on the actual receipt of the different types of support during a given time period.

Perceived support

Perceived support refers to the perception of social support believed to be available when needed (cf. Dunkel-Schetter & Bennett, 1990; Barrera, 1981). This perspective stresses that the perception of availability of support is health protective and that the correctness of the perception may not necessarily be relevant. Research has indeed shown that buffer effects of social support against stressful circumstances occur particularly when perceived support is employed as an indicator of social support (Cohen & Wills, 1985; B. Sarason et al., 1990; Hobfoll & Stevens, 1990). Cohen and Wills (1985) have suggested that perceived support may have a positive effect on health and well-being because the perception that others are available for supportive functions results in a redefinition of the situation as less threatening. In occupational health research, social support conceptualized as perceived support is frequently examined by asking to what extent the employee feels he or she can rely upon his or her supervisor or colleagues for advice, information, empathic understanding, guidance, and help in case of stressful circumstances (cf. Buunk, 1990; Peeters, 1994).

However, it can also be argued that perceived support merely reflects a personality characteristic (cf. Lakey & Cassady, 1990; B. Sarason, Sarason, & Shearin, 1986; I. Sarason, Pierce, & Sarason, 1990). For example, Sarason and colleagues (I. Sarason et al., 1986) found that perceptions of available social support and the satisfaction with that support remained relatively stable over time, even during transitional events that led to major changes in network composition. Furthermore, it is found that individuals who report high levels of perceived support also have good interpersonal skills, positive feelings of self-efficacy, a positive self-image, low levels of anxiety and positive expectations about interactions with others (I. Sarason, Sarason, & Pierce, 1994). Therefore, perceived social support may reflect a general sense of social acceptance, which can be seen as a stable personality characteristic. This sense of acceptance may influence the perception of social support independent of what available others provide at any particular time.

Received support

Some researchers have argued that, the term social support should only be used for actual exchanges of social support, because this conceptualization corresponds best with our intuitive opinions of social support. These exchanges refer to actions which are either intended by the provider or perceived by the recipient as beneficial (Shumaker & Brownell, 1984; B. Sarason et al., 1990). This means that research on received social support exclusively focuses on what people actually get from others and what kind of actions others perform to assist the focal person. Although little is known about how the actual support process works, researchers have suggested several processes through which supportive behaviors might have a positive effect on health and well-being. For example, by helping to find a solution to a problem, offering social comparison information, helping to manage negative emotions, reducing anxiety, or changing the way in which a problem is cognitively analyzed (Rook, 1984; Thoits, 1984; Wortman, 1984; Buunk, 1990). In occupational health research, social support conceptualized as received support is frequently measured by asking employees to indicate how often they received emotional, tangible, informational, and guidance support from their supervisor or colleagues during a certain period of time.

1.3 The possibility of negative effects of social support

As outlined in the previous section, three different conceptualizations of social support can be distinguished. Subsequently, the question is to what extent these different conceptualizations leave room for the possibility that social support not only has positive effects, but can also have negative effects. With respect to the perspective of social integration it can be argued that the existence of social relationships does not necessarily mean that they are supportive or when a social interaction occurs it will have a positive effect. As Pierce and colleagues (Pierce, Sarason, & Sarason, 1990) state: "Requests for support (as well as its receipt) from ambivalent relationships may cause feelings of guilt and indebtedness which increase rather than decrease distress" (p. 175). In addition, Dunkel-Schetter and Bennett (1990) argue that members of one's social network are not always responsive when needed or sometimes have difficulty in providing effective support under stressful circumstances. Network members may also feel threatened by the situation and feel uncertain about the most effective way to help. These arguments are supported by the fact that correlations between social integration on the one hand and perceived support and received support on the other hand usually do not

exceed .30 (e.g. Barrera, 1981; Cutrona, 1986; B. Sarason et al., 1987). Furthermore, social network members may also promote unhealthy behaviors, such as smoking and drinking.

With respect to perceived support it can be argued that high levels of perceived support do not necessarily mean that social support is actually provided in times of need or that the support that is provided is effective. The results of studies linking perceptions of perceived support to received support are consistent with this line of reasoning. Generally, associations between received and perceived support are weak (on average .18) (Dunkel-Schetter & Bennett, 1990; Newcomb, 1990).

Finally, with respect to received support, it can be argued that support providers and support receivers do not necessarily agree on which behaviors are supportive and which are not. Hence, negative effects of social support can be expected when the support provider means for a certain action to be supportive, while the support receiver does not perceive this action as such. For example, well-intended advice might be perceived as meddlesomeness, efforts to help as overprotectiveness, and efforts to provide emotional support as infringements on privacy. Hence, it can be argued that in some situations providing actual support will not have the intended positive effect, but instead will cause additional problems. This line of reasoning is supported by the findings in the few studies that examined the degree of agreement between support providers and support receivers on how much support was provided and received. These studies only found a moderate level of agreement (about 50 to 60 percent) between the reports from support providers and receivers (Antonucci & Israel, 1986; Shulman, 1976). The disagreements that were found can be entirely reduced to support providers reporting having provided more support than the support receivers reported they received. This indicates that support providers frequently provide support that is not considered helpful by the receiver (cf. Pierce et al., 1990). In addition, negative results of social support have especially been found in studies that assessed social support in terms of received support (e.g. Barrera, 1981; Buunk, 1990; Buunk & Hoorens, 1992, see also Chapter 2). That is, high levels of received support are in some studies found to be associated with low levels of health and well-being. A plausible explanation for this phenomenon is that individuals under stress more often seek and receive support (Buunk, 1990; Stroebe & Stroebe, 1996). However, the possibility that in some cases receiving social support actually has a negative effect cannot be ruled out (see also Chapter 2).

Thus, from all three perspectives on social support, the possibility that social support has negative effects exists. Furthermore, it appears that the possibility of negative effects of social support in fact hinges on two different principles: 1) potential support providers may not be

responsive in times of need and 2) when a supportive interaction does occur it may not be perceived as such. With respect to the first point, it can be argued that this constitutes a lack of social support rather than a negative effect of social support. This means that especially from the perspective of received support negative effects of social support are a possibility: in some cases the receipt of social support may be perceived as ineffective or even countereffective. In the light of this conclusion, the present dissertation focuses mainly on potential negative effects of received support, more specifically with regard to the context of work. In accordance with Shumaker & Brownell (1984) and B. Sarason and colleagues (1990) received social support is defined in this dissertation as actions of others that are either helpful or intended to be helpful.

1.4 Overview

In this chapter, it was argued that it is essential to examine the potential negative side of social support and the effectiveness of specific supportive interactions. The present dissertation attempts to contribute to these generally ignored issues by addressing three specific questions:

- (1) *whether or not social support at work can have negative effects on health and well-being,*
- (2) *why social support at work can have such effects,*
- (3) *when social support at work can have negative effects on health and well-being.*

In order to formulate specific hypotheses with regard to these questions, a theory-driven approach is used in this dissertation. In the next chapter, it is argued that especially a threat-to-self-esteem approach may be useful in this respect. In that chapter preliminary evidence is presented for actual negative effects of social support at work and for the assumption that a threat-to-self-esteem process might be responsible.

In addition, a research model based upon the threat-to-self-esteem model (Fisher, Nadler, & Whitcher-Alagna, 1982; Nadler & Fisher, 1986) is presented, which gives rise to hypotheses regarding *whether*, *why* and *when* social support at work can have negative effects. This model proposes that employees who feel threatened by the receipt of social support at work will show more negative self-related reactions (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider). Furthermore, the model predicts that generally three different types of factors determine whether the support is perceived as self-threatening or self-supportive:

- (1) *characteristics of the support* (e.g. way of support providing, extent to which the receipt of support induces feelings of inferiority and dependency, extent to which the receipt of support implies an obligation to return the favor, and timing of the support),
- (2) *characteristics of the support provider and the support receiver* (e.g. type and quality of the relationship between the support provider and the support receiver),
- (3) *characteristics of the work context* (e.g. ego-involving qualities of the task, need for support and supportive climate).

In Chapter 3, 4 and 5 the hypotheses generated by this model will be tested.

In Chapter 3, two studies examine to what extent the appraisal of the support as self-threatening or self-supportive is related to 1) the way in which the support is provided (imposed or not) and 2) the context in which the support is provided (is the support needed and wanted). In Chapter 4, two studies examine to what extent the type of relationship between the support provider and support receiver (supervisor or colleague) determines the appraisal of the support (imposed or not) as self-threatening or self-supportive. In order to avoid problems with causal interpretation, the studies presented in these two chapters used experimental designs. To meet the criticism that experiments in general have low ecological validity, one experiment is conducted in a simulated work environment with employees, instead of student participants (study 3.2). Since experimental studies raise the question to what extent the examined phenomena actually occur in work situations, in Chapter 5 a survey study is presented that addresses this issue. In that chapter it is examined to what extent negative effects of social support occur in real work situations, to what extent the threat-to-self-esteem process is responsible for such effects, and under which conditions such effects occur. This survey study is based on the critical incidents method because this method enables us to pay the necessary attention to the effectiveness of specific supportive interactions. Finally, in Chapter 6 the findings with regard to the research model are summarized and the theoretical and practical implications of these findings, as well as possible directions for future research, are discussed.

CHAPTER 2¹

Negative effects of social support at the workplace: fact or fiction?

2.1 Introduction

In Chapter 1, we have seen that social support is considered as one of the most important factors that can protect employees from ill-health. However, research has not always shown support for this assumed beneficial effect of social support at work (cf. Buunk, De Jonge, Ybema, & De Wolff, 1998; Peeters, 1994). Moreover, some results even suggest that social support at work can sometimes have negative effects on health and well-being. Several studies have found that a high level of social support at work is associated with a high level of stress and/or a low level of health and well-being among employees (cf. Buunk, 1990; Buunk & Hoorens, 1992; Peeters, 1994; Stroebe & Stroebe, 1996; see Chapter 1). To date, we still wonder what these counter-intuitive results mean: do they merely indicate that the more employees are stressed the more they are likely to seek or receive social support? Or do these results represent negative effects of social support at work? (cf. Buunk, 1990; Stroebe & Stroebe, 1996). In the previous chapter it was argued that, since the concept of social support leaves room for the possibility of negative effects, the latter alternative cannot be ignored. Therefore, the present chapter aims to examine the validity of both alternatives. First, an empirical review is presented of studies that found negative results of social support at work. Second, possible explanations for these findings are discussed, including both methodological and theoretical explanations. Finally, a research model is presented. This model, based on the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986), is the starting-point for the empirical studies presented in this dissertation.

2.2 Empirical review

On the basis of a systematic literature search a review of recent studies that found negative results of social support at work was obtained. The literature search was conducted using PsychLit (1991-2003) by crossing the keywords 'social support', 'work', 'negative', 'reverse', 'job', 'occupational', 'stress', and 'strain'. Furthermore, the references of the

¹ An earlier version of this chapter has been published in Dutch: Deelstra, J.T. & Peeters, M.C.W. (2000). De keerzijde van sociale steun: Verklaringen voor averechtse effecten van goedbedoelde steun op het werk. *Nederlands Tijdschrift voor de Psychologie*, 55, 17-26.

obtained articles were examined thoroughly in order to identify additional studies that found negative results of social support at work. Appendix 2.1 (p. 26) summarizes 21 studies from the literature search describing the used design, research participants, type of social support measure, type of stressor, dependent variables, theory-based predictions of negative effects of social support, if any, and the main results.

As can be seen from Appendix 2.1, negative results of social support at work are found in various professions, such as shrimp fishermen, civil servants and correctional officers. It can also be seen that most studies that found negative results of social support at work used a correlational design. Exceptions in this respect are the studies of Peeters, Buunk, and Schaufeli (1995), Buunk and Verhoeven (1991) and Hahn (2000) who used a prospective design, the study of Glaser, Tatum, Nebeker, Sorenson and Aiello (1999) who used an experimental design, the studies of Frese (1999) and Elfering, Semmer, Schade, Grund Boos (2002) who used a longitudinal design and the study of Mendelson, Catano and Kelloway (2000) who used a quasi-experimental design. This means that in most studies no causal relationships could be established, because they were not examined.

Another remarkable point is that in most studies social support was operationalized in terms of actual received support. That is, employees were asked to indicate how much support they had actually received over a certain preceding period (e.g. 'To what extent did you receive support from your supervisor over the last 6 months?'). Only Johnson, Thomas, and Riordan (1994) operationalized social support in terms of utilization and perceived quality of relationships and only Buunk and Verhoeven (1991), Frese (1999), Lindorff (2000), Ducharme and Martin (2000), and Elfering et al. (2002) operationalized social support in terms of perceived availability of social support.

Also striking is the diversity of measures of stressors (e.g. job demands, conflicts and workload) and dependent variables (e.g. psychosomatic complaints, job satisfaction, mood, and burnout). Hence, a great variety of relationships between these variables arises, which reduces the comparability of the studies. Relationships between conflicts and burnout, for example, are hardly comparable to relationships between workload and mood disturbances. Moreover, it seems unlikely that the influence of social support on all these relationships would be the same. Therefore, it can be argued that the negative results of social support at work are probably caused by several different processes.

In addition, it appears that most measures of stressors, social support and dependent variables were assessed with subjective measures. That is, employees were asked to indicate how much support they received and how much stress they had experienced. In the studies of

Buunk and Verhoeven (1991), Peeters et al. (1995), Rael et al. (1995), Glaser et al. (1999), Hahn (2000), Stephens and Long (2000) and Elfering et al. (2002) some of the variables were assessed somewhat more objectively: daily event records, records of sickness absence, manipulations of stressors, physical health, content of communications, and medically diagnosed illness.

Furthermore, only 6 studies formulated theory-based predictions for negative effects of social support at work (Buunk, Doosje, & Hopstaken, 1993; Peeters et al., 1995; Iverson, Olekalns, & Erwin, 1998; Lindorff, 2000; Wong & Cheuk, 2000; Duffy, Ganster, & Pagon, 2002). As a consequence, it is only in these studies that the negative results of social support at work could be explained straightforwardly. For the other studies such a theoretical framework was lacking, which made it much more difficult to explain why social support at work did have a negative result. Therefore, most authors could only speculate why social support at work might have a negative result. These speculations included both methodological (e.g. reverse causation or influence of third variables) and theoretical explanations (e.g. negative influence of the social environment or a negative attitude towards receiving social support). These and other possible explanations of negative results of social support at work are discussed in the next section.

Finally, the number of studies that found negative results of social support at work is relatively limited. However, it is quite possible that this number is an underestimation, since in the present review only those studies are included that explicitly mention negative results of social support in the abstract.

Based on these findings several explanations for negative results of social support at work can be formulated. These are discussed in the next section. First, explanations with respect to the methodology of the studies are discussed, such as the frequent use of correlational designs, the operationalization of social support, and the subjective nature of the measurements. Next, theoretical explanations for negative results of social support are discussed, including the few theories used in the studies presented in Appendix 2.1, the theoretical explanations suggested in other studies and some other possible theoretical explanations.

2.3 Possible explanations for negative results of social support at work

2.3.1 Methodological explanations for negative results of social support at work

Finding negative results of social support at work could in some cases be due to methodological limitations of the studies. Especially problems with respect to the research design and measurement of stressors, social support and dependent variables could explain why negative results of social support at work were found.

Research design

In the previous section we have seen that most studies that found negative results of social support at work used a correlational design. Findings are therefore ambiguous with regard to the causal direction of the observed relationship (cf. Zapf, Dormann, & Frese, 1996; Viswesvaran et al., 1999). Hence, the most suggested explanation for negative results of social support at work is that the results indicate that the more stressed employees are the more they are likely to seek or receive support (i.e. support mobilization hypothesis; Buunk & Verhoeven, 1991; Morrison et al., 1992; Ray & Miller, 1994; Rael et al., 1995; Mendelson et al., 2000; Lindorff, 2000; Stephens & Long, 2000). This line of reasoning seems especially plausible because in most studies that found negative results, social support was operationalized as actual received support. However, the reversed explanation that the negative results point to a negative impact of social support at work on the health and well-being of employees is equally valid, because no causal inferences can be made based on a correlational study. Besides, in the meta-analysis of Viswesvaran and colleagues (Viswesvaran et al., 1999) no evidence was found for the support mobilization hypothesis. In addition, negative results are also found in experimental (Glaser et al., 1999), quasi-experimental (Mendelson et al., 2000), longitudinal (Frese, 1999) and prospective studies as well (Buunk & Verhoeven, 1991; Peeters et al., 1995; Hahn, 2000). This strongly indicates that social support at work sometimes actually has negative effects.

A second problem with the frequent use of correlational designs is the possible influence of a third variable. This means that it is possible that social support and indicators of health and well-being are not actually related to each other, but are both influenced by a third variable, for example a personality trait (Ray & Miller, 1994; Hahn, 2000). However, it is unlikely that this phenomenon can explain all negative results of social support at work, since

similar results are also found in experimental, quasi-experimental, longitudinal and prospective studies.

Measurements

Another possible explanation for the negative results of social support at work may be found in the assessment of social support, stressors and strains. In most studies these variables are assessed with subjective measurements (self-reports). This means that individuals have to indicate themselves how much support and/or stress they have received or experienced in a particular preceding period. According to Frese and Zapf (1988), the interpretation of the relationship between perceived levels of stress and perceived levels of social support might be problematic because of (1) common method variance (e.g. halo-effect, central tendency), (2) overlap in content between dependent and independent variables (amount of support and amount of stress) or (3) the current well-being that influences the judgment of the stressors, strains and level of social support. However, also in studies with more objective methods negative results of social support are found. For example, negative results of social support are found in studies that used daily records of stressful events and social interactions (Buunk & Verhoeven, 1991; Peeters et al., 1995), as well as in studies in which the level of stressors was manipulated (Glaser et al., 1999). In addition, negative results of social support at work are also found in studies in which use was made of records of sickness absence (Rael et al., 1995), in studies in which the content of communications as a measurement of social support was examined (Stephens & Long, 2000) and in studies in which medically diagnosed ill-health was used (Elfering et al., 2002).

A second problem with the measurements is that social support frequently is assessed in a rather global way: participants are asked to indicate on a 5-point scale how much support they received in a certain preceding period. Even though this question is usually specified with respect to the different types of support and the different support sources, such a 'global' measurement is not a valid measure of social support (cf. Dormann & Zapf, 1999). Because the type of occasion in which the support was received is generally not examined, it is in these global measurements ignored that certain types of support are provided as a reaction to a specific stress situation ('optimal matching', Cutrona & Russell, 1990). A global measure of social support therefore suggests that, irrespective of the type of stressor, any type of support would be effective. Hence, it can be argued that a global measure of social support is not representative for the type of support needed and the type of support received. Accordingly, several researchers suggest that the negative results of social support in their study were due

to a non-specific support measure: the support received may not have corresponded with the needs of the employees (Johnson et al., 1994; Ducharme & Martin, 2000) or the type of support received may not have matched the stressful situations (Iverson et al., 1998; Mendelson et al., 2000). However, also in studies with more specified social support measures negative results of social support at work are found (Buunk & Verhoeven, 1991; Peeters et al., 1995; Stephens & Long, 2000). As a result, it can be concluded that the explanations with respect to the assessment of social support, stressors and strain cannot explain all findings of negative results.

In conclusion, it can be argued that many of the studies that found negative results of social support at work suffer from methodological shortcomings, which could well have influenced the relationship between social support and health and well-being. As a consequence, negative results of social support at work cannot be interpreted unambiguously. However, one cannot ignore that in some cases social support at work actually might have a negative effect. Moreover, a few studies also indicate that such effects sometimes occur. In the following section several theoretical explanations are discussed regarding the question why social support at work can sometimes be counter-effective.

2.3.2 Theoretical explanations for negative results of social support at work

Suggested explanations

Several researchers have suggested that the finding of negative results of social support might represent a real negative effect (Buunk & Verhoeven, 1991; Ray & Miller, 1994; Rael et al., 1995; Iwata & Suzuki, 1997; Hagihara, Tarumi, Miller, & Morimoto, 1997; Iverson et al., 1998; Glaser et al., 1999; Frese, 1999; Hahn, 2000; Stephens & Long, 2000; Elfering et al., 2002). Most of these researchers also speculated about the processes that might explain such effects of social support at work. For example, Hahn (2000) and Stephens and Long (2000) suggested that receiving social support, in particular emotional support, can be negative because it tends to make individuals more aware and focused on the negative aspects of situations. Furthermore, Ray and Miller (1994) suggested that social support may have a negative effect because social relationships are potentially stressful, since developing and maintaining them costs time and energy. It is also suggested that the nature of the relationship may influence the effect of social support: when support is received from someone with whom the employee has a poor relationship, social support will rather have a negative effect

than a positive effect (e.g. Kaufmann & Beehr, 1986, 1989; Glaser et al., 1999; Duffy et al., 2002).

In addition, Frese (1999) proposed that when support is not effective (i.e. not helpful), it becomes more obvious that one is helpless and as a consequence one becomes more depressed. Hagihara and colleagues (1997) suggested that support might be negative because it can distract one from concentrating on the job to be done. Furthermore, it is said that receiving social support at work may have a negative effect as a result of a negative attitude towards receiving social support in certain organizations (Stephens & Long, 2000). Especially in professions that are typically male-dominated, such as correctional officers, police officers and firemen, the so-called “macho-culture” may easily result in persons interpreting receiving social support as a sign of weakness or incompetence (Peeters et al., 1995)

Finally, it is proposed that social support at work has a negative effect under the negative influence of the social environment. For example, by discussing work situations that are primarily viewed as negative, employees may easily persuade each other that the work situation is more stressful than they perceived it at first (Rael et al., 1995; Glaser et al., 1999). Furthermore, high levels of social support at work may also increase phenomena such as complaint behavior and sickness absence because it suggests that this kind of behavior is appropriate and accepted in the organization (Rael et al., 1995; Elfering et al., 2002). These possible effects are quite understandable from a social comparison point of view since individuals under stress in many situations seek out others for reasons of self-evaluation and to assess the appropriateness of their own reactions (cf. Buunk & Hoorens, 1992).

Examined explanations

Although many of the suggested theoretical explanations mentioned above seem very plausible, no indications were found that these processes were actually responsible for the negative results of social support at work. A few studies presented in this chapter, however, indicate that a certain process is responsible for such results, because they examined negative effects of social support at work from a theoretical point of view. Lindorff (2000) examined negative effects of social support at work from the perspective of gender roles. She argued that since the male gender role supports instrumental behaviors, receiving emotional support for men is inconsistent with their role and will consequently lead to negative effects for men. The results of Lindorff’s study supported this hypothesis: receiving emotional support was associated with increased strain for men, and those men who received the support for a major stressor reported the most strain. Furthermore, Iverson et al. (1998) examined the negative

effects of social support from the perspective of negative affectivity. They argued that individuals who score high on negative affectivity tend to perceive events and individuals in a rather negative manner. As a consequence, individuals high on negative affectivity have an increased tendency to interpret situations as stressful, to experience more strain and to interpret supportive attempts as negative (e.g. they tend to think that the support provider assumes that they are incompetent). The results of their study supported this line of reasoning: employees high on negative affectivity experienced greater depersonalization from co-worker support than employees low on negative affectivity.

In addition, Duffy et al. (2002) examined the negative effect of social support from the perspective of negative social interactions. They argued that inconsistent responses from members of someone's social network will result in relationship insecurity and distrust. Therefore, it can be expected that social support from a person who also shows undermining behavior will magnify the detrimental effects of the undermining behaviors. The results of the study supported this hypothesis: high levels of social support at work and high levels of undermining behavior from the same source were associated with more counterproductive behaviors and lower self-efficacy, less commitment and lower well-being than high levels of undermining behavior and low levels of social support.

Buunk et al. (1993), Peeters et al. (1995) and Wong and Cheuk (2000) also examined negative effects of social support at work from a theoretical perspective, but they used a more comprehensive theory. Buunk et al. (1991) studied negative effects of social support at work from the perspective of equity theory, Peeters et al. (1995) and Wong and Cheuk (2000) from the perspective of the threat-to-self-esteem model. Below, the equity theory and the threat-to-self-esteem model as well as the results of the studies that examined their relevance are discussed.

Equity theory

According to the equity theory, interpersonal relationships are regulated by a general fairness principle, namely that benefits have to be in balance with the investments (cf. Walster, Walster, & Berscheid, 1978). In other words, members in a social relationship assume that benefits are given in exchange for a benefit. Furthermore, the theory predicts that an imbalance in the expected reciprocity, thus receiving something more or less than given, will lead to negative affective reactions. Accordingly, the theory predicts, with respect to social support at work, that feelings of inequity will not only occur when individuals receive less than they give (i.e. feeling underbenefited), but also when they receive more support than they

provide (i.e. feeling overbenefited). Hence, in both situations the perceived inequity will lead to experiencing more stress (Stroebe & Stroebe, 1996). Rook (1987) argues that receiving more support than giving support in a relationship can have a detrimental effect because it induces feelings of guilt and shame.

Buunk and colleagues (Buunk et al., 1993) examined negative effects of social support at work from the perspective of equity theory. Consistent with predictions of this theory, they found that a lack of reciprocity (receiving too much or too little support) was generally associated with high levels of negative affect, irrespective of the effect of perceived occupational stress.

Threat to self-esteem model

Several researchers have argued that social support at work might have a negative effect because employees sometimes perceive receiving social support as threatening to their self-esteem (Iwata & Suzuki, 1997; Iverson et al., 1998; Lindorff, 2000). Especially in social relationships at work, the receipt of support (specifically instrumental support) may evoke feelings of dependency, incompetence and inferiority. Consequently, social support at work may not always be perceived as helpful (cf. Buunk et al., 1993; Peeters et al., 1995). The idea that receiving support will sometimes have a negative effect due to feelings of dependency, inferiority and incompetence reflects the basic tenet of the threat-to self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986). This model asserts that self-related consequences of receiving help (i.e. instrumental support) are critical in determining the recipients' reactions to being helped. An important premise of the model is that receiving help is neither all good nor all bad; it is the relative degree of self-threat and self-support that ultimately determines the recipient's reactions to received help (cf. Schroeder, Penner, Dovidio, & Piliavin, 1995). The model further predicts that when help is primarily perceived as self-supportive it will elicit positive reactions, whereas help that is primarily perceived as self-threatening will elicit negative reactions. More specifically, when help is perceived as threatening to the employee's self-esteem it is likely to produce negative feelings (negative affect) and low confidence in own abilities (competence-based self-esteem), and negative evaluations of the help (appropriateness of the help) and the provider (sympathy for the support provider) (Fisher et al., 1982; Nadler & Fisher, 1986).

Being helped with one's work constitutes the receipt of instrumental support. Therefore, it can be argued that the principles of the threat-to self-esteem model will also apply to reactions to receiving social support at work, especially instrumental support. Hence,

the threat-to-self-esteem model would predict that employees who feel threatened by the receipt of (instrumental) support from others will react negatively (cf. Fisher et al., 1982).

Two of the studies presented in Appendix 2.1 examined the negative effects of social support at work from the perspective of the threat-to-self-esteem model. First, Peeters et al. (1995) examined negative effects of social support at work by considering the possibility that receiving social support can induce feelings of inferiority. The results of their study confirmed their hypothesis: receiving instrumental support aggravated the relationship between stressful events and negative affect, because the receipt of this type of support elicited feelings of inferiority. Second, Wong and Cheuk (2000) examined the possibility that social support at work has negative effects due to feelings of dependency and incompetence. They found that the receipt of social support at work resulted in decreased task-related competence (i.e. feeling of incompetence) and in feeling obligated to return a favor to the support provider (i.e. feeling of dependency).

In conclusion, the review presented in this chapter shows that some preliminary evidence exists for the notion that negative effects of social support at work are a fact, not a fiction.

Overall, it was found that:

- (1) social support at work sometimes has negative effects on employees' health and well-being,
- (2) various processes can generate such effects: lack of reciprocity, inconsistency with gender roles, negative affectivity, social undermining and self-threatening aspects.

In addition, it was shown that other processes may also be relevant, but since they were not tested on the ground of theory-based predictions, it remains unclear to what extent these processes actually occur in work situations. This indicates once more that it is important to use a theory-driven approach in order to gain more insight in the potential negative side of social support at work. For that reason, the empirical studies presented in this dissertation (chapter 3, 4, and 5) used a theoretical framework to examine whether, why and when social support at work can have negative effects. The hypotheses derived from this framework and research aims are discussed in the next section.

2.4 Theoretical framework of the present dissertation

In the present dissertation the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) is used as a theoretical framework. The validity of this model received some

empirical support (Peeters et al., 1995; Wong and Cheuk, 2000), but hitherto no answer was provided for the question *when* social support at work is likely to be perceived as threatening to the employee's self-esteem. Since several studies have shown that threats to the self-esteem can cause anxiety, negative affect and feelings of depression (cf. Fisher et al., 1982) it is important to gain more insight in this process in order to prevent such detrimental effects of receiving social support at work.

2.4.1 Theoretical framework

To recapture, on the basis of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) it is predicted that employees who feel threatened by the receipt of social support (especially instrumental support) will react negatively towards that support. Two types of reactions are distinguished in this respect (Fisher et al., 1982; Nadler & Fisher, 1986):

- (1) self-related reactions (i.e. emotions and evaluations with regard to the support receiver itself – negative and positive affect and competence-based self-esteem)
- (2) interaction-related reactions (i.e. evaluations of the support exchange – appropriateness of the support and sympathy for the support provider).

This means that employees who perceive the support they receive as self-threatening, are likely to experience high negative affect, low positive affect, and low competence-based self-esteem. They are also likely to perceive the support as inappropriate and the support provider as unsympathetic.

So, the question is: under which conditions are individuals likely to respond this way to receiving of social support? According to the threat-to-self-esteem model *help* is most likely to be perceived as self-threatening when (cf. Schroeder et al., 1995):

1. it comes from a person socially comparable to the recipient
2. it threatens the freedom of choice and autonomy of the recipient (i.e. it is imposed on the recipient)
3. it implies an obligation to repay the favor, but provides no opportunity to do so
4. it is received for an ego-involving task
5. it suggests that the recipient is inferior to and dependent upon the provider
6. it is inconsistent with the positive aspects of the recipient's self-concept

In other words, with respect to the perception of help as self-threatening or self-supportive, it can be argued that characteristics of the help (factor 2, 3, and 5), characteristics of the

provider and the recipient (factor 1 and 6), and characteristics of the situation in which the help is provided (factor 4) are important. Applied to the reactions to receiving social support at work, the characteristics of the support, the characteristics of the support provider and support receiver, and the characteristics of the work context will be important in determining whether or not the receipt of social support is perceived as self-threatening. A research model based upon these principles as well as the current research aims of the empirical studies are presented in the next section.

2.4.2 Research model and research aims

In Figure 2.1 it is outlined how the principles of the threat-to-self-esteem model may apply to reactions to receiving social support at work.

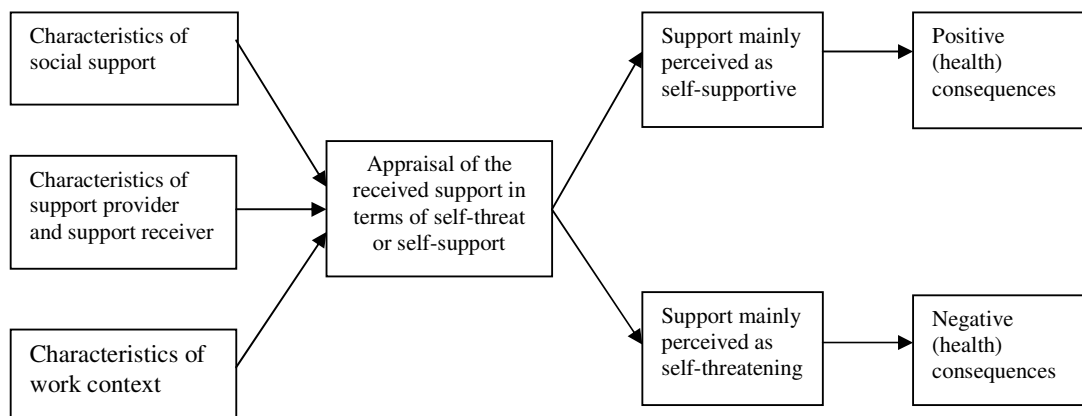


Figure 2.1. The threat-to-self-esteem model applied to reactions to receiving social support at work

The model presented in Figure 2.1 predicts, in accordance with the original threat-to-self-esteem model, that when the received support is predominantly perceived as self-supportive, this will lead to positive (health) consequences and that when the received support is predominantly perceived as self-threatening, this will lead to negative (health) consequences. In the present dissertation the appraisal of the support as self-threatening or self-supportive is not measured in a direct way, but only indirectly by taking the kind of reactions to that support into account. It can be reasonably assumed that the support was perceived as self-threatening when employees show negative self-related (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the

support and sympathy for the support provider) (cf. Fisher et al., 1982; Nadler & Fisher, 1986).

Furthermore, the model predicts that the reactions to the receipt of social support at work are influenced by the characteristics of the support, the characteristics of the support provider and support receiver, and the characteristics of the work context. With respect to the characteristics of the support, the present dissertation examines the influence of three aspects mentioned by the original threat-to-self-esteem model: *the way in which the support is provided* (threatening to the employee's freedom of choice or not), *the extent to which the support induces feelings of inferiority*, and *the extent to which the support implies an obligation to return the favor*. In addition, the present dissertation also examines the influence of *the timing of the support*.

With respect to the characteristics of the support provider and the support receiver, the present dissertation examines, in accordance with the original threat-to-self-esteem model, the influence *the type of relationship between the support provider* (i.e. comparability between both). In addition, the present research also examines the influence of *the quality of that relationship*.

With respect to the characteristics of the work context, the present dissertation examines the influence of one aspect, mentioned by the threat-to-self-esteem model: *the ego-involving qualities of the task that is performed*. In addition, the present research also examines the influence of *the need for support* and *the supportive climate of the work place*.

Furthermore, also *the match between the type of support and the situation in which the support is received* is examined in the present dissertation. This factor can be seen as an interaction between a characteristic of the support and a characteristic of the work context.

In this dissertation attention is paid mainly to the way in which the support is provided. In all studies it is examined whether employees react more negatively to support that is threatening to their freedom of choice (i.e. imposed support) than to support that is not threatening to their freedom of choice (e.g. no support at all, offered support or support that is asked for). In addition, it is examined whether this effect is influenced by the employee's need for support, the ego-involving qualities of the task that is performed, and the type of relationship between the support provider and the support receiver. Furthermore, it is examined which aspect of the relationship between the support provider and the support receiver has a greater influence on the appraisal of the support in terms of self-threat or self-support: the type of relationship or the quality of the relationship. Finally, it is also examined to what extent the appraisal of the

support as self-threatening or self-supportive is influenced by the extent to which the support induces feelings of inferiority, the extent to which the support implies an obligation to return the favor, the match between the type of support and the situation in which the support is received, and the supportive climate of the work place.

In the following chapters each of these issues will be addressed. Chapter 3 starts out with the moderator effects of the need for support and the ego-involvement of the task on the effect of receiving imposed support.

Appendix 2.1. Overview of studies that report negative results of social support at work

Study	Participants	Design	Social support measure	Stressors	Dependent variables	Theory-based predictions of negative effects	Results
1. Buunk & Verhoeven (1991)	40 police officers	Prospective (one week)	Perceived availability and actual received support	Daily stressful events	Psychosomatic complaints, negative affect and cognitive anxiety	No, but consider possibility	The more helpful acts employees received, the more negative affect they experienced at the end of the day. Furthermore, the more satisfying or the more frequent social interactions were, the lower the well-being and health of employees.
2. Morrison, Dunne, Fitzgerald, & Cloghan (1992)	1200 correctional officers	Correlational	Perception of received support (type en amount)	Job demands	Negative affectivity, mental health, general physical health index, job satisfaction	No	Correctional officers with high levels of social support had in some cases lower levels of well-being and mental health than correctional officers with low levels of social support
3. Buunk, Doosje, Jans, & Hopstaken (1993)	181 employees of a psychiatric hospital and 469 employees of a railway company	Correlational	Perceived reciprocity of provided and received support	Perceived job stress	Negative affect	Yes, equity theory	Employees who received more support than they provided as well as employees who provided more than they received experienced more negative affect than employees who received and provided equal amounts of support.
4. Johnson, Thomas, & Riordan (1994)	310 shrimp fishermen	Correlational	Utilization and perceived quality of relationships (friends, family, supervisor and colleagues)	WHO list	Depression and somatic complaints	No	The more support was available to the fishermen, the more somatic complaints they had.

(Appendix 2.1 continued)

Study	Participants	Design	Social support measure	Stressors	Dependent variables	Theory-based predictions of negative effects	Results
5. Ray & Miller (1994)	338 nurses	Correlational	Perception of received support (supervisor, colleagues and family)	Conflicts between work and home spheres	Burnout	No	Women who were strongly supported by their families had higher levels of emotional exhaustion than women who were less supported. Furthermore, at low or moderate levels of stress, support had no effect on burnout, whereas at high levels of stress support from colleagues was positively correlated with burnout.
6. Peeters, Buunk, & Schaufeli (1995)	38 correctional officers	Prospective (one week)	Actual received support	Daily stressful events	Negative affect	Yes, threat-to-self-esteem model (feelings of inferiority)	Instrumental support aggravated the relation between stressful events and negative affect, because this type of support elicited feelings of inferiority
7. Rael, Stansfeld, Shipley, Head, Feeney, & Marmot (1995)	10.308 civil servants	Correlational	Perception of received support over the past 12 months	Problems with finances, housing, and neighbour-hood	Number and length of spells of sickness absence over the past 12 months	No	Civil servants with high levels of received support had more and longer spells of sickness absence than civil servants with low levels of received support. This effect remained after controlling for general physical and mental health.
8. Yang & Carayon (1995)	262 VDT-users (video display terminal)	Correlational	General perception of received support (colleagues and supervisor)	Quantitative workload and computer-related problems	Boredom, dissatisfaction, and psychological mood disturbances (e.g. anger and fatigue)	No	Employees with high workload and low levels of social support, experienced less stress than employees with high levels of social support.

(Appendix 2.1 continued)

Study	Participants	Design	Social support measure	Stressors	Dependent variables	Theory-based predictions of negative effects	Results
9. Iwata & Suzuki (1997)	256 bank employees	Correlational	Perception of received emotional support (co-workers and supervisor)	Perceived role stress (role overload, role conflict, role ambiguity)	Mental health status	No	High co-worker support was associated with high mental health status at low to medium levels of role overload, but was associated with low mental health status at a higher level of role overload
10. Hagihara, Tarumi, Miller, & Morimoto (1997)	712 white-collar workers from a steel company	Correlational	Perception of received support (co-workers and supervisor)	Work-related stressors	Mental stress level	No	Social support from supervisors was positively correlated with mental stress for certain groups of Type A workers
11. Iverson, Olekalns, & Erwin (1998)	487 blue-collar workers and white-collar workers from a public hospital	Correlational	Perception of received support (co-workers, supervisor and peers)	Role stress (role conflict, and role ambiguity) and lack of autonomy	Burnout, job satisfaction and absenteeism	Yes, negative affectivity will have a negative effect on the perception of supportive interactions	Individuals high on negative affectivity experienced greater depersonalization from co-worker support than individuals low on negative affectivity
12. Glaser, Tatum, Nebeker, Sorenson, & Aiello (1999)	37 temporary workers	Experimental (work simulation)	Perception of received support from supervisor (research leader) and co-workers (fellow participants). Support was not manipulated	Low versus high quantitative and qualitative workload manipulation	Worry-Emotionality Scale, performance and perceived ability.	No	In the early stages of the experiment high social support led to higher (rather than lower) stress.
13. Frese (1999)	90 blue-collar workers in the metal industry	Longitudinal	Perceived availability of support (supervisor and co-worker)	Perceived job stress (psychological and physical)	Psychosomatic complaints, anxiety, depression, and irritation/strain	No, but considered possibility	In some cases social support enhanced the negative effect of physical stressors on depression

(Appendix 2.1 continued)

Study	Participants	Design	Social support measure	Stressors	Dependent variables	Theory-based predictions of negative effects	Results
14. Hahn (2000)	86 employees with low-level service jobs	Prospective (two weeks)	Received emotional and instrumental support	Inter-personal conflict	Physical health and mood (anxiety, anger, and depression)	No	Emotional support was related to greater anger and physical health symptoms
15. Ducharme & Martin (2000)	1,951 full-time employees	Correlational	Perception of perceived availability of social support at work	Job rewards, job pressure, autonomy and task complexity	Job satisfaction, negative affectivity and depression	No	Employees who reported the most complexity were more satisfied with their jobs when support was low than when support was high
16. Mendelson, Catano, & Kelloway (2000)	567 hospital employees (297 from Sick Building Syndrome (SBS) locations and 228 from non-SBS locations)	Quasi-experimental	Perception of social support from supervisor, organization, and co-workers	Role ambiguity, role conflict, and role overload and SBS symptoms	Organizational Stress Scale	No	Employees with higher organizational support were more likely to report that their health had been adversely affected by their place of work
17. Lindorff (2000)	572 managers	Correlational	Perceived availability of support and perception of received social support	Most stressful event at work of the past month	General Health Questionnaire	Yes, receiving support for men will be inconsistent with male gender role	Receiving emotional support was associated with increased strain for men, and those who received the support for an important stressor reported the most strain
18. Wong & Cheuk (2000)	150 kindergarten principals	Correlational	Perception of received emotional and informational support	Stressful aspects of the job	Negative affect, job satisfaction, task-related competence and obligations to return favor	Yes, threat-to-self-esteem model (sense of dependence and competence and obligation to return favor)	The receipt of emotional and informational support led to perceptions that one cannot cope with one's problems alone and obligations to return a favor to the support provider

Study	Participants	Design	Social support measure	Stressors	Dependent variables	Theory-based predictions of negative effects	Results
19. Stephens & Long (2000)	527 working police officers	Correlational	Content of communications with supervisors and co-workers and ease of talking about trauma at work	Traumatic events	Psychological and physical symptoms	No	Communication about non-work matters were found to interact with traumatic experiences in that their relationship with PTSD or physical symptoms were stronger if there more of these communications
20. Duffy, Ganster, & Pagon (2002)	685 police officers	Correlational	Perception of received support (supervisor and co-worker)	Social undermining of co-workers and supervisor	Self-efficacy, organizational commitment, active and passive counterproductive behaviors	Yes, social support from a person who also undermines will magnify detrimental effects of undermining behaviors	High levels of undermining and high levels of social support from the same source were associated with more counterproductive behaviors and lower self-efficacy, commitment and well-being than high levels of undermining and low levels of social support from the same source
21. Elfering, Semmer, Schade, Grund, & Boos (2002)	46 employees (general sample)	Longitudinal	Perceived availability of support from supervisor, closest colleague, other colleagues, and spouse/partner	Bio-mechanical workload	Perceived and medically diagnosed lower back pain (LBP) and disability, depression	No, but considered possibility	Constellation of low supervisor support and high confident support at time 1 resulted in most LBP and disability at time 2

CHAPTER 3

When help is not asked for: the effects of ego-involvement, need for support and the way of providing

3.1 Introduction

Someone who provides support to a colleague will usually expect that this colleague will appreciate the support and will feel better afterwards. However, despite the fact that receiving social support generally will be a positive experience, it can be concluded from the previous chapter that employees will not perceive every supportive attempt as such (cf. Hobfoll & Stephens, 1990). Moreover, it can be argued that employees sometimes will feel worse after the receipt of social support. One of the reasons for this counterintuitive effect is that the receipt of social support at work in some cases induces feelings of inferiority, dependency or incompetence (Peeters et al., 1995; Wong & Cheuk, 2000). In other words, receiving social support at work can sometimes be counter-effective, because of a threat to the employee's self-esteem (cf. Fisher et al., 1982; Nadler & Fisher, 1986). The question is, however, under which conditions employees are likely to perceive the receipt of social support at work as self-threatening. The present chapter seeks an answer to this question by examining to what extent the perception of the received support, in particular instrumental support, as self-threatening or self-supportive is related to (1) the way in which the support is provided (imposed or not) and (2) the context in which the support is provided (is the support needed and wanted). In the next section theoretical assumptions regarding these aspects will be discussed from a threat-to-self-esteem perspective.

3.2 Hypotheses

Instrumental support can be provided in different ways. It can be offered, it can be provided after someone asked for support, or it can be provided without asking whether someone needs or wants support. According to the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) the effect of the support depends very much on the way in which the support is provided. More specifically, the model states that it highly depends on whether or not the support is provided in a way that threatens the freedom of choice of the recipient. The threat-to-self-esteem model predicts that individuals who feel that their freedom of choice is

threatened by the receipt of (instrumental) support from others will react negatively. Such a situation is likely to arise in a work setting when colleagues or supervisors provide instrumental support without asking whether the employee wants or needs that support (i.e. imposed support). Accordingly, it can be predicted that even the absence of support will be perceived as more positive than imposed instrumental support, because the former is less restrictive to the employee's freedom of choice than the latter and consequently will lead to less negative reactions. With respect to these reactions two different types are distinguished: (a) self-related reactions (i.e. emotions: negative and positive affect, and self-related evaluations: competence-based self-esteem) and (b) interaction-related reactions (i.e. evaluations of the support exchange: appropriateness of the support and sympathy for the support provider) (Fisher et al., 1982; Nadler & Fisher, 1986).

Thus, it can be predicted that receiving imposed instrumental support will elicit more negative reactions than no support at all. However, a factor not mentioned by the threat-to-self-esteem model, but that is likely to moderate the extent to which individuals react negatively to imposed instrumental social support is their *need for support*. Receiving imposed instrumental support may involve psychological costs, but receiving no support at all may involve the cost of failing to achieve a given goal, like accomplishing a certain task successfully (cf. Jou & Fukada, 1995). When employees encounter problems they cannot solve on their own, they can no longer succeed by their own efforts, but perhaps they might succeed with the help of instrumental support from others. Accordingly, when they are confronted with such unsolvable problems their *need for support* will be higher than when they are confronted with problems they can solve themselves or when no problems at all occur. Consequently, it is likely that receiving imposed instrumental support in case of a high need for support will, despite restrictions to the employee's freedom of choice, be less detrimental than in case of a low need for support. Therefore, the following hypothesis can be formulated:

Hypothesis 1. In comparison to receiving no support, individuals will react more negatively to receiving imposed instrumental support. But their reactions will be moderated by their need for support. They will react the less negative to receiving imposed instrumental support, the more they are in need of support (i.e. confronted with an unsolvable problem).

A second factor that can be expected to moderate the extent to which individuals react negatively to imposed instrumental support is the importance individuals attach to performing a given task on their own. Since it will be difficult or even impossible to refuse imposed

instrumental support, the employee will no longer be able to accomplish the task on his or her own. This seems especially detrimental in situations in which performing the task alone is very important to the employee, for example when he or she is working on a high *ego-involvement* task (cf. DePaulo, Brown, & Greenberg, 1983). When employees work on high ego-involvement tasks they seek to demonstrate their ability comparative to others (Thill & Brunell, 1995). This means that they want to perform the task better than others. Thus, with regard to high ego-involvement tasks the outcome is ability related: how the outcome is accomplished is more important than the outcome itself (Thill & Brunell, 1995; Sansone, 1986; Nicholls, 1984; Nadler, 1983). Therefore, it can be argued that individuals who accomplish high ego-involvement tasks on their own (i.e. without support) will feel more competent than individuals who accomplish such tasks with instrumental support from others. Accordingly, individuals probably will find it more important to perform high ego-involvement tasks on their own than low ego-involvement tasks. Hence, a second hypothesis can be formulated:

Hypothesis 2. The negative reactions to receiving imposed instrumental support as compared to receiving no support at all will also be moderated by the ego-involvement of the task. Individuals will react the more negatively to receiving imposed instrumental support, the more the task has ego-involving qualities.

Moreover, it is likely that imposed instrumental support will have the most detrimental effect on the employee when performing the task alone is very important to the employee and the employee sees no need for support (i.e. in case there are no problems or solvable problems). Therefore, a third hypothesis can be formulated:

Hypothesis 3. Individuals who work on a high ego-involvement task and have a low need for support will react the most negatively to receiving imposed instrumental support as compared to receiving no support at all.

3.3 Study 3.1

3.3.1 Introduction

The aim of this study was to examine the moderator effects of the need for support and the ego-involvement of the task on reactions to receiving imposed instrumental support. To address these issues, a vignette study was designed, in which participants had to respond to a fictitious situation. A vignette study offers the opportunity to manage complex processes by

isolating certain aspects of a given social issue (Barter & Renold, 2000). Furthermore, it is a method in which experimental manipulations can be tested in a cost- and time-saving manner. In the vignettes the need for support was manipulated by describing a task in which no problem arose (low need for support) or in which an unsolvable problem arose (high need for support). Furthermore, the ego-involvement of the task was manipulated by describing a low or a high ego-involvement task. Finally, the support level was manipulated by describing a situation in which no support was provided or a situation in which imposed instrumental support was provided.

With regard to the reactions to these manipulations, two types of reactions were distinguished in the present study: self-related reactions (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider). Because, by implication, interaction-related reactions are not relevant in situation where social support is absent (i.e. in the no support condition), only the imposed support condition was taken into account when the hypotheses (1,2, and 3) were tested with respect to the interaction-related reactions.

3.3.2 Method

Participants and Design

The hypotheses in Study 3.1 were tested in a 2 (Problem: no/unsolvable) x 2 (Support: no/imposed) x 2 (Ego-involvement of the task: low/high) factorial design. Research participants were 104 first-year psychology students (84 female, 20 male) with a mean age of 21.33 years ($SD = 3.07$), who volunteered to take part in the vignette study.

Procedure

During an introduction course students were asked to participate in a study on how to deal with problems. To do so, they had to read a description of a certain situation and subsequently fill in a questionnaire about how they would react in such a situation. To ensure that the hypothetical situation presented to the research participants would be relevant to them, the hypothetical situation described the students working on a research project, which is an obligatory part of their study.

Vignettes; independent variables

Two different vignettes were developed: a vignette in which the individual was working on a low ego-involvement task and a vignette in which the individual was working on a high ego-involvement task. Both vignettes contained information with regard to the support and problem manipulations. The vignettes read as follows:

Low ego-involvement task:

“You are working on a research project with two other students. You just have administered the questionnaires and now the data have to be entered in SPSS. Until now the tasks were equally divided: each one of you had to search a part of the literature, the other two students dealt mainly with the construction and layout of the questionnaire and you yourself dealt mainly with the administration of the questionnaires. The data entry will also be divided: each one of you will enter a part of the data. In about a week the data have to be analyzed. Therefore, it is important that before the end of the week all data have been entered in SPSS. It is not very important to you that you are entering the data, but it has to be done.”

Problem

No: *“You have only one day planned to enter all your data in SPSS. The main part of the data was entered in the morning, but now you have to go to a lecture. You quit the computer program and terminate the computer. After the lecture you will continue the data entry and you are certain that you get it done in time”.*

Unsolvable: *“You have only one day planned to enter all your data in SPSS. The main part of the data was entered in the morning, but now you have to go to a lecture. You quit the computer program and terminate the computer. After the lecture you want to continue the data entry, but to your great dismay you forgot to save the entered data. Now you have to start all over again. You realize that it is now almost impossible to finish it in time*

Support

No: *No further description.*

Imposed: *“One of the other students of your project is sitting in the computer hall as well. This student comes up to you and says: “I will help you.” The other student takes a part of the questionnaires and enters them in SPSS for you.”*

High ego-involvement task:

“You are working on a research project with two other students. The last phase of that research has started. You are that far that only the paper has to be written. Until now the tasks were equally divided: each one of you had to search a part of the literature, two students dealt mainly with the construction and layout of the questionnaire and you yourself dealt mainly with the administration of the questionnaires and with analyzing the data. The writing of the paper will also be divided: your task is to write the introduction. It is very important to you that you do a very good job writing the introduction”

Problem

No: *“In about a week you have an appointment with the supervisor of your project. Therefore, it is important that by then you will have written the first concept of the introduction. Without the introduction it is difficult for the other two students to write the other parts of the paper. You have planned the whole week to write the introduction. You know the subject of the paper, you have read the relevant literature, and you also know how the text has to be structured. The writing is tough, but in itself it is going all right and you are certain that you will get it done in time.”*

Unsolvable: *“In about a week you have an appointment with the supervisor of your project. Therefore, it is important that by then you will have written the first concept of the introduction. Without the introduction it is difficult for the other two students to write the other parts of the paper. You have planned the whole week to write the introduction. You know the subject of the paper, you have read the relevant literature, and you also know how the text has to be structured. Yet, you find it very difficult to explain the purpose of your research and you have trouble separating main issues from side-issues. You put too many information in the text, which makes the introduction chaotic and too long. You realize that it is almost impossible to finish it in time.”*

Support

No: *No further description*

Imposed: *“One of the other students of your project, is sitting in the computer hall as well. This student comes up to you and says: “I will help you.” The other student tells you where to put information in the text or where text has to be left out and starts to formulate and type sentences for you. He also types that part of the introduction in which the purpose of the research has to be mentioned.”*

Dependent Measures

Self-Related Measures. Two different kinds of self-related measures were assessed: negative and positive affect and competence-based self-esteem (Fisher et al., 1982)

Negative and positive affect. Negative and positive affect were measured with a 12-item scale developed by Warr (1990), which has been successfully translated and applied in previous Dutch research on job stress (Schalk, Keunen, & Meyer, 1995). Research participants were asked to indicate to what extent during the task they experienced feelings of being tense, worried, depressed, and optimistic (6 positive affect items and 6 negative affect items) on 5-point scales, varying from: 1 = *not* to 5 = *very strongly*. Watson and colleagues have demonstrated that negative and positive affect are distinctive dimensions that reflect separate underlying psychological systems (Watson, Wiese, Vaidya, & Tellegen, 1999). Therefore, two separate measures were used: positive affect and negative affect, instead of one sum score of the negative and positive affect items.

Competence-based self-esteem. To assess competence-based self-esteem (i.e. state self-esteem with regard to one's own capacities), research participants were asked to evaluate themselves ("Indicate how you would describe yourself during the task") on scales defined by eight pairs of bipolar adjectives, based on the scales of Stake (1979) and Nadler, Fisher, and Ben-Itzhak (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *dependent, insecure, incapable, irresponsible, incompetent, inefficient, not assertive, and unproductive* to 5 = *independent, self-confident, capable, responsible, competent, efficient, assertive, and productive*, respectively.

Interaction-Related Measures. Two different kinds of interaction-related measures were assessed: appropriateness of the support and sympathy for the support provider (Nadler et al., 1983). Obviously, these measures could only be assessed in the imposed support condition.

Appropriateness of the support. To assess the appropriateness of the support, research participants were asked to evaluate the received support ("How would you describe the received support") on scales defined by five pairs of bipolar adjectives, based on the scale of Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *inappropriate, not effectual, not useful, ineffective, and unnecessary* to 5 = *appropriate, effectual, useful, effective, and necessary*, respectively.

Sympathy for the support provider. To assess the sympathy for the support provider, research participants were asked to evaluate the support provider ("Indicate how you would describe your colleague after the received support") on scales defined by six pairs of bipolar

adjectives, based on the scale of Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *impatient, incompetent, unpleasant to work with, incapable, enforcing*, and *unfriendly* to 5 = *patient, competent, pleasant to work with, capable, not enforcing*, and *friendly*, respectively.

Manipulation checks

Ego-involvement of the task. The effectiveness of the task manipulation was assessed by having subjects rate on 5-point scales the question: “To what extent did you find it important to perform the task on your own in the described situation?” (1 = *not at all*, 5 = *very strongly*).

Problem. The effectiveness of the problem manipulation was assessed by 2 items. Subjects had to rate on 5-point scales the questions: “To what extent did you find you needed support in the described situation” and “To what extent did you find you had a problem with the task in the described situation” (1 = *not at all*, 5 = *very strongly*).

3.3.3 Results

Descriptive statistics

Table 3.1 shows the reliability coefficients of the dependent measures and the correlations between the variables.

	Mean	SD	1	2	3	4	5
1. Negative affect	2.44	.84	.90				
2. Positive affect	2.51	.89	-.64**	.91			
3. Self-esteem	3.22	.78	-.45**	.50**	.89		
4. Appropriateness of support	3.68	1.08	-.08	.24	.19	.89	
5. Sympathy for support provider	3.69	.93	-.17	.34*	.42**	.73**	.92

Note: numbers on diagonal reflect reliability coefficients; * $p < .05$, ** $p < .01$

Table 3.1. Dependent variables: Means, reliability coefficients, and intercorrelations (study 3.1)

As can be seen in Table 3.1, the reliabilities of all scales are sufficient (i.e. $>.70$).

Furthermore, it can be seen that all self-related measures (positive affect, negative affect, and competence-based self-esteem) are significantly correlated with each other. In addition, also the interaction-related reactions (appropriateness of the support and sympathy for the support provider) are significantly correlated with each other. Conversely, the self-related measures are only correlated with the interaction-related measures as far as positive affect, competence-

based self-esteem and sympathy for the support provider are concerned. Finally, the correlation between negative and positive affect indicates that they conceive two rather different constructs (i.e. $<.80$).

Manipulation checks

To assess research participants' perception of the vignettes and thus the effectiveness of the manipulations, several analyses of variance were conducted on the manipulation checks. The manipulation of the task showed, as expected, that individuals considered it more important to perform the high ego-involvement task on their own than the low ego-involvement task ($F(1, 102) = 3.94, p < .05; M_{\text{low}} = 3.44$ vs. $M_{\text{high}} = 3.70$). This result indicates that the manipulation of the task level was effective.

Furthermore, the analysis of the problem manipulation checks showed, as expected, that individuals had a stronger need for support in the unsolvable problem situation than in the no problem situation ($F(1, 102) = 25.83, p < .001; M_{\text{no}} = 2.33$ vs. $M_{\text{unsolvable}} = 3.15$). In addition, they also found the unsolvable problem situation more problematic than the no problem situation ($F(1, 102) = 34.98, p < .001; M_{\text{no}} = 2.19$ vs. $M_{\text{unsolvable}} = 3.21$). These results indicate that the manipulation of the problem level was effective as well.

Hypotheses testing

To assess individuals' reactions to the manipulations and thus to test the hypotheses, several analyses of variance were conducted on the dependent variables. With regard to these dependent variables an interaction effect between support and problem (hypothesis 1A), an interaction effect between support and task (hypothesis 2A), and a three-way interaction effect between support, problem, and task (hypothesis 3A) was expected for the self-related reactions. Since the interaction-related reactions could only be assessed in the imposed support conditions, a problem main effect (hypothesis 1B), a task main effect (hypothesis 2B), and an interaction effect between problem and task was expected for the interaction-related reactions (hypothesis 3B).

Self-related reactions. First, the hypotheses (1A, 2A, and 3A) were tested with respect to the self-related reactions (negative and positive affect, and competence-based self-esteem). A 2 (support) x 2 (problem) x 2 (task) MANOVA conducted on the self-related reactions showed a significant problem main effect, $F_{\text{multivariate}}(3, 94) = 22.42, p < .001$. Individuals experienced more negative affect when they were confronted with an unsolvable problem than when they

were not confronted with a problem ($M_{\text{no}} = 1.95$ vs. $M_{\text{unsolvable}} = 2.94$; $F_{\text{univariate}}(1, 96) = 63.24$, $p < .001$). Furthermore, individuals reported less positive affect when they were confronted with an unsolvable problem than when they were not confronted with a problem ($M_{\text{no}} = 2.93$ vs. $M_{\text{unsolvable}} = 2.09$; $F_{\text{univariate}}(1, 96) = 31.79$, $p < .001$). Moreover, individuals had also lower competence-based self-esteem when they were confronted with a problem than when they were not confronted with a problem ($M_{\text{no}} = 3.46$ vs. $M_{\text{unsolvable}} = 2.98$; $F_{\text{univariate}}(1, 96) = 11.19$, $p < .005$). Although the problem main effect was not specifically hypothesized, the effect is not very surprising since having a problem is generally perceived as more stressful than having no problem at all.

In addition, the MANOVA showed a significant interaction effect between task and problem ($F_{\text{multivariate}}(3, 94) = 4.53$, $p < .01$). Subsequent univariate tests showed that this interaction effect was significant for negative affect, $F_{\text{univariate}}(1, 96) = 13.55$, $p < .001$. Simple effect tests revealed that with respect to the low ego-involvement task, individuals experienced more negative affect when they had an unsolvable problem than when they did not have a problem ($M_{\text{no}} = 1.66$ vs. $M_{\text{unsolvable}} = 3.10$; $t(50) = -8.38$, $p < .001$). With respect to the high ego-involvement task no difference in negative affect was found between the no problem situation and the unsolvable problem situation ($M_{\text{no}} = 2.44$ vs. $M_{\text{unsolvable}} = 2.77$; $t(50) < 1$). Thus, it appeared that individuals reacted differently to the problems in the low and high ego-involvement task.

However, the MANOVA on the self-related reactions showed, contrary to the expectations, no significant interaction effect between support and problem ($F_{\text{multivariate}}(3, 94) = 2.25$, *ns*), no significant interaction effect between support and task ($F_{\text{multivariate}}(3, 94) = 1.81$, *ns*), and no significant three-way interaction effect between support, problem, and task ($F < 1$). Thus, with regard to the self-related reactions the results did not support the hypotheses.

Interaction-related reactions. Second, the hypotheses (1B, 2B, and 3B) were tested with regard to the interaction-related reactions (appropriateness of support and sympathy for support provider). A 2 (problem) x 2 (task) MANOVA conducted on the interaction-related reactions showed, as expected, a significant problem main effect ($F_{\text{multivariate}}(2, 47) = 5.57$, $p < .01$). Individuals considered the one who imposed the support on them less sympathetic in the no problem situation than in the unsolvable problem situation ($M_{\text{no}} = 3.40$ vs. $M_{\text{unsolvable}} = 3.97$; $F_{\text{univariate}}(1, 48) = 7.46$, $p < .01$).

The same MANOVA yielded also, as expected, a significant task main effect ($F_{\text{multivariate}}(2, 47) = 18.61, p < .001$). Individuals perceived the imposed support as less appropriate when they received it for a high ego-involvement task than for a low ego-involvement task ($M_{\text{low}} = 4.35$ vs. $M_{\text{high}} = 3.02$; $F_{\text{univariate}}(1, 48) = 36.73, p < .001$). Furthermore, they considered the one who imposed the support on them less sympathetic when they received it for a high ego-involvement task than for a low ego-involvement task ($M_{\text{low}} = 4.14$ vs. $M_{\text{high}} = 3.23$; $F_{\text{univariate}}(1, 48) = 19.41, p < .001$).

Finally, the MANOVA yielded, as expected, a significant interaction effect between problem and task ($F_{\text{multivariate}}(2, 47) = 3.13, p < .05$). Subsequent univariate analyses showed that this interaction effect was significant for sympathy for the support provider ($F_{\text{univariate}}(1, 48) = 4.99, p < .05$).

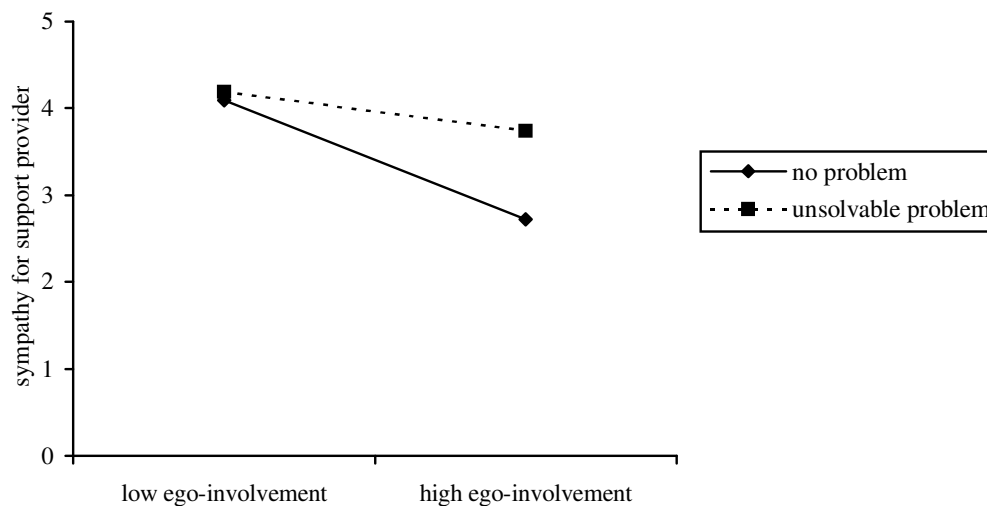


Figure 3.1. Interaction between Ego-involvement and Problem on sympathy for the support provider (study 3.1)

As graphically presented in Figure 3.1, simple effect tests revealed that when the individuals worked on the low ego-involvement task, no difference in sympathy for the support provider was found between the no problem and unsolvable problem situation ($M_{\text{no}} = 4.09$ vs. $M_{\text{unsolvable}} = 4.19$; $t(24) < 1$). When the individuals worked on the high ego-involvement task they considered the support provider less sympathetic when they received imposed support in the no problem situation than in the unsolvable problem situation ($M_{\text{no}} = 2.72$ vs. $M_{\text{unsolvable}} = 3.74$; $t(24) = 3.08, p < .005$).

Thus, with regard to the interaction-related reactions the results did support all hypotheses.

3.3.4 Discussion

The results of Study 3.1 partly confirmed the hypotheses that negative reactions to receiving imposed instrumental support are both moderated by (1) the need for support and (2) the ego-involvement of the task. Reactions to receiving imposed instrumental support were indeed somewhat less negative when the need for support was high than when the need for support was low. Furthermore, reactions to receiving imposed instrumental support were also more negative when it was received for a high ego-involvement task than when it was received for a low ego-involvement task. Finally, the reactions to receiving imposed instrumental support were, as expected, the most negative under the condition of a low need for support and working on a high ego-involvement task. However, these hypotheses were only confirmed with regard to the interaction-related reactions and *not* with regard to the self-related reactions. An explanation for this might be that a relative distance exists between fictitious situations in a vignette and social reality (cf. Barter & Renold, 2000). As a consequence, negative situations might be perceived as less personal. Hence, individuals might be more willingly to seek external causes for the threat to their self-esteem after reading a vignette than when they would actually have been in the described situation. This means that to protect their self-esteem they tend to blame the support and the support provider for their negative feelings rather than themselves.

Furthermore, somewhat surprisingly, it was found that individuals who worked on a low ego-involvement task showed more negative self-related reactions when they had an unsolvable problem than when they worked on a high ego-involvement task. This might be explained by the fact that it concerned two different kinds of tasks and therefore also two different kinds of problems. Hence, the problem with the low ego-involvement task might have been perceived as more problematic than the problem with the high ego-involvement task. In addition, it is also very possible that the participants (first-year students) were more familiar with the problem in the low ego-involvement condition (forgetting to save computer data) than with the problem in the high ego-involvement condition (writing a paper).

In sum, the findings of the present study corroborate that, under well-defined conditions, instrumental support can have negative effects. The results also indicate that the way in which the support is provided and the context in which the support is provided are

important factors in this respect. The ambiguity about the causal direction that plagued previous (correlational) research was removed, since the results emerged from a study with an experimental design in which different scenarios are described. However, the question remains whether individuals react the same to the manipulations when they would actually be in the manipulated situations. A second study (in a simulated work environment) was conducted to address this issue.

3.4 Study 3.2²

3.4.1 Introduction

The purpose of this study was to test the hypothesis regarding the moderator effect of need for support on the reactions to receiving imposed instrumental support (hypothesis 1) in an experiment in a simulated work environment. The moderator effect of the ego-involvement of the task was not tested, because it appeared to be very difficult to manipulate the ego-involving qualities of the task in real-life situations. In order to examine how individuals would react to the manipulations in real life situations, the present study used an experimental design in a simulated work environment. Such an experiment offers the opportunity to examine reactions to particular manipulations with relatively high generalizability, since employees, instead of students, participate in the experiment and the employees work on realistic work tasks (cf. Zijlstra, 1999).

In the experiment presented in this chapter the support level was manipulated by providing no support at all or by imposing support on the employee. The need for support was manipulated by developing a task in which no problem, a solvable problem or an unsolvable problem appeared. Thus, in contrast to the previous study, the need for support was operationalized at three levels: a no problem, a solvable problem, and an unsolvable problem condition. As argued before, when employees encounter problems they can solve themselves or when no problems at all occur their need for support will be lower than when they encounter unsolvable problems. Furthermore, it was argued that reactions to receiving imposed instrumental support would be less negative the more a person is in need of support.

² Adapted from: Deelstra, J.T., Peeters, M.C.W., Schaufeli, W.B., Stroebe, W., Zijlstra, F.R.H., & Van Doornen, L.P. (2003). Receiving instrumental support at work: When help is not welcome. *Journal of Applied Psychology*, 88, 324-331.

With respect to the reactions to the manipulations, three types of reactions were distinguished in the present study. Besides the self-related (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider) measured in the previous study, physiological reactions (heart rate [HR] and respiratory sinus arrhythmia [RSA]) were measured as well. From the perspective of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) it can be argued that the receipt of social support at work sometimes induces strain. To assess this psychophysiologicaly, heart rate and RSA were measured. Heart rate reflects mainly sympathetic activations due to stress. Vagal activity, as measured with RSA, is suggested to be specifically sensitive for the affective aspects of situations (Porges, 1998).

3.4.2 Method

Participants and Design

The hypotheses in Study 3.2 were tested in a 3 (problem: no/solvable/unsolvable) x 2 (support: no/imposed) factorial design. Research participants were 48 temporary administrative assistants (11 males, 37 females) with a mean age of 28.1 years ($SD = 8.56$), who had volunteered to participate in the experiment. In return for their cooperation they received the equivalent of about 10 USD. Participants were recruited via a flyer that was distributed among several temporary employment agencies. In the flyer the research was presented as a study on job stress. Those who were interested could contact the researcher. Individuals were randomly assigned to the different conditions.

Procedure

The study was conducted in a laboratory that had been equipped like a normal office of a modern organization in order to increase ecological validity. That is, there were computers, telephones, and internet connections and the room was furnished with desks, chairs, and office cabinets. Participants worked in the simulated office for half a day (4 hours) in which they had to accomplish two tasks: (1) preparing travel plans for speakers at a conference, using a computerized travel-planner program, (2) booking hotel rooms for all participants of the conference, using a computerized database. This database contained all necessary information about the participants of the conference, such as their preferences with regard to number of days they would stay, the type of hotel, and the type of room. The first task was intended to get the research participants familiarized with the situation and to make the

simulation of a work situation as realistic as possible. The second task was the actual experimental task. As trained administrative assistants, all research participants were familiar with these kinds of tasks and were experienced users of the computer programs that were used in the experiment. After the completion of the second task, research participants were asked to fill out a questionnaire.

Each session had two subjects participating in the experiment, namely the experimental subject and a female confederate. This confederate was introduced as a research participant and she behaved also as if she had come to the lab for the first time. The confederate received the same introduction as the actual research participants and was also connected to the physiological equipment. During the experiment the confederate worked on comparable tasks as the experimental subjects and was instructed to keep social interactions with these subjects to a minimum. In the imposed support conditions, the confederate was instructed to impose support on the research participant halfway through the second task. In the problem conditions, participants were confronted with a problem halfway through the task. After the experiment, the participants were very carefully debriefed.

Independent Variables (Manipulations)

Problem (no, solvable, unsolvable) was manipulated by presenting research participants with a database in which all necessary information was available (no problem condition) or in which information on five participants was lacking halfway through to the task (solvable problem and unsolvable problem condition). Both in the no problem and in the solvable problem condition, research participants were told, before the task started, that they could also find the information they needed in a file in the office cabinet. In the unsolvable problem condition this file was not mentioned. Every time research participants entered a name in the database for whom information was lacking, a hard beep went off and a window appeared which said: "No information is available for this participant."

Support (no, imposed) was manipulated by either no relevant interaction between the confederate and the research participant (no support) or an interaction in which the confederate imposed her help on the participant. In the imposed support condition the confederate said in a friendly tone, but without asking the participant whether help was needed or wanted, that she would help. The confederate took the file with information out of the cabinet and filled out the necessary information on the required form (paper-and-pencil). If the subject protested against this action the confederate was instructed to disregard this protest in a friendly manner. When she had filled in five names she stopped her help and

returned to her own task.

Dependent Measures

Self-Related Measures. The same self-related measures (positive and negative affect, and competence-based self-esteem) as in Study 3.1 were assessed.

Interaction-Related Measures. The same interaction-related measures (appropriateness of the support and sympathy for the support provider) as in Study 3.1 were assessed.

Physiological Measures. Autonomic activity during the experimental session was recorded with the use of an ambulatory monitoring device (VU-AMD) (De Geus & Van Doornen, 1996; Groot, De Geus, & De Vries, 1998). The VU-AMD simultaneously records electrocardiogram (ECG) signals and impedance cardiogram (ICG) signals, from which the cardiac parasympathetic (RSA) and sympathetic activity (HR) can be derived, respectively. These ECG and ICG signals are obtained with the use of six disposable pre-gelled electrodes (AMI type 1650-005 Medtronic) that are attached to the body. See De Geus & Van Doornen (1996) for further details of the AMD.

Heart rate. In general, it is found that threatening and stressful situations lead to sympathetic activation (Cacioppo et al., 1998; Kukde & Neufeld, 1994), of which the heart rate response (bpm) is a feasible index (Light, 1981). The heart rate response to the manipulations was defined as the difference in heart rate (*HR*) during period 2 of the experimental task minus the HR during period 1³. Period 1 was the period from the beginning of the task until support was provided and/or a problem had appeared; period 2 was the period from the moment support was provided and/or a problem had appeared until the end of the task. In case no problem had appeared *and* no support was received, period 1 was the first half of the task and period 2 the second half⁴.

³ HR in period 1 varied between 51.88 and 98.24 heartbeats per minute ($M = 76.21$); HR in period 2 varied between 56.96 and 101.50 heartbeats per minute ($M = 78.69$).

⁴ Period 1 and period 2 varied somewhat in duration. Period 1 varied between 8 and 10 minutes and period 2 varied between 10 and 15 minutes. Maximum difference in duration of both periods was 5 minutes, whereas the minimum difference was 0 minutes.

Respiratory sinus arrhythmia. Respiratory sinus arrhythmia (*RSA*) is defined as the magnitude of change in heart period corresponding to the inspiratory and expiratory phases of respiration cycles (Berntson, Cacioppo, & Quickley, 1993). Heart rate typically increases during inspiration and decreases during expiration. When parasympathetic activity decreases, typical for stressful situations, this is reflected by a decrease in *RSA* and when parasympathetic activity increases, this is reflected by an increase in *RSA* (cf. De Geus, Van Doornen, De Visser, & Orlebeke, 1990; Grossman, Brinkman, & De Vries, 1992). The *RSA* score (Δ sec) was computed as the difference between the shortest inter-beat-interval during heart rate (*HR*) acceleration in the inspiratory phase and the longest inter-beat-interval during deceleration in the expiratory phase (De Geus & Van Doornen, 1996). The *RSA* response to the manipulations was defined as the difference in *RSA* during period 2 of the experimental task minus the *RSA* during period 1. Period 1 and 2 were defined in the same way as for the heart rate response.

Manipulation checks

Problem. The effectiveness of the problem manipulation was assessed by 3 items. Research participants had to rate on 5-point scales the questions: “To what extent did you find you needed support?”, “To what extent did you find you had a problem with the task at hand?”, and “To what extent did you know how to solve problems independently when information was lacking in the database?” (1 = *not at all*, 5 = *very strongly*).

3.4.3 Results

Descriptive statistics

Table 3.2 presents the reliability coefficients of the dependent measures and the correlations between the variables.

As can be seen in Table 3.2, the reliabilities of all scales appear to be sufficient (i.e. $>.70$). Furthermore, it can be seen that all variables are significantly correlated with each other, except for positive affect. Positive affect appears to correlate with neither of the variables. Thus, unlike in study 3.1 it appears that not only the self-related reactions are correlated with each other and the interaction-related reactions are correlated with each other, but also that most self-related reactions are significantly correlated with the interaction-related reactions. Finally, the correlation between positive and negative affect appears to be lower than in study 3.1. This indicates once more that they conceive two rather different constructs.

	Mean	SD	1	2	3	4	5
1. Negative affect	2.10	.59	.77				
2. Positive affect	1.89	.79	-.37**	.91			
3. Self-esteem	3.84	.71	-.70**	.25	.94		
4. Appropriateness of support	3.03	1.37	-.69**	.36	.58**	.97	
5. Sympathy for support provider	3.44	.92	-.68**	.34	.60**	.80**	.92

Note: numbers on diagonal reflect reliability coefficients; * $p < .05$, ** $p < .01$

Table 3.2: Dependent variables: Means, reliability coefficients, and intercorrelations (study 3.2)

Manipulation checks

To assess research participants' perception of the experimental situation and thus the effectiveness of the manipulations, several analyses of variance were conducted on the manipulation checks. The analysis of the problem manipulation checks showed, as expected, that individuals had a stronger need for support in the solvable problem and unsolvable problem situation than in the no problem situation ($F(2, 45) = 5.76, p < .01; M_{\text{no}} = 1.25$ vs. $M_{\text{solvable}} = 1.69, F(1, 30) = 5.44, p < .05; M_{\text{solvable}} = 1.69$ vs. $M_{\text{unsolvable}} = 2.25, F < 1$). In addition, individuals found the unsolvable problem situation more problematic than the no problem and solvable problem situation. They also found the solvable problem situation more problematic than the no problem situation ($F(2, 45) = 35.65, p < .001; M_{\text{no}} = 1.31$ vs. $M_{\text{solvable}} = 2.25, F(1, 30) = 32.77, p < .001; M_{\text{solvable}} = 2.25$ vs. $M_{\text{unsolvable}} = 3.00, F(1, 30) = 12.27, p < .001$). Furthermore, individuals indicated that they knew better how to solve problems with the database in the no problem and solvable problem situation than in the unsolvable problem situation ($F(2, 45) = 12.20, p < .001; M_{\text{no}} = 3.94$ vs. $M_{\text{solvable}} = 3.84, F < 1; M_{\text{solvable}} = 3.84$ vs. $M_{\text{unsolvable}} = 2.00, F(1, 30) = 20.05, p < .001$). In conclusion, these results indicate that the manipulation of the problem level was effective.

Hypotheses testing

To assess individuals' reactions to the manipulations and thus to test the hypotheses, several analyses of variance were conducted on the dependent variables. With regard to these dependent variables an interaction effect between support and problem for the self-related and physiological measures was expected (Hypothesis 1A). With respect to the interaction-related measures a problem main effect was expected (Hypothesis 1B).

Self-Related Measures. First, the hypothesis (1A) with respect to the self-related measures (negative affect, positive affect, and competence-based self-esteem) was tested. A 2 (support)

x 3 (problem) MANOVA conducted on the self-related measures yielded, as expected, a significant multivariate support x problem interaction effect, $F_{\text{multivariate}}(6, 82) = 12.31$, $p < .001$. Subsequent univariate tests showed that this interaction effect was significant for negative affect, $F_{\text{univariate}}(2, 42) = 29.90$, $p < .001$ and competence-based self-esteem, $F_{\text{univariate}}(2, 42) = 14.30$, $p < .001$. No significant interaction effect was found for positive affect, $F_{\text{univariate}} < 1$. As graphically presented in Figure 3.2, the simple effect tests showed that in comparison to receiving no support, receiving imposed support elicited more negative affect in the no and solvable problem situation than in the unsolvable problem situation (no problem: $M_{\text{no}} = 1.29$ vs. $M_{\text{imposed}} = 2.92$, $t(14) = -9.02$, $p < .001$; solvable problem: $M_{\text{no}} = 1.73$ vs. $M_{\text{imposed}} = 2.44$, $t(14) = -8.58$, $p < .001$; unsolvable problem: $M_{\text{no}} = 2.13$ vs. $M_{\text{imposed}} = 2.14$, $t(14) < 1$).

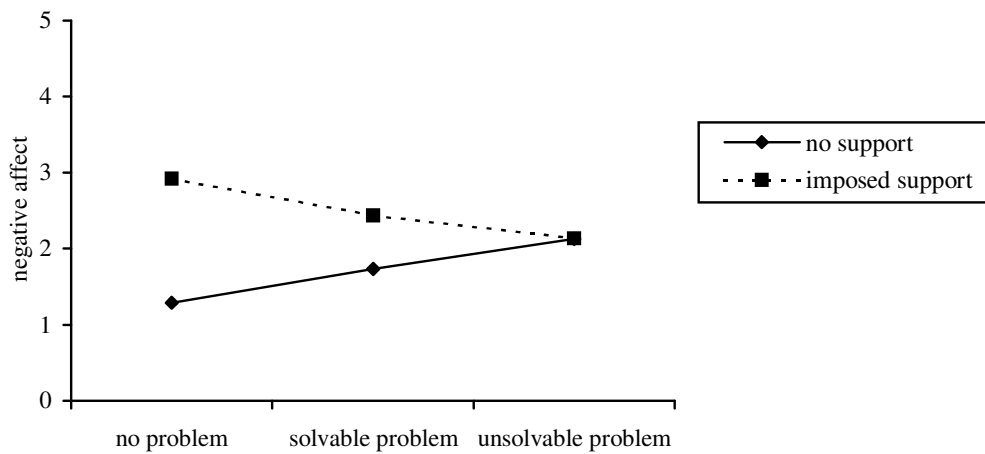


Figure 3.2. Interaction between Problem and Support on negative affect (study 3.2)

As can be seen in Figure 3.3, the simple effect tests for competence-based self-esteem showed that both in the no problem and in the solvable problem situation, individuals had lower competence-based self-esteem after they received imposed support than when they received no support at all (no problem: $M_{\text{no}} = 4.73$ vs. $M_{\text{imposed}} = 2.97$, $t(14) = 12.97$, $p < .001$; solvable problem: $M_{\text{no}} = 4.16$ vs. $M_{\text{imposed}} = 3.44$, $t(14) = 3.64$, $p < .005$). In the unsolvable problem situation no difference in competence-based self-esteem was found between receiving no support and imposed support ($M_{\text{no}} = 3.87$ vs. $M_{\text{imposed}} = 3.89$, $t(14) = -.05$, *ns*). Thus, with regard to the self-related measures the first hypothesis was supported as far as negative affect and competence-based self-esteem were concerned.

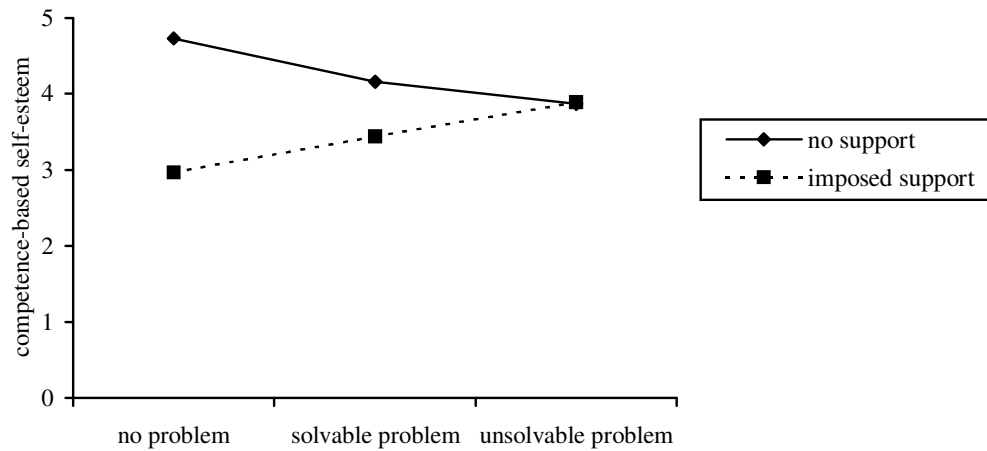


Figure 3.3. Interaction between Problem and Support on competence-based self-esteem (study 3.2)

Physiological Measures. Second, Hypothesis 1A with respect to the physiological measures (heart rate and respiratory sinus arrhythmia) was tested. A 2 (support) x 3 (problem) MANOVA conducted on the physiological measures yielded, as expected, a significant support x problem interaction effect, $F_{\text{multivariate}}(4, 82) = 8.11, p < .001$. Subsequent univariate tests showed that this interaction effect was both significant for the heart rate response ($F_{\text{univariate}}(2, 42) = 7.08, p < .005$) and for the RSA response ($F_{\text{univariate}}(2, 42) = 15.43, p < .001$).

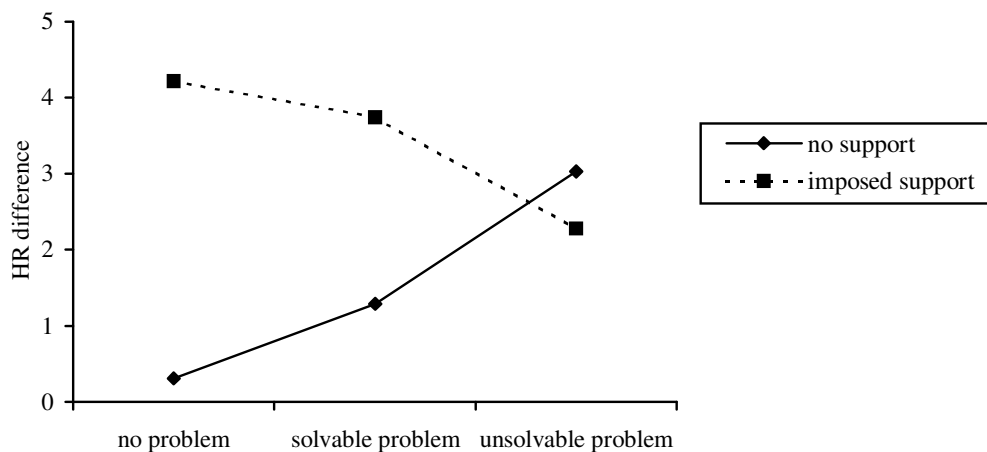


Figure 3.4. Interaction between Problem and Support on difference in HR (study 3.2)

As graphically presented in Figure 3.4, compared to individuals who received no support at all, those who received imposed support in the no problem and in the solvable problem

situation showed a stronger increase in HR (no problem: $M_{no} = .31$ vs. $M_{imposed} = 4.22$, $t(14) = -4.32$, $p < .001$; solvable problem: $M_{no} = 1.29$ vs. $M_{imposed} = 3.74$, $t(14) = -2.70$, $p < .05$). In the unsolvable problem situation no difference in HR was found between receiving no support and imposed support ($M_{no} = 3.03$ vs. $M_{imposed} = 2.28$, $t(14) = .86$, ns).

As can be seen from Figure 3.5, the simple effect tests on the RSA response showed that in the no problem situation individuals exhibited a stronger decrease in RSA after receiving imposed support than when they received no support ($M_{no} = 0$ vs. $M_{imposed} = -11.05$, $t(14) = 5.13$, $p < .001$). In the solvable problem situation no difference was found between no support and imposed support ($M_{no} = -6.41$ vs. $M_{imposed} = -9.88$, $t(14) = 1.72$, ns). In the unsolvable problem situation individuals showed a stronger decrease in RSA when they received no support than after receiving imposed support ($M_{no} = -7.82$ vs. $M_{imposed} = -2.20$, $t(14) = -2.54$, $p < .05$). Thus, with regard to the physiological measures the results of both the heart rate response and the RSA response supported hypothesis 1A. However, the analysis of the RSA response showed some additional results, namely that in the unsolvable problem situation individuals reacted more negatively when they received no support at all than when they received imposed support.

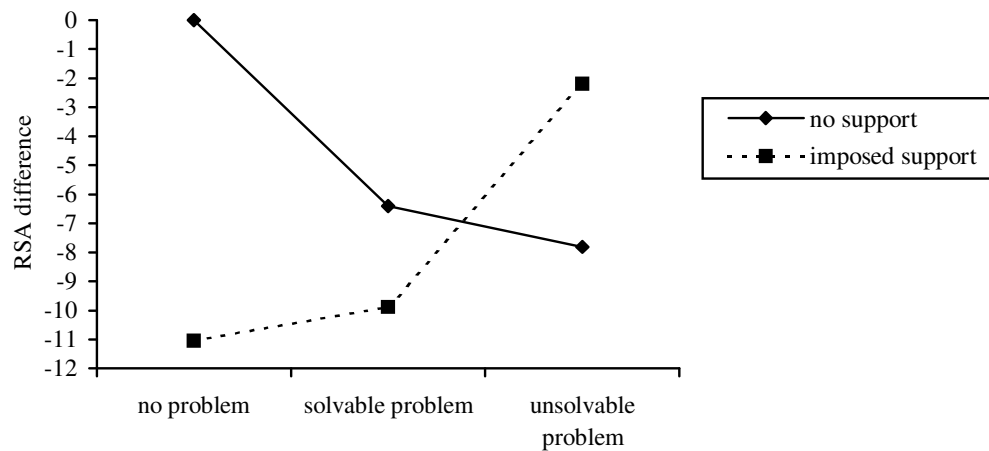


Figure 3.5. Interaction between Problem and Support on difference in RSA (study 3.2)

Interaction-Related Measures. Finally, Hypothesis 1B with regard to the interaction-related measures (appropriateness of support and sympathy for support provider) was tested. Since the interaction-related measures could only be assessed in the imposed support conditions, only the imposed support conditions were taken into account. The analysis of variance of the interaction-related measures showed, as expected, both a significant problem main effect for

appropriateness of support ($F(2, 21) = 19.77, p < .001$) and sympathy for support provider ($F(2, 21) = 24.27, p < .001$). The simple effect test showed that individuals considered the imposed support less appropriate in the no problem and in the solvable problem situation than in the unsolvable problem situation ($M_{\text{no}} = 1.77$ vs. $M_{\text{unsolvable}} = 4.42, t(14) = -6.35, p < .001$; $M_{\text{solvable}} = 2.90$ vs. $M_{\text{unsolvable}} = 4.42, t(14) = -3.66, p < .005$). In addition, they considered the support also less appropriate in the no problem situation than in the solvable problem situation ($M_{\text{no}} = 1.77$ vs. $M_{\text{solvable}} = 2.90, t(14) = -2.59, p < .05$). Furthermore, individuals considered the support provider less sympathetic after receiving imposed support in the no problem and solvable problem situation than in the unsolvable problem situation ($M_{\text{no}} = 2.70$ vs. $M_{\text{solvable}} = 3.15, t(14) = -1.55, ns$; $M_{\text{solvable}} = 3.15$ vs. $M_{\text{unsolvable}} = 4.47, t(14) = -5.02, p < .001$). Thus, the results of both appropriateness of support and sympathy for support provider supported hypothesis 1B.

3.4.4 Discussion

The results of Study 3.2 confirm the hypothesis that the negative psychological and physiological reactions to receiving imposed instrumental support are moderated by the extent to which employees need support. Receiving imposed instrumental support was perceived as somewhat less negative when employees had a high need for support, because they could not have finished the task without outside help. However, even under these conditions, imposed support was not experienced as positive but only as neutral. Similar to Study 3.1, these findings are unambiguous with regard to the causal direction, because the results emerged from a study in which both the receipt of social support and the need for support were manipulated experimentally. Moreover, the fact that the predicted pattern was not only confirmed with self-report measures (both the self-related reactions and the interaction-related reactions), but also with the two physiological measures included in this study, supports the validity of the findings. Furthermore, the findings correspond with the observation that quite robust effects on cardiovascular parameters emerge with experimental manipulations of social support, as compared to the association of general support measures on physiological reactivity to laboratory stressors (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Finally, the fact that these results were found with a relatively small sample size indicates that these effects are large.

3.5 General Discussion

The purpose of the present two studies was to examine some characteristics of the support and the context in which support is provided in relation to negative reactions to that support. More specifically, two questions were addressed: (1) to what extent does the way in which instrumental support is provided influence the reactions to that support and (2) to what extent do the need for support and the ego-involving qualities of the task influence this reaction. From a threat to self-esteem perspective it was hypothesized that individuals react more negatively to receiving imposed instrumental support than to receiving no support at all and that this effect is moderated by the individual's need for support and the ego-involvement of the task the individual is working on. Both in the vignette study (study 3.1) and in the real-life experiment (study 3.2) presented in this chapter it was found that when support was not really needed (in case of no problems or solvable problems) individuals reacted more negatively to imposed instrumental support than when the support was needed (in case of unsolvable problems). Besides, in study 3.1 it was found that this effect was strongest when individuals worked on a high ego-involvement task.

However, whereas in study 3.2 these effects were found for the self-related reactions, interaction related reactions and the physiological reactions, in study 3.1 they were only found for the interaction-related reactions. In this study physiological reactions were not measured, but an explanation for the fact that the effects were not found for the self-related measures might be that there is a relative distance between hypothetical situations and real-life situations. As the results of both studies show, the pattern of reactions to receiving imposed instrumental support in the differential defined context is the same for the hypothetical situations and the real-life situations. But, as the difference in results for the self-related measures show, the hypothetical situations might be perceived as less personal.

Together, the effects observed across both studies provide evidence for the assumption that reactions to receiving support do not only depend on a possible restriction to freedom of choice, but also on the need for support and the level of ego-involvement of a certain task. One of the benefits is that these results are found in two studies that employed different methodologies, which compensate each other's weaknesses. In experiments it is difficult to study reactions to complex situations, concerning individual perceptions of certain aspects of these situations, like the ego-involvement of a task the individual is working on. Vignettes can provide a very useful tool to illuminate and tap into such complex processes (cf. Barter & Renold, 2000). In contrast, in vignette studies, participants are asked to respond to a fictitious

situation. In such studies the generalizability from scenarios to real life situations is cause of concern. What people believe they would do is not always the same as how they would behave in actuality (Barter & Renold, 2000; Parkinson & Manstead, 1993). Considering the consistent outcomes between the vignette study and the experiment, however, it can be concluded that at least some level of generalizability is achieved.

However, despite the promising findings, this study also left us with some unanswered questions. Firstly, in this study, receiving imposed instrumental support was compared with receiving no support at all. Although no support can be considered as non-restrictive to the freedom of choice, it would be interesting to compare imposed support with support that is actually non-restrictive (e.g. offered support). When the support is offered to the employee, he or she has an opportunity to accept or reject the support, which is not the case when the support is imposed to the employee. Studying the difference in reactions to offered and imposed support could provide a more solid test of the hypothesis that social support that is a threat to the freedom of choice leads to negative reactions. This question will be addressed in the next chapter.

Furthermore, the fact that the confederate was introduced as a colleague might have influenced the results. Research findings suggest the possibility that the type of relationship between support provider and receiver might influence the effect of social support (B. Sarason et al., 1990; Rook, 1990). On the one hand, it is predicted from the threat-to-self-esteem model that receiving support from comparable persons, such as colleagues, will be perceived as more self-threatening than receiving support from non-comparable persons, such as supervisors. This prediction stems from the fact that support provided by a comparable person will elicit more feelings of inferiority and incompetence as a result of a negative social comparison (Fisher et al., 1982; Nadler & Fisher, 1986). On the other hand, support from a supervisor might be more self-threatening, because employees depend on their supervisors for promotions. As a result, employees may not feel free to disclose feelings that could make them look incompetent (cf. Buunk, 1990). In the next chapter the validity of both contrasting hypotheses will be examined.

CHAPTER 4

Who is helping? The effect of the type of relationship between provider and receiver on receiving social support at work

4.1 Introduction

In Chapter 3, evidence was presented for the assumption that providing social support to a colleague or subordinate can sometimes be countereffective: in some cases employees feel worse, instead of better after receiving social support at work. Two experimental studies demonstrated that receiving social support at work can have such a negative impact, because the employee may perceive it as threatening to his or her self-esteem. In addition, the two studies showed that the way in which the support is provided and the context in which it is received influence this perception to a great extent. Employees reacted more negatively when the support they received was threatening to their freedom of choice (i.e. imposed support) than when they received no support at all, especially when the support was not really needed and wanted.

However, to establish more clearly whether the negative impact of imposed instrumental support is due to a threat to the employee's freedom of choice, it is necessary to compare reactions of imposed instrumental support with reactions to receiving support that is non-threatening, such as offered instrumental support. The present chapter aims to address this issue. Furthermore, the present chapter aims to address the issue to what extent the reactions to receiving imposed and offered support depend on who provides the support: a colleague or a supervisor. In the next section theoretical assumptions regarding these two issues will be discussed from the threat-to-self-esteem perspective.

4.2 Hypotheses

As mentioned before, the previous chapter provided evidence for the assumption that the perception of received social support at work as self-threatening or self-supportive depends on the extent to which the support poses a threat to the employee's freedom of choice. The present chapter intends to substantiate this conclusion by comparing the reactions to receiving imposed instrumental support, with the reactions to receiving offered instrumental support. By offering instrumental support the recipient has an option to accept or reject the support, which is not the case when instrumental support is imposed on the recipient. Therefore, the

following hypothesis can be formulated:

Hypothesis 1. Receiving offered instrumental support is less threatening to the freedom of choice of the employee than receiving imposed instrumental support and consequently will lead to less negative reactions.

With respect to these reactions the present chapter makes a distinction, like the previous chapter, between a) self-related reactions (negative and positive affect and competence-based self-esteem) and b) interaction-related reactions (appropriateness of the support and sympathy for the support provider) (cf. Fisher et al., 1982; Nadler & Fisher, 1986).

It can also be argued that by imposing instrumental support on the employee feelings of inferiority and incompetence are more easily evoked than by offering instrumental support. Especially in competence-oriented environments, like work situations, someone who imposes instrumental support on an individual (“I’ll help you”) can easily imply that he or she is more competent than the recipient and that the recipient will probably fail to accomplish the task successfully without the provided support. Someone who offers instrumental support (“If you like, I can help you?”) rather implies that the recipient might also manage without the support.

As to the extent to which the receipt of support induces feelings of inferiority and incompetence several researchers have argued that it might matter who provides the support (e.g. Buunk et al., 1993; Rook, 1990; Badr et al, 2001; Dakof & Taylor, 1990; I. Sarason et al., 1994). At work, support is generally provided either by a colleague or a supervisor, individuals with whom the employee has a different type of relationship. Because of the difference in relationship the impact of the support that is provided may also be different.

With respect to the specific effect of the different types of relationships on receiving social support at work, two different hypotheses have been formulated that at first glance seem mutually exclusive. On the one hand, it is predicted from the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) that social support provided by a socially comparable other, like a colleague, is more likely to be perceived as self-threatening than social support provided by a socially non-comparable person, like a supervisor (Nadler & Fisher, 1986; Nadler, 1991). This stems from the fact that social support provided by a socially comparable person will elicit more feelings of inferiority and incompetence as a result of a negative social comparison. In addition, it can be argued that social support provided by a supervisor is less self-threatening than social support provided by a colleague because providing social support is part of the role of supervisors: they are supposed to be attentive to the needs of their subordinates in terms of help, encouragement, and advice (cf. Buunk, 1990). Accordingly, it can be argued that when the receipt of instrumental support

induces feelings of inferiority and incompetence (e.g. because the support was imposed on the recipient), this effect will be aggravated when the support is provided by a socially comparable person. Thus, seen from the threat-to-self-esteem model it would be predicted that instrumental support imposed by a colleague will elicit more negative reactions than instrumental support imposed by a supervisor.

On the other hand, it has also been argued that social support provided by a supervisor might be more self-threatening, because employees depend on their supervisors for promotions. As a result, employees will prevent to look incompetent in the eyes of their supervisor (cf. Buunk, 1990). When a supervisor imposes instrumental support on the employee it is easily suggested that the employee is not competent enough. Thus, from this perspective it would be predicted that instrumental support imposed by a supervisor will elicit more negative reactions than instrumental support imposed by a colleague.

Although both hypotheses seem to exclude each other, it is also possible that both hypotheses might be valid, depending on the situation in which the support is provided. It can be argued that instrumental support imposed by a supervisor is especially likely to be perceived as self-threatening in situations in which employees feel strongly evaluated by their supervisor. This means that in evaluative situations both instrumental support imposed by a colleague and by a supervisor will elicit negative reactions, whereas in non-evaluative situations instrumental support imposed by a colleague will elicit more negative reactions than instrumental support imposed by a supervisor. Therefore, the following hypothesis can be formulated:

Hypothesis 2. In non-evaluative situations employees will react more negatively to instrumental support imposed by a colleague than to instrumental support imposed by their supervisor, whereas in evaluative situations employees will not react differently to instrumental support imposed by a colleague or by their supervisor.

4.3 Study 4.1

4.3.1. Introduction

The aim of the first study was to examine how employees react to the receipt of instrumental support at work, depending on the way in which it is provided (offered or imposed), who provides the support (supervisor or colleague), and the situation in which the support is provided (evaluative or non-evaluative). To address this issue, a vignette study was designed,

in which participants had to respond to a fictitious situation. With respect to the participants students were considered to be an adequate sample for two reasons: 1) students regularly experience explicit evaluative situations (getting a grade) and 2) fellow students fulfill a comparable function to students as colleagues to employees, whereas teachers fulfill a comparable function to students as supervisors to subordinates: students depend on their teacher for good grades, but teachers are also supposed to help them with their study.

In the vignettes the situation was manipulated by describing a situation in which the students received an evaluation for their assignment (evaluative situation) or did not receive an evaluation (non-evaluative situation). Furthermore, the support source was manipulated by describing a situation in which the teacher or a fellow student provided support. Finally, the support level was manipulated by describing a situation in which instrumental support was imposed or offered.

With respect to the reactions to these manipulations, two types of reactions were distinguished in the present study: self-related reactions (i.e. negative and positive affect and competence-based self-esteem) and interaction-related reactions (i.e. appropriateness of the support and sympathy for the support provider).

4.3.2 Method

Participants and Design

The hypotheses in Study 4.1 were tested in a 2 (Support: offered/imposed) x 2 (Support source: teacher/fellow-student) x 2 (Situation: non-evaluative/evaluative) factorial design. Research participants were 120 students (79 female, 41 male) with a mean age of 20.9 years ($SD = 4.58$, who volunteered to take part in the vignette study. All participants were following a particular statistics course at the time of the study.

Procedure

During the statistics course the students were asked to participate in a study on how to deal with problems. In order to do so, they had to read a description of a certain situation and subsequently fill in a questionnaire about how they would react in that situation.

Vignettes, independent variables

To ensure that the hypothetical situation presented to the research participants was relevant to them, the hypothetical situation described the students following a statistics course. In the

course the students were learning how to use SPSS. The vignette read as follows (the manipulated information is printed in italics):

Imagine yourself in the following situation:

You are following a statistics course as part of your study. A SPSS practical is part of this course. After a few meetings you learn the basic principles of SPSS: how data has to be entered, how variables have to be recoded, how new variables can be computed, etc. To learn these principles you receive a partial assignment in each meeting, in which a certain theme is central. You find the SPSS practical very useful because now you will learn to use statistics in practice. In the last meeting you will receive a larger final assignment, in which the several principles of SPSS that you have learned have to be applied.

Situation

Non-evaluative: *Just like the partial assignments the final assignment is not evaluated, you only have an attendance obligation. Nevertheless, you still want to do the assignment to the best of your ability, since you would like to be sure that you have mastered the principles of SPSS adequately.*

Evaluative: *In contrast to the partial assignments, the final assignment will be evaluated. You want to do the assignment to the best of your ability, since you would like a good evaluation and you want to be sure that you have mastered the principles of SPSS adequately.*

The teacher walks around the room from time to time while the assignments are being carried out.

In today's meeting, the recoding of variables is the central topic. The teacher explained the procedure by use of an example at the beginning of the meeting. At this particular moment you are trying to recode a variable, but you don't know exactly what steps need to be followed. You are trying something, but it is not completely working. Yet, you are convinced that you will succeed eventually, after you have taken your time to think about it.

Offered support

Fellow-student: *The student sitting next to you sees you trying without result and says: "Oh, isn't it going very well? If you like I can help you?"*

Teacher: *The teacher who is just walking by sees you trying without result and says: "Oh, isn't it going very well? If you like I can help you?"*

Imposed support

Fellow-student: *The student sitting next to you sees you trying without result and says: “Oh, isn’t it going very well? I know how it has to be done. I’ll help you. Look this is what you should do.” Before you can say anything, the other student pulls the keyboard his way and shows you the recoding procedure step by step.*

Teacher: *The teacher who is just walking by sees you trying without result and says: “Oh, isn’t it going very well? I’ll help you. Look this is what you should do.” Before you can say anything, the teacher pulls the keyboard his way and shows you the recoding procedure step by step.*

Dependent measures

Self-related reactions. Two different kinds of self-related reactions were assessed: negative and positive affect, and competence-based self-esteem (Fisher et al., 1982). These measures were identical to the ones assessed in Study 3.1 and 3.2

Negative and positive affect. Negative and positive affect were measured by a 12-item scale developed by Warr (1990), which has been successfully translated and applied in previous Dutch research on job stress (Schalk et al., 1995). Research participants were asked to indicate to what extent they would experience feelings of being tense, worried, depressed, and optimistic (6 positive and 6 negative affect items) in the described situation on 5-point scales, varying from 1 = *not at all* to 5 = *very strongly*. Similarly to the studies presented in Chapter 3, two separate measures were computed: positive affect and negative affect, instead of one sum score of the negative and positive affect items.

Competence-based self-esteem. To assess competence-based self-esteem (i.e. state self-esteem with regard to one’s own capacities), research participants were asked to evaluate themselves (“Indicate how you would describe yourself in the described situation”) on scales defined by eight pairs of bipolar adjectives, based on the scales of Stake (1979) and Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *dependent, insecure, incapable, irresponsible, incompetent, inefficient, not assertive, and unproductive* to 5 = *independent, self-confident, capable, responsible, competent, efficient, assertive, and productive*, respectively.

Interaction-related reactions. Two different kinds of interaction-related reactions were assessed: appropriateness of the support and sympathy for the support provider (Nadler et al., 1983). These measures were also identical to the ones assessed in Study 3.1 and 3.2

Appropriateness of the support. To assess the appropriateness of the support, research participants were asked to evaluate the received support (“How would you describe the received support in the described situation”) on scales defined by five pairs of bipolar adjectives, based on the scale of Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *inappropriate, not effectual, not useful, ineffective,* and *unnecessary* to 5 = *appropriate, effectual, useful, effective,* and *necessary*, respectively.

Sympathy for the support provider. To assess the sympathy for the support provider, research participants were asked to evaluate the support provider (“Indicate how you would describe the support provider in the described situation”) on scales defined by six pairs of bipolar adjectives, based on the scale of Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *impatient, incompetent, unpleasant to work with, incapable, enforcing,* and *unfriendly* to 5 = *patient, competent, pleasant to work with, capable, not enforcing,* and *friendly*, respectively.

Manipulation checks

Support. The effectiveness of the support manipulation was assessed by having subjects rate on a 5-point scale the question: “To what extent did you find the support that you received in the described situation was imposed on you?” (1 = *not at all*, 5 = *very strongly*).

Situation. The effectiveness of the manipulation of the situation was assessed by having subjects rate on a 5-point scale the question: “To what extent did you feel that you were evaluated in the described situation?” (1 = *not at all*, 5 = *very strongly*).

Support source. The effectiveness of the support source manipulation was assessed by having subjects indicate what kind of function the support provider had in the described situation (1 = *teacher*, 2 = *teaching-assistant*, 3 = *fellow student*, and 4 = *otherwise*).

4.3.3 Results

Descriptive statistics

Table 4.1 presents the reliability coefficients of the dependent measures and the correlations between the variables.

As can be seen in Table 4.1, the reliabilities of all scales appear to be sufficient (i.e. >.70). Furthermore, it can be seen that most variables are significantly correlated with each other, except for the relation between negative affect and appropriateness of the support. Thus, like in study 3.2, the self-related reactions correlate with each other, the interaction-

	Mean	SD	1	2	3	4	5
1. Negative affect	2.03	.63	.82				
2. Positive affect	2.60	.78	-.57**	.87			
3. Self-esteem	2.92	.56	-.33**	.42**	.78		
4. Appropriateness of support	3.35	.85	-.15	.28**	.27**	.85	
5. Sympathy for support provider	3.26	.74	-.19*	.21*	.21*	.63*	.78

Note: numbers on diagonal reflect reliability coefficients; * $p < .05$, ** $p < .01$

Table 4.1: Dependent variables: Means, reliability coefficients, and intercorrelations (study 4.1)

related reactions correlate with each other, and most self-related reactions significantly correlate with the interaction-related reactions. However, the correlations among the self-related reactions and among the interaction-related reactions are slightly stronger than between the self-related reactions and the interaction-related reactions. Finally, the correlation between negative and positive affect indicates again that they conceive two rather different constructs (i.e. $< .80$).

Manipulation checks

To assess research participants' perception of the vignettes and thus the effectiveness of the manipulations, several analyses of variance were conducted on the manipulation checks. The analysis on the manipulation check of support showed, as expected, that individuals perceived the support in the description as more imposing when it was imposed on the individual than when it was offered ($F(1, 112) = 70.46, p < .001$; $M_{\text{offered}} = 2.30$ vs $M_{\text{imposed}} = 3.62$). This result indicates that the manipulation of the support level was effective.

Furthermore, the manipulation of the situation showed, as expected, that in the evaluative situation individuals felt more evaluated than in the non-evaluative situation ($F(1, 112) = 6.35, p < .01$; $M_{\text{non-evaluative}} = 2.57$ vs. $M_{\text{evaluative}} = 3.05$). This result indicates that the manipulation of the situation was effective as well.

Finally, cross-tabulation revealed that all research participants responded correctly to the question of who provided the support ($\Phi = 1, p < .001$). This result indicates that the manipulation of the support source manipulation was also effective.

Hypotheses testing

In order to assess individuals reactions to the manipulations and thus to test the hypotheses, several analyses of variance were conducted on the dependent variables. With regard to these dependent variables a support main effect (hypothesis 1) and a three-way interaction effect

between support source, situation and support (hypothesis 2) was expected for both the self-related reactions and the interaction-related reactions.

Self-related reactions. First, the hypotheses (1 and 2) were tested with regard to the self-related reactions (negative and positive affect, and competence-based self-esteem). A 2 (support) x 2 (situation) x 2 (support source) MANOVA conducted on the self-related reactions showed, as expected (hypothesis 1), a support main effect ($F_{\text{multivariate}}(3, 110) = 3.01, p < .05$). Individuals appeared to have lower competence-based self-esteem when the support was imposed on them than when the support was offered to them ($M_{\text{offered}} = 3.05$ vs. $M_{\text{imposed}} = 2.79; F_{\text{univariate}}(1, 112) = 7.37, p < .01$). In addition, a significant situation main effect was found ($F_{\text{multivariate}}(3, 110) = 3.14, p < .05$). It appeared that individuals experienced more negative affect and less positive affect in the evaluative situation than in the non-evaluative situation (negative affect: $M_{\text{non-evaluative}} = 1.89$ vs. $M_{\text{evaluative}} = 2.18; F_{\text{univariate}}(1, 112) = 6.75, p < .05$; positive affect: $M_{\text{non-evaluative}} = 2.80$ vs. $M_{\text{evaluative}} = 2.41; F_{\text{univariate}}(1, 112) = 7.90, p < .01$). Although the situation main effect was not specifically hypothesized, the effect is not very surprising, because being evaluated generally provokes some tension.

However, the analysis on the self-related reactions showed, contrary to the expectations (hypothesis 2), no significant three-way interaction effect between support, situation and support source ($F_{\text{multivariate}}(3, 110) = 1.20, ns.$). Thus, with respect to the self-related reactions the first hypothesis was supported as far as competence-based self-esteem was concerned. The results with respect to the self-related reactions did not support the second hypothesis.

Interaction-related reactions. Second, the hypotheses (1 and 2) were tested with regard to the interaction-related reactions (appropriateness of support and sympathy for support provider). A 2 (support) x 2 (situation) x 2 (support source) MANOVA conducted on the interaction-related reactions showed, as expected (hypothesis 1), a support main effect ($F_{\text{multivariate}}(2, 111) = 14.16, p < .001$). Individuals found the imposed support less appropriate than the offered support ($M_{\text{offered}} = 3.69$ vs. $M_{\text{imposed}} = 3.01; F_{\text{univariate}}(1, 112) = 13.74, p < .001$) and they also thought of the support provider as less sympathetic when the support was imposed on them than when the support was offered to them ($M_{\text{offered}} = 3.56$ vs. $M_{\text{imposed}} = 2.96; F_{\text{univariate}}(1, 112) = 10.92, p < .001$). However, the analysis on the interaction-related reactions showed, contrary to the expectations (hypothesis 2), no significant three-way interaction effect between support, support source and situation ($F_{\text{multivariate}} < 1, ns.$). Thus, also with regard to the

interaction-related reactions, the results only supported the first hypothesis.

4.3.4 Discussion

The results of study 4.1 confirmed the hypothesis that receiving imposed instrumental support was perceived as more self-threatening than receiving offered support. Individuals reacted indeed more negatively when the support was imposed on them than when the support was offered to them. However, the results did not confirm the hypothesis about the moderator effect of the situation and the support source, despite successful manipulation of these factors. Neither the situation (evaluative/ non-evaluative) nor the support source (teacher/fellow student) influenced the effect of imposed instrumental support. This outcome suggests that for the effect of instrumental support it is not important who provides it, only how it is provided.

However, the fact that support was received in a learning situation might have influenced the results. Especially in learning situations it is accepted that the student is less competent than others or does not have the required knowledge to things yet. Consequently, it is plausible that in such situations the receipt of instrumental support generally will be less self-threatening. This means that in learning situations it might be more difficult to find a difference in reactions between support from fellow students and from teachers. Furthermore, in all hypothetical situations the teacher was present. This fact might also have influenced the results. For example, students might have been afraid that the fact that they received instrumental support from a fellow student influenced their evaluation. Therefore, the question is whether in work situations, unlike in academic settings, reactions to receiving imposed instrumental support do depend on who provides the support. To get a proper answer to this question, the hypotheses need to be tested in a work situation with a sample of actual employees. Besides, it is necessary that in situations in which a colleague provides support the supervisor is not present and vice versa. A second study was conducted to address these issues.

4.4 Study 4.2

4.4.1 Introduction

The purpose of this study was to test the hypotheses of study 4.1 in a sample of real employees. In the present study vignettes were used as well. However, contrary to the previous study, the vignettes described a real work situation and the present vignette study was conducted among a sample of employees (nurses), instead of students.

In the vignettes the support level was manipulated by describing a situation in which instrumental support was offered or imposed. The support source was manipulated by describing a situation in which a colleague or the supervisor (team leader) provided the support. Since feeling evaluated by the supervisor is for the most part implicit in work situations, it was decided not to manipulate the situation (evaluative versus non-evaluative), but instead to enquire to what extent employees did feel evaluated in the described situation after the vignette.

With respect to the manipulations and the feeling of evaluation, the following hypotheses were formulated:

Hypothesis 1: Compared to receiving offered instrumental support, receiving imposed support will lead to more negative reactions.

Hypothesis 2a: Employees will feel more evaluated by their supervisor than by their colleague.

Hypothesis 2b: The extent of feeling evaluated will moderate the effect of imposed instrumental support. At low levels of feeling evaluated, instrumental support imposed by a colleague will lead to more negative reactions than support imposed by a supervisor, whereas at high levels of feeling evaluated, employees will not react differently to instrumental support imposed by a colleague or a supervisor.

To examine the reactions the manipulations, the present study measured the same two types of reactions as in the previous study: self-related reactions (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider).

4.4.2 Method

Participants and Design

The hypotheses in Study 2 were tested in a 2 (Support: offered/imposed) x 2 (Support source: supervisor/co-worker) factorial design. Research participants were 48 nurses (41 female, 7 male) with a mean age of 34.1 years ($SD = 7.59$), who volunteered to take part in the vignette study. All participants received training for middle management functions (team leader or head nurse) at the time of the study.

Procedure

During the training, nurses were asked to participate in a study on how nurses perceive certain aspects of their job. To do so, they had to read a description of a certain situation and subsequently fill in a questionnaire that asked how they would react in such a situation.

Vignettes, independent variables

To ensure that the hypothetical situation presented to the research participants was relevant to them, the situation described in the vignette concerned a situation frequently occurring in hospitals. The vignette read as follows (the manipulated information is printed in italics):

Imagine yourself in the following situation:

You are working as a nurse in the orthopedic ward. Recently, you and the rest of your ward followed a lifting course, in which you learned new lifting techniques intended to diminish the number of back problems. In this course it was advised to lift patients as much as possible with two persons, but you learned also some techniques to lift patients on your own, provided they are not too heavy.

At this moment, a patient has to be lifted out of bed and taken to the x-ray ward. It's your opinion that the patient is not too heavy and that you can lift the patient out of bed on your own. You are lifting the patient with difficulty, because the patient is heavier than you first anticipated, but you are convinced that you will succeed in lifting the patient on your own.

Offered support

Colleague: *A colleague of yours walks by and says: "It isn't going very well, is it? If you like, I can help you?" Your colleague waits for your reaction.*

Supervisor: *Your team leader walks by and says: “It isn’t going very well, is it? If you like, I can help you?” Your team leader waits for your reaction.*

Imposed support

Colleague: *A colleague of yours walks by and says: “It isn’t going very well, is it? I’ll help you.” Without waiting for your reaction, your colleague takes hold of the patient on the other side and places the patient with you in the wheelchair.*

Supervisor: *Your team leader walks by and says: “It isn’t going very well, isn’t it? I’ll help you.” Without waiting for your reaction, your team leader takes hold of the patient on the other side and places the patient with you in the wheel chair.*

Dependent measures

The same self-related reactions (negative and positive affect, and competence-based self-esteem) and interaction-related measures (appropriateness of support and sympathy for support provider) as in Study 4.1 were assessed.

Feeling of evaluation

The extent to which participants felt evaluated was assessed by having participants rate on a 5-point scale the question: “To what extent did you feel evaluated in the described situation?” (1 = *not at all*, 5 = *very strongly*). This measure was included in the analyses as a covariate.

Manipulation checks

Support. The effectiveness of the support manipulation was assessed by the same question as in Study 4.1

Support source. The effectiveness of the support source manipulation was assessed by having subjects indicate what kind of function the support provider had in the described situation (1 = *supervisor*, 2 = *colleague*, 3 = *otherwise*).

4.4.3 Results

Descriptive statistics

Table 4.2 represents the reliability coefficients of the dependent measures and the correlations between the variables.

As can be seen in Table 4.2, the reliability of all scales appear to be sufficient, albeit that the reliability of negative affect is somewhat low. Furthermore, it can be seen that the

	Mean	SD	1	2	3	4	5
1. Negative affect	1.62	.49	.66				
2. Positive affect	2.83	.88	-.64**	.87			
3. Self-esteem	3.29	.55	-.34*	.56**	.86		
4. Appropriateness of support	3.65	1.04	-.06	.03	.06	.91	
5. Sympathy for support provider	3.35	.96	-.21	.51**	.39**	.49**	.87

Note: numbers on diagonal reflect reliability coefficients; * $p < .05$, ** $p < .01$

Table 4.2: Dependent variables: Means, reliability coefficients, and intercorrelations (study 4.2)

self-related reactions significantly correlate with each other and that the interaction-related reactions also significantly correlate with each other. Additionally, it appears that, like in study 3.1, the self-related reactions only correlate with the interaction-related reactions as far as positive affect, competence-based self-esteem and sympathy for the support provider are concerned. Finally, the correlation between negative and positive affect indicates once more that they conceive two rather different constructs.

Manipulation checks

To assess participants' perception of the vignettes and thus the effectiveness of the manipulations, an analysis of variance was conducted on the manipulation check of support and cross-tabulation was conducted on the manipulation check of support source. The analysis of the manipulation check of support showed, as expected, that individuals considered the support in the description more imposed when it was imposed on the individual than when it was offered ($F(1, 44) = 31.83, p < .001$; $M_{\text{offered}} = 1.88$ vs. $M_{\text{imposed}} = 3.58$). This result indicates that the manipulation of the support level was effective.

Finally, cross-tabulation revealed that all participants responded correctly to the question of who provided the support ($\Phi = 1, p < .001$). This result indicates that the support source manipulation was effective as well.

Hypotheses testing

To assess individuals reactions to the manipulations and thus to test the hypotheses, several analyses of variance were conducted on the dependent variables and on the feeling of evaluation. With respect to these variables a support source main effect was expected for the analysis on feeling of evaluation (hypothesis 2a). With respect to analyses on the dependent

variables, a support main effect (hypothesis 1) and a three-way interaction effect between support, support source and feeling of evaluation (covariate) was expected (hypothesis 2b).

Feeling of evaluation. First, the hypothesis (2a) with regard to the feeling of evaluation was tested. A 2 (support) x 2 (support source) ANOVA conducted on the feeling of evaluation showed, contrary to the expectations, no significant support source main effect ($F(1, 44) = 2.56, ns$). This means that individuals did not feel more evaluated by their supervisor than by their colleague. Conversely, the analysis showed a significant support main effect ($F(1, 44) = 10.24; p < .005$). Individuals felt more evaluated when they received imposed support than when they received offered support ($M_{\text{offered}} = 1.96$ vs. $M_{\text{imposed}} = 3.13$). Thus, the results with respect to feeling of evaluation did not support hypothesis 2a.

Self-related reactions. Second, the hypotheses (1 and 2b) were tested with regard to the self-related reactions (positive and negative affect, and competence-based self-esteem). A 2 (support) x 2 (support source) MANCOVA was conducted on the self-related reactions, with feeling of evaluation included as a covariate. This analysis showed, contrary to the expectations, no significant support main effect ($F_{\text{multivariate}} < 1, ns$). The analysis only showed a significant interaction effect between support and feeling of evaluation ($F_{\text{multivariate}}(3, 38) = 2.99, p < .05$). Univariate tests revealed that this effect was only significant for competence-based self-esteem ($F_{\text{univariate}}(1, 40) = 4.38, p < .05$).

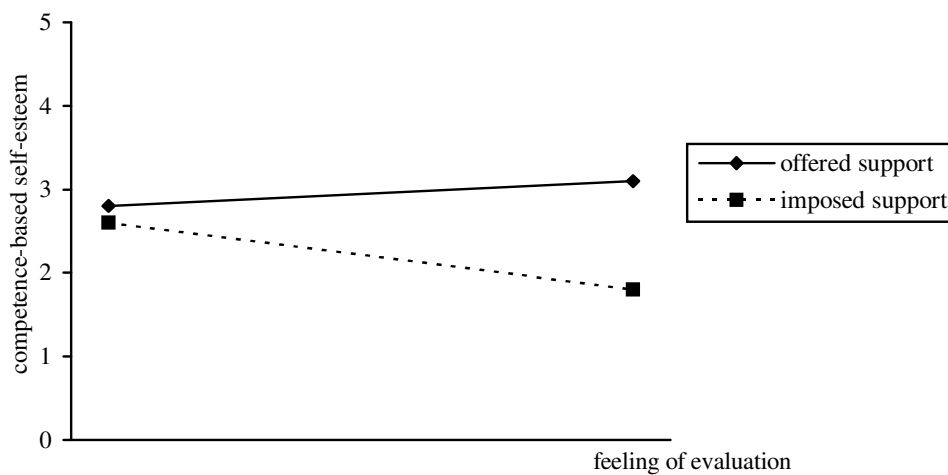


Figure 4.1. Interaction between Support and Feeling of evaluation on competence-based self-esteem (study 4.2)

As graphically presented in Figure 4.1, it was found that when employees did not feel strongly evaluated no difference in competence based self-esteem was found between offered and imposed support. When employees did feel strongly evaluated (either by their supervisor or their colleague) they had lower competence-based self-esteem when the support was imposed on them than when the support was offered to them. This effect is not very surprising as it was found that the extent to which employees felt evaluated did not depend on the support source, only on the way support was provided. When support was imposed on the employees they felt more evaluated than when support was offered. Finally, the analysis also showed, contrary to the expectations, no significant interaction effect between support, support source and feeling of evaluation ($F_{\text{multivariate}}(3, 38) = 2.39, ns$).

Since feeling of evaluation did not have the expected influence on the effect of imposed support, a 2 (support) x 2 (support source) MANOVA was conducted on the dependent variables as well. This analysis showed, as expected, a significant support main effect ($F_{\text{multivariate}}(3, 42) = 5.99, p < .005$). Individuals had lower competence-based self-esteem when they received imposed support than when they received offered support ($M_{\text{offered}} = 3.56$ vs. $M_{\text{imposed}} = 3.01$; $F_{\text{univariate}}(1, 44) = 17.40, p < .001$). Thus, with respect to the self-related reactions, only hypothesis 1 was supported as far as competence-based self-esteem was concerned. The results did not support hypothesis 2b.

Interaction-related reactions. Finally, the hypotheses (1 and 2b) were tested with regard to the interaction-related reactions (appropriateness of the support and sympathy for the support provider). A 2 (support) x 2 (support source) MANCOVA was conducted on the interaction-related reactions with feeling of evaluation as a covariate. This analysis showed, contrary to the expectations, no significant support main effect ($F_{\text{multivariate}}(2, 39) = 1.41, ns$). The analysis only showed a significant interaction effect between support and feeling of evaluation ($F_{\text{multivariate}}(2, 39) = 1.41, ns$).

As can be seen from Figures 4.2 and 4.3, individuals who felt strongly evaluated considered the support less appropriate ($F_{\text{univariate}}(1, 40) = 8.64, p < .005$) and the support provider less sympathetic ($F_{\text{univariate}}(1, 40) = 6.24, p < .01$) when the support was imposed on them than when it was offered. For individuals who did not feel very strongly evaluated no difference in appropriateness of support and sympathy for the support provider between imposed support and offered support was found. Finally, the analysis showed, also contrary to the expectations, no significant interaction effect between support, support source and feeling of evaluation ($F_{\text{multivariate}} < 1, ns$).

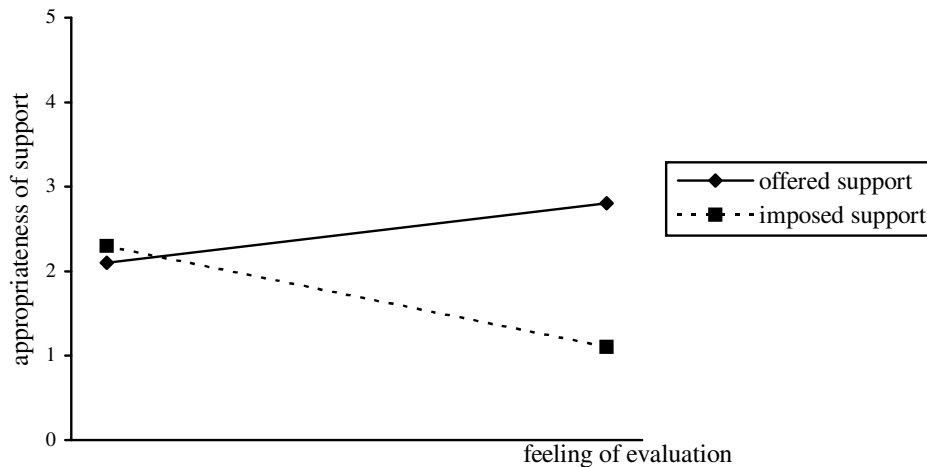


Figure 4.2. Interaction between Support and Feeling of evaluation on appropriateness of support (study 4.2)

Since the feeling of evaluation did not show the expected effect on the impact of imposed support for either of the interaction-related reactions, a 2 (support) x 2 (support source) MANOVA was conducted for this type of reactions as well. This analysis showed, as expected, a significant support main effect ($F_{\text{multivariate}}(2, 43) = 10.58, p < .001$). Participants considered the support less appropriate ($M_{\text{offered}} = 3.93$ vs. $M_{\text{imposed}} = 3.37$; $F_{\text{univariate}}(1, 44) = 4.12, p < .05$) and the support provider less sympathetic ($M_{\text{offered}} = 3.88$ vs. $M_{\text{imposed}} = 2.81$; $F_{\text{univariate}}(1, 44) = 21.64, p < .001$) when they received imposed support than when they received offered support. Thus, also with respect to the interaction-related reactions only hypothesis 1 was supported. The results did not support hypothesis 2b.

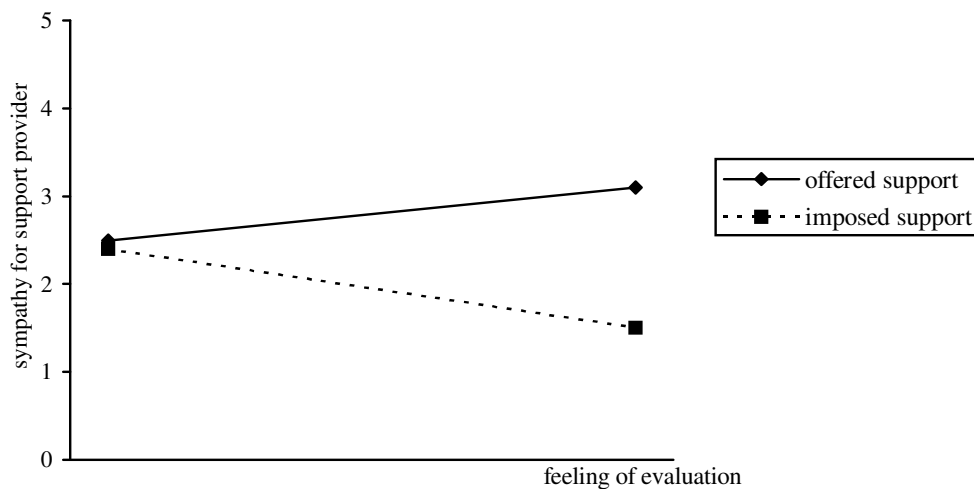


Figure 4.3. Interaction between Support and Feeling of evaluation on sympathy for support provider (study 4.2)

4.4.4 Discussion

The results of study 4.2 reconfirmed the hypothesis that receiving imposed instrumental support was perceived as more self-threatening than receiving offered instrumental support. Employees react more negatively when the support was imposed on them than when it was offered to them. However, no support was found for the hypothesis about the feeling of evaluation and the support source. First of all, no evidence was found for the hypothesis that employees feel more evaluated by their supervisor than by their colleagues. An explanation for this might be that employees not only want to look competent in the eyes of their supervisor, but also in the eyes of their colleagues. Or in other words, it is possible that employees are rather trying to build a positive image of themselves in general than only in relation to specific persons, like supervisors. Another explanation might be that a team leader is not really perceived as a supervisor, but rather as an equal. Subsequently, also no evidence was found for the hypothesis that the effect of instrumental support imposed by a supervisor is more negative as the feeling of evaluation becomes stronger.

In contrast, it was found in the present study that, somewhat surprising, the feeling of evaluation depended on the way support was provided. When instrumental support was imposed on the employees they felt more evaluated than when instrumental support was offered to them, whether it was provided by their supervisor or by their colleague. This might be explained as an extra indication that by imposing instrumental support on employees their self-esteem is threatened. Apparently, employees feel that their competence is evaluated when they receive imposed instrumental support: by imposing the support on the employee the support provider may imply that the employee is not capable enough. Finally, it appeared that the stronger employees felt evaluated by the imposed instrumental support, the more negative they reacted to that kind of support.

Thus, the findings of the present study seem to indicate that for the effect of instrumental support it is more important in what way the support is provided than the person who provides it. Anyway, in the present study no evidence was found that instrumental support imposed by a colleague is in principle perceived as more negative than instrumental support imposed by a supervisor, except for high levels of feeling evaluated. Therefore, it might be worthwhile to examine whether other aspects of the relationship between the support provider and the support receiver, like the quality of the relationship, might be more important in determining the effect of receiving social support at work than just the type of relationship.

4.5 General Discussion

In this chapter, the hypothesis was tested that offering instrumental support is less self-threatening to the employee than imposing instrumental support. It was argued that by giving employees the opportunity to accept or refuse the support that is offered, their freedom of choice would be maintained, which would consequently lead to less negative reactions. Additionally, the hypothesis was tested that instrumental support imposed by a colleague (i.e. comparable person) is perceived as more self-threatening than instrumental support imposed by a supervisor (i.e. non-comparable person), except under conditions of a strong feeling of evaluation by the supervisor. It was argued that employees will feel more evaluated by their supervisor than by their colleagues and that the stronger this feeling is the more negative the impact of receiving imposed instrumental support is.

The converge of the findings of both studies is rather strong, despite differences in used designs and samples. In both studies it was found that imposed instrumental support was indeed perceived as more self-threatening than offered instrumental support, while it did not matter who provided the support. Furthermore, in both studies no interaction effect between support, support source and extent of (feeling of) evaluation was found. In addition, it appeared from study 4.1 that being evaluated explicitly (e.g. getting a grade) produces some tension in the individual. Furthermore, it was quite remarkably found in study 4.2 that the feeling of evaluation did not depend on who provided the support, but rather on how the support was provided. When instrumental support was imposed on the employees they felt more evaluated than when instrumental support was offered to them. This probably indicates that imposed instrumental support is indeed more self-threatening than offered instrumental support.

However, the fact that imposed instrumental support elicited more negative reactions than offered instrumental support was in both studies not confirmed for positive and negative affect. This is consistent with the results of the vignette study presented in Chapter 3 (study 3.1). Possible explanations for this finding may be found in the nature of vignette studies. Participants have to imagine how they would react in a hypothetical situation, which requires cognitive effort. Besides, participants will probably feel less emotionally involved in hypothetical situations than in real situations. Consequently, cognitions (competence-based self-esteem, appropriateness of the support and sympathy for the support provider) may be more easily affected than emotions (positive and negative affect) in vignette studies.

The fact that in both studies no effect of the support source was found does not support the assumption of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) that instrumental support from socially comparable persons is more likely to be perceived as self-threatening than support from non-comparable persons. The findings of the present chapter are also not consistent with the results of a study by Fisher, Harrison, & Nadler (1978). In their study, subjects (students) received help from someone with the same level of knowledge as they had (comparable) or from someone with a higher level of knowledge (non-comparable). Fisher et al. (1978) did find, consistent with the hypothesis of the threat-to-self-esteem model, that help from a comparable person elicited more negative reactions than help from a non-comparable person. However, a difference between the studies presented in this chapter and the study by Fisher et al. (1978) is that in the latter study the way support was provided was not a factor in the design. The studies in this chapter suggest that the effect of how support is provided might exceed the effect of who provides it. Additionally, the difference in status between the comparable and non-comparable person might have been larger in the study of Fisher and colleagues (1978) than in the studies presented in this chapter.

Besides, the fact that no effect of the support source was found is consistent with findings of research on the role of social support at work. In that area generally no effect of support source is found (cf. Buunk, 1990). With respect to reactions to receiving social support at work, it has been argued that other characteristics of the relationship between support provider and support receiver might be of more importance for the effect of support than just the type of relationship. For example, several researchers have argued that qualitative aspects of relationships, like the number of conflicts, the extent of ambivalence or the quality of the relationship, may be particularly important in determining the impact of supportive attempts (Sandler & Barrera, 1984; Coyne & DeLongis, 1986; Zavislak & Sarason, 1992; Pierce et al., 1990; Pierce, Sarason, & Sarason, 1992).

In conclusion, the findings of the studies reported in this chapter indicate that by offering instrumental support to employees, negative effects of support might be prevented. It appears that employees need an opportunity to accept or reject the support. Therefore, it would be of great interest to examine whether comparable positive reactions to receiving instrumental support at work can also be found by delaying the provision of support until employees ask for the support themselves. This type of support can also be seen as non-restrictive to the employee's freedom of choice, since they can choose themselves if and when they ask for it. However, Nadler (1991) argued that asking for instrumental support can also

be threatening, because in that case individuals themselves have to confess explicitly that they fail at a certain task. Future research should focus attention on this issue.

CHAPTER 5

Negative and positive supportive interactions at work: taking closer look

5.1 Introduction

As we have seen, receiving social support at work can have negative effects on health and well-being because it constitutes a threat to the employee's self-esteem (see Chapter 2). In order to prevent such detrimental effects of receiving social support at work, it was argued in Chapter 2 that it is important to know under which conditions this process is most likely to occur. To address this question, the research reported in this dissertation examined to what extent employees' perception of the support as self-threatening or self-supportive is influenced by the characteristics of the support (e.g. the way in which the support is provided), the characteristics of the support provider and the support receiver (e.g. type of relationship between them) and the characteristics of the work context (e.g. need for support).

In chapter 3 and 4 the influence of some of these characteristics on the reactions to receiving *instrumental support* was examined: the way in which the support is provided, the need for support, the ego-involving qualities of the task and the type of relationship between the support provider and the support receiver. The results of the studies presented in these chapters showed that most of these factors indeed influenced the perception of the instrumental support as self-threatening or self-supportive. It was found that when instrumental support was provided in a way that threatened the freedom of choice of the employee (i.e. when instrumental support was imposed) employees reacted more negatively than when instrumental support was provided in a way that did not threaten the freedom of choice (i.e. when no support was provided or instrumental support was offered). Furthermore, it was found that employees reacted the most negatively when they had a low need for support and received the support for a high ego-involvement task. However, no effect was found for the type of relationship between the support provider and the support receiver.

So far, these effects have only been demonstrated in hypothetical and simulated (work) situations. A disadvantage of these situations is that they hardly provide insight in the existence and prevalence of such effects in work situations. So, an important question that remains is *to what extent negative supportive interactions occur in work situations*, and more importantly, *to what extent the threat-to-self-esteem process is responsible*. An additional disadvantage of experimental situations is that only a few factors can be examined at once. Therefore, another important question is *whether there are other factors that influence the*

perception of the support as self-threatening or as self-supportive, in addition to the way in which the support is provided. A related issue, raised by the results of the studies in chapter 4, which needs to be looked at, is the role of the relationship between the support provider and the support receiver in determining the perception of the support as self-supportive or self-threatening. *Are there aspects of the relationship between the support provider and the support receiver, for example, the quality of the relationship, which are more important in determining the effect of receiving social support at work than just the type of relationship?* Furthermore, it is to be examined *how important the way in which support is provided is, seen in the light of the entire range of possible factors.* In addition, the question is *whether employees in real work situations also react more negatively to the receipt of support that is threatening to their freedom of choice (i.e. imposed support) than to the receipt of support that is non-threatening to their freedom of choice (i.e. offered support or support that is asked for).*

The study presented in the present chapter aims to answer these questions. In order to do so, a survey study based on the critical incident method is conducted. This method is used because it makes it possible, like in experimental studies, to examine the effectiveness of specific supportive interactions. With respect to these interactions the present study not only considers the exchange of instrumental support, but also the exchange of emotional, appraisal and informational support (cf. House, 1981).

The six research questions addressed in the survey study are examined with respect to a special group of employees, namely Dutch PhD-students. On the one hand, PhD-students are customary employees in that they receive a salary for their research. On the other hand, they resemble students in that they receive a training to learn how to do academic research. In the next section the six research questions are discussed in more detail. Note that, no specific hypotheses are formulated in this chapter, because the present study is mainly an explorative study with respect to the prevalence and nature of negative effects of social support in work situations.

5.2 Research questions

5.2.1 Prevalence of negative supportive interactions

The first research question addressed in this chapter is: *to what extent do negative supportive interactions occur in real work situations?* The studies of Peeters and colleagues (1995) and

Wong and Cheuk (2000) have indicated that employees sometimes react negatively to the receipt of social support at work, because they perceive it as threatening to their self-esteem. However, these studies have not specified the issue whether the receipt of social support at work generated such negative reactions because (1) the majority of supportive interactions were perceived as self-threatening or (2) the negative supportive interactions that occurred had more impact than the positive supportive interactions. Several studies conducted among other sample groups than employees (e.g. pregnant women, elderly widows, students, caregivers, etc.) suggest that the latter alternative is probably the most valid one. In those studies it was found that negative supportive interactions were reported less frequently than positive supportive interactions, but nonetheless, had a greater influence on psychological well-being than positive supportive interactions (see for a discussion: Shinn et al., 1984; Rook, 1992). Therefore, the following specific questions are formulated to examine the existence and prevalence of negative supportive interactions in real work situations:

Question 1A. How often do negative supportive interactions occur as compared to positive supportive interactions?

Question 1B. Do negative supportive interactions have more impact on indicators of psychological well-being, such as job satisfaction and intention to leave than positive supportive interactions?

5.2.2 Role of threat-to-self-esteem process

The second research question addressed in this chapter is: *to what extent is the threat-to-self-esteem process responsible for negative effects of receiving social support in real work situations?* To find an answer to this question, the present study examines how employees react to negative and positive supportive interactions. According to the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986), the appraisal of the support in terms of self-threat and self-support is reflected by two specific types of reactions: self-related reactions (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider). The model states that social support that is predominantly perceived as self-threatening will evoke negative self-related and interaction-related reactions, whereas support that is predominantly perceived as self-supportive will evoke positive self-related and interaction-related reactions. From this, it follows that if the threat-to-self-esteem process plays an important role in generating negative effects of social support in real work situations, negative supportive

interactions should elicit more negative self-related and interaction-related reactions than positive supportive interactions.

A related issue, raised by the study of Peeters and colleagues (1995), is the influence of the supportive climate in the organization where the employee is working. The supportive climate concerns the shared norms, values and opinions with respect to providing and receiving social support at work, which are expressed by the way in which employees associate with each other, how they handle problems, etcetera (Harrison, 1987; Rollinson, Broadfield, & Edwards, 1998). Peeters and colleagues (1995) argued that the negative effects of receiving social support at work, found in their study among correctional officers, may have been caused by the weak supportive climate existing in prisons, the so-called 'macho-culture'. In organizations with a macho culture it is uncommon that employees show and express their feelings or discuss their problems. As a result, receiving social support in organizations like these is likely to be perceived as a sign of weakness, inferiority and incompetence. Thus, it can be argued that the less supportive employees perceive the climate in the organization the more they will perceive the receipt of support as self-threatening. This means that in organizations with a weak supportive climate more negative self-related and interaction-related reactions will be elicited by the receipt of support than in organizations with a strong supportive climate.

Therefore, the following specific questions are formulated to examine the role of the threat-to-self-esteem process in generating negative effects of social support in real work situations:

Question 2A. Do employees show more negative self-related and interaction-related reactions after negative supportive interactions than after positive supportive interactions?

Question 2B. Are these reactions moderated by the supportive climate in the organization?

5.2.3 Determining factors

The last four research questions (3, 4, 5 and 6) addressed in this chapter all concern the possible factors that may determine the perception of the support as self-threatening or self-supportive:

Question 3. Are there other factors that influence the perception of the support as self-threatening or self-supportive, in addition to the way in which the support is provided?

Question 4. Is the quality of the relationship between the support provider and the support receiver more important in determining this perception than the type of relationship?

Question 5. How important is the way in which the support is provided, seen in the light of the entire range of possible factors?

Question 6. Do employees in real work situations also react more negatively to imposed support than to offered support or support that was asked for?

Thus, with respect to the determining factors, in particular the role of the way in which the support is provided (imposed or not) and the relationship between the support provider and the support receiver (type and quality) are examined in the present study. However, according to the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986), there are also other factors that determine the perception of the support as self-threatening or self-supportive (see also Chapter 2). These are: the kind of task that is performed (ego-involving qualities), the extent to which the receipt of support induces feelings of inferiority and dependency, the extent to which the receipt of support implies an obligation to return the favour, and the extent to which the receipt of support is inconsistent with the self-concept.

In the present study, the first factor, the kind of task, is not included despite the fact that in chapter 3 it was demonstrated that this factor influenced the perception of the support as self-threatening or self-supportive. It was found that individuals reacted more negatively to the receipt of imposed support when they received it for a high ego-involvement task than when they received it for a low ego-involvement task. However, since it can be argued that working on a PhD-project is strongly ego-involving for PhD-students, this factor is not considered in the present study. The last factor, the inconsistency with the self-concept, is not included in the present study either. The present study only focuses on factors that the support provider can actually take into consideration when providing the support. Because it is a very difficult task for support providers to know someone's self-concept, it will also be very difficult to adapt providing the support to this.

Hence, the present study includes two additional factors from the threat-to-self-esteem: the extent to which the support induces feelings of inferiority and dependency and the extent to which the support implies an obligation to return the favour. Furthermore, the present study includes two other factors as possible determinants of the perception of the support as self-threatening or self-supportive: the timing of the support and the extent to which the type of support matches the situation. The present study includes these two factors,

because in the literature on social support it is mentioned that these two factors have much influence on the effectiveness of supportive interactions.

Thus, with respect to the *third research question*, the present study examines more specifically to what degree *the extent of inferiority, the extent of obligation, the timing of the support and the match between the type of support and the situation* influence the perception of the support as self-threatening or self-supportive, in addition to *the way in which the support is provided and the relationship between the support provider and the support receiver (type and quality)*. Below, all factors that are included in the present study are discussed in more detail.

Extent of inferiority

According to the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) the receipt of social support is likely to be perceived as self-threatening when it is suggested that the support receiver is inferior to the support provider. This kind of situation is likely to occur within work relationships, since especially with supervisors and colleagues, individuals maintain a professional relationship in which they may hesitate to disclose feelings that could make them appear incompetent (cf. Buunk, 1990; Peeters et al., 1995). Peeters and colleagues (1995) examined this factor in their study and indeed found that the extent to which the support induced feelings of inferiority influenced the effect of the support: receiving instrumental support at work elicited feelings of inferiority which in turn induced negative affect.

Obligations to return the favour

It has also been argued that the extent to which the support implies an obligation to return the favour, is important to the effect of receiving social support at work. Fisher and Nadler have claimed that the receipt of social support can generate feelings of dependency (see also Shinn et al., 1984). To reduce this feeling, individuals might be eager to return the favour. Especially when there is no opportunity to reciprocate, the receipt of support is likely to be perceived as self-threatening (Fisher et al., 1982; Nadler & Fisher, 1986). Wong and Cheuk (2000) examined this factor in their study and indeed found that employees experienced more negative affect and were less satisfied with their job when the receipt of support induced a feeling of obligation to return the favour.

Timing of the support

Shinn and colleagues (1984) argued that the timing of the support is also crucial in determining the effect of receiving social support. Support that is provided too early (e.g. receiver first wants to try to solve the problem by him or herself) or too late (e.g. problem could have been solved only when help was received at an earlier stage) is likely to be perceived as self-threatening, because it can induce feelings of incompetence. In case the support is provided too early, such a feeling may be elicited, because it implies that the support receiver is not competent enough to solve the problem by him or herself. In case the support is provided too late, such a feeling may be induced, because it leads to experiencing failure, which in turn can lead to feelings of incompetence.

Match between type of support and the situation

Just like the effect of support will depend on the timing of the support, it will probably depend on what kind of support is provided as well. Several studies indicate that social support will have a negative effect when the type of support does not fit the situation (Cohen & Wills, 1985; Cutrona & Russell, 1990), for example, when instrumental support is provided, while the situation more requires emotional support. Such a mismatch between the type of support and the situation can cause the support to be conceived as self-threatening, since the support receiver is not met in his need to reduce the stress or to solve his or her problem.

Relationship between the support provider and the support receiver

In chapter 4 the influence of the type of relationship between the support provider and the support receiver on the perception of the support as self-threatening or self-supportive was examined. However, in neither of the two studies presented in that chapter an effect for the type of relationship on reactions to receiving social support was found. It was argued that this might have been the case, because of a rather small difference in status between the support provider and the support receiver (i.e. supervisor might have been perceived as an equal). A second possibility is that other aspects of the relationship, for example the quality of the relationship, are more important to the effect of receiving social support at work than the type of relationship alone. In the present study this last option will be examined: is the quality of the relationship more important in determining the perception of the support as self-threatening or self-supportive than the type of relationship? (*research question 4*). In order to do so, the quality of the relationship as well as the type of relationship are included in the present study. The type of relationship is operationalized by the type of support source

(supervisor, colleague) and by the difference in knowledge and experience (i.e. comparability between the support provider and support receiver).

The way in which the support is provided

In chapter 3 and 4 the influence of the way in which support is provided was examined. In both chapters it was found that employees reacted more negatively to instrumental support that was imposed on them than to instrumental support that was offered to them or to receiving no support at all, because the former was more restrictive to employees' freedom of choice than the latter two. Accordingly, it can be argued that employees will also react more negatively to imposed support than to support that is asked for, because in the latter case it is the employee who decides whether or not he or she receives support (cf. DePaulo & Fisher, 1980; Fisher et al., 1982; Brehm & Brehm, 1981). Therefore, it will not only be examined how important the way of support providing is (the extent of imposed support) in determining the perception of the support as self-threatening or self-supportive (*research question 5*), but also whether employees in real work situations react more negatively to imposed support than to offered support or support that was asked for (*research question 6*).

5.3 Method

5.3.1 Participants and procedure

The population consisted of all PhD-students (800) who worked at Utrecht University (The Netherlands) at the time of the study. They were asked to fill out a questionnaire concerning several aspects of their work. Questionnaires were sent by e-mail. Participants could return the completed questionnaires by e-mail or anonymously by postal mail. A total of 162 PhD-students returned the questionnaire (response rate 20.3%). This rather low response rate is probably due to the following factors: filling out the questionnaire was too time-consuming, some PhD-students could not read the questionnaire in Dutch, some of the individuals who received the questionnaire did no longer work as a PhD-student (they finished their PhD-project or had quit the project) and others had just started with their project; therefore, they still had too little experience as a PhD-student to fill out the questionnaire.

Agings ranged from 23 to 36 years; the mean age was 27.3 years (SD = 2.81). Sixty-three per cent of the participants were female and thirty-seven per cent were male. Seventy-

seven per cent of the participants had a fulltime contract. On average, participants had been working for 2.5 years on their PhD-project.

5.3.2 Critical incidents (negative and positive supportive interactions)

A sample of negative and positive supportive situations was obtained by means of the so-called critical incident method (Flanagan, 1954). The critical incident technique is a procedure for collecting certain important facts of individuals' behavior in defined situations.

Participants are usually asked to think of an occasion in which certain behaviors, feelings, cognitions, interactions, etcetera were experienced or observed. Furthermore, they are asked to describe this particular occasion by means of well-defined criteria or concrete questions. In the present study participants were asked to describe two critical incidents: a situation in which they had perceived the receipt of social support at work as negative and a situation in which they had perceived the receipt of social support at work as positive. They were asked to describe situations that had occurred in the past two months and in which only one person provided the support. Furthermore, for both situations they were asked to describe what gave rise to the interaction, who was involved, what exactly was said or done by the other person, what made the situation positive or negative, and what consequences the interaction had. Examples of these situations are described in Appendix 5.1 (page 104). In addition, participants were asked to indicate how often negative and positive supportive interactions generally occur at work.

To ensure that the order in which participants described a positive and a negative supportive interaction did not influence the results, two kinds of questionnaires were developed: one in which participants had to describe a negative supportive interaction first and one in which participants had to describe a positive supportive interaction first. All of the descriptions received were carefully screened to see whether they concerned a supportive interaction (instead of a general interaction), whether the support was provided by one person only, and whether the interaction was described from the perspective of the support receiver. For 16 descriptions it was decided to leave them out of the analyses because they did not meet these criteria.

5.3.3 Measures

After the description of a negative supportive interaction and after the description of a positive supportive interaction, participants were asked to answer a few questions concerning the interaction: the determining factors of the interaction, the frequency of similar interactions, and their reactions to the interaction. At the end of the questionnaire some general questions were asked as well: the supportive climate in the workplace, job satisfaction, and intention to leave. Analyses showed that there were no systematic differences between both versions of the questionnaire in the responses to the general questions or the specific questions about the described situations. The reliability coefficients of the different measures are presented in Table 5.1 (see page 17).

Determining factors of the supportive interaction

For both the negative and the positive supportive interaction participants described were asked to indicate *who* provided the support (professor, daily supervisor, fellow PhD-students, other), *the way* in which the support was provided (after it was asked for, after the support provider asked whether it was needed or wanted, without being asked whether it was needed or wanted, otherwise), and *what type* of support was received (instrumental, emotional, appraisal, or informational support).

Furthermore, they were asked to characterize the supportive interactions on the following 5-point Likert-type scales defined by bipolar adjectives: quality of relationship between themselves and the support provider (1 = *very poor*, to 5 = *very good*), difference in knowledge and experience between themselves and the support provider (1 = *less knowledge and experience*, to 5 = *more knowledge and experience*), the extent of imposed support (1 = *not imposing*, to 5 = *imposing*), the timing of the support (1 = *poorly timed*, to 5 = *very well timed*), the match between the type of support and the situation in which the support was received (1 = *not matching*, to 5 = *matching*), to what extent they felt inferior to the support provider (1 = *inferior*, to 5 = *superior*), and to what extent they felt obligated towards the support provider (1 = *not obligated*, to 5 = *obligated*).

Frequency of supportive interaction

A 5-point Likert type scale defined by bipolar adjectives assessed the frequency of supportive interactions at work. Subjects had to indicate how often negative and how often positive supportive interactions generally occur at work (1 = *hardly ever*, to 5 = *very often*).

Reactions

After answering the questions measuring the determining factors, participants were asked to indicate how they reacted in the described situation (both with respect to the negative and positive supportive interaction).

Self-related reactions. Two different kinds of self-related measures were assessed: negative and positive affect, and competence-based self-esteem (Fisher et al., 1982). These measures were identical to the ones assessed in study 3.1, 3.2, 4.1 and 4.2.

Negative and positive affect. Negative and positive affect were measured with a 12-item scale developed by Warr (1990), which has been successfully translated and applied in previous Dutch research on job stress (Schalk et al., 1995). Participants were asked to indicate to what extent during the interaction they experienced feelings of being tense, worried, depressed, and optimistic (6 positive affect items and 6 negative affect items) on 5-point scales, varying from: 1 = *not* to 5 = *very strongly*. Similarly to the studies presented in chapter 3 and 4, two separate measures were computed: positive affect and negative affect, instead of one sum score of the negative and positive affect items.

Competence-based self-esteem. To assess competence-based self-esteem (i.e. state self-esteem with regard to own capacities), participants were asked to evaluate themselves (“Indicate how you would describe yourself during the interaction”) on scales defined by eight pairs of bipolar adjectives, based on the scales of Stake (1979) and Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *dependent, insecure, incapable, irresponsible, incompetent, inefficient, not assertive, and unproductive*, to 5 = *independent, self-confident, capable, responsible, competent, efficient, assertive, and productive*, respectively.

Interaction-related reactions. Only one interaction related reaction was assessed: sympathy for the support provider (Nadler et al., 1983).

Sympathy for support provider. To assess the sympathy for the support provider, participants were asked to evaluate the support provider (“Indicate how you would describe the support provider during the interaction”) on scales defined by six pairs of bipolar adjectives, based on the scale of Nadler et al. (1983). The adjective pairs were separated by 5-point Likert type scales, ranging from 1 = *impatient, incompetent, unpleasant to work with, incapable, enforcing, and unfriendly*, to 5 = *patient, competent, pleasant to work with, capable, not enforcing, and friendly*, respectively.

Supportive climate

The supportive climate was assessed by two subscales, representing supportive orientation and supportive practice at the workplace. The supportive orientation subscale included 10 items of the social orientation scale of the FOCUS, a larger organizational culture questionnaire (Van Muijen, 1992). Examples of the social orientation scale items are: “It is typical for our department that people understand each other”, or “It is typical for our department that there is a pleasant atmosphere”. The supportive practice subscale was especially constructed for this study and consisted of 10 items focused on whether it is typical or not that employees ask for support or receive it, and whether or not it is practice that employees talk about their problems and express their feelings. For example, “In our department it is expected that you can handle things yourself”, or “In our department it is normal that one helps one another.” A 5-point scale (1 = *not at all characteristic* to 5 = *very characteristic*) followed the items of both scales.

Principal component analysis with oblimin rotation on all 20 items indeed revealed two factors. The first factor represented 8 items of the supportive orientation scale and 2 items of the self-constructed supportive practice scale. The second factor represented 7 items of the self-constructed supportive practice scale. The final supportive orientation and supportive practice scales were constructed on the basis of these two factors. The 2 items of the supportive climate scale (“It is typical for our department that failures are accepted” and “It is typical for our department that there is agreement between individuals”) and the 1 item of the supportive practice scale (“It is typical for our department that individuals easily run in to each other”) with low factor loadings on both factors (<.30) were excluded from the final scales. As a result, the final version of the supportive climate scale included 17 items: 10 supportive orientation items and 7 supportive practice items.

Job satisfaction

Job satisfaction was assessed by one general job satisfaction item (“In general, how satisfied are you with your job?”). A 5-point scale (1 = *very dissatisfied* to 5 = *very satisfied*) followed the item.

Intention to leave

Intention to leave was assessed by one item. Participants were asked to indicate on a 6-point Likert type scale to what extent they intended to quit the promotion project (1 = *absolutely not* to 6 = *absolutely*).

5.4 Results

The results are presented in separate sections corresponding to the research questions presented in the introduction, and preceded by a descriptive section.

5.4.1 Descriptives

Table 5.1 represents the reliability coefficients of the self-related reactions (negative and positive affect and competence-based self-esteem) and interaction-related reaction (sympathy for the support provider), supportive orientation and supportive practice, and the correlations between these variables and general job satisfaction and intention to leave.

	1	2	3	4	5	6	7	8
1. Negative affect	.87							
2. Positive affect	-.71**	.91						
3. C.b. self-esteem	-.38**	.37**	.83					
4. Sympathy for provider	-.18*	.22*	.28**	.89				
5. Supportive orientation	-.08	.01	-.06	.03	.92			
6. Supportive practice	-.01	-.13	-.04	.11	.65**	.86		
7. Job satisfaction	-.15	.19*	.10	.08	.30**	.31**	-	
8. Intention to leave	.12	-.11	-.02	-.12	-.22*	-.28**	-.47**	-

Note: numbers on the diagonal reflect reliability coefficients; ** $p < .01$, * $p < .05$

Table 5.1: reliability coefficients and intercorrelations of self-related and interaction-related reactions, supportive climate, job satisfaction and intention to leave

As can be seen in Table 5.1, the reliability of all scales appear to be sufficient ($>.70$). Furthermore, it can be seen that the self-related reactions are somewhat stronger correlated with each other than with the interaction-related reaction. Additionally, the correlation between negative and positive affect indicates once more that they conceive two rather different constructs, albeit that the correlation between both appears to be stronger than in the previous studies (see chapter 3 and 4).

It appears that the self-related and interaction-related reactions hardly correlate with supportive orientation, supportive practice, job satisfaction, and intention to leave. It does appear, however, that job satisfaction, supportive orientation, support practice and intention to

leave correlate with each other. This finding indicates that the less employees perceive the climate in the organization as supportive, the less satisfied they are with their job and the stronger their intention to leave the organization. Finally, it appears that supportive orientation and supportive practice correlate with each other, but not to the extent that they can be considered as one single construct (i.e. $<.80$).

5.4.2 Research questions

Prevalence of negative and positive supportive interactions

Two specific questions were formulated to examine the existence and prevalence of negative supportive interactions (research question 1):

Question 1A. How often do negative supportive interactions occur compared to positive supportive interactions?

Question 1B. Do negative supportive interactions have more impact on indicators of psychological well-being, like job satisfaction and intention to leave, than positive supportive interactions?

In order to examine question 1A, a dependent samples t-test was conducted on the frequency scales of positive and negative supportive interactions. This test revealed that most PhD-students more often experienced positive supportive interactions than negative supportive interactions ($M_{\text{positive}} = 3.63$ vs. $M_{\text{negative}} = 2.02$; $t(109) = -10.57$, $p < .001$).

To examine question 1B, pearson correlation coefficients were computed to present the bivariate relationships between the frequency of negative and positive supportive interactions and job satisfaction and intention to leave. It appeared that intention to leave was not at all correlated with the prevalence of positive and negative supportive interactions ($-.06$ and $.15$, respectively; both not significant) and that job satisfaction did correlate to a similar extent with the prevalence of negative supportive interactions and with the prevalence of positive supportive interactions ($.26$ and $-.29$, respectively; $p < .01$). Thus, the results with respect to the prevalence of negative and positive supportive interactions indicate that, in general, PhD-students more frequently experience positive supportive interactions than negative supportive interactions. However, no indications were found that negative supportive interactions have more impact on job satisfaction and intention to leave than positive supportive interactions.

Role of threat-to-self-esteem process

To examine the role of the threat-to-self-esteem process in generating negative effects of receiving social support in real work situations (research question 2), two specific questions were formulated:

Question 2A. Do employees show more negative self-related and interaction-related reactions after negative supportive interactions than after positive supportive interactions?

Question 2B. Are these reactions influenced by the supportive climate in the organization?

In order to address question 2A, an ANOVA with repeated measures (within-subject factor: type of supportive interaction: negative versus positive supportive interaction) was conducted on the self-related and interaction-related reactions. As can be seen from Table 5.2, the participants reacted more negatively to negative supportive interactions than to positive supportive interactions. When they experienced a negative supportive interaction they showed more negative affect, less positive affect and lower competence-based self-esteem than when they experienced a positive supportive interaction. In addition, they also considered the support provider in negative supportive interactions less sympathetic than in positive supportive interactions.

Univariate test					
Variable	F	dF	p<	M _{negative}	M _{positive}
Negative affect	46.09	1, 108	.001	2.77	2.03
Positive affect	74.20	1, 108	.001	2.03	3.00
C.b. self-esteem	5.13	1, 108	.05	3.08	3.26
Sympathy for support provider	340.88	1, 108	.001	2.17	4.37

Table 5.2. Reactions to negative and positive supportive interactions

To examine question 2B, an ANCOVA with repeated measures (within-subject factor: type of supportive interaction: negative versus positive supportive interaction) was conducted on the self-related and interaction-related reactions with supportive orientation and supportive practice included as covariates. This analysis yielded only a significant main effect for type of supportive interaction ($F(4, 96) = 157.96, p < .001$), comparable with the result of the ANOVA with repeated measures. The analysis did neither yield main effects for the supportive climate scales (supportive orientation: $F < 1, ns.$; supportive practice: $F(4, 96) = 1.69, ns.$) nor interaction effects between the supportive climate scales and type of supportive interaction

(for both: $F < 1$, *ns.*). This finding indicates that the perception of the support as self-threatening or self-supportive is not influenced by the supportive climate in the organization.

Thus, the results with respect to the role of the threat-to-self-esteem process in real work situations indicated that the threat-to-self-esteem process is important in generating negative perceptions of supportive interactions. However, no indications were found that this process is influenced by the supportive climate in the organization.

Determining factors

To examine the possible factors that determine the perception of the support as self-supportive or self-threatening, four questions were formulated (research questions 3, 4, 5, and 6).

Question 3. Are there other factors that influence the perception of the support as self-threatening or self-supportive, in addition to the way in which the support is provided?

Question 4. Is the quality of the relationship between the support provider and the support receiver more important in determining this perception than just the type of relationship?

Question 5. How important is the way in which the support is provided, seen in the light of the entire range of possible factors?

Question 6. Do employees also in real work situations react more negatively to imposed support than to offered support or support that was asked for?

To address research question 3 with respect to the additional factors, it was more specifically examined to what degree *the extent of inferiority, the extent of obligation, the timing of the support and the match between the type of support and the situation* influenced the perception of the support as self-threatening or self-supportive, in addition to *the way in which the support is provided and the relationship between the support provider and the support receiver (type and quality)*. To examine this question, an ANOVA with repeated measures (within-subject factor: type of supportive interaction: negative versus positive supportive interaction) was conducted on the extent of inferiority, the extent of obligation, timing, match between situation and support, quality of relationship, difference in knowledge and experience, and the extent of imposed support. Furthermore, effect sizes were computed to examine the importance of the different factors in determining whether the supportive interactions are perceived as positive or negative. The results of this analysis are presented in Table 5.3. Examples of supportive interactions that could be characterized by these

determining factors are presented in Appendix 5.1 (p. 104). Note that no examples were found for difference in knowledge and experience and for the extent of obligation.

Variable	F	dF	p<	η^2
Match	351.68	1, 107	.001	.77
Imposed support	241.36	1, 107	.001	.69
Timing	107.72	1, 107	.001	.62
Quality of relationship	62.22	1, 107	.001	.37
Inferiority	6.54	1, 107	.05	.06
Obligation	3.11	1, 107	ns	.03
Difference in knowledge	.10	1, 107	ns	.001

Note: η^2 reflects the effects size

Table 5.3: Results of ANOVA with repeated measures on determining factors

The most important difference between negative and positive supportive interactions was the match between the situation and the type of support. In positive supportive interactions the type of support generally did match the situation much better than in negative supportive interactions ($M_{\text{neg}} = 2.52$ vs. $M_{\text{pos}} = 4.86$). The next important factor was the extent of imposed support. In negative supportive interactions the support was generally perceived as more imposed than in positive supportive interactions ($M_{\text{neg}} = 4.76$ vs. $M_{\text{pos}} = 2.40$). Also the timing of the support was an important factor. In positive supportive interactions the support was generally better timed than in negative supportive interactions ($M_{\text{neg}} = 2.69$ vs. $M_{\text{pos}} = 4.58$).

A somewhat less important factor was the quality of the relationship between the support provider and the support receiver. In positive supportive interactions the relationship was generally somewhat better than in negative supportive interactions ($M_{\text{neg}} = 3.42$ vs. $M_{\text{pos}} = 4.36$). For the extent of inferiority a significant effect was found as well, but this effect was rather small, indicating that it did not have much influence on determining whether the support was perceived as positive or negative. In negative supportive interactions the support induced a little bit more a feeling of inferiority than in positive supportive interactions ($M_{\text{neg}} = 2.51$ vs. $M_{\text{pos}} = 2.77$). For difference in knowledge and experience and for the extent of obligation no significant effects were found, indicating that these factors did not influence the perception of the support as negative or positive.

However, this analysis only indicates to what extent the factors influence the perception of the support as positive or negative and does not indicate to what extent the factors influence the perception of the support as self-threatening or self-supportive. To address this issue, two stepwise regression analyses were conducted next (separately for the negative and positive supportive interactions) with the determining factors (match, extent of imposed support, timing, quality of relationship and extent of inferiority) as the independent variables and the reactions (negative and positive affect, competence-based self-esteem and sympathy for the support provider) as the dependent variables. The factors that appeared to have no influence on the perception of the support as negative or positive (difference in knowledge and experience and the extent of obligation) were left out of the analyses. In Table 5.4 the results of the analyses with respect to the negative supportive interactions are presented and in Table 5.5 the results of the analyses with respect to the positive support interactions are presented.

As can be seen from Table 5.4 and 5.5, the determining factors explained the variance in reactions to negative supportive interactions better (8-48% explained variance) than the variance in reactions to positive supportive interactions (0-28% explained variance). Furthermore, the analyses showed that the determining factors of the supportive interactions hardly explained the variance in negative and positive affect. With respect to the positive supportive interactions it was found that these variables were not at all influenced by the determining factors. With respect to the negative supportive interactions it was found that these variables were only weakly influenced by the match between the type of support and the situation (4% and 10% explained variance for negative affect and positive affect, respectively) and the extent of inferiority (4% explained variance for negative affect). In addition, the analyses showed that competence-based self-esteem was only influenced by the extent of inferiority (both with respect to the negative and the positive supportive interactions).

Finally, the analyses showed that the determining factors did explain most of the variance in the sympathy for the support provider (28% and 48% explained variance for positive and negative supportive interactions, respectively). For both types of supportive interactions, the most important factor with respect to sympathy for the support provider appeared to be the quality of the relationship between the support provider and the support receiver. With respect to the positive supportive interactions, this variable was also slightly influenced by the timing of the support. With respect to the negative supportive interactions, the variable was also rather strongly influenced by the extent of imposed support and slightly by the match between the type of support and the situation and the extent of inferiority.

Dependent variable		negative affect		positive affect		c.b. self-esteem		sympathy for provider			
		β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2		
Step	Variable			Step	Variable			Step	Variable		
1	match	.24*	.04*	1	match	.31***	.10***	1	quality relation	.39***	.25***
2	inferiority	.22*	.04*					2	imposed	-.40***	.16***
								3	match	.22**	.04**
								4	inferiority	-.16*	.02*
R ² -total = .08				R ² -total = .10		R ² -total = .26		R ² -total = .48			

*** p<.001 ** p<.01 *p<.05

Table 5.4: Results of stepwise regression analyses with respect to negative supportive interactions.

Dependent variable		negative affect		positive affect		c.b. self-esteem		sympathy for provider			
		β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2		
Step	Variable			Step	Variable			Step	Variable		
-	-	-	-	-	-	-	-	1	quality relation	.45***	.25***
								2	timing	.16*	.02*
R ² -total = 0				R ² -total = 0		R ² -total = .06		R ² -total = .28			

*** p<.001 ** p<.01 *p>.05

Table 5.5: Results of stepwise regression analyses with respect to positive supportive interactions.

In summary, the results with respect to the determining factors indicate that two other factors can be considered as determinants of the perception of the support as self-threatening or self-supportive, in addition to the way in which the support is provided: the extent of inferiority and the quality of the relationship between the support provider and the support receiver. Furthermore, the results indicate that the match between the type of support and the situation and the timing of the support have more influence on the general perception of the support as positive or negative than on the perception of the support as self-threatening or self-supportive.

Relationship between support provider and support receiver.

With respect to research question 4, we have seen that the ANOVA with repeated measures on the determining factors showed no effect of difference in knowledge at all and a moderate effect for the quality of the relationship. These findings indicate that the quality of the relationship had more influence on the perception of the support as positive or negative than the type of relationship (comparability between the support provider and the support receiver). Furthermore, we have also seen that the stepwise regression analyses on the reactions to the supportive interactions revealed that the quality of the relationship was a rather important factor in determining whether the support was perceived as self-threatening or self-supportive, at least as far as the sympathy for the support provider is concerned.

A final indication that the quality of the relationship is more important in determining this perception than the type of relationship is obtained from two one-way ANOVA's (separately for negative and positive supportive interactions) with the type of support provider (promoter or fellow PhD-student) as the independent variable and the reactions to the supportive interaction (negative and positive affect, competence-based self-esteem and sympathy for the support provider) as the dependent variables. Both analyses showed no significant effect for the type of support provider ($F < 1$, ns.).

Way of support providing

With respect to research question 5, it was shown in the previous section that the extent of imposed support was a relatively important factor in determining whether the support was perceived as positive or negative. This can also be seen from Figure 5.1. In most negative supportive interactions the support was imposed on the support receiver and in hardly any case the support was offered. In most positive supportive interactions the support was provided after it was asked for. However, also in positive supportive interactions support was

sometimes imposed on the support receiver. In most situations, this concerned emotional or appraisal support (74%), types of support of which it seems more obvious that they are provided without asking if they are needed or wanted.

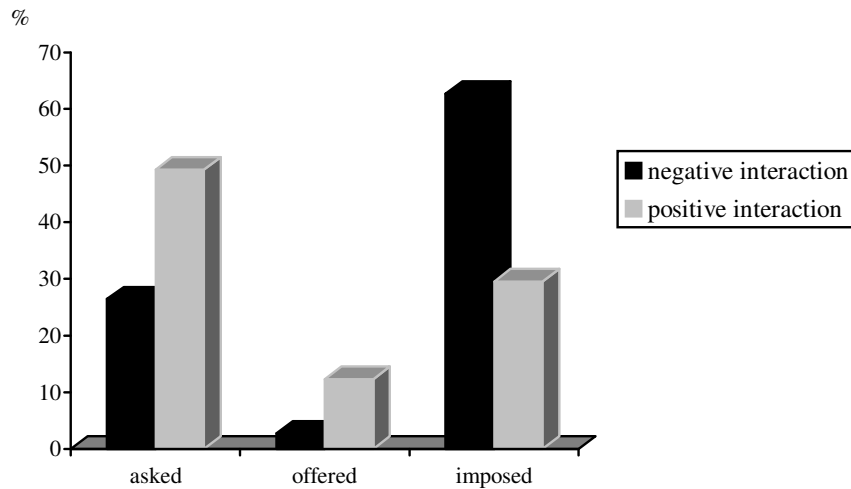


Figure 5.1: Proportions of way of support providing

Finally, it was examined whether employees in real work situations would react more negatively to imposed support than to offered support or support that was asked for (research question 6). To address this question two one-way ANOVA's (for negative and positive supportive interactions separately) with way of support providing (asked, offered, imposed support³) as the independent variable were conducted on the reactions to the supportive interactions (negative and positive affect, competence-based self-esteem and sympathy for the support provider). The results of both analyses are presented in Table 5.6

Univariate test for negative supportive interactions				Univariate test for positive supportive interactions			
Variable	F	dF	p<	Variable	F	dF	p<
Negative affect	<1	1, 97	ns	Negative affect	4.28	2, 132	.05
Positive affect	<1	1, 97	ns	Positive affect	6.50	2, 132	.01
C.b. self-esteem	3.71	1, 97	.05	C.b. self-esteem	4.67	2, 132	.05
Sympathy for support provider	5.91	1, 97	.05	Sympathy for support provider	1.60	2, 132	ns

Table 5.6 Results of one-way ANOVA's with respect to way of support providing

The one-way ANOVA with respect to the negative supportive interactions showed that the way in which the support was provided, influenced the reactions to negative supportive

interactions. Participants had lower competence-based self-esteem ($M_{\text{asked}} = 2.90$ vs. $M_{\text{imposed}} = 3.25$) and considered the support provider less sympathetic ($M_{\text{asked}} = 2.96$ vs. $M_{\text{imposed}} = 2.57$) when they received imposed support than when they received support that they asked for themselves. Also the one-way ANOVA with respect to the positive supportive interactions showed that the way in which the support was provided, influenced the reactions to positive supportive interactions. Participants experienced more negative affect ($M_{\text{asked}} = 1.84$ vs. $M_{\text{offered}} = 1.86$ vs. $M_{\text{imposed}} = 2.29$) and less positive affect ($M_{\text{asked}} = 3.30$ vs. $M_{\text{offered}} = 3.21$ vs. $M_{\text{imposed}} = 2.61$) when they received imposed support than when they received offered support or support that they asked for themselves. They had also less competence-based self-esteem after the interaction when they received imposed support than when they received offered support ($M_{\text{asked}} = 3.22$ vs. $M_{\text{offered}} = 3.43$ vs. $M_{\text{imposed}} = 3.03$).

Thus, the results with respect to the way in which support is provided indicated that this factor is important in determining the perception of the support as self-threatening or self-supportive. Furthermore, it was found that employees reacted more negatively or at least less positively to imposed support than to offered support or to support that is asked for.

5.5 Discussion

The first question examined in the present study was *to what extent negative supportive interactions occur in real work situations*. With respect to this question the present study showed that negative supportive interactions occasionally occur among PhD-students, but less frequently than positive supportive interactions. This finding is consistent with studies on the frequency of supportive interactions outside the context of work (e.g. Henderson, Bryne, Duncan-Jones, Adcock, Scott, & Steele, 1978; Henderson, Bryne, Duncan-Jones, Scott, & Adcock, 1980). However, contrary to the results of these studies, the present study did not find that negative supportive interactions have more impact on psychological well-being than positive supportive interactions. An explanation for this observation may be found in the way in which the frequency of negative and positive supportive interactions was assessed. In contrast to the other studies that examined the impact of negative and positive supportive interactions, the present study did not collect all supportive interactions that occurred during a certain period of time. Instead, only one positive and one negative supportive interaction were assessed, followed by the question how often such supportive interactions generally occur at work. This way of measuring the frequency of supportive interactions is probably less accurate than when participants keep records of negative and positive supportive interactions.

As a consequence, the predictions with respect to the impact of the negative and positive supportive interactions on psychological well-being may also be less accurate.

The second question examined in the present study was *to what extent the threat-to-self-esteem process is responsible for negative effects of receiving social support in real work situations*. According to Fisher and Nadler (Fisher et al., 1982; Nadler & Fisher, 1986) the type of reactions to receiving social support reflect the appraisal of the support in terms of self-threat or self-support. That is, when employees show negative feelings, have low confidence in their own abilities and have negative evaluations of the support and the support provider, it can be reasonably assumed that the support was perceived as self-threatening. On the other hand, when employees show positive feelings, have high confidence in their own abilities and have positive evaluations of the support and the support provider, it can be assumed that the support was perceived as self-supportive. The results of the present study indicate that the threat-to-self-esteem process played a major part in generating negative effects of receiving social support at work. It was found that participants reported more negative self-related and interaction-related reactions when the supportive interaction was perceived as negative than when the supportive interaction was perceived as positive. This finding is in line with the findings of Peeters and colleagues (1995) and Wong and Cheuk (2000). These authors found that the threat-to-self-esteem process explained the adverse effects of receiving social support at work on negative affect (Peeters et al., 1995 and Wong and Cheuk, 2000) and job satisfaction (Wong and Cheuk, 2000). However, the suggestion of Peeters and colleagues (1995) that these adverse effects of receiving social support at work might also have been influenced by the supportive climate in the organization was not supported in the present study. An explanation for this observation might be that in prisons (in the study of Peeters et al., 1995) generally a more negative attitude towards receiving social support exists (the so-called 'macho-culture') than in universities (in the present study). Another possibility is that PhD-students are more used to working individually, whereas correctional officers are more used to working in teams. As a consequence, PhD-students can withdraw from social influences at work more easily than correctional officers can.

The third question examined in the present study was *whether there are other factors that influence the perception of the support as self-threatening or as self-supportive, in addition to the way in which the support is provided*. In the present study two such additional factors were found: the quality of the relationship between the support provider and the support receiver and the extent to which the support induced feelings of inferiority. It was also found that the match between the type of support and the situation and the timing of the

support influenced the perception of the support as positive or negative, but did not influence the perception of the support as self-threatening or self-supportive.

Thus, the results showed that the quality of the relationship between the support provider and the support receiver, the extent of inferiority and the way in which support is provided, are important factors in determining whether the support was perceived as self-threatening or self-supportive. However, the influence of these factors was especially found with respect to competence-based self-esteem and sympathy for the support provider. The factors hardly influenced the level of positive and negative affect. An explanation for this finding might be that, similar to the vignette studies (see chapter 3 and 4), employees felt less emotional involvement in the described situations, because the events took place some time ago.

Moreover, the factors had more influence on the perception of the support as self-threatening than on the perception of the support as self-supportive. This finding suggests that a different process may be responsible for generating positive effects of receiving social support at work than for generating negative effects of receiving social support at work. It is probably not sufficient to do the exact opposite from what causes negative effects in order to elicit positive effects of social support.

The fourth question examined in the present study was *whether other aspects of the relationship between the support provider and the support receiver, for example, the quality of the relationship, are more important in determining the effect of receiving social support at work than just the type of relationship*. The results of the present study demonstrated that the quality of the relationship is more important in determining whether the support is perceived as self-threatening or self-supportive than the type of relationship. In fact, the results showed that the type of relationship did not have any influence on the perception of the support as self-threatening or self-supportive. This finding concurs with suggestions from other researchers (Sandler & Barrera, 1984; Coyne & DeLongis, 1986; Zavislak & Sarason, 1992; Pierce et al., 1990, 1992) and with the findings of the studies presented in chapter 4. It is, however, inconsistent with the assumptions of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986). Therefore, it can be concluded that the threat-to-self-esteem model does not apply to work situations as far as the type of support provider is concerned.

The last two questions examined in the present study concerned the role of imposed support in determining the perception of the support as self-supportive or self-threatening. It was examined *how important the way in which support is provided is, seen in the light of the entire range of possible factors and whether employees in real work situations also react*

more negatively to the receipt of support that is threatening to their freedom of choice (i.e. imposed support) than to the receipt of support that is non-threatening to their freedom of choice (i.e. offered support or support that is asked for). The results showed that the way in which the support is provided is one of the most important factors that determine whether the support is perceived as self-threatening or self-supportive. In addition, the results indicated that also in real work situations employees react negatively to the receipt of social support that threatens their freedom of choice. Employees reacted more negatively (and also less positively) to support that was imposed on them than to support that was offered to them or to support they asked for themselves. These findings suggest that negative effects of social support at work can be prevented specifically by offering support to employees or by waiting to provide support until someone asks for it his or herself. Training employees and supervisors to employ this kind of behavior seems relatively easy to do.

However, despite these promising results, the present study has also some limitations. First of all, the results were found in a correlational study. Even though the results are in line with the experimental studies presented in chapter 3 and 4 and with the studies of Peeters et al. (1995) and Wong and Cheuk (2000), other causal directions than suggested in this chapter cannot be ruled out. For example, the theoretical framework used in this study proposes that the perception of the supportive interactions as self-threatening or self-supportive is caused by several factors (e.g. the way in which it is provided). However, the reverse is also possible. The same is true for the assumption that the perception of the support as self-threatening or self-supportive elicits certain reactions. It is possible that the perception of the support is influenced by emotions experienced at the time of the study and did influence the perception of the determining factors. For example, experiencing negative affect may have led to perceiving a certain supportive interaction as negative. In turn, perceiving a certain supportive interaction as negative may have led to perceiving the relationship between the support provider and the support receiver as worse than it actually was. However, it can be argued that even when the causal relationship of the effects found in the present study is reversed to what is suggested in this study, these effects represent negative effects of receiving social support at work. Whether the perception of the support as negative is caused by a poor relationship or results in the perception of the relationship as poor, in either case the support does not have the intended beneficial effect.

Furthermore, the fact that the results of the survey study are based on only one, rather arbitrarily selected, example of a negative and a positive supportive interaction limits the generalizability of the results. The question is to what extent these examples are typical for

supportive interactions at work, since participants may have used various criteria to select the examples they described: most positive or negative supportive interaction, most recent interaction, or most typical interaction. Consequently, the question remains whether the influence of certain factors with respect to perception of supportive interactions at work is really as strong (e.g. quality of the relationship between support provider and support receiver) or weak (e.g. type of relationship between both) as found in this study. That is, the present study does indicate that some of the negative effects of receiving social support at work are due to a threat-to-the self-esteem and that several factors influence this process. However, further research is necessary to examine how strong the influence of these factors is with respect to general supportive interactions.

In addition, the results of the present study might also have been influenced by the type of employees examined (i.e. PhD-students). On the one hand, PhD-students can be considered as common employees in that they receive a salary for their work and are bound by a contract. On the other hand, however, they are more like students in that they receive a training to learn how to do academic research. This fact has important implications for the relationship between the employee and the supervisor. Unlike in usual work relationships, in the relationship between a PhD-student and a professor the helping part is very prevalent. Inherent to working on a PhD-project is that PhD-students receive high levels of social support from their supervisor in the process of learning. As a result, PhD-students might perceive the receipt of social support differently than common employees and have a biased perception of the relationship between them and their supervisor. It may also explain the finding of the present study that the quality of the relationship was such an important factor in determining the perception of the support as self-threatening or self-supportive. However, this line of reasoning may also indicate that especially in (work) situations in which learning is central (e.g. school situations, internships and practical trainings), it is important how 'supervisors' (teachers, professors, trainers) provide support, since the present study indicates that PhD-students frequently perceive the receipt of support as negative.

A final limitation is the relatively low response rate. Hence, the question is raised whether the results are an accurate indication of the social support process in real work situations. It can be argued that the findings of the present study are especially based on the experiences of a small group of employees: those who occasionally experience negative supportive interactions at work. It may be the case that the vast majority hardly ever experiences negative supportive interactions. As a result, the effects of receiving social support at work may be different for this group. On the contrary, it can also be argued that any

negative effects of receiving social support must be prevented, even if only a small number of employees experiences these negative effects

Appendix 5.1. Examples of negative and positive supportive interactions.

Factor	Negative/positive	Example
Match	Mismatch	<i>"I asked for comments concerning the content of the paper, but I only received comments with respect to the structure, language errors and construction"</i>
	Match	<i>"I didn't want to grant someone's request. My supervisor helped me to make a list of arguments to refuse the request."</i>
Imposed support	Imposed	<i>"During a presentation I received a difficult question. My professor wanted to jump in to answer the question. I did know the answer myself and therefore I didn't want this help".</i>
	Not imposed	<i>"A colleague of mine gave some advice about a research method. She made relevant suggestions, without imposing her opinion on me."</i>
Timing	Poor	<i>"I had a meeting with my professor on the progress of my experiment. I had mentioned that I still needed quite some time to finish the experiment. After two hours my professor already walked by to ask how the experiment was going"</i>
	Good	<i>"I had to send a letter to the editor of a magazine. I asked a colleague to review my letter. He could help me immediately, so the letter could be send the same day."</i>
Quality of relationship	Poor	<i>"A colleague of mine asked my if everything was all right, because I looked a bit gloomy. She tried to cheer me up with a pat on the back and by saying that everything was nice and that I was capable enough to finish the project. I can hardly accept such things from this person, because they never seem sincere."</i>
	Good	<i>"I doubted about the usefulness of my thesis. A fellow Ph.D.-student reassured me: my thesis didn't need to be brilliant. That especially this Ph.D.-student said that to me made it very positive, I think very highly of her."</i>
Inferiority	Inferior	<i>"My supervisor wanted to help me with Excel. However, he suggested that I didn't know anything. He didn't take me seriously."</i>
	Not inferior	<i>"I had a problem with a specific analysis. A colleague gave me advice what to do. She treated me a an equal."</i>

Chapter 6

Discussion

6.1 Introduction

The aim of this dissertation was to gain more insight in the potential negative impact of social support at work and related to that, in the effectiveness of specific supportive interactions. These two important issues have hitherto been largely ignored in research on social support at work. In this dissertation it was argued that systematic research on these issues is essential in order to arrive at a more differentiated conception of the role of social support at work as it relates to health and well-being. Furthermore, it was argued that this kind of research is necessary to increase our understanding of the nature and effects of supportive interactions at work and to develop better social support interventions. In the light of these considerations, the present dissertation examined *whether, why and when the receipt of social support at work can have negative effects on employees' health and well-being*.

To address these three questions, a research model was developed based on the principles of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986). This model argues that one of the most negative effects of receiving social support at work is that it can pose a threat to someone's self-esteem. Since a positive self-concept is essential to individuals' mental health, it is important to know under which conditions the receipt of social support at work is likely to be perceived as self-threatening in order to prevent such a detrimental effect of receiving social support at work. In the next section, this model and its assumptions will be described briefly, followed by a summary of the empirical evidence of these assumptions. Next, the extent to which the results of this dissertation provide answers to the research questions whether, why and when receiving social support at work can have negative effects, will be discussed. Finally, future directions and practical implications of the current findings will be discussed.

6.2 Research model

The research model used in this dissertation builds on the principles of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986). The threat-to-self-esteem model mainly focuses on individuals' reactions to the receipt of help, but in Chapter 2 it was argued that the principles of this model might also apply to employees' reactions to the receipt of

social support at work. The central principle of the research model is, that under certain conditions the receipt of social support at work is likely to be perceived as self-threatening, whereas under other conditions the receipt of social support is more likely to be perceived as self-supportive. In addition, the research model predicts that three types of factors determine whether the receipt of social support at work is perceived as self-threatening or self-supportive:

- (1) Characteristics of the support: *the way in which the support is provided, the extent to which the support induces feelings of inferiority, the extent to which the support implies an obligation to return the favor, and the timing of the support.*
- (2) Characteristics of the support provider and the support receiver: *the type and quality of the relationship between the support provider and the support receiver.*
- (3) Characteristics of the work context: *the ego-involving qualities of the task that is performed, the need for support, the match between the type of support and the situation, and the supportive climate.*

The specific hypotheses with respect to these characteristics are described in the next section.

Finally, the research model predicts that social support that is predominantly perceived as self-threatening elicits negative self-related (negative and positive affect and competence-based self-esteem) and interaction-related reactions (appropriateness of the support and sympathy for the support provider), whereas social support that is predominantly perceived as self-supportive elicits positive self-related and interaction-related reactions.

The predictions of this model were examined in five different empirical studies: two vignette studies among students (study 3.1 and study 4.1), a vignette study among nurses (study 4.2), an experiment in a simulated work environment among temporary administrative assistants (study 3.2) and a survey study based on the critical incidents method among PhD-students (study 5). Below, the extent to which the results of these studies provide evidence for the predictions of the research model is discussed.

6.3 Empirical evidence

The present dissertation paid the most attention to the influence of the way in which the support is provided on the perception of the support as self-threatening or self-supportive. All five studies examined whether employees react more negatively to support that is provided in a way that threatens their freedom of choice (i.e. imposed support) than to support that is provided in a way that does not threaten their freedom of choice (i.e. offered support, support

that is asked for, or no support at all). In addition, it was examined in Chapter 3 whether this effect is influenced by the context in which the support is provided. It was hypothesized that employees would react more negatively to the receipt of imposed support when their need for support was low and they worked on a high ego-involvement task.

The results of the studies presented in this dissertation strongly support these hypotheses. In all five studies it was found that employees showed more negative self-related and interaction-related reactions when the support was imposed on them than when the support was offered to them, no support at all was provided, or the support was provided after they asked for it themselves. Furthermore, the two studies presented in Chapter 3, found that this effect is moderated by employees' need for support and the ego-involving qualities of the task they were performing. Employees reacted the most negatively to the receipt of imposed support when they did not want the support (in case of a high ego-involvement task) and did not really need it. In addition, it was found that even when employees had a high need for support they did not react positively to the receipt of imposed support, but only neutral. In fact, in the case of a high need for support their reactions to receiving imposed support were hardly more positive than to receiving no support at all. Hence, it can be concluded that imposing support is always counterproductive even in the instance that the employee needs support.

These findings indicate that the effectiveness of supportive interactions at work depends on the way in which the support is provided. The consistency of the findings across different types of studies and different types of samples, shows the robustness of this conclusion. The present dissertation demonstrates that employees not only in experimental and hypothetical situations, but also in real work situations react more negatively to imposed support than to offered support, asked support or no support at all. In addition, the results of the survey study indicate that one of the most important reasons for negative supportive interactions to occur in real work situations is that the support is provided in the wrong way (i.e. is imposed on the employee).

In addition to the way in which the support is provided, the need for support and the ego-involvement of the task, it was expected that the type of relationship between the support provider and the support receiver would influence the perception of the support as self-threatening or self-supportive. In Chapters 4 and 5, it was examined whether employees react differently to the receipt of (imposed) support, depending on who provided the support: a colleague or a supervisor. Contrary to expectations, the results of the three studies presented in these chapters showed no effects at all for the type of relationship between the support provider and the support receiver on the perception of the support. Neither the perception of

the support as self-threatening or self-supportive, nor the perception of the support as positive or negative was influenced by the kind of person that provided the support.

Several explanations can be given for this finding. First, it is possible that the effect of the way in which the support is provided, exceeds the effect of who provides the support. Second, it may be that the type of employees chosen for the studies influenced the effect of the type of relationship on the perception of the support. For example, in the vignette study among nurses it is possible that the difference in status between the support provider (team leader) and the support receiver (nurse) was too small. Because team leaders to a large degree do the same work as nurses, nurses might perceive their team leader as an equal rather than as a supervisor. Furthermore, in the vignette study among students and the survey study among PhD-students it is possible that the helping role of the supervisor is more prevalent than in other samples of employees. An alternative explanation is that other aspects of the relationship between the support provider and the support receiver, such as the quality of the relationship, are more important in determining the effect of receiving social support at work than the type of relationship. The results of the survey study presented in Chapter 5 substantiate this conclusion. This study showed that the quality of the relationship between the support provider and the support receiver strongly influenced the perception of the support, whereas the type of relationship did not influence this perception at all. These findings also support the arguments of several researchers that especially the quality of the relationship between the support provider and the support receiver is important for the effectiveness of supportive interactions (Sandler & Barrera, 1983; Coyne & DeLongis, 1986; Zavislak & Sarason, 1992; Pierce et al., 1990, 1992).

In sum, the findings in Chapter 4 and 5 indicate that it is not so much the type of relationship but the quality of the relationship that determines the effect of receiving social support at work. That is, when employees have a poor relationship with the support provider, they tend to perceive the receipt of social support as negative, irrespective of the support provider being a colleague or a supervisor. However, because the influence of the quality of the relationship was only observed in a cross-sectional study, we have to be careful with the causal interpretation of this result. The question is: do employees react more negative to the receipt of social support at work, the more they perceive their relationship with the support provider as poor, or do employees perceive their relationship with the support provider as poor, when more negative feelings are elicited by the receipt of social support at work? Since we cannot be sure about the answer, more research is necessary to substantiate the conclusion that the quality of the relationship between the support provider and the support receiver is

more important for the effect of receiving social support at work than the type of relationship. Nevertheless, the results of the present dissertation strongly indicate that the type of relationship between the support provider and the support receiver is not important for the effect of receiving social support at work.

In addition to the way in which the support is provided and the relationship between the support provider and the support receiver, it was examined in Chapter 5 whether there are other factors that determine the perception of the support as self-threatening or self-supportive. With respect to these additional factors, the survey study presented in Chapter 5 examined the additional influence of the extent to which the support induces feelings of inferiority, the extent to which the support implies an obligation to return the favor, the timing of the support, the match between the type of support and the situation, and the supportive climate in the organization. The results showed that only the extent of inferiority influenced the perception of the support as self-threatening or self-supportive, in addition to the way in which the support was provided and the quality of the relationship between the support provider and the support receiver. Employees showed more negative self-related and interaction-related reactions the more the receipt of support induced feelings of inferiority. This finding is consistent with the results of Peeters and colleagues (1995). They found that the receipt of social support at work aggravated the relationship between stressful events and negative affect when that support elicited feelings of inferiority. However, with respect to the extent of inferiority the question can be raised whether the extent of inferiority is a cause or rather a consequence. It is possible that the extent to which employees felt inferior is the result of the fact that they perceived the receipt of social support as threatening to their self-esteem, instead of the other way around. Since the results were obtained from a cross-sectional study, it remains unclear which alternative is most valid. Furthermore, even when the extent of inferiority is a cause, the question is raised which kind of supportive behaviors induce such feelings of inferiority. Therefore, further research is necessary to examine the precise influence and effects of this variable with respect to receiving social support at work.

The survey study did not show an effect for the extent to which the support implies an obligation to return the favor. This finding is inconsistent with the results of the study of Wong and Cheuk (2000). They found that the employees felt a stronger obligation to return the favor the more social support they received. An explanation for not finding an effect for the extent of obligation in the present study might be that it is inherent to working as a PhD.-student that more social support is received than provided. In addition, the survey study neither showed an effect for the supportive climate in the organization. It was found that

employees show more negative self-related reactions after negative supportive interactions than after positive supportive interactions, but these reactions did not appear to be influenced by the supportive climate in the organization. This means that the survey study did not find support for the argument of several researchers that especially in organizations in which a negative attitude towards receiving social support exists, the receipt of social support is likely to generate negative effects (Peeters, 1995; Stephens & Long, 2000; Stotland & Pendleton, 1989; Kaufmann & Beehr, 1989). This finding might indicate that in the organization examined in this study (a university) generally a strong supportive climate exists. However, a more plausible explanation seems to be that social influences are less relevant among PhD-students. Because PhD-students are used to working individually, they can easily withdraw from social influences at work.

With respect to the match between the type of support and the situation and the timing of the support, the survey study found that these two factors influenced the perception of the support as positive or negative. They hardly influenced the perception of the support as self-threatening or self-supportive, however. The survey study showed that in positive supportive interactions the type of support did match the situation much better than in negative supportive interactions and that in positive supportive interactions the support was also better timed than in negative supportive interactions. However, the reactions (both self-related and interaction-related) to the negative and positive supportive interactions were hardly influenced by these two factors. This finding suggests that not only the threat-to-self-esteem process is responsible for generating negative effects of social support at work, but that there are other processes at work as well.

In summary, the findings in Chapter 5 indicate that the perception of the support as self-threatening or self-supportive is influenced by the extent to which the support induces feelings of inferiority, in addition to the way in which the support is provided and the quality of the relationship between the support provider and the support receiver. Furthermore, the results indicate that the match between the type of support and the situation and the timing of the support are influential factors for the effectiveness of supportive interactions at work, but probably involve a different process.

In the next section, the implications of all these results are discussed in light of the three general research questions and with respect to the assumptions of the threat-to-self-esteem model. First, the extent to which the results provide answers to the questions whether, why, and when the receipt of social support at work can have negative effects, is discussed. Next, the issue is addressed to what extent the results support the assumptions of the threat-to-

self-esteem model when it is applied to employees' reactions to receiving social support at work.

6.4 Theoretical implications

6.4.1 Does the receipt of social support at work sometimes have negative effects?

The first question addressed in this dissertation is *whether receiving social support at work can have negative effects*. With respect to this question, the present dissertation provides conclusive evidence for the assumption that, under certain conditions, the receipt of social support at work can have negative effects. Moreover, the results strongly indicate that these negative effects of receiving social support also occur in real work situations. Employees sometimes perceive the receipt of social support as a negative event, rather than a blessing.

The fact that this pattern was not only found with respect to self-report measures (self-related reactions and interaction-related reactions), but also with respect to physiological measures, supports the robustness of this conclusion. In the experiment in a simulated work environment (study 3.2) it was demonstrated that, under certain conditions, the receipt of (imposed) support at work leads to increased sympathetic activation (increased heart rate) and decreased parasympathetic activity (decreased respiratory sinus arrhythmia). This result indicates that the receipt of social support can sometimes actually be a stress-inducing, rather than a stress-alleviating factor.

The finding that the receipt of social support at work sometimes elicits negative effects is consistent with the observations in Chapter 2. In that chapter a review was presented of studies in which negative results of social support at work were found. Although many researchers have claimed that these results merely indicate that the more employees are stressed the more they are likely to seek or receive social support, the review showed that in several cases these results represent negative effects of social support at work (Buunk & Verhoeven, 1991; Peeters et al., 1995; Glaser et al., 1999; Frese, 1999; Mendelson et al., 2000; Hahn, 2000)

Thus, the present dissertation shows that the answer to the question whether receiving social support at work can have negative effects is straight forward. Receiving social support at work can have, and moreover, sometimes does have, negative effects on employees' health and well-being. This conclusion indicates that the general conception that social support always has a beneficial effect on employees' health and well-being needs to be differentiated.

Although, generally speaking, receiving social support will be a positive experience, not every single supportive interaction will be perceived as equally positive. Moreover, supportive interactions will sometimes even be perceived as negative.

6.4.2 Why does the receipt of social support at work have negative effects?

The second question addressed in this dissertation is *why receiving social support at work can have negative effects*. With respect to this question, the present dissertation clearly indicates that a threat-to-self-esteem process can be responsible for generating negative effects of receiving social support at work. Similar to the studies of Peeters and colleagues (1995) and Wong and Cheuk (2000), it was found in this dissertation that employees sometimes react negatively to the receipt of social support, because they perceive it as threatening to their self-esteem. This pattern is confirmed by the fact that the receipt of social support under certain conditions elicits negative feelings and leads to lower confidence in the own abilities (cf. Fisher et al., 1986; Nadler & Fisher, 1986).

So, the question why receiving social support at work can have negative effects can be answered by saying that social support at work can have negative effects, because it can pose a threat on the employee's self-esteem. However, the results of the survey study with respect to the match between the type of support and the situation and the timing of the support indicate that other processes can be responsible for generating negative effects of receiving social support at work as well. The review presented in Chapter 2 supports this conclusion. The review showed, for example, that receiving social support at work can also have negative effects because more support is received than provided (lack of reciprocity) (Buunk et al., 1993), the receipt of social support is inconsistent with the (male) gender role (Lindorff, 2000), the receiver is high on negative affectivity (Iverson et al., 1998), or the support provider shows supportive behavior as well as social undermining behavior (Duffy et al., 2002).

These findings indicate that in light of a solid theory, negative effects of social support at work are not counter-intuitive or unexpected, but even make sense. This conclusion stresses once more the importance of theory-driven research on social support at work. Instead of demonstrating (positive) effects of social support at work with respect to health and well-being, research on social support at work should examine the underlying processes that can explain these effects. Only then it can be known why social support sometimes has negative effects.

6.4.3 *When does the receipt of social support at work have negative effects?*

The final question addressed in this dissertation is *when receiving social support can have negative effects*. With respect to this question, the present dissertation demonstrated that under several conditions employees are likely to react negatively to the receipt of social support at work. First of all, it was found that employees react negatively to the receipt of social support at work when that support is imposed on them. In addition, it was found that they even react more negatively to imposed support when they do not need and want support. Furthermore, the results indicate that employees are likely to react negatively to the receipt of social support at work when their relationship with the support provider is rather poor. Finally, the results suggest that employees are likely to react negatively to the receipt of social support when it is provided in a way that induces feelings of inferiority. However, with respect to the latter condition it is not exactly known which kind of behaviors are likely to produce such feelings. In addition, the present dissertation shows that the receipt of social support at work is likely to be perceived as negative when the type of support does not match the situation (e.g. when emotional support is provided, while instrumental support was required) and when the support is provided too late or too early.

Thus, the following answers can be formulated with respect to the question when receiving social support can have negative effects: receiving social support at work can have negative effects when (1) it is imposed on the employee, especially when it is not really needed and wanted, (2) it induces feelings of inferiority, (3) it is received from someone with whom has a poor relationship, (4) the type of support does not match the situation, and (5) it is provided too early or too late.

These findings increase our knowledge about the effects of social support at work. Hitherto, it was virtually unknown under which conditions the receipt of social support at work is likely to be perceived as negative. The results of the present dissertation, however, indicate that systematic research on the effectiveness of specific supportive interactions can very well identify these conditions. Furthermore, the results of the present dissertation indicate that research on social support from a global perspective (i.e. only assessing the general perception of the quantity of social support received at work) does not correspond with the reality that supportive interactions are at times effective, ineffective, and even countereffective.

6.4.4 Towards a revised threat-to-self-esteem model

In general, the results of the present dissertation indicate that the principles of the threat-to-self-esteem model (Fisher et al., 1982; Nadler & Fisher, 1986) can be applied to employees' reactions to receiving social support at work. First of all, evidence is provided for the assumption that the perception of the receipt of social support at work as self-threatening or self-supportive is determined by *the characteristics of the support* (the way in which it is provided and the extent to which it induces feeling of inferiority), *the characteristics of the support provider and the support receiver* (the quality of the relationship between them), and *the characteristics of the work context* (the need for support and the ego-involving qualities of the task that is performed).

Second, evidence is provided for the assumption that social support that is predominantly perceived as self-threatening, elicits negative self-related and interaction-related reactions, whereas social support that is predominantly perceived as self-supportive elicits positive self-related and interaction-related reactions. Although the perception of support as self-threatening or self-supportive was not measured directly, but only indirectly by taking into account the reactions to the receipt of social support, it can be reasonably assumed that a threat-to-self-esteem process was responsible for generating these reactions. The fact that for most findings effects were found on employees' competence-based self-esteem clearly demonstrates that under certain conditions the receipt of social support at work can pose a threat to employees' self-esteem.

However, the results of the present dissertation also indicate that the threat-to-self-esteem model needs some refinements when it is applied to employees' reactions to receiving social support at work, especially with regard to the different characteristics of supportive interactions. First of all, the results of the present studies indicate that the assumptions of the threat-to-self-esteem model do not apply to employees' reactions to receiving social support at work as far as the type of relationship between the support provider and the support receiver and the extent of obligation is concerned. In addition, the results indicate that some other factors than those that are mentioned by the threat-to-self-esteem model should be included when employees' reactions to receiving social support at work are examined. At least the need for support and the quality of the relationship between the support provider and the support receiver should be included.

Moreover, the results point out that also interaction effects between the different characteristics need to be taken into account, as well when the threat-to-self-esteem model is

applied to employees' reactions to receiving social support at work. In the present dissertation, evidence was found for interaction effects between the way in which the support is provided and the context in which the support is provided. That is, employees' reactions to receiving social support do not only depend on a possible restriction of the employee's freedom of choice, as assumed by the threat-to-self-esteem model, but also on the employee's need for support and the extent to which the employee considers it important to perform the task alone.

Thus, the results of the present dissertation show that the following aspects of the supportive interaction should be taken into account when employees' reactions to receiving social support at work are examined from a threat-to-self-esteem perspective: with respect to the characteristics of the support, *the way in which the support is provided* and *the extent to which the support induces feelings of inferiority* need to be included. The extent to which the support implies an obligation to return the favor seems less relevant, although further research is necessary to substantiate this conclusion. In addition, with respect to the characteristics of the support provider and the support receiver, not the type but *the quality of relationship between the support provider and the support receiver* needs to be included. Furthermore, with respect to the characteristics of the work context, *the need for support* should be included, in addition to *the ego-involving qualities of the task that is performed*. Finally, the interaction effects between the different characteristics should be taken into account as well.

6.5 Future directions

Despite the promising findings, the present dissertation also left us with some unanswered questions. The results presented in this dissertation provided explicit answers to the questions whether, why and when the receipt of social support can have negative effects. However, these questions were mainly addressed as far as negative effects in relation to someone's self-esteem were concerned. As the results of the survey study and of the review presented in Chapter 2 show, other processes might also be relevant for explaining negative effects of social support at work. Furthermore, other conditions than the ones examined in the present dissertation might be relevant as well, when negative effects of social support are examined with respect to other aspects of employees' health and well-being (e.g. burnout). Thus, future research should examine to what extent other theoretical frameworks than the threat-to-self-esteem model, for instance the equity theory (cf. Buunk & Hoorens, 1992; Buunk et al., 1993)

or the social comparison theory (cf. Buunk & Hoorens, 1992) can provide answers to the questions why and when the receipt of social support at work can have negative effects.

In addition, the results of this dissertation propose that further research is necessary to substantiate the assumptions of the threat-to-self-esteem model. For example, as was outlined before, the results of the present dissertation might have been influenced by the type of work situations examined (e.g. difference in status between employee and supervisor, nature of work [individualistic or team work]). In other professions or with other types of employees different results might have been found (e.g. an effect for the supportive climate in the organization). Therefore, the conclusions of the present dissertation have to be validated with respect to other samples of employees.

Furthermore, the results of the present dissertation indicate that the threat-to-self-esteem process is more complicated than proposed by the threat-to-self-esteem model. Several other factors than those mentioned by the threat-to-self-esteem model appear to be important in the appraisal of the support as self-threatening or self-supportive. In addition, it appeared that the differential factors can also interact with each other. Therefore, it might be interesting to search for other additional factors that influence the appraisal of the support, for example personal characteristics of the support provider and support receiver, and to examine other possible interaction effects between the different characteristics of the supportive interaction.

Besides, the results of study 5 show that the factors examined in this dissertation mainly affected the appraisal of the support as self-threatening and hardly the appraisal of the support as self-supportive. This indicates that probably some other conditions have to be satisfied to generate positive effects of social support, on top of the absence of the condition under which social support generates negative effects. Therefore, it would be good to examine under which conditions social support at work is likely to be perceived as positive (e.g. conditions under which social support at work is stimulating for the employees' self-esteem).

In addition, the hypotheses tested in the present dissertation were mainly examined with respect to instrumental support. In the survey study most supportive interactions that were described by the participants concerned instrumental support (concrete help or advice [74.6%]). Therefore, the question remains to what extent emotional support might be perceived as threatening to the employee's self-esteem and more importantly, whether the same factors influence this perception. Future research is necessary to address this issue.

Finally, the present dissertation indicates that future research on social support work can benefit from a multi-method approach. By conducting studies with different research methods, the studies could compensate each other's weaknesses. For example, the

experimental studies used in this dissertation could demonstrate causal relationships, unlike the survey study, whereas the survey study could demonstrate the existence and prevalence of the examined phenomena in real work situations, unlike the experimental studies.

Furthermore, conclusions were more robust because the same pattern of results was found in different types of studies. Because the results of different types of studies correspond with each other, the probability decreases that the results were due to a methodological artefact. Besides, the causal direction of relationships could be interpreted more unequivocal, because the results of the survey study corresponded with the results of the experimental studies.

6.6 Practical implications

In the introduction of this dissertation, it was argued that one of the most important themes in occupational psychology constitutes designing strategies for improving psychosocial conditions at work (cf. Theorell, 1999). The results of the present dissertation have implications for that practice. One way to improve the psychosocial conditions at work is to provide a lot of support to employees. However, the findings of the present dissertation indicate that although providing social support to employees may be an effective strategy to improve their health, this might also come at a cost to their self-esteem. Furthermore, the results of the survey study conducted among Dutch PhD-students (Chapter 5) indicate that negative supportive interactions occurring rather frequently may lead to job dissatisfaction and eventually to turnover. Therefore, it is important to avoid such detrimental effects of supportive interactions. The present dissertation indicates that in order to do so, supervisors and colleagues have to critically consider how they provide support, when they provide it, what type of support they provide and to whom they provide it.

First of all, the results of this dissertation point out that the right type of support needs to be provided to avoid negative effects of social support. That means that potential support providers have to analyse the situation in order to discover whether emotional, instrumental, informational or appraisal support is required. Furthermore, they have to provide the support at the right time. This means that support should not be provided when employees are still trying to solve a certain problem themselves, but not delayed until the point where the problem has gotten of hand, either. However, the results indicate that even when the right type of support is provided at the right time, the supportive interaction can be countereffective because it is provided in the wrong way. The results of this dissertation clearly show that imposing support on employees is never an effective way of providing support. Therefore,

supervisors and colleagues should avoid to impose support on employees. Instead, it is better to offer the support to the employee or to wait until he or she asks for support. In that case, it can also be verified whether the employee actually needs or wants support. Finally, the results of the present dissertation demonstrate that it is important to work on healthy relationships with co-workers and subordinates. Not only do poor relationships have a negative effect on health and well-being in itself (cf. Pierce et al., 1990), poor relationships may also negatively affect the perception of well-intended behavior, such as providing support.

These recommendations especially indicate which kind of behaviors can best be avoided in order to prevent the supportive interaction to become countereffective. However, it would be even more interesting to know which kind of behaviors should be employed in order to stimulate the supportive interaction to be effective. The threat-to-self-esteem model suggests that supportive interactions are most likely to generate beneficial effects when the receipt of support helps the employee to solve his or her own problems (i.e. self-supportive support). However, the present dissertation does not give clear indications of how this situation can be realized. Future research should therefore focus on the kind of behaviors that can best be employed to bring about this effect.

Together, the findings of the present dissertation might give the impression that one can better provide no support at all, because providing support can make things worse. It should be clear that this is not the message of this dissertation. This dissertation only argues that potential support providers should be aware of the fact that providing support with good intention is not enough to guarantee that the support will have positive effects. They should also take into account that well-intended supportive interventions can sometimes cause additional problems. Besides, the present dissertation also shows that it is rather simple to prevent that the supportive interaction generates negative effects when the following *golden rules* of providing social support at work are followed:

- (1) Create a positive social relationship with subordinates and colleagues in which social support can be provided
- (2) Be reserved in the providing of support when the employee is highly personally involved in the task
- (3) Always consider the employee's needs, and never impose support: *ask* whether the support is welcome
- (4) Beware of inducing inferiority (e.g. do not act like you assume the employee does not know anything)

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Summary

This dissertation deals with the potential negative effects of social support at work. Hitherto, research on social support has mainly focused on the positive effects of social support at work on employees' health and well-being. However, Chapter 1 indicates that from a conceptual point of view it can be expected that social support at work sometimes will have negative effects. It is argued that negative effects of social support at work can especially be expected from the perspective of received support: when support is provided, it may not always be perceived as such. For example, well-meant advice can be perceived as meddlesomeness, efforts to help as overprotectiveness or signs of incompetence, and efforts to provide emotional support as infringements on privacy. Much will hereby depend on who provides the support, how it is provided, what kind of support is provided, or in which situation the support is provided. Therefore, it seems reasonable to assume that the receipt of social support at work at times will be effective, ineffective, and even counter-effective, depending on the circumstances. Chapter 1 concludes, however, that hardly any empirical evidence exists for this point of view, because of a lack of systematic research on the potential negative side of social support at work and a lack of research on the effectivity of specific supportive interactions. As a consequence, we do not know with certainty whether social support at work can have negative effects and why and when such effects occur. The present dissertation attempts to answer these questions.

In Chapter 2 it is first examined whether there are indications for negative effects of social support at work. In order to do so, a review of studies is presented that found negative associations between social support at work and indicators of health and well-being. From this review it is concluded that, although many of these results might indicate that the more employees are stressed the more they are likely to seek or receive support, some of these results point to a negative impact of social support at work on employees' health and well-being. Furthermore, it is concluded that various processes can generate such effects: feelings of inequity, inconsistency with gender role, negative affectivity, social undermining behaviour or a threat to self-esteem process.

In addition, a research model is presented that centers on one of these processes: the threat-to-self-esteem process. It is argued that it is important to know when social support at work is likely to be perceived as self-threatening, since it is known that threats to one's self-esteem can cause anxiety, negative affective states and feelings of depression. The research

model, which builds on the principles of the threat-to-self-esteem model developed by Fisher and Nadler, predicts that generally three types of factors determine whether the support is perceived as self-threatening or as self-supportive:

- (1) *characteristics of the support* (e.g. the way in which it is provided, the extent to which the receipt of support induces feelings of inferiority, the extent to which the receipt of support implies an obligation to return the favour, and the timing of the support).
- (2) *characteristics of the support provider and the support receiver* (e.g. type and quality of the relationship between the support provider and the support receiver)
- (3) *characteristics of the work context* (e.g. ego-involving qualities of the task, need for support and supportive climate in the organization).

Furthermore, the model predicts that social support at work that is predominantly perceived as self-threatening will elicit negative self-related (negative and positive affect and competence-based self-esteem) and interaction-related (appropriateness of the support and sympathy for the support provider) reactions. When the support is predominantly perceived as self-supportive, the model predicts that the support will elicit positive self-related and interaction-related reactions. In the chapters 3, 4, and 5 the hypotheses generated by this model are tested.

In Chapter 3, it is examined to what extent the perception of the received support, in particular instrumental support, as self-threatening or self-supportive is related to (1) the way in which the support is provided (threatening to the employee's freedom of choice or not) and (2) the context in which the support is provided (is the support needed and wanted). The threat-to-self-esteem model predicts that support provided in a way that threatens the employee's freedom of choice (i.e. support that is imposed on the employee) will elicit more negative reactions than no support at all. However, in Chapter 3 it is argued that this effect will be moderated by the employee's need for support and the ego-involving qualities of the task he or she is performing. That is, it is expected that the more the employee is in need for support the less negative he or she will react to the receipt of imposed support. Furthermore, it is expected that employees will react more negatively to the receipt of imposed support the more the task has ego-involving qualities. In a vignette study among students (study 3.1) and in an experiment in a simulated work environment among temporary administrative assistants (study 3.2) the hypotheses regarding the moderator effect of the need for support (both studies) and the moderator effect regarding the ego-involving qualities of the task (only study 3.1) are tested.

In line with the predictions, the results of these studies show that when support is not really needed, individuals react more negatively to imposed support than when the support is

needed. In the experiment in a simulated work environment this effect is not only found for the self-related and interaction-related reactions, but also for two physiological reactions (heart rate and respiratory sinus arrhythmia). In addition, the results of the vignette study indicate that individuals react the most negatively to the receipt of imposed support when they have a low need for support and work on a high ego-involvement task.

Chapter 4 attempts to substantiate the conclusion of Chapter 3 that the negative impact of imposed (instrumental) support is caused by the employee's freedom of choice being threatened. In order to do so, the effect of receiving imposed support is compared to the effect of receiving offered support. Furthermore, it is examined to what extent the effect of receiving imposed and offered support depends on who provides the support: a colleague or a supervisor. It is argued in Chapter 4 that support imposed by a colleague in most situations will elicit more negative reactions than support imposed by a supervisor, because of a negative social comparison. However, it is expected that, in evaluative situations (or in case employees feel strongly evaluated by their supervisor), support imposed by a supervisor will elicit the same negative reactions as support imposed by a colleague, because employees depend on their supervisors for promotions. In two vignette studies (one among students and one among nurses) these hypotheses are tested.

Both studies confirm that support is perceived as more self-threatening when it is imposed than when it is offered. However, no effect of the type of relationship between the support provider and the support receiver is found. It appears that for the effect of receiving (imposed) support it does not matter whether the support is provided by a colleague or a supervisor. It is suggested that this may be due to the fact that the quality of the relationship between the support provider and the support receiver is more important for the effect of social support at work than just the type of relationship.

Because the experimental studies presented in Chapter 3 and 4 provide little insight in the existence and prevalence of the found effects in real work situations, it is examined in Chapter 5 to what extent negative supportive interactions occur in work situations and to what extent the threat-to-self-esteem process is responsible. Furthermore, it is examined whether there are other factors that influence the perception of the support as self-threatening or self-supportive, in addition to the way in which the support is provided. For example, the extent to which the support induces feelings of inferiority, the extent to which the support implies an obligation to return the favour, the timing of the support, the match between the type of support and the situation and the supportive climate. A related issue studies, is whether the quality of the relationship between the support provider and the support receiver is more

important in determining the effect of receiving social support than the type of relationship. Finally, it is examined whether employees in real work situations also react more negatively to the receipt of support that is threatening to their freedom of choice (i.e. imposed support) than to the receipt of support that is non-threatening to their freedom of choice (i.e. offered support or support that is asked for).

A survey study based upon the critical incidents method is presented in which these questions are investigated. A sample of PhD-students was asked to describe two critical incidents: a negative and a positive supportive interaction. Subsequently, they were asked to indicate how often such interactions occur at work. Furthermore, they were asked how the supportive interactions could be characterized (e.g. who provided the support, in which way was the support provided, what was the quality of the relationship between them and the support provider, how well timed was the support, etc.). In addition, participants were asked to indicate how they reacted in the described supportive interactions. With respect to these reactions two types of reactions were assessed: self-related (negative and positive affect and competence-based self-esteem) and interaction-related (sympathy for the support provider) reactions. Finally, they were asked how they perceived the supportive climate in the work place, how satisfied they were with their job and to what extent they intended to leave the organization.

The results of this survey study show that PhD-students regularly experience negative supportive interaction, but less frequently than positive supportive interactions. Furthermore, it is concluded that the threat-to-self-esteem process played a major part in generating negative effects of social support at work. The employees showed more negative self-related and interaction related reactions after a negative supportive interaction than after a positive supportive interaction. With respect to this process, the results indicate that the way in which the support is provided is one of the most influential factors. In addition, it is found that also in real work situations employees react more negatively to imposed support than to offered support or support that is asked for. Furthermore, the survey study indicates that the quality of the relationship between the support provider and the support receiver is indeed more important in determining the effect of receiving social support at work than the type of relationship between them. Finally, it is found that also the extent to which the support induces feelings of inferiority has influence on the perception of the support as self-threatening or self-supportive, in addition to the way in which the support is provided and to the quality of the relationship between the support provider and the support receiver.

In Chapter 6 all these results are summarized and discussed with respect to the three research questions whether, why, and when social support at work can have negative effects and with respect to the assumptions of the research model. It is concluded that the results clearly demonstrate that social support can have and sometimes does have negative effects. Furthermore, it is indicated that a threat-to-self-esteem process can be responsible for generating negative effects of social support at work. In addition, it is concluded that social support can have such negative effects when (1) it is imposed on the employee, especially when it is not really needed and wanted, (2) it induces feelings of inferiority, and (3) it is received from someone with whom one has a poor relationship. On the basis of these conclusions, it is argued that the general conception that social support always has a beneficial effect on employees' health and well-being needs to be differentiated. It is more realistic to assume that social support at work at times will be effective, ineffective and countereffective, depending on the circumstances. Furthermore, it is argued that the principles of the threat-to-self-esteem model can be very well applied to reactions to receiving social support at work, albeit that some refinements are needed in that case (e.g. interaction effects between the different factors that determine the perception of support as self-supportive and self-threatening). Finally, it is indicated that this dissertation does not intend to give the impression that it's better not to provide support at all, because things may deteriorate. Instead, it is indicated that supervisors and employees should try very hard to prevent negative effects of social support at work by following a few *golden rules*:

- (1) Create a positive social relationship with subordinates and colleagues in which social support can be provided
- (2) Be reserved in the providing of support when the employee is highly personally involved in the task
- (3) Always consider the employee's needs, and never impose support: *ask* whether the support is welcome
- (4) Beware of inducing inferiority (e.g. do not act like the employee does not know anything)

Samenvatting

Dit proefschrift richt zich op de potentieel negatieve effecten van sociale steun op het werk. Tot nu toe heeft onderzoek naar sociale steun op het werk zich hoofdzakelijk gericht op de positieve effecten van sociale steun op de gezondheid en het welbevinden van werknemers. In Hoofdstuk 1 wordt echter aangegeven dat vanuit conceptueel oogpunt verwacht kan worden dat sociale steun op het werk soms ook negatieve effecten heeft. Beargumenteerd wordt dat negatieve effecten van sociale steun op het werk vooral verwacht kunnen worden vanuit het perspectief van ontvangen steun: wanneer steun gegeven wordt, zal het niet altijd als zodanig worden waargenomen. Goedbedoeld advies kan bijvoorbeeld worden gezien als bemoeizucht, pogingen tot hulp als overbezorgdheid en pogingen om emotionele steun te geven als inbreuk op de privacy. Veel zal hierbij afhangen van wie de steun geeft, hoe de steun gegeven wordt, welke soort steun gegeven wordt en in welke situatie de steun gegeven wordt. Daarom lijkt het logisch om te veronderstellen dat het ontvangen van sociale steun op het werk soms een positief, soms geen en soms zelfs een averechts effect heeft, afhankelijk van de omstandigheden. In Hoofdstuk 1 wordt echter geconcludeerd dat door een gebrek aan systematisch onderzoek naar de potentieel negatieve kant van sociale steun op het werk en een gebrek aan onderzoek naar de effectiviteit van specifieke steuninteracties nauwelijks empirisch bewijs voor deze opvatting bestaat. Het gevolg daarvan is dat we niet zeker weten of sociale steun negatieve effecten kan hebben en waarom en wanneer zulke effecten kunnen plaats vinden. Het huidige proefschrift probeert een antwoord te krijgen op deze vragen.

In Hoofdstuk 2 wordt eerst onderzocht of er aanwijzingen zijn voor negatieve effecten van sociale steun op het werk. Daarvoor wordt een overzicht gepresenteerd van studies die negatieve verbanden tussen sociale steun op het werk and indicators van gezondheid en welbevinden hebben gevonden. Uit dit overzicht wordt geconcludeerd dat, hoewel veel van deze resultaten aan zouden kunnen geven dat hoe mer gestresst werknemers zijn hoe meer ze geneigd zijn steun te zoeken of te ontvangen, een aantal van deze resultaten op een negatieve invloed van sociale steun op het werk op de gezondheid en het welbevinden van werknemers wijzen. Bovendien wordt geconcludeerd dat verschillende processen zulke effecten kunnen veroorzaken: gevoelens van onrechtvaardigheid, inconsistentie met de geslachtsrol, negatieve affectiviteit, sociale ondermijning en een bedreiging van de eigenwaarde.

Daarnaast wordt een onderzoeksmodel gepresenteerd waarin één van deze processen centraal staat: het bedreiging-van-de-eigenwaarde process. Het wordt beargumenteerd dat het

belangrijk is om te weten wanneer sociale steun grote kans heeft om als zelf-bedreigend te worden ervaren, omdat bekend is dat bedreigingen van iemands eigenwaarde angst, negatieve gevoelens en depressie kunnen veroorzaken. Het onderzoeksmodel, dat voortbouwt op de principes van het bedreiging-van-de-eigenwaarde model ontwikkeld door Fisher en Nadler, voorspelt dat over het algemeen drie typen factoren bepalen of de steun ervaren wordt als zelf-bedreigend of als zelf-ondersteunend:

- (1) *Karakteristieken van de steun* (bv. de manier waarop de steun gegeven wordt, de mate waarin het ontvangen van steun gevoelens van minderwaardigheid opwekt, de mate waarin het ontvangen van steun een verplichting tot een wederdienst impliceert en de timing van de steun)
- (2) *Karakteristieken van de steungever en de steunontvanger* (bv. het soort en de kwaliteit van de relatie tussen de steungever en de steunontvanger)
- (3) *Karakteristieken van de werkomgeving* (bv. betrokkenheid bij de taak, behoefte aan steun en het ondersteunende klimaat in een organisatie)

Daarnaast voorspelt het model dat wanneer steun hoofdzakelijk als zelf-bedreigend ervaren wordt de steun negatieve zelf-gerelateerde (negatief en positief affect en eigenwaarde gerelateerd aan competentie) en interactie-gerelateerde (gepastheid van de steun en sympathie voor de steungever) reacties zal oproepen. Wanneer de steun hoofdzakelijk als zelf-ondersteunend wordt ervaren voorspelt het model dat de steun positieve zelf-gerelateerde en interactie-gerelateerde reacties zal oproepen. In de hoofdstukken 3, 4 en 5 worden de hypothesen voortgebracht uit dit model getest.

In Hoofdstuk 3 wordt onderzocht in hoeverre de waarneming van de ontvangen steun, met name instrumentele steun, als zelfbedreigend of zelfondersteunend gerelateerd is aan (1) de manier waarop de steun gegeven wordt (bedreigend voor de keuzevrijheid van de werknemer of niet) en (2) de context waarin de steun wordt gegeven (is de steun nodig en gewenst). Het bedreiging-van-de-eigenwaarde model voorspelt dat steun gegeven op een manier die de keuzevrijheid van de werknemer bedreigt (dat wil zeggen, steun die opgedrongen wordt) negatievere reacties zal oproepen dan helemaal geen steun. In Hoofdstuk 3 wordt echter beargumenteerd dat dit effect gemodereerd zal worden door de behoefte aan steun van de werknemer en de betrokkenheid van de werknemer bij de taak. Verondersteld wordt dat werknemers minder negatief zullen reageren op het ontvangen van opgedrongen steun wanneer hun behoefte aan steun groter is. Daarnaast wordt verondersteld dat werknemers negatiever zullen reageren op opgedrongen steun wanneer de taak een groter gevoel van betrokkenheid opwekt. In een vignet studie onder studenten (studie 3.1) en in een

experiment in een gesimuleerde werkomgeving onder secretaresses zijn de hypothesen betreffende het moderator effect van de behoefte aan steun (beide studies) en betreffende het moderator effect van de betrokkenheid bij de taak (alleen studie 3.1) getoetst.

In overeenstemming met de verwachtingen laten de resultaten van deze studies zien dat wanneer steun niet echt nodig is, individuen negatiever reageren op opgedrongen steun dan wanneer de steun wel nodig is. In het experiment in de gesimuleerde werkomgeving is dit effect niet alleen gevonden voor de zelf-gerelateerde en interactie-gerelateerde reacties, maar ook voor twee fysiologische reacties (hartslag en respiratoire sinus aritmie). Daarnaast laten de resultaten van de vignet studie zien dat individuen het meest negatief reageren op het ontvangen van opgedrongen steun wanneer ze een lage behoefte aan steun hebben en aan een hoge betrokkenheidstaak werken.

Hoofdstuk 4 probeert de conclusie van hoofdstuk 3 dat een negatieve invloed van opgedrongen steun het gevolg is van een bedreiging van de keuzevrijheid verder te onderbouwen. Daarvoor wordt het effect van opgedrongen instrumentele steun vergeleken met het effect van aangeboden instrumentele steun. Bovendien wordt onderzocht in hoeverre het effect van opgedrongen en aangeboden steun afhangt van wie de steun geeft: een collega of een leidinggevende. Beargumenteerd wordt dat steun opgedrongen door een collega, in de meeste situaties meer negatieve reacties zal oproepen dan steun opgedrongen door een leidinggevende, als gevolg van een negatieve sociale vergelijking. Het wordt echter verwacht dat, in beoordelingssituaties (of in geval werknemers zich sterk beoordeeld voelen door hun leidinggevende), steun opgedrongen door een leidinggevende dezelfde negatieve reacties zal oproepen als steun opgedrongen door een collega, omdat werknemers afhankelijk zijn van hun leidinggevers voor promoties. In twee vignet studies (één onder studenten en één onder verpleegkundigen) zijn deze hypothesen getoetst.

In beide studies wordt inderdaad gevonden dat sociale steun als meer zelf-bedreigend wordt ervaren wanneer de steun wordt opgedrongen dan wanneer de steun wordt aangeboden. In geen van beide studies wordt echter een effect voor het type relatie tussen de steungever en de steunontvanger gevonden. Het blijkt dat voor het effect van (opgedrongen) steun het niet uitmaakt of de steun gegeven wordt door een collega of door een leidinggevende. Geopperd wordt dat dit mogelijk te wijten is aan het feit dat de kwaliteit van de relatie tussen de steungever en de steunontvanger belangrijker is voor het effect van sociale steun op het werk dan het type relatie.

Omdat de experimentele steun gepresenteerd in de hoofdstukken 3 en 4 nauwelijks inzicht verschaffen in het voorkomen van de gevonden effecten in werksituaties, wordt in

Hoofdstuk 5 onderzocht in hoeverre negatieve steuninteracties voorkomen in werksituaties en in hoeverre het bedreiging-van-de-eigenwaarde proces verantwoordelijk is. Bovendien wordt onderzocht of er ook andere factoren zijn, naast de manier waarop de steun wordt gegeven, die de perceptie van de steun als zelf-bedreigend of zelf-ondersteunend beïnvloeden.

Bijvoorbeeld, de mate waarin de steun gevoelens van minderwaardigheid opwekt, de mate waarin de steun een verplichting tot een wederdienst impliceert, de timing van de steun, de overeenstemming tussen het type steun en de situatie en het ondersteunende klimaat. Een gerelateerde kwestie waar aandacht aan wordt besteed, is de vraag of de kwaliteit van de relatie tussen de steungever en de steunontvanger belangrijker is voor het effect van het ontvangen van social steun dan het type relatie. Als laatste wordt onderzocht of werknemers in werksituaties ook negatiever reageren op het ontvangen van steun die bedreigend is voor de keuzevrijheid (opgedrongen steun) dan op het ontvangen van steun die niet bedreigend is voor de keuzevrijheid (aangeboden steun of steun waar om gevraagd is).

Een vragenlijststudie, gebaseerd op de kritische incidenten methode, wordt gepresenteerd waarin deze vragen zijn onderzocht. Een groep AIO's was gevraagd om twee kritische incidenten te beschrijven: een negatieve en een positieve steuninteractie. Vervolgens was ze gevraagd om aan te geven hoe vaak zulke interacties plaats vinden op het werk. Bovendien was gevraagd hoe de steuninteracties gekarakteriseerd konden worden (bv. wie gaf de steun, op welke manier werd de steun gegeven, hoe was de kwaliteit van de relatie tussen hen en de steungever, hoe was de steun getimed, etc.). Daarnaast was de deelnemers gevraagd om aan te geven hoe ze reageerden in de beschreven interacties. Met betrekking tot deze reacties werden twee typen reacties gemeten: zelf-gerelateerde (negatief en positief affect en eigenwaarde gerelateerd aan competentie) en interactie-gerelateerde (sympathie voor de steungever) reacties. Als laatste werd ze gevraagd hoe ze het ondersteunende klimaat op het werk ervaarden, hoe tevreden ze waren met hun werk en in hoeverre ze geneigd waren de organisatie te verlaten.

De resultaten van deze vragenlijststudie laten zien dat AIO's regelmatig negatieve steuninteracties ervaren, maar minder vaak dan positieve steuninteracties. Daarnaast geven de resultaten aan dat het bedreiging-van-de-eigenwaarde proces een belangrijke rol speelt bij het genereren van negatieve effecten van sociale steun. Bovendien wordt gevonden dat de manier waarop de steun gegeven wordt een van de belangrijkste factoren is die dit proces beïnvloeden. Ook wordt gevonden dat de kwaliteit van de relatie tussen de steungever en de steunontvanger inderdaad belangrijker is voor het effect van sociale steun dan het type relatie. Als laatste geven de resultaten aan dat, naast de manier waarop de steun gegeven wordt en de

kwiliteit van de relatie tussen de steungever en de steunontvanger, ook de mate waarin de steun gevoelens van minderwaardigheid oproept, de perceptie van de steun als zelf-bedreigend of zelf-ondersteunend beïnvloedt.

In Hoofdstuk 6 worden al deze resultaten samengevat en besproken aan de hand van de drie onderzoeksvragen (of, waarom en wanneer sociale steun op het werk negatieve effecten kan hebben) en de assumpties van het onderzoeksmodel. Geconcludeerd wordt dat de resultaten duidelijk demonstreren dat sociale steun op het werk negatieve effecten kan hebben en soms ook daadwerkelijk heeft. Daarnaast wordt geconcludeerd dat zulke effecten kunnen ontstaan omdat sociale steun soms ervaren wordt als bedreigend voor de eigenwaarde. Bovendien wordt geconcludeerd dat sociale steun grote kans heeft om als zelf-bedreigend te worden ervaren wanneer (1) het opgedrongen wordt aan de werknemer, met name wanneer de steun niet echt nodig en gewild is, (2) het gevoelens van minderwaardigheid oproept, en (3) het ontvangen wordt van iemand met wie men een slechte relatie heeft. Op basis van deze conclusies wordt beargumenteerd dat de algemene opvatting dat sociale steun op het werk altijd een positief effect heeft op de gezondheid en het welbevinden van werknemers nuancering behoeft. Het is realistischer om te veronderstellen dat sociale steun op het werk soms een positief effect, soms geen effect en soms zelfs een averechts effect zal hebben, afhankelijk van de omstandigheden. Bovendien wordt beargumenteerd dat de principes van het bedreiging-van-de-eigenwaarde model heel goed toegepast kunnen worden op reacties op het ontvangen van sociale steun op het werk, hoewel blijkt dat een aantal aanpassingen in dat geval nodig zijn (bv. interactie effecten tussen de verschillende factoren moeten worden toegevoegd). Als laatste wordt aangegeven dat dit proefschrift niet de indruk wil wekken dat men beter geen steun meer kan geven, omdat het de problemen zou kunnen verergeren. In plaats daarvan wordt aangegeven dat leidinggevenden en werknemers hun best zouden moeten doen om negatieve effecten van sociale steun op het werk te voorkomen door het opvolgen van een aantal *gouden regels*:

- (1) Creëer een positieve sociale relatie met ondergeschikten en collega's waarin sociale steun kan worden gegeven
- (2) Wees terughoudend met het geven van sociale steun wanneer de werknemer sterk betrokken is bij de taak
- (3) Hou altijd rekening met de behoeften van de werknemer en dring nooit steun op: *vraag* of de steun welkom is
- (4) Pas op voor het opwekken van minderwaardigheidsgevoelens.