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Asymmetry in task dependence among team members

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CHAPTER 5

DISCUSSION AND CONCLUSIONS

The impetus for the present dissertation was to investigate the often overlooked aspect of asymmetry in task dependence in order to advance interdependence theory and research (Thibaut & Kelley, 1959). Our general expectation was that asymmetry in task dependence would lead to negative outcomes if the less dependent, and hence more powerful, employees opted to (ab)use their power (e.g., Emerson, 1962). On the other hand, by drawing from theories regarding learning (e.g., King, 1998), we also anticipated that there might be situations in which the negative effects of asymmetries in task dependence could be avoided or might even become positive. To systematically investigate this matter, we conducted three empirical studies of which the details were reported in the preceding chapters. In the next section we will provide a short overview of their results, followed by a discussion of the strengths and weaknesses of these three studies. After this, the theoretical, methodological, and practical implication of this thesis will be discussed, to end with some suggestions for future research and an overall conclusion.

FINDINGS

Summary of main findings

The main finding of this dissertation is that asymmetry in task dependence is present in work teams and can significantly affect interpersonal relations at the dyadic level, affective reactions at the individual level, and processes and

performance at the team level. Our findings also strongly support our expectation that asymmetries in task dependence can damage or benefit team processes and performance depending on other factors in the work environment. Before discussing these other factors from study 2 and 3, we will discuss the findings from the first study.

Study 1: Is asymmetry in task dependence (ab)used? Because the concept of asymmetry in task dependence has received little empirical attention, the aim of the first study was to investigate if, and how, asymmetries in task dependence would influence interpersonal processes. More specifically, we proposed that team members will inevitably confront situations in which their own personal interests are pitted against the interests of one or more of the other team members (Wieselquist et al., 1999). Based on attribution theory (e.g., Heider, 1958) and earlier research (e.g., Ferrin et al., 2006; Korsgaard et al., 2002), we expected that in such situations especially voluntarily, rather than formally required, behavior will be used as an indicator of the partner's trustworthiness. Because the powerful might choose to use their power to their own advantage, and thus be reluctant to offer assistance to the more dependent partner, we hypothesized that asymmetry in task dependence could be detrimental for perceptions of helping behavior. This perceived refusal to help would consequently signal to the more dependent team member that their powerful partner cannot be trusted.

The results from the first study largely supported these expectations. In line with our hypotheses and the impression formation and social judgment literature (Fiske, 1993; Georgesen & Harris, 1998), we found that in relationships characterized by asymmetrical task dependence, the focal team member's task dependence is only positively related to the perceived help from, and trust in, the other partner when the focal team member is the powerful party in the relationship. However, in contrast with our expectations and the power-dependence literature (Emerson, 1962; Thibaut & Kelley, 1959; Rusbult & Van Lange, 2003), our analyses also revealed that increased task dependence was unrelated to perceived receipt of help and trust when the other team member was more powerful. Consequently, in our sample, the extent of trust by the less powerful team members was unaffected by the possible abuse of power by more powerful team members. Overall, the results of the first study thereby indicated that asymmetries in task dependence can be measured in real work teams and showed that a power perspective is suitable for explaining the observed patterns. However, the results also demonstrated that the more powerful person in the asymmetrical relationship does not always (ab)use his or her power. Or stated from the power disadvantaged perspective; our results indicate that the more task

dependent team members can sometimes apparently avoid the use of power by the more powerful team members.

Study 2: Some room for optimism? In the second study we investigated in more detail how some of the power disadvantaged team members might be able to circumvent the possible negative consequences of their own lack of power. Additionally, we investigated if asymmetries in task dependence are more than a dyadic level phenomenon and exert an influence on the affective reactions of employees. We chose to focus on affective commitment and job satisfaction as dependent variables, because these affective reactions have been shown to significantly influence the health and well-being of team members (e.g., Sonnentag, 1996) as well as the productivity of the team as a whole (e.g., Ostroff, 1992).

We hypothesized that the power disadvantaged team members would report more negative affective reactions when they perceived low levels of task interdependence and more positive affective reactions when they perceived high levels of task interdependence, because higher levels of task interdependence provide the power disadvantaged team members with more resources to negotiate with (cf. Casciaro & Piskorski, 2005). This hypothesis received strong support in our multi-level analyses as our results showed that power disadvantage is negatively associated with positive affective reactions under conditions of low perceived task interdependence. In other words, our findings indicated that asymmetries in task dependence can indeed exert a negative influence on an individual's affective reactions. However, there also was some room for optimism, because our results showed that the power disadvantaged reported more positive affective reactions than their more powerful colleagues under conditions of high perceived task interdependence. Hence, our analyses indicated that, under the right conditions, employees who are vulnerable due to their asymmetries in task dependence might actually be very affectively committed to their team and very satisfied with their jobs. Consequently, the second study demonstrated that asymmetries in task dependences can be negatively or positively associated with the affective reactions of employees, depending on the perceived level of task interdependence. The results from the second study thereby provided, for the first time, clear evidence that there are interaction effects between the scarcely researched aspect of asymmetries in task dependence and one of the better researched dimensions of interdependence theory, namely the level of task interdependence.

Study 3: Turning negative effects into positive ones. In the third study we continued our investigation of factors that could influence the effects of asymmetries in task dependence and we extended our two prior studies by investigating if asymmetries in task dependence could affect team

performance. Based on the theory and results of the first two studies we expected that asymmetries in task dependence might be negatively related to team performance due to processes associated with power differences. However, because asymmetries in task dependence are often based on differences in experience, knowledge, information, ability, access, etc. between team members (e.g. Ragins & Sundstrom 1989), we also found reasons to expect that asymmetries in task dependence could lead a team to engage in discussion, reflection, debate, and information sharing if the more powerful team members decided to share their knowledge and resources. Hence, there are good reasons to expect that other factors in the work environment are able to influence the effects of asymmetry in task dependence.

As was mentioned in previous sections, most reviews (e.g., Johnson & Johnson, 1989; Rusbult, 2000; Van Lange, 2000; Van der Veegt et al., 2005; Van der Veegt & Van de Vliert, 2002; Wageman, 1995, 2001) state that there is an interaction effect between the two most researched dimensions of interdependence theory, namely task interdependence and outcome interdependence. Our second study demonstrated that task interdependence interacts with asymmetry in task dependence at the individual level and we reasoned that outcome interdependence might be an important moderator at the team level. More specifically, we focused on a sub dimension of outcome interdependence, namely feedback interdependence, because the type of performance feedback group members receive (i.e., individual or group) could influence whether team members adopt a collective versus an individual mindset (Hinsz et al., 1997). We hypothesized that asymmetries in task dependence would be positively related to team learning and team performance under conditions of high group or low individual performance feedback, but negative under conditions of high individual or low group performance feedback. Additionally, we expected that team learning behavior would mediate the relationship between power asymmetry and team performance. These hypotheses were all supported by our analyses.

Consequently, the results of the third study indicated that asymmetries in task dependence can influence vital team processes, such as team learning, and can subsequently influence the performance of the team. Additionally, our findings indicated that the amount and type of performance feedback interdependence can turn the negative effects of asymmetry into positive ones, if the feedback focuses the team members on attaining a high collective performance. The last study thereby demonstrated again that interaction effects between the different dimensions of interdependence theory can significantly influence key organizational psychological processes and outcomes.

Overall results of the three studies. Viewed together, our findings indicate that asymmetries in task dependence can negatively influence, dyadic, individual, and team processes and outcomes when the power associated with these differences can be used by the powerful or leads them to forget to pay attention to the needs of their powerless colleagues. Our results indicated that these negative effects of asymmetry in task dependence occur when the level of task interdependence between team members is low or when the type of performance feedback focuses the team members on attaining a high level of individual performance. However, our results also point out that asymmetries in task dependence can be beneficial for intrateam processes when the amount of task interdependence between team members is high or when the amount and type of performance feedback focuses the team members on attaining a high group performance. As will be discussed below, these results extend contemporary knowledge by demonstrating that there are more interaction effects between the different dimensions of interdependence theory, other than between the two well studied dimensions of task interdependence and outcome interdependence (e.g., Johnson & Johnson, 1989; Rusbult, 2000; Van Lange, 2000; Van der Veegt et al., 2005; Van der Veegt & Van de Vliert, 2002; Wageman, 1998, 2001). Our results are also of practical value, because, as we will discuss further in the management implication section, the variables making up these interactions are mostly under the control of managers.

Weaknesses and strengths

Naturally, there were certain weaknesses in our studies which might warrant some caution in interpreting their results. The first weakness might be the use of mainly cross-sectional data, since this prevented us from observing and testing causal relationships. For instance, as was indicated in Chapter 2 the observed relationship between asymmetry in task dependence, perceived helping behavior and interpersonal trust, might also be explained by multi-cyclical growth models and the direction of causality could therefore be different than hypothesized. The use of cross-sectional data puts similar limitations on the other two studies. However, if we combine the results from the three studies, the theoretical arguments behind our causal ordering of the models gain in strength, because the results consistently support the power perspective. As such, it becomes more difficult to explain our results at different levels, and containing different variables, from other theoretical perspectives. Nevertheless, future research should employ longitudinal and/or experimental designs to find further evidence for these causal relationships. We will discuss some avenues for doing this in the future research section.

A second weakness might be the fact that the three studies relied mostly on questionnaire data from employees. This could raise concerns about both common source as well as common method bias. Consequently, there might be concerns that some of the main effects reported in this thesis could be attributed to method variance and/or response tendencies of the employees. However, taken together, the three studies did make use of multiple measurement methods (e.g., dyadic level measures, individual level measures, and team level measurements) and multiple sources (e.g., self-report, peers, and managers). Moreover, the significant two-way interactions are difficult to attribute to these biases. Consequently, common source and common method bias do not appear to have significantly influenced our results.

A third potential weakness of the present dissertation might be the fact that all three studies made use of single-items for assessing the differences in task dependence (i.e. assessing power differences). Based on research regarding social networks (e.g., Bowler & Brass, 2006), we chose to use single-item measures because we wanted to investigate all the work relationships within a team and using more than one item would have placed too high demands on the respondents. However, because we used dyadic level data to construct dyadic, individual and team level measures this approach can also be viewed as a strong point, since the use of this particular methodology enabled us to really inquire about work relationships of the team members at all three levels. Moreover, our items were adopted from existing scales that have shown good reliability and validity in previous research (e.g., Van der Vegt et al., 2000) and we therefore believe that our way of measuring asymmetries in task dependence and power differences is actually a strength of the present study and could be used in future studies.

Related to this point is the fact that we did not actually measure power differences and only used the above mentioned dyadic measures of asymmetry in task dependence as a proxy for power differences. Although Emerson (1962) convincingly argued that power and dependence are two sides of the same coin, and even though our results are all explainable from a power perspective, a weak point of the present studies might be that actual power was not measured. To circumvent this shortcoming, future studies might employ multiple measures of power, besides our asymmetry in task dependence measure, to establish if asymmetry in task dependence is really directly associated with power differences. For instance, future studies could use the priming based measures of Cameron Anderson and Adam Galinsky (e.g., Anderson & Galinsky, 2006; Galinsky, Gruenfeld, & Magree, 2003). By using the strengths of each power measure some of the weaknesses in the other measures could be alleviated. Consequently, although future research

should evaluate if, and how, our new measures are related to other measures of power, one of the strengths of this thesis is that it introduced a new way of measuring power. In our opinion this extension of the "research toolbox" is beneficial for research regarding asymmetry in task dependence as well as research regarding power.

IMPLICATIONS AND FUTURE RESEARCH

Theoretical implications

The first and main theoretical implication is that all three studies indicated that asymmetries in task dependence are present in work teams and can significantly influence interpersonal relations, the affective reactions of employees, as well as vital team processes and outcomes. Consequently, our results provide firm evidence that asymmetry in task dependence is an important aspect of interdependence that should be considered in future studies and interventions. However, besides this general implication our results also provide a more refined view of how asymmetry in task dependence might exert its influence. We will discuss these implications in line with the preceding chapters and the conceptual framework developed in Chapter 1 (see Figure 1.1).

The second theoretical implication is most easily understood by looking at the dyadic level results from the first study. These findings contributed to theories regarding power by indicating that power might be in the eye of the beholder, and that any distortions in the perceptions of the powerful (e.g., Fiske, 1993) might be more important than the actual use and abuse of power (e.g., Emerson, 1962). The usefulness of making a distinction between the powerful and the powerless in an asymmetrical relationship was also supported by the results from the second study. These results indicated that, if perceived task interdependence is low, the power disadvantaged could be the ones who are preparing to leave the team, instead of the powerful (cf. Emerson, 1962: p. 40). Consequently, taken together, our results indicate that asymmetries in task dependence can be largely explained by theories regarding power and that differences between the powerful and the power disadvantaged are important and should be acknowledged. This implies that future studies, particularly regarding power, trust, helping behavior, affective reactions, and asymmetries in task dependence, should both theoretically and methodologically allow for differences between relational partners.

The third theoretical implication stems mostly from the second and third study. The second study contributed to the affective reactions literature by indicating that the interaction between the differences in dependence (i.e. perceived power disadvantage) and the level of task interdependence

overshadows the previously observed positive association between the level of task interdependence and affective commitment (e.g., Sprigg et al., 2000; Van der Vegt & Van de Vliert, 2000; Van der Vegt et al., 2001; Wageman, 2001). A specific theoretical implication of this finding is that this indicates that future studies into (inter)dependence and affective reactions might benefit from drawing from theories regarding power (e.g., Emerson, 1962; Fiske, 1993). However, a broader implication is that there might be more interaction effects between the dimensions of interdependency theory than previously expected (e.g., Johnson & Johnson, 1989; Rusbult, 2000; Van Lange, 2000; Van der Vegt et al., 2005; Van der Vegt & Van de Vliert, 2002; Wageman, 1995, 2001). The results of the third study provide further support for this notion, by indicating that asymmetries in task dependence also interact with feedback interdependence. Consequently, our results demonstrate that there are more interaction effects than the interaction between task and outcome interdependence. What is more, our findings provide some indications that these newly observed interaction effects might be working through an affective mechanism related to trust and psychological safety, rather than a strictly cognitive route as proposed by the congruence hypothesis (e.g., Van der Vegt et al., 2005). Taken together the above implies that both researchers and practitioners could benefit from taking up a more complex framework of interdependency theory which recognizes multiple interactions between the dimensions of interdependence theory and which goes beyond cognitive mechanisms.

Methodological implications

The main methodological implication of the results reported in this dissertation is that asymmetries in task dependence, measured with dyad level items, can explain a substantial portion of the variance in important variables at the dyadic, individual, and team level. This indicates that it would be beneficial to broaden the traditional focus in the interdependence literature – which tends to be either on the individual (e.g., Pearce & Gregersen, 1991) or the team level of analysis (e.g., Liden et al., 1997) - to include the interpersonal level of analysis. The use of dyad level measures has an additional advantage, because in classical formulations power is described as a relational property which emerges from the dependence of one actor on resources controlled by another (Emerson, 1962). We explicitly acknowledged this by conceptualizing power asymmetry within a group as something which emerges from dyadic resource dependencies. The main methodological implication is therefore that future studies could use our methodology and measures in order to conceptualize, measure, and analyze power differences

in groups in a way which is more directly based on the theoretical bases of power and dependence.

A broader, but related, methodological implication is that future studies could use the Social Relations Model (SRM) methodology, reported in Chapter 2, to investigate relational level effects within organizational settings. Although this approach requires both a good deal of trust from the respondents as well as a substantial time investment, our results testify that it can be done. Consequently, our results imply that the use of SRM can open up new opportunities for (field) researchers.

Lastly, the overall approach of this thesis might be valuable, because in our opinion, the three studies combined provide a deeper insight into the mechanisms of asymmetry in task dependence than the three studies viewed separately. If we had only studied the effects of asymmetries in task dependence at the dyadic level, doubts could have risen about if, and how, asymmetries in task dependence influence individual and team level processes. Under these conditions, a critique might have been that the dyad level study merely points towards a relational effect with no real implications for practitioners and more group-oriented researchers. However, this critique subsides in light of our individual and team level results. On the other hand, had we only investigated individual or team level effects, a critique might have been that the underlying processes are not well known and effects found at these levels could have been argued to be due to unobserved other variables and processes. In our opinion, our approach of studying the dyadic level foundations as well as the individual level and group level relations, provides a richer and more in-depth insight into the processes operating within the group. Consequently, besides using a multi-level, multi-source, multi-method approach, researchers might benefit by simultaneously employing a multi-study approach as was done in this thesis.

Future research

The findings and implications of this dissertation clearly indicate the need to further investigate the effects of asymmetries in task dependence. We hope that we have provided a good starting point by demonstrating that asymmetries in task dependence are indeed present in work teams, can be measured, and influence key variables at different levels of analysis. Given the small number of empirical studies regarding the effects of asymmetry in task dependence in work teams, many interesting topics for future research can be identified which, in line with the conceptual model (Figure 1.1) and the preceding chapters, we will discuss from the dyadic level to the team level.

An interesting avenue for future researchers would be to investigate in more depth how the underlying resource exchange process between team

members exactly works and to focus on what is precisely exchanged in the dyads. As we discussed above, our findings indicated that there are differences in perceived helping behavior between the powerful and powerless and this indicates that there might be differences in the resources exchanged. Future research could extent our results by drawing from the work of Emerson (1962), who argued that the power disadvantaged transfer status to the powerful in order to balance the relationship and in order to persuade the powerful to offer their assistance. Without this transferal of status it is difficult to arrive at a stable relationship, because then the powerful are contributing more to the relationship than the powerless. According to Equity Theory (e.g., Adams, 1965) there would be little incentive for the powerful to stay in the asymmetrically task dependent relationship and the powerful team members can be expected to try to lower their inputs or might even choose to exit the dyad. The relationship would be more balanced, and presumable more stable, if the power disadvantaged are providing the powerful with appreciation in return. In other words, we expect that intangible status resources might sometimes be exchanged for more tangible task-related resources, especially in stable asymmetrically task dependent relationships. The results reported in Chapter 3 indicate that this process might indeed be happening in work teams, because we found that power disadvantaged team members who are highly task interdependent report the most affective commitment, while the powerful only report modest amounts of affective commitment. Hence, given these high levels of affective commitment the power disadvantaged appear to be more involved, loyal, and dependent on the team than the powerful and this might be a reaction to the more tangible resources provided by the powerful. In other words, there is some indirect evidence that the power disadvantaged might indeed be providing more intangible resources than the powerful under high levels of task interdependence. Future research could expand on our findings by investigating if status transferal does indeed play a (stabilizing) role in asymmetrically task dependent relationships.

Related to this is that our measure of asymmetry in task dependence did not differentiate between different types of resources and as such task dependence based on information, expertise, and materials were grouped together. There are at least two reasons why future research may want to differentiate between different types of resources. Firstly, some sources of power might be viewed as more legitimate if used than others. For instance, having more experience than other employees might bestow the employee with referent power (e.g., Raven, 1992), which might be viewed as more legitimate to be used than coercive power due to, for instance, the possession of valued materials. As a result, the use of power based on illegitimate

resources might trigger stronger aversive reactions, such as distrust, than the use of power based on more legitimate resources. Secondly, resources might differ in their worth and value to other team members. For instance, it can be expected that some resources (e.g., control over mundane materials such as for instance, hammers or staplers) do not signal trust and voluntary helping when shared, since these resources are universalistic and concrete in nature (e.g., Foa, 1971). On the other hand, offering personal advice can be very specific to both the actor and the partner and can therefore indicate that the actor trusts the partner, precisely because these particularistic resources are scarce and personal. Our hypothesis would then be that particularistic resources influence interpersonal relations to a greater extent than universalistic resources, because universalistic resources provide to a lesser extent a "diagnostic situation" (cf. Holmes & Rempel, 1989). Hence, distinguishing between different resources, by considering which sources of power are seen as more legitimate to use and/or by acknowledging that there are universalistic and particularistic resources, could be very useful in future research. Consequently, in our opinion, investigating if different resources are exchanged in different relationships and disentangling the associated processes would give more insight into the antecedents and processes associated with asymmetries in task dependence and could lead to more refined theoretical models and practical interventions.

Future studies might also focus on how the more well-known dimensions of interdependence theory interact with asymmetry in task dependence. As was mentioned before, task interdependence might increase the frequency of communication (e.g., Anderson & Williams, 1996), the felt responsibility (Kiggundu, 1988), or the liking between the team members (e.g., Bornstein, 1989). These processes were argued to increase the information processing of the powerful and diminish the abuse of power and our results support this view. It would be interesting to see if these processes are all operating at the same time, if one of these processes is stronger, or if other variables interact with these processes. This research into the interaction effects between the dimensions of interdependence theory might investigate more complex relationships than reported in this thesis, given the results of the third study. These findings pointed toward the possibility of a complex relationship at the team level between asymmetries in task dependence and the different types of performance feedback. It could therefore be that the optimal combination of individual performance feedback, group performance feedback, and power asymmetry involves more complex interaction effects, such as quadratic-by-linear-by-linear interactions. Investigating quadratic effects would be interesting if, for instance, a threshold level is required before feedback is noticed by individual team

members. If this is the case, only feedback which is above a certain threshold would change the focus of team members on attaining either an individual or a team performance. Additionally, this perspective indicates that from a certain point onwards the influence of a certain type of feedback might become maximized. Because our results indicated that the effects of asymmetry might differ for the powerful and the power disadvantaged, there are reasons to expect that these threshold- and maximizing-effects might differ between individuals. Based on the work of Fiske (1993) and Holmes and Rempel (1989) it can be argued that the powerless spend more cognitive effort observing their environment than the powerful and subsequently it can be expected that the power disadvantaged have a lower threshold level than the powerful. Deeper investigation of these more complex processes and interactions is, in our opinion, an interesting direction for future research.

The search for more complex interaction effects is also necessary from a more practical viewpoint, because it is needed to fill in some of the gaps in our current knowledge about interdependence in work teams (see figure 5.1 below). At present, there is no empirical evidence to guide practitioners in making a decision when asymmetry in task dependence is high, but task and outcome interdependence are low. Based on the intervention framework of Van der Vegt and Van de Vliert (2002), and in line with the congruence hypotheses, practitioners are advised to provide the team with low outcome interdependence under conditions of low task interdependence, and this seems to be the wisest course of action if asymmetry in task dependence is low. However, if there are many asymmetries in task dependence within the team, our results indicate that low task interdependence or low outcome interdependence can exert a significant negative influence on the affective reactions of individuals and on team processes and performance respectively. Hence, we expect that in teams which have both low task interdependence and low outcome interdependence, the negative effects of asymmetries in task dependence arise, because in such situations there is nothing to prevent the powerful team members from using their power. Consequently, future research should not only investigate if there are non-linear interactions, but also if there are higher-order interaction effects (e.g., a three-way interaction between asymmetry in task dependence, task interdependence, and outcome interdependence). As we will discuss below, investigating these complex interactions at the team level would be very beneficial for both researchers and practitioners.

Practical implications

Although the prior section indicated that much research is still needed, the results reported in this thesis do hold several important practical implications for (re)designing work teams. We will present these practical implications by integrating our results in the intervention framework of Van der Vegt and Van de Vliert (2002), which summarizes the most important practical implications from the interdependence literature. Our proposal for updating the framework is depicted in Figure 5.1. The purpose of this figure is to provide practitioners with the most up-to-date knowledge and this objective has the additional benefit of making the gaps in our current knowledge clear. As we indicated above, these gaps demonstrate that much research is still needed, especially regarding the more complex higher-order interaction effects. However, we recognize that some practitioners might not be able to find enough time or resources to conduct such thorough inquiries and our proposed update for the intervention framework might be especially beneficial for them. The original framework of Van der Vegt and Van de Vliert is presented by the dotted lines, while our proposed extensions to this model are represented by solid lines.

Van der Vegt and Van de Vliert's original framework (2002; p. 61) rests on two general guidelines, namely that task and outcome interdependence should be congruent to obtain positive organizational consequences and that high levels of job complexity might be able to alleviate the negative effects of incongruence. As can be seen in Figure 5.1, both the original as well as our proposed updated framework consists of four questions. In order to answer these questions, a systematic diagnosis of the asymmetries in task dependences, the level of task interdependence, the level of outcome interdependence, and the level of job complexity within the team is needed. This can be done by using the methods and measurement scales reported in the three empirical chapters of this thesis and by using the scales of Van der Vegt and Van de Vliert. By answering the four questions in successive order with YES or NO, professionals can come to theory-based and empirically-supported interventions which are depicted in the final column of Figure 5.1. Akin to the original framework, our proposed updated framework assumes that there are five interventions possible, namely:

- A: Create two teams, by creating one team consisting of high task interdependent team members and another team consisting of low task interdependent team members.

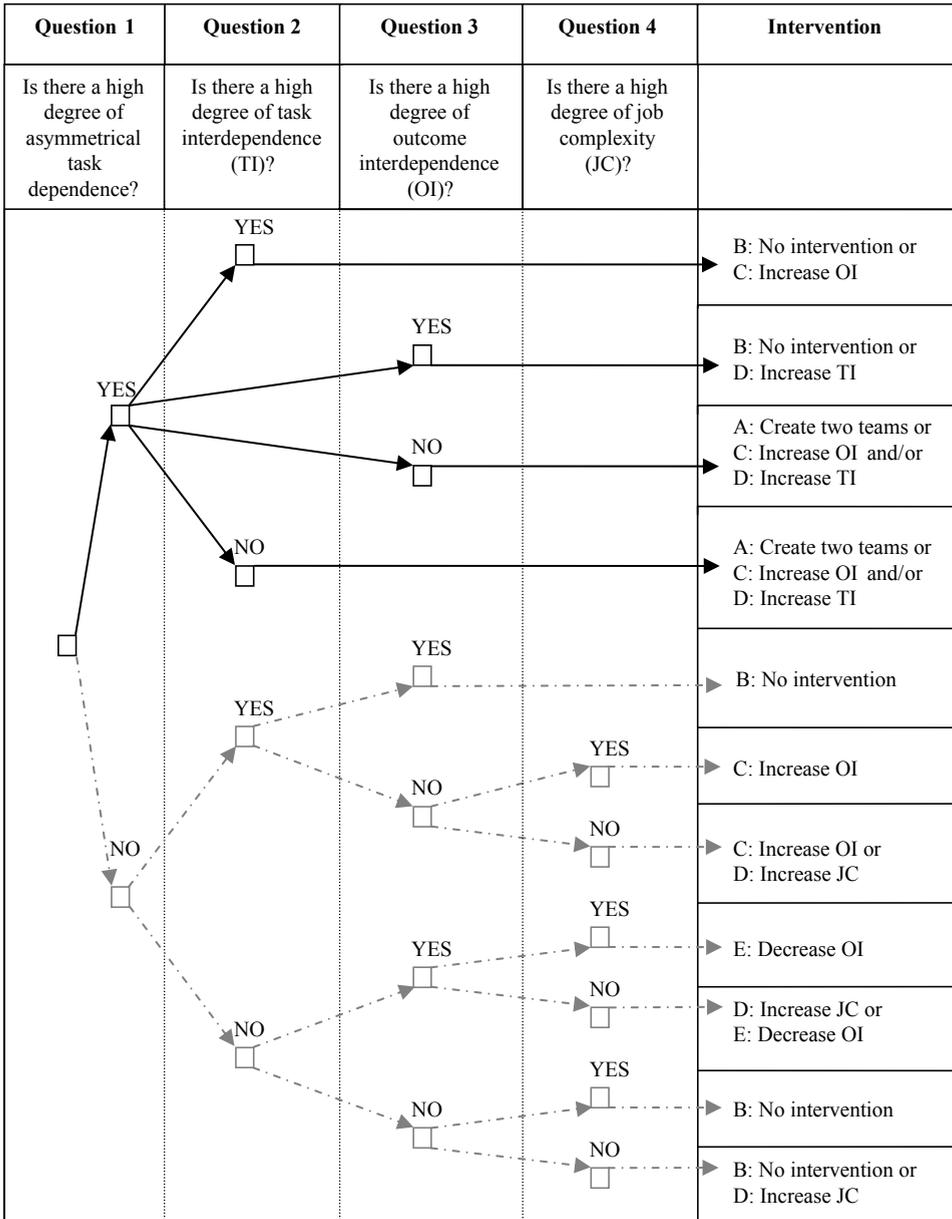
- B: No intervention.

C: Increase the degree of outcome interdependence. This can be done by increasing the reward, goal and/or feedback interdependence within the team in such a way that the team members unambiguously focus on obtaining team goals and rewards.

D: Increase the degree of perceived job complexity.

E: Decrease the degree of outcome interdependence. This can be done by decreasing the reward, goal and/or feedback interdependence within the team in such a way that the team members unambiguously focus on obtaining individual goals and rewards.

Based on our results we propose new ways of dealing with the first question of the intervention framework. Given that the original dotted lines have already been discussed by Van der Vegt and Van de Vliert (2002), we will only focus on our own additions which are represented in Figure 5.1 by the solid lines. In the original framework answering question 1 affirmatively led to intervention A and this meant that the team had to be divided into two different teams. However, this can be undesirable or even impossible when, for instance, the tasks to be done are so multifaceted and challenging that team members with different sets of knowledge, skills, and abilities are essential for successful completion. Additionally, as was reported in Chapter 4, asymmetries in task dependence can result in more team learning and better team performance under the right conditions of feedback interdependence. Consequently, dividing a team into two different teams might not always be advisable and our suggestions for updating the framework provides practitioners with insights into how they can avoid splitting up the team, while still obtaining good organizational consequences.



Note: The dotted lines are taken from the original framework of Van der Vegt and Van de Vliert (2002) and the solid lines are our additions to this model.

Figure 5.1: The Proposed Updated Intervention Framework

In our proposed updated intervention framework an affirmative answer to the first question does not directly lead to an intervention, but requires that additional questions are answered; namely, "Is there a high degree of task interdependence within the team?" and/or "Is there a high degree of outcome interdependence ". If one, or both, of these questions are answered with a YES, our results reported in Chapter 3 and 4 indicate that no intervention might be needed within the team. Additionally, although there is currently no empirical support regarding the interaction effects of high asymmetry in task dependence, high task interdependence, and different levels of outcome interdependence; it seems prudent to investigate both questions. For instance, if the answer to question 2 was affirmative it seems wise to investigate if the outcome interdependence within the team is high or low, because, as was reported in Chapter 4, asymmetries in task dependence are associated with more team learning and higher team performance under conditions of high outcome interdependence. Similarly, if question 3 was answered before question 2 it seems prudent to investigate what one would answer to question 2 given the results reported in Chapter 3¹⁵.

To summarize, with our suggestions for updating the intervention framework we aim to provide managers with more options if question 1 is answered affirmatively. The original model only proposed intervention A, which means splitting up the team. Our findings, point however to two other options, namely increasing the level of task interdependence between the team members and/or providing high outcome interdependence. Because, dividing a team into two separate teams is a very resolute and definite thing to do, it seems prudent to try the other two alternatives if time constrains allow it. Although these alternatives need to be investigated in more detail in future studies, for the moment, it seems sensible to try to deal with asymmetries in task dependence by creating high task interdependence and/or high outcome interdependence.

¹⁵ As can be seen in Figure 4.1 and 4.2 a focus on individual performance (e.g. high levels of individual performance feedback or low levels of group performance feedback) is associated with more team learning and team performance than a focus on attaining a high group performance under conditions of low asymmetry in task dependence. The "congruence hypothesis" might therefore also be applicable to asymmetry in task dependence. However, future research is needed to establish if it is indeed wise to accompany low levels of asymmetry in task dependence with a focus on individual performance and high levels of asymmetry with a focus on team performance.

CONCLUDING REMARKS

The results of this dissertation clearly demonstrated that the scarcely investigated aspect of asymmetries in task dependence significantly influences interpersonal helping and trust at the dyadic level, job satisfaction and affective commitment on the individual level, and intrateam learning and performance at the team level. However, our empirical inquiries went further than merely investigating main effects and showed that interaction effects of both the level of task interdependence and as well as the amount and type of performance feedback are important. Taken together, these findings not only contribute to the scholarly understanding of asymmetry in task dependence and power, but also provide strong incentives for investigating dyad level phenomena in future (field) research. Additionally, we hope to have provided practitioners with some practical recommendations with which they can recognize and manage asymmetries in task dependence effectively. Lastly, our results clearly indicate a need for more research regarding asymmetry in task dependence and we believe that it might be beneficial to take a more complex view of interdependence theory than currently exists. This thesis provides a good starting point, both in terms of methods and insights, for studies examining the effects of intrateam interdependence in more detail.

