Owing to the growing application of diverse teams in today’s organizations, understanding how intrateam differences influence the functioning of teams has become a major topic of interest in social and organizational psychology. The conventional focus of research has been to investigate how the diversity in teams or individuals’ dissimilarity from the rest of the team influences the performance of teams. The research in this dissertation departs from these team-level and individual-level investigations of intrateam differences. Instead, we focus on the dyadic level of analysis by investigating to what extent perceptions of expertise dissimilarity within pairs of individuals are related to team members’ behavior and team performance.

In Chapter 1, we review previous research on the relation between intrateam differences and the functioning of teams. This overview shows that scholars have not yet produced a clear and consistent pattern of results that supports the idea that intrateam differences either positively or negatively affect team member behavior and team performance. We propose that insight into the relation between intrateam differences and the functioning of teams in past research may have been obscured in three ways. First, because researchers have primarily conceptualized and measured intrateam differences as a team level or an individual level construct, they may have failed to notice important variance due to the differences within pairs of team members. Second, because researchers mainly used objective measurements of intrateam differences, it is unclear to what extent individuals in teams actually perceive their objective differences with others. Third, because previous research may have been too narrowly focused on paradigms that suggest that people prefer to work with similar others in homogeneous teams, it is unclear how positively or negatively individuals actually evaluate their subjective differences with others.

In Chapter 2, we report a first empirical study that investigates what kinds of differences team members perceive when they cooperate in projects teams and how negatively or positively team members evaluate these differences. We report the results of a qualitative study among 80 members of 15 diverse teams in a governmental institution. Multidimensional scale analysis shows that five types of differences are salient to the individuals in this sample: differences related to extraversion, task-
related expertise, work pose, approach to work, and seniority. In addition, the results suggest that team members tend to contrast positive and negative evaluations of differences related to extraversion and approaches to work, but to conceptualize positive and negative evaluations of task-related expertise, seniority, and work pose as more mutually independent phenomena.

Chapter 3 builds on the finding in Chapter 2 that members of project teams sometimes value the same task-related expertise both negatively and positively. Specifically, this study introduces the concept of perceived expertise complementarity as a phenomenon that is different from perceived expertise dissimilarity. We hypothesize that perceived expertise complementarity is positively, whereas perceived expertise dissimilarity is negatively related to self- and peer-rated dyadic helping in teams. To test these hypotheses we compare the effects of perceptions of expertise complementarity and expertise dissimilarity in a sample of 301 unilateral work relationships within 20 student research teams by using the social relations model (Kenny, 1994). As expected, the results show that perceived expertise complementarity and perceived expertise dissimilarity have diverging effects. Whereas perceived expertise complementarity is positively related to self- and peer-rated dyadic helping, perceived expertise dissimilarity is unrelated to self- and peer-rated dyadic helping. Taken together, the results suggest that expertise complementarity and expertise dissimilarity are different constructs.

Chapter 4 focuses on the antecedents and consequences of perceived expertise dissimilarity and perceived expertise complementarity. It is predicted that dyadic differences in educational background and educational level will determine to what extent team members will experience differences in expertise and complementarity in expertise. Moreover, we propose that that the within-team alignment between perceptions of expertise dissimilarity and expertise complementarity is predictive of the performance of teams. These expectations are tested in 69 R&D teams of a Dutch multinational organization. The results show that team members experience dissimilarity in expertise when another team member has a different educational background or a different educational level. Team members experience more complementarity in expertise to the extent that they have more organizational tenure and when another team member has a different educational background and a similar educational level. Regarding the team-level consequences, our expectation that intrateam alignment of perceptions of expertise dissimilarity and complementarity are positively related to team performance is confirmed.

Chapter 5 gives an overview of the findings. We highlight that the study of intrateam differences can benefit from focusing on the dyadic level of analysis. In addition, we recommend that researchers concentrate more on perceptions and evaluation of
differences as our findings show that these are important for understanding how individuals in teams react to intrateam differences. Further, an important conclusion of this research project is that scholars and practitioners need to distinguish between perceptions of expertise dissimilarity and expertise complementarity in order to be better able to understand and improve the performance of teams. This is illustrated with three implications for practice.