

**Students' group-related justice perceptions after a
school merger:
An intergroup perspective**

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von Dipl.-Psych. Anja Weiß

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1. General introduction

In the course of the profound demographical changes in Germany since 1990, mergers have increasingly taken place in the German public educational system to compensate for the decreasing number of students. According to the German Federal Statistical Office (Statistisches Bundesamt, 2007), this continuing decrease in student numbers is especially pronounced in the five newly formed German federal states and in Berlin. Since the school year 1996/97, there has been an ongoing annual loss of about 5 per cent of students in these federal states. For example, within the current school year 2006/2007, about 1.428.400 students attend schools in the five new federal states and in Berlin. This is a loss of about 76.600 students compared to the previous school year 2005/2006. Accordingly, more than 3000 schools have had to be closed in the new federal states so far. Solely in the federal state of Thuringia, in which the present research has been conducted, more than 1400 schools have been affected by school closings (Peter, 2004). Most of these schools have been involved in a school merger, some of them even more than once. Against this background, it seems important to examine the consequences a school merger might have for students.

A school merger characterizes the amalgamation of two formerly independent schools to one organizational entity (cf. Haunschild, Moreland, & Murrell, 1994). Its primary purpose can be considered to reduce the expenses for wages and accommodation. Besides this cost-cutting aspect, school mergers are also supposed to improve the quality of education by creating a diverse and synergetic educational environment (Boen, Vanbeselaere, Hollants, & Feys, 2005). However, anecdotic evidence suggests that this might be a too optimistic picture of a school merger. In preparation of this research, principals and members of the Local Educational Authorities (LEA) in Thuringia emphasized that preparing and implementing a school-merger is often accompanied by massive protests on behalf of the affected people. According to the educational practitioners' experiences, teachers, students as well as parents often show strong resistance against an upcoming merger which is usually accompanied by resentments towards students and teachers of the other merger partner. Once a school merger is implemented, it seems to be quite likely that teachers and students only poorly adjust to the merger and the new merged school. For example, the

practitioners emphasized that it might not be a rare phenomenon that teachers from two merging schools are sitting on separate tables in the teachers' room even years after the merger's implementation. They also reported strong intergroup hostilities between the students of merging schools.

These practitioners' reports go in line with empirical findings from the field of industrial mergers that have also shed a less optimistic light on merger success (e.g., Cartwright & Cooper, 1994; Marks & Mirvis, 1986; Shrivastava, 1986). Literature has consistently reported high rates of economic failures (Hofmann, 2001; Wirtgen, 2001; Jansen, 2000; Marks & Mirvis, 1986). Accordingly, about 50 to 85 per cent of all industrial mergers fail to achieve the anticipated economic success. These financial failures have been shown to be accompanied by the so-called *merger-syndrome* on behalf of the employees. This syndrome is characterized by reduced working quality and working motivation, feelings of anger, low self-esteem, increased aggressiveness and turnover intentions (e.g., Buono & Bowditch, 1989; Cartwright & Cooper, 1994; Marks & Mirvis, 1986).

Within the field of school mergers, only a few studies have been conducted so far, and these have mostly focused on teachers' responses to a merger (Boen et al., 2005; Kyriacou & Harriman, 1993; van Knippenberg, van Knippenberg, Monden, & de Lima, 2002; Verhoeven, Devos, Smolders, Cools, & Velghe, 2002, as cited in Boen et al., 2005). For example, in a study among teachers of merging colleges in the Netherlands, Verhoeven and colleagues have observed that most of the teachers were dissatisfied with the merger even years after the merger had been implemented. By the same token, most of them identified less strongly with their new merger organization than with their former department.

But besides teachers, students are an integral part of the school community. As the experiences of Thuringian practitioners indicate, students may also be significantly affected by a school merger. However, with few exceptions (e.g., Boen et al., 2005), no research so far has investigated whether school mergers successfully shape the educational environment, or whether students are faced with similarly negative effects as adult employees.

One exception is Boen and colleagues' (2005) study, in which they applied a social psychological intergroup perspective to explore possible predictors of students'

post-merger identification. This intergroup perspective is based on the notion that a school merger is an intergroup encounter that is likely to raise intergroup dynamics, as it requires contact between and integration of two pre-merger groups. Post-merger identification, this means the sense of belongingness to the post-merger organization, is one central group level variable in intergroup relations research that is considered an important indicator of the adjustment to a merger (Amiot, Terry, Jimmieson, & Callan, 2006; Gleibs, Mummendey, & Noack, 2007a; van Knippenberg, et al., 2002). Boen and colleagues demonstrated that students' sense of belongingness to their new merged school is influenced by a number of group level variables, such as students' strength of identification with their pre-merger school, the representation of their own pre-merger school in the new merged school and their satisfaction with this representation, or the legitimate advantage that their pre-merger school gained through the merger compared to the other pre-merger school.

Boen and colleagues' study suggests that variables at the group level are relevant for students' identification with their post-merger school. However, they did not further elaborate the effects social identity concerns, like post-merger identification with school, might have on students' adjustment to a school merger and to a merged school. Yet, from an educational point of view, it is important to examine factors influencing students' adjustment to a school merger, because a positive adjustment to school has been shown to be associated with positive in-school variables, such as high academic motivation and achievement (Bloom, 1976; Voelkl, 1997). Therefore, one primary aim of this thesis was to analyze possible predictors of students' responses to a school merger and their adjustment to a merged school.

For this purpose, I applied an intergroup perspective to the study of school mergers, because a school merger is basically characterized by two contextual dynamics. First, as a school merger is the amalgamation of two previously independent schools to one school, social identity changes are made prevalent. This means that not only comparisons between the pre-merger schools become more salient in a school merger. But students and teachers are even forced to change their pre-merger school identity in support of developing a new post-merger school membership and identity (cf. Boen, Vanbeselaere, Brebels, Huybens, & Millet, in press; Terry, Carey, & Callan, 2001). This situation is likely to threaten the distinctiveness of the pre-merger identity (Branscombe,

Ellemers, Spears, & Doosje, 1999), which, in turn, can engender negative intergroup dynamics between the members of the merging schools (cf. Giessner, Tendayi Viki, Otten, Terry, & Taeuber, 2006; Haunschild et al., 1994; Terry et al., 2001; Terry & O'Brien, 2001).

Second, a school merger usually evokes redistributions of material as well as human resources between the pre-merger schools. This functional relation between merging schools almost inevitably leads to realistic conflict over these resources (cf. Hegtvedt, 2005; LeVine & Campbell, 1972). During a school merger, a competitive intergroup situation is not only likely to enhance the salience of group boundaries and to polarize differences between the groups, but it is particularly likely to raise questions of group-related entitlement and justice (cf. Blake & Mouton, 1985, Gaertner, Bachman, Dovidio, & Banker, 2001; Meyer, 2001).

Taking these contextual characteristics into account, I followed two primary aims in the present research. In the first part of my thesis, the aim was to examine the role group-related justice perceptions play in conjunction with social identity processes in determining students' adjustment to a school merger. For this purpose, I drew on an integrative theoretical approach including insights from the social identity framework (e.g., Tajfel, 1978; Tajfel & Turner, 1979) and from justice research (Tyler & Blader, 2003). In particular, I sought to investigate whether students differ in their merger adjustment dependent upon the relative standing (i.e., post-merger group status) their pre-merger school has after a school merger. Moreover, I aimed at examining to what extent group-related justice perceptions would explain possible differences in merger adjustment between students of different post-merger status groups. Furthermore, I was interested whether post-merger school identification mediates the effects of group-related justice perceptions on students' responses to a school merger.

With group-related justice perceptions having a likely substantial importance for the success of a school merger, the second aim of the present research was to analyze possible antecedents of justice perceptions after a school merger. More specifically, I was interested in the question what criteria students take into account to decide whether their post-merger group status is a just outcome of the merger. In contrast to the extended research on consequences of injustice, only little attention has been paid on the cognitive-motivational processes underlying justice perceptions.

As an exception, Wenzel (1997, 2001) recently proposed a systematic approach on the cognitive-motivational roots of justice judgments. This social categorization approach to justice is based on the central assumption that justice concerns are inherently related to issues of identity and social categorization. The assumptions of this approach have been enriched by the ingroup projection model introduced by Mummendey and Wenzel (1999). The ingroup projection model was developed to explain the underlying cognitive-motivational processes of social discrimination and tolerance between groups. Wenzel (2001) proposed that the same process of ingroup projection that leads to social discrimination and tolerance underlies perceptions of justice between groups.

The social categorization approach to justice (Wenzel, 1997, 2001) has been proved within several laboratory as well as field studies (Weber, 2001; Weber, Mummendey, & Waldzus, 2002; Wenzel, 1997, 2000, 2001, 2002, 2004). However, it hasn't been applied yet to a highly self-relevant, institutional intergroup context, such as a school-merger might be considered. With respect to this, the second goal of the present thesis focused on applying the social categorization approach to justice and the ingroup projection model (Mummendey & Wenzel, 1999) to a school merger context to explore the cognitive-motivational processes underlying students' group-related justice perceptions.

Summing up, in this thesis I followed two primary research aims. First, I aimed at exploring the importance of group-related justice perceptions for students' adjustment to a school merger. Second, I sought to apply social psychological models to examine cognitive-motivational antecedents of group-related justice perceptions after a school merger. Against the background of these two aims, this line of research extends previous literature in two ways. From an applied perspective, this research was designed to provide an insight into relevant social psychological processes affecting the success of a merger in an educational setting. From a theoretical perspective, this research sought to examine the validity of social psychological approaches to justice and identity in the specific educational field of a school merger.

Below, I provide an outline of the specific characteristics of school mergers. Differences and similarities between school mergers and business mergers are presented. In order to frame the theoretical perspectives relevant to this thesis, I further introduce

two theoretical approaches to the study of school mergers. First, a sketch of intergroup relations research is presented with respect to its applicability to organizational mergers in general, and to school mergers in particular. Second, I give a brief overview of the concept of justice and depict the occurrence of justice issues in the context of school mergers. Based on this theoretical frame, the two major research questions of the present thesis are finally developed.

1.1. The nature of school mergers

1.1.1. Differences between school mergers and business mergers:

External versus internal decision-makers

In its very nature, a school merger does not substantially differ from an industrial or business merger. As will be outlined in detail in the next section, both kinds of mergers can be differentiated on the basis of the same implementation patterns that are used to integrate two organizations. Furthermore, school mergers and business mergers always involve changes in the basic policies and procedures, and in the resource allocation of an organization, as their unique feature is bringing together two previously independent organizations. Consequently, issues of fairness and justice inevitably arise in any effort of organizational change, and so they do within organizational mergers (Citera & Rentsch, 1993; Cobb, Wooten, & Folger, 1995).

Yet, there is one fundamental difference between business mergers and school mergers. This difference refers to the decision makers responsible for the resource redistribution process and outcomes. In business mergers, mostly the management of the a priori high status merger partner is actively involved in the allocation decision-making process (Citera & Rentsch, 1993; Marks & Mirvis, 2001; Meyer, 2001). For example, in a merger between two companies differing in profitability, the management of the better performing company (i.e., the a priori high status merger partner) is quite likely to decide which policies and procedures are implemented in the post-merger organization. Not surprisingly, these newly introduced procedures might stronger represent the procedures of the high status merger partner than those of the low status partner. Consequently, in most business mergers the a priori high status company is also the dominant merger partner after the merger, as its management has more influence on the merger implementation than the management of the low status partner. Thus, on the business merger sector, high pre-merger status (i.e., performance or size) is indeed mostly associated with post-merger dominance. Dominance, however, specifically refers to power and influence a merger partner has in the post-merger organization (van Knippenberg et al., 2002).

In a school merger context, at least in Thuringia, where the data for this thesis were collected, the association between a priori status differences and post-merger dominance might not be that easily drawn. This is predominantly due to the fact that the intention to merge is not requested by the school-boards (i.e., the management) of the merging schools themselves, but by a *third* party. This third party is usually represented by the LEA and by the regional parliament. The LEA also leads the decision-making process regarding the resource redistributions within school mergers. For instance, the LEA might decide to keep only one out of two previous school-buildings, while the school-building of the other school has to be closed and staff as well as students have to move to the other school-building. The boards of the merging schools do not participate in these essential decisions. However, once the decisions on the new school-building and the new school-board are made, the new school-board is involved in further decisions regarding, for instance, the academic focus of the new school, the new school culture, or the choice of learning material.

To sum up, a typical characteristic of school mergers is the fact that they are not voluntary but *forced* mergers, because the instigator of the merger is external to the institutions. This fact particularly applies to school mergers in the federal German state of Thuringia. But one can certainly extend this description to German school mergers in general. However, this characteristic has to be beared in mind when investigating the success of a school merger, because experiences with mergers in institutions of higher education indicate that *forced* or *managed* mergers are less successful than voluntary mergers (see for an overview: Skodvin, 1999).

1.1.2. Similarities between school mergers and business mergers:

Merger implementation patterns

Although school-mergers in Thuringia differ from industrial mergers with respect to the locus of the decision makers, the implementation patterns of merging two organizations to one post-merger organization are very similar between industrial and school mergers. In general, mergers can be differentiated between *merger-of-equals* on one pole of a continuum and *acquisitions* on the other pole. A *merger-of-equals* symbolizes that two pre-merger organizations contribute equally to the organizational shape of the new post-merger organization. The merger pattern accorded to a *merger-of-equals* is termed

integration pattern referring to the equal integration of the norms and values of both pre-merger organizations (Mottola, Bachman, Gaertner, & Dovidio, 1997). In the context of school-mergers, this integration pattern is commonly emphasized by creating a completely new name of the post-merger school. An *acquisition* refers to the *assimilation* pattern of mergers, according to which one pre-merger organization takes over the other pre-merger organization. Thus, the new shape of the post-merger organization is highly influenced by the acquiring organization. The acquired organization has to adapt to the norms and values of the dominant organization (Jansen, 2000; Mottola et al., 1997).

Although the Thuringian educational authorities strive to implement *mergers-of-equals* rather than *acquisitions*, however, it is rare in reality for two pre-merger schools to contribute equally to the shape of the post-merger school (cf. van Oudenhoven & de Boer, 1995). In this respect, it seems useful to differentiate the *integration* principle into an *equality* principle and a *proportionality* principle. Whereas the first one refers to a real equal proportion, the second one symbolizes an unequal proportion of the two pre-merger cultures (Giessner et al., 2006).

School mergers, even if the *merger-of-equals* principle is focused, almost inevitably evoke unequal redistributions of material, human (i.e., positions) and other resources of symbolic importance (i.e., school-buildings, learning material, and space). For instance, only one out of two previous school-buildings can persist after the merger, the building of the other pre-merger school has to be closed. Furthermore, only one out of two previous principals can head the new school. The other former principal has to be displaced to another school. Several other redistributions might be made within a school-merger. Even though typically a noticeable status difference between pre-merger schools does not exist prior to a merger, as it is usually the case within business mergers, the outcome of the redistribution within a school merger is more or less reflected in a post-merger status differential of winner and loser (cf. Citera & Rentsch, 1993; Clayton & Opatow, 2003). For instance, students of the pre-merger school retaining their school-building might perceive themselves in a higher relative post-merger status or in a dominating position (i.e., in a better relative standing after the merger) compared to the others losing their school-building. Thus, keeping or losing cultural symbols might

symbolize which pre-merger school has higher status after the merger and which one has lower status (cf. Citera & Rentsch, 1993).

To summarize, it is assumed that the unequal outcome of the redistribution process results in a post-merger status relation between the pre-merger schools. Even if the pre-merger schools had been on equal status prior to the merger, the *proportional integration* way of merging makes a post-merger status relation become salient. The overall outcome of the redistribution process resulting in a post-merger status relation is very likely to raise questions of justice among students.

1.2. Two theoretical perspectives to the study of school mergers

1.2.1. An intergroup perspective

Given the fact that in a school merger two previously independent schools come together to create one new combined school, it stands to reason that the intergroup nature of such a merger has to be considered a crucial issue. School mergers, like mergers in general, alter the social categorization process by imposing new group memberships on students. Such a situation is likely to engender hostile intergroup relations between the members of two merging organizations. These intergroup tensions result from the motivation that group members strive to establish an optimal position for their own pre-merger group in the new post-merger organization (Haunschild et al., 1994; Terry, 2001).

Previous research examining intergroup relations after corporate mergers has confirmed that mergers are indeed characterized by *us-versus-them* dynamics between merger partners (e.g., Buono & Bowditch, 1989; Haunschild et al., 1994; Shin, 2003; Terry & Callan, 1998; Terry et al., 2001; Terry & O'Brien, 2001). Furthermore, it has been repeatedly observed in research on business mergers (e.g., van Dick, Wagner, Lemmer, 2004; van Knippenberg et al., 2002) and in one study on a school merger (Boen et al., 2005), that employees and students affected by a merger tend to reject the new inclusive post-merger identity and to hold on their pre-merger identity. This particular identification pattern has been emphasized in previous studies to produce negative attitudes and feelings towards members of the other merger partner (Terry & Callan, 1998; Terry et al., 2001; Terry & O'Brien, 2001).

The theoretical background of intergroup relations research in the merger context is provided by the social identity approach (SIA), comprised of two influential theories of group processes, social identity theory (SIT, Tajfel, 1978; Tajfel & Turner, 1979) and self-categorization theory (SCT, Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). SIT is a social-motivational theory that focuses on the distinction between a personal and a social component of the self-concept. This focus is based on the assumption that individuals derive a part of their self-concept, their social identity, from the belongingness to social categories. According to SIT, people are inclined to strive for a

positive self-concept by either enhancing their personal self or by enhancing their social identity. More specifically, when individuals are defining their selves in terms of group membership, they are motivated to preserve the distinctiveness of their ingroup from relevant other outgroups and to favor the ingroup over these outgroups. It is assumed that this motivation roots in a need for positive self-esteem (Abrams & Hogg, 1988) and in a need to reduce subjective uncertainty about one's self-concept (Hogg & Mullin, 1999).

SCT (Turner et al., 1987) further specifies the cognitive processes underlying social categorization and ingroup favoritism. SCT is based on the same central assumptions as SIT that individuals consider themselves as members of certain social categories (i.e., self-categories), in order to define their social identity. These self-categories are supposed to vary in their level of inclusiveness. In a hierarchy of categories, super- and subordinate levels can be identified, whereas the meaning of the categories might vary in different contexts. The hierarchical character of social categories plays a pivotal role in the evaluation of intergroup differences, in the sense that higher-order categories provide the relevant dimensions for comparisons between the included subcategories. Hence, a comparison between two social groups always requires a shared categorization on the next superordinate category (e.g., psychology students compare themselves to business students with regard to the category „being a student“). More precisely, it is the *prototype* of the next inclusive category (i.e., the best exemplar of this category), against which the included subcategories are compared. Thus, the evaluation of ingroup and outgroup depends upon their perceived *relative prototypicality* in terms of the shared inclusive category. The prototypicality of a category member is defined on the basis of the *meta-contrast principle*, in a way that the ratio of perceived intergroup differences to intragroup differences is maximized.

For example, if in a merger context the pre-merger group membership (i.e., the ingroup) is salient individuals assimilate to the prototype of their pre-merger group and accentuate similarities among members of their pre-merger group while emphasizing differences from members of the other pre-merger group. Consequently, the self-conception of the individual shifts towards the prototype of the pre-merger group. This means that it shifts from personal to social identity. This shift is called *depersonalization*. Depersonalization of self-perception is a basic process underlying

group phenomena (i.e., group cohesiveness, ethnocentrism, cooperation, collective action), “whereby people come to perceive themselves more as interchangeable exemplars of a social category than as unique personalities defined by their individual differences from others” (Turner et al., 1987, p. 50).

People belong to a variety of different social categories. Which self-category becomes psychologically meaningful at which level of inclusiveness depends upon the salience of a certain self-category in a given social context. The salience of a self-category is a function of the interaction between its relative accessibility for the perceiver and the fit between perceived reality and the category’s specifications. Thus, a self-category will become salient, when it is easy accessible, when it accounts for intragroup similarities and intergroup differences (i.e., comparative fit), and when it is in accord with the social meaning of the context (i.e., normative fit). The salience of any level of self-categorization depends upon the level of the comparison standard. More specifically, self-categories tend to become salient at one level less inclusive than the self-category that provides the comparison standard.

Applying this analysis to the topic of this thesis, one can conclude that in a school merger context the pre-merger school memberships are likely to become highly salient, as they are now embedded in the shared inclusive category of the post-merger school. Moreover, a school merger forces students to change their school-related social identity in favor of adopting a new post-merger school identity including the other pre-merger school. According to the SIA, this situation is likely to cause a threat to the distinctiveness of the own pre-merger school from the other pre-merger school, as it requires a change of students’ self-perception to incorporate characteristics that are now shared with the other pre-merger school (cf. Branscombe et al., 1999; van Leeuwen, van Knippenberg, & Ellemers, 2003). A school merger implies a direct confrontation between the two pre-merger schools, because they both strive to optimize their position in the new post-merger school (cf. Terry, 2001).

In general, threat to social identity has to be considered a key issue for the success or failure of a merger (Bartels, Douwes, de Jong, & Pruyn, 2006; Shin, 2003; Terry & O’Brien, 2001; Tischendorf, 2007). In addition to the distinctiveness threat, realistic conflict over scarce resources between the merger partners almost unavoidably occurs during any attempt of a merger (Citera & Rentsch, 1993, Meyer, 2001). This

realistic conflict, in turn, is an additional critical aspect that may jeopardize the success of a merger, as it is likely to further accentuate differences between the groups *and* to raise questions of group-related justice (Gaertner et al., 2001).

In the business sector, mergers accentuate a priori intergroup status differences between the merging companies, such as that for employees of the low status merger partner their inferior status becomes highly salient. Provided that they are highly identified with their pre-merger organization, they should therefore experience especially high social identity threat in the course of a merger. However, in the educational sector, this accentuation of pre-merger status differences should be less prevalent, because explicit status differences between schools do not exist before a merger. Instead, the experience of being treated just or not by the decision makers should highly influence the amount of perceived social identity threat among students.

1.2.2. A justice perspective

Justice has become a very prominent topic of the social psychological research within the last 40 years. A vast amount of literature has documented that people's feelings, attitudes, and behavior in social settings are strongly shaped by their judgments about what is fair, just, deserved, or about what one is entitled to receive. Perceptions of justice are closely related to feelings of anger (Montada, 1994) and envy (Smith, Parrot, Ozer & Monitz, 1994), to psychological depression (Hafer and Olson, 1993), to moral outrage (Montada, 1994), and to self-esteem (Koper, van Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993). Other studies have shown that justice appraisals are linked to people's interpersonal perception (Lerner, 1981), to prejudice towards disadvantaged groups (Lipkus & Siegler, 1993), and to political attitudes (Tyler, Rasinski, & McGraw, 1985). Likewise, research has demonstrated a strong link between justice judgments and behavior such as willingness to help one's group (Moorman, 1991) or willingness to accept third party decisions (Tyler, 1990), or to accept organizational change (Tyler & De Cremer, 2005).

More recently, social psychologists have also established the crucial role justice judgments play for the success of an organizational merger (e.g., Amiot, Terry, & Callan, in press; Citera & Rentsch, 1993; Lipponen et al., 2004; Meyer, 2001; Shin, 2003; Terry & O'Brien, 2001). All these scholars share the notion that the application of

justice theory, in particular organizational justice theory, might help to explain the problems frequently associated with organizational mergers and they try to propose ways to resolve these problems.

The field of organizational justice focuses on people's justice perceptions in organizations and traditionally comprises two primary areas: distributive and procedural justice (Cobb et al., 1995). Distributive justice focuses on how workers evaluate the outcomes they receive compared to some reference of fairness and how they respond to these evaluations. Procedural justice refers to the fairness evaluation of the decision-making process that leads to particular outcomes (for reviews see Cobb et al., 1995; Tyler, 2001, Tyler & Smith, 1998). Both issues of distributive and procedural justice are very likely to arise during organizational mergers, as those always involve resource redistributions (i.e., power, authority, responsibility, office space) between the merger partners (Cobb et al., 1995).

Although justice researchers have conceptualized these two forms of justice as orthogonal (e.g., Greenberg, 1987; Tyler, 1994), recent research has demonstrated that the subjective representation of both forms is more similar than initially assumed. For example, a recent meta-analysis of justice research reported a relationship of .64 between the two constructs (Hauenstein, McGonigle, & Finder, 2001). Research has also demonstrated that procedural and distributive justice can substantially affect one another. Individuals make inferences about procedural justice from distributive justice perceptions and they infer from procedural justice when they make judgments about distributive justice (e.g., Brockner & Wiesenfeld, 1996; McFarlin & Sweeney, 1992; Van den Bos, Lind, Vermunt, & Wilke, 1997).

These findings suggest that it is rather difficult to achieve psychological and empirical interdependence between procedural and distributive justice. It is thus recommended to apply a *monistic* concept of justice (i.e., a composite of the subcomponents of justice), in particular when the goal is to examine justice as a predictor variable (Cropanzano & Ambrose, 2001; Hauenstein et al., 2001). This seems also appropriate for the context of corporate mergers, as distributive and procedural justice have been shown to strongly correspond in their impact on employees' merger responses (Amiot, et al., in press; Meyer, 2001; Shin, 2003). In the present thesis, I

therefore focused on an overall sense of students' justice perceptions incorporating both distributive and procedural justice perceptions.

In the context of business mergers, resource redistributions could either concern individual justice issues that affect employees individually (e.g., salary loss or reduced office space) or justice issues that affect a pre-merger organization as a whole group (e.g., loss in decisional power, influence, or status). Both individual as well as group-related justice concerns are likely to affect employees' reactions to a merger (e.g., Citera & Rentsch, 1993; Meyer, 2001; Shin, 2003). The situation seems to be different for teachers and students involved in a school merger. Teachers and members of the school-board might be potentially faced with individual gains and losses including, for example, changes in positions or locations. However, they do not have to fear existential threats such as salary or even job loss. On behalf of the students, individual redistributions seem to be even less prevalent, apart from the fact that some of the students have to put up with a longer way to school after the school merger. However, even this objective disadvantage is mostly shared with the students of the own pre-merger school and might therefore also raise group-related justice perceptions.

Besides this fact, I presumed that justice at the group level is more important for students affected by a school merger than justice on the individual level for another reason: Due to the fact that the pre-merger schools are embedded in one new inclusive category after a school merger, the pre-merger school memberships become salient. In terms of SCT, this means that the self-conception of the students shifts from the personal to the school-related social identity. In line with this process of depersonalization, students should perceive themselves as interchangeable to the students of their own pre-merger school and individual differences between them should become less important.

Depersonalization should also impact on students' focus of justice. Students should be more inclined to be aware of justice issues that affect their pre-merger school as a whole group rather than on justice issues that affect them individually. Thus, students should be more inclined to judge the fairness of the overall post-merger status of their pre-merger school (i.e., a group-related justice judgment) than the fairness of their individual merger outcome. Accordingly, the focus of the present thesis lay on students' group-related justice perceptions regarding the relative post-merger status of

their pre-merger school and not on their individual justice judgments. In particular, I was interested in the following two research questions:

1. Which role do group-related justice perceptions play for students' adjustment to a school merger?
2. Which relevant criteria do students take into account to judge group-related justice after a school merger?

In the following chapter, I present the theoretical background, the hypotheses, and the empirical findings relevant to the first research question regarding the role of group-related justice perceptions for students' adjustment to a school merger. Chapter 3 outlines the relevant theoretical basis, the hypotheses, and the empirical evidence for my second research question that focuses on possible antecedents of students' group-related justice perceptions after a school merger. In the final chapter, the empirical results of both research questions are discussed with reference to methodological limitations, theoretical implications, and implications for the educational field. Chapter 2 and 3 are conceptually associated, as group-related justice is conceptualized as an independent variable in Chapter 2 and as a dependent variable in Chapter 3. Due to this, there may be some overlap between the present introductory chapter, Chapter 2 and 3, and the general discussion outlined in Chapter 4.

2. The role of group-related justice perceptions for students' adjustment to a school merger

2.1. Theoretical introduction

This chapter focuses on the first aim of my research regarding the role of group-related justice perceptions for students' adjustment to a school merger. In particular, I sought to investigate to what extent group-related justice perceptions in conjunction with social identity processes influence students' responses to a school merger. Regarding students' merger responses, I distinguished between responses at the group level and responses at the individual level.

At the group level, I focused on the impact group-related justice perceptions have on students' tendency to favor the ingroup over the pre-merger outgroup (i.e., ingroup bias). In intergroup relations research on mergers, ingroup bias is considered an important response to a merger, as it is an indicator of intergroup rivalry and conflict between the merger partners (e.g., Haunschild, et al., 1994; Lipponen, Olkkonen, & Moilanen, 2004; van Leeuwen, 2001; Terry & Callan, 1998; Terry & O'Brien, 2001). Moreover, ingroup bias is linked to a negative stance towards a merger (Gleibs, Noack, & Mummendey, 2007b). Thus, I considered it most relevant to examine whether and how group-related justice perceptions impact on students' level of ingroup bias after a school merger. At the individual level, I explored to what extent group-related justice perceptions have an impact on students' well-being at school and their change in academic achievement after a school merger. Well-being at school and academic achievement can be considered two critical school-related variables that are supposed to reflect a students' adjustment to school (cf. Helmke & Schrader, 2000).

In the following, an overview of intergroup relations research and justice research relevant to the examination of the first research question is provided.

2.1.1. The intergroup nature of a school merger

Intergroup relations research so far has established that social identity is a critical factor determining the success of a business merger (e.g., Buono & Bowditch, 1989; Haunschild et al, 1994; Shin, 2003; Terry et al., 2001; Terry & Callan, 1998; Terry & O'Brien, 2001). Although business organizations differ from schools in a number of organizational characteristics (i.e., in terms of their members, structure, and goals), there is reason to assume that the same intergroup related consequences that follow business mergers also apply to school mergers (Boen et al., 2005).

Recent research findings within mergers in the educational setting have sustained this proposition. For example, teachers were not only dissatisfied with the merger even years after its implementation. Further, most of them identified less strongly with their new merged organization than with their former department (Boen et al., 2005; Verhoeven et al., 2002, as cited in Boen et al., 2005). Boen and colleagues (2005) found the same pattern of high pre-merger and low post-merger identification among students after a school merger. However, these scholars did not offer an extensive intergroup analysis examining social identity concerns in conjunction with group-related justice issues as a source of students' reactions to a school merger. In this part of the thesis, I addressed exactly this topic.

The theoretical origin of intergroup relations research in the merger context is based on the social identity approach (SIA). The SIA is a general social psychological approach on group processes and intergroup relations, which is grounded in social identity theory (Tajfel, 1978; Tajfel & Turner, 1979) and self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). The central assumption of the SIA is that individuals derive a part of their self-concept, their social identity, from their membership in social categories. SIA proposes two underlying processes that are relevant for group and intergroup phenomena: self-categorization and self-enhancement. Self-categorization reflects the fact that when people define themselves as members of a certain self-category, they minimize differences among ingroup members and accentuate differences between ingroup and outgroup members (see for the meta-contrast principle: Turner et al., 1987). Self-enhancement refers to the fact that individuals strive to achieve or maintain a positive self-concept by either enhancing the personal or the social

identity. The striving for a positive social identity is reflected in the motivation to preserve positive distinctiveness of the ingroup from an outgroup and to favor the ingroup over this outgroup.

In the context of a school merger, students are forced to change their school-related identity in favor of adopting a new school identity including both their former school and the other pre-merger school. Correspondingly, students have to incorporate characteristics that are now shared with the other pre-merger school in their self-perception. According to the SIA, this intergroup situation threatens the distinctiveness of the own pre-merger school from the other pre-merger school (Branscombe et al., 1999; van Leeuwen, van Knippenberg, Ellemers, 2003). In the intergroup relations research on mergers (Bartels, Douwes, de Jong, & Pruyn, 2006; Shin, 2003; Terry & O'Brien, 2001; Tischendorf, 2007), this distinctiveness threat, or more generally social identity threat, is said to have an important impact on the success or failure of a merger.

In addition to the distinctiveness threat, a school merger also implies realistic conflict over scarce resources between the merger partners (cf. Citera & Rentsch, 1993). For example, if one pre-merger school has less access to resources and power than the other pre-merger school, the social identity of the students of the disadvantaged pre-merger school may be particularly threatened by a school merger. Thus, according to SIA, one can conclude that students of a pre-merger school disadvantaged in terms of relative post-merger status should be most inclined to show ingroup bias as a source of self-enhancement (cf. Gaertner et al., 2001; Terry & O'Brien, 2001).

In line with this reasoning, previous research in the context of corporate mergers (Terry & Callan, 1998; Terry & O'Brien, 2001) has demonstrated that members of a low status merger partner experience a merger as more threatening and stressful than members of a high status merger partner (Terry & Callan, 1998; Terry & O'Brien, 2001). Furthermore, members of low status merger partners have been observed to be less identified with the post-merger organization, less satisfied with their job as well as more engaged in ingroup bias than high status group members (Terry & Callan, 1998; Terry, et al., 2001). Despite the differences between business organizations and schools, there is reason to assume that students also differ in the extent they are able to adjust to a merger and that this depends on which status position their pre-merger school would have after a school merger. A high post-merger status should be related to more positive

responses, whereas a low post-merger status should entail rather negative responses to a school merger.

2.1.2. The role of group-related justice perceptions after a school merger

Beside the social identity change imposed by mergers, mergers always involve changes in the basic policies of the organizations and they also require resource redistributions between the merger partners. These processes inevitably raise questions of justice among the organizational members (Citera & Rentsch, 1993; Cobb et al., 1995). Accordingly, in the intergroup relations research on mergers (e.g., Amiot et al., in press; Giessner et al., 2006; Gleibs et al., 2007a; Lipponen et al., 2004; Shin, 2003; Terry & O'Brien, 2001), it has been emphasized that the examination of justice issues might help to explain intergroup problems after mergers.

Previous research has demonstrated that perceptions of justice after a merger are positively linked to identification with the post-merger organization (Amiot, et al., in press; Gleibs et al., 2007a; Terry & O'Brien, 2001), to the perception of a common ingroup (Lipponen et al., 2004; Terry & O'Brien, 2001), and to merger support (Giessner et al., 2006). Furthermore, it has been demonstrated that injustice after a business merger is associated with high levels of ingroup bias (Amiot, et al., in press; Lipponen et al., 2004; Shin, 2003), with resistance to the merger and turnover intentions (Shin, 2003), and with reduced job satisfaction (Amiot, et al., in press; Terry & O'Brien, 2001). Against this background, I considered it most relevant to examine students' justice judgments as a source to explain differences in adjustment to a school merger.

Within justice theory, researchers traditionally conceptualize two aspects of justice, *distributive* and *procedural justice*. Distributive justice focuses on how fair people evaluate outcomes they receive, procedural justice taps on the fairness evaluation of the decision making process that leads to particular outcomes (for reviews see Cobb et al., 1995; Tyler, 2001; Tyler & Smith, 1998). However, justice literature has proposed that these two components of justice conceptually and empirically overlap (e.g., Brockner & Wiesenfeld, 1996; Sweeney & McFarlin, 1993, see for a meta-analysis: Hauenstein et al., 2001). In the present research, I therefore focused on an overall sense of students' justice perceptions incorporating both distributive and procedural justice.

Another distinction in the justice literature is that between justice *at the individual level* and *justice at the group level*. Depending upon the salience of personal or social identity, people are inclined to react either as individuals who experience personal injustice or as group members who experience injustice affecting the ingroup as a whole (Ellemers, Wilke, & van Knippenberg, 1993; Tyler, 2001; Tyler & Smith, 1998). At the individual level, there is widespread evidence that justice judgments “are central social judgments that lie at the heart of people’s feelings, attitudes, and behaviors in their interactions with others” (Tyler & Smith, 1998, p. 595) and that justice issues strongly influence peoples’ well-being (Miller, 2001). In educational settings, there is also evidence that perceived justice at the individual level (i.e., consistent and accurate interpersonal treatment by teachers) is associated with positive feelings, high academic motivation and achievement, positive relationships with teachers, and well-being at school (e.g., Dalbert & Maes, 2002; Fan, 1999). In contrast, the effects of group-related justice perceptions are rather unexplored in justice research (Tyler, 2001).

However, school mergers usually involve resource distributions that affect a pre-merger school as a whole group rather than an individual. Moreover, no individual-related redistributions regarding, for example, one’s own position, salary, or office space are to be made during school mergers – at least if the focus is on students, as in the case of the present study. Therefore, I focused on students’ group-related justice perceptions and the impact these perceptions would have on students’ responses to a school merger.

Resource redistributions within school mergers are decided by a third party and not by the merging schools themselves. This third party is usually represented by the Local Education Authority (LEA) and by the regional parliament. For instance, the LEA might decide to keep only one out of two previous school-buildings, while the school-building of the other school has to be closed and staff and students have to move to the other school-building. Even though a noticeable status difference between schools does not exist prior to a school merger (at least not in the public school system of the German state of Thuringia), the overall outcome of the redistribution process establishes more or less a post-merger group status differential between merging schools (cf. Citera & Rentsch, 1993; Clayton & Opatow, 2003).

Group status is a typical concept in the SIA (Tajfel, 1978; Tajfel & Turner, 1979) that reflects a groups’ relative standing on evaluative dimensions of comparison. Thus,

status is considered the outcome of an intergroup comparison. In the intergroup relations research on mergers the concept of group status is usually applied and one distinguishes between *a high* and *a low status merger partner* (e.g., Boen, Vanbeselaere, & Cool, 2006; Haunschild, et al., 1994; Terry & Callan, 1998; Terry & O'Brien, 2001). However, as mentioned before, the post-merger status after a school-merger is not constituted by a-priori status differences between the pre-merger schools. Instead, it is the outcome of a redistribution process held by a third party after the merger. Emphasizing this specific school merger characteristic, I used the terms *advantaged* and *disadvantaged pre-merger school* instead of high and low status pre-merger school.

As outlined earlier, from the social identity perspective, the post-merger status differential per se can lead to differences in students' adjustment, because it implies differences in perceived social identity threat between students of the advantaged and the disadvantaged school. I argued that these differences in social identity threat occur as a result of differences in group-related justice judgments that, in turn, would be unavoidably associated with the post-merger status relation (cf. Citra & Rentsch, 1993; Cobb et al., 1995). Hence, it is assumed that group-related justice perceptions would mediate the effects of different group status on students' adjustment to a school merger.

Giessner and colleagues (2006) were the first who explicitly examined to what extent justice judgments can explain differences between high and low status groups after a merger. In a laboratory merger setting, they found evidence that status legitimacy (i.e., the perception that a specific post-merger status relation between the merger partners is a deserved outcome of a fair procedure) completely mediated the effects of group status on participants' merger support. This finding strengthens my argument that justice perceptions regarding the post-merger status relation account for differences between status groups.

2.1.3. The mediating role of identification with school

Provided that group-related justice perceptions are associated with students' responses to a school merger, the issue is how and why this association occurs. I assumed that the influence of group-related justice perceptions on ingroup bias as well as on students' well-being, and on academic achievement might be explained by students' strength of post-merger identification with school. Post-merger identification with school

characterizes this part of a student's social identity that refers to his or her feelings of oneness and belongingness to a merged school (Boen et al., 2005). In the business merger context, post-merger identification is considered an important indicator of employees' adjustment to a merger, because it reflects to what extent an employee incorporates the goals and values of the new post-merger organization (Amiot et al., 2006; Gleibs et al., 2007a; van Knippenberg et al., 2002).

Although students do not belong to the workforce of a school, their school-related social identity presumably plays an important role for their self-concept and affects their attitude to and their behavior in school (cf. Boen et al., 2005). Indeed, educational research revealed that the feeling of belongingness to one's school is associated with classroom participation (Finn, 1989; Newmann, Wehlage, & Lamborn; 1992; Voelkl, 1997), with academic motivation and interest (Goodenow, 1993; Goodenow & Grady, 1993), and with academic achievement (Bronfenbrenner, 1979; Finn, 1989; Goodenow, 1993; Steele, 1992; Trusty & Dooley-Dickey, 1993). On the basis of these findings, it makes reason to assume that identification with a merged school fulfills the function of a mediator between students' group-related justice perceptions and their merger responses.

A theoretical framework addressing the mediating role of identification is provided by the group engagement model (Tyler & Blader, 2003). This *identity-based model of justice* brings together justice concerns with social identity concerns, claiming that justice is an important predictor of human behavior, because it carries information relevant to social identity. According to this approach, being treated fairly indicates a respectful position within one's group and promotes pride in group membership, which in turn shapes a group members' degree of identification with this group. Social identification, in turn, influences people's attitudes and behavior.

Originally, this model was developed to explain the link between individual level justice and ingroup identification within an intra-group context. However, according to the hierarchical structure of self-categories (Turner, 1987), it is reasonable to extend the assumptions of the group engagement model to the intergroup context of a merger (cf. Tyler, Degoey, & Smith, 2001). More specifically, fair treatment of one's pre-merger group in a merger is likely to result in the favorable impression that decision makers

treat one's group with respect and dignity. This impression heightens attachment to and identification with the new merged organization.

Applied to the school merger context, this means that injustice of the post-merger status position after a school merger is supposed to threaten students' pre-merger school identity, because it suggests their pre-merger school to be less valuable and worthy compared to the other pre-merger school. As a consequence, students should identify less with the post-merger school, which, in turn, should negatively influence students' adjustment to a school merger at the individual and the group level. In particular, it was assumed that low identification with the post-merger school as a consequence of group-related injustice would be associated with the motivation to restore justice to one's pre-merger group as well as a positive school-related social identity. Due to the self-enhancement motive, this should not only lead to higher levels of ingroup bias. Low identification with the post-merger school should also have a negative impact on students' well-being at school as well as it should reduce students' capacity for the learning processes, which would be reflected in a decrease in academic achievement after a merger (see Boekearts & Corno, 2005, for an outline of self-regulated learning at school).

2.1.4. Hypotheses

Focusing on the intergroup nature of a school merger, this part of the thesis was designed to examine which role students' group-related justice perceptions regarding their post-merger group status and post-merger identification with school play for a number of individual and group-related school merger responses. By means of two cross-sectional surveys, I investigated these issues in the context of two school mergers in the German state of Thuringia. Even though each of the school mergers is a unique case, both mergers are objectively characterized by the fact that one pre-merger school had been more or less advantaged over the other pre-merger school due to the specific redistribution decisions.

First, I was interested in whether students of an advantaged pre-merger school would adjust better to a school merger than students of a disadvantaged pre-merger school and to what extent these differences would be explained by group-related justice perceptions. Based on the SIA (Tajfel, 1978; Tajfel & Turner, 1979; Turner et al., 1987)

and on previous findings within corporate mergers (Amiot et al., in press; Terry & Callan, 1998; Terry & O'Brien, 2001; Terry et al., 2001), I hypothesized that students of an advantaged school would show more positive responses at the individual level (well-being in school, change in academic achievement) as well as at the group level (pre- and post-merger identification, and ingroup bias) than students of a disadvantaged pre-merger school. In line with theories concerning the relation between justice and identity (e.g., Tyler & Blader, 2003), I expected that students' group-related justice perceptions would completely mediate the effects of different post-merger group status on the dependent variables.

Provided that group-related justice explains potential differences in adjustment between students of advantaged and disadvantaged schools, I was secondly interested in to what extent and through which process group-related justice perceptions would be related to students' merger adjustment. I expected that the extent to which students perceive the post-merger status of their pre-merger school as fair would be positively related to well-being at school and to change in academic achievement after a school merger, and negatively to ingroup bias. Finally, I hypothesized that post-merger identification with school would at least partially mediate the relationships between group-related justice perceptions and well-being at school, change in academic achievement, and ingroup bias, respectively. I assumed these relations to hold for both the disadvantaged and the advantaged pre-merger school.

2.2. *Empirical Evidence*

2.2.1. Study 2.1¹

The first study focused on a school merger between two urban college-bound secondary schools (German ‘Gymnasium’) in Thuringia. The merger was initiated by the regional parliament and implemented by the LEA. It had been announced by the regional parliament about one year before the implementation.

Prior to the merger, the two pre-merger schools had been located in two suburbs of a middle-sized city. The two pre-merger schools did neither differ in terms of status nor in terms of size. According to the decision of the LEA, the merger followed an assimilation integration pattern (Mottola et al., 1997). One pre-merger school was formally taken over by the other pre-merger school. In particular, the post-merger school retained the name, the school-board, and the school-building (which was newly renovated and of better quality compared to the building of the other pre-merger school) of one pre-merger school. Thus, one pre-merger school could be considered the advantaged pre-merger school, to which the disadvantaged pre-merger school was assimilated. Due to a decision of the new school-board, most of the grades were mixed with students from both pre-merger schools. Due to educational demands, the 10th and 12th grade remained unmixed and kept their original composition.²

¹ All the studies presented in this thesis were part of a research project designed and conducted in cooperation with Katrin Tischendorf. Here only a subset of the results will be presented, and accordingly, only those components of the method will be described that are directly relevant to these results.

² According to the Thuringian educational law, students in upper track schools have to pass two levels of examination, one in the 10th grade (German “Mittlere Reife”), and the German university entrance qualification in the 12th grade (German “Abitur”). The school-board decided that students within these grades remained in their initial class composition to ensure best preparation for the examinations.

Method

Participants and procedure

With permission of the LEA and the school-board, a cross-sectional field study in the merged secondary school was conducted approximately four months after the merger. The parents of potential participants were asked to give their agreement that their child may participate in the study. Participating students were informed that they had the opportunity to express their opinions about the school merger and the newly merged school. They participated voluntarily in the study and were ensured that the individual data would be anonymous and would not be made available to teachers and the school-board. The questionnaires were completed in class during lesson time. The students were supervised during data-collection. All of the participants received a bar of chocolate after they had completed the questionnaire.

Respondents were 162 students of the 10th and 11th grades. The sample included 95 per cent of the population of the 10th and 11th grades. The remaining 5 % were either not allowed by their parents to take part in the study or were absent from school at the day of data collection. The sample comprised 79 students from the advantaged pre-merger school and 83 students from the disadvantaged pre-merger school.³ The mean age of the students was 16.62 years, ranging from 15 to 19 years. Fifty-six per cent of the sample were female students.

Measures

The questionnaire started with an open question. Students were asked to describe their new merged school in all its characteristics. They were told that this open question was asked to get a general view on the particular merger situation. Unless mentioned otherwise, all measures described in this paper were rated on five-point scales ranging from 1 (*not at all*) to 5 (*very much*). The measures were presented in the subsequent order.

³ Some students answered the questionnaire incompletely. I did not exclude them from the analysis for reasons of test power. Due to this, degrees of freedom slightly differ across the analyses.

Perception of post-merger status. A single item was used to assess students' perception of the overall post-merger status of their own pre-merger school. Students indicated on a five-point scale whether they perceived that students and teachers of their own pre-merger school were worse or better off in the new post-merger school compared to the other pre-merger school (1 = *much worse off*, 5 = *much better off*).

Group-related justice perceptions. Four items assessed students' group-related justice perceptions of the post-merger status. Three of these items referred to distributive justice (e.g., „I think it is just how the students and teachers of my own pre-merger school came off after the merger.“, „I think it is fair how the students and teachers of the other pre-merger school came off after the merger.“, “I find the position that my own pre-merger school has in the merged school relative to the other pre-merger school unjust.” [reverse-coded]). The fourth item referred to an overall justice evaluation including both distributive and procedural justice (“In general, the way the two schools were merged was fair.”). The overall scale was sufficiently reliable ($\alpha = .79$).

Identification with the pre-merger and the post-merger school. Based on Doosje, Ellemers und Spears (1995), four items were designed to assess the current identification with the pre-merger and the post-merger school, respectively (e.g., “I still perceive myself as a member of my former school [our new combined school].”, “I am glad to be a student of my former school [our new combined school].”, “I feel very attached to my former school [our new combined school]”, and “I identify with my former school [our new combined school]”). Both scales revealed a high reliability (pre-merger identification: $\alpha = .90$, post-merger identification: $\alpha = .89$)

Ingroup bias. To obtain a measure of ingroup bias, students first indicated their attitudes towards students of their own pre-merger school as well as towards students of the other pre-merger school by means of four items, respectively (“I find the students of my own pre-merger school [the other pre-merger school] very likeable.”, “I like the students of my own pre-merger school [the other pre-merger school] very much.”, “I like to support students of my own pre-merger school [the other pre-merger school] very much.”, “I can fully trust students of my own pre-merger school [the other pre-merger school].”). Reliabilities of the resulting scales were good (attitudes towards the own pre-merger school: $\alpha = .83$; attitudes towards the other pre-merger school: $\alpha = .86$). A measure of ingroup bias was obtained by subtracting the scores of the outgroup items

from the scores of the corresponding ingroup items. The resulting four difference scores were highly reliable ($\alpha = .86$). The average value of these four difference scores was taken as the measure of ingroup bias.

Well-being at the post-merger school. To assess well-being at the post-merger school, participants indicated with a single item how they felt in their new school after the school merger: 1 (*very bad*) to 5 (*very good*).

Change in academic achievement after the school merger. To assess change in academic achievement, students indicated with a single item measure, whether their academic achievement decreased or increased after the merger: 1 (*decreased very much*) to 5 (*increased very much*).

Results

Preliminary analyses

In order to get an impression of how students perceived their post-merger status and how just they perceived it, preliminary analyses of variance (ANOVAs) were computed by pre-merger school membership on perceived post-merger status and group-related justice perceptions (compare Table 2.1 for means, standard deviations, and F-statistics). I also computed one-sample t-tests to examine whether the means differed from the neutral midpoint of the scale.

Students of the advantaged pre-merger school indeed indicated a higher post-merger status, which was significantly different from the scale midpoint of 3, $t(75) = 5.27$, $p < .001$, than students of the disadvantaged pre-merger school, who rated the relative status of their school as being significantly lower than the midpoint of the scale, $t(80) = -9.39$, $p < .001$. Students of the advantaged pre-merger school reported also significantly more group-related justice than students of the disadvantaged school. Students of the advantaged school rated group-related justice significantly higher than the midpoint of the scale 3, $t(76) = 6.08$, $p < .001$, whereas the mean of group-related justice among students of the disadvantaged school was significantly lower than the scale midpoint, $t(81) = -6.18$, $p < .001$. These preliminary results emphasize the presence of a clear status difference as perceived by students of both schools.

Effect of post-merger status adjusted by group-related justice perceptions

To examine the assumption that students of the advantaged pre-merger school would adjust better to the school merger and the new merged school than students of the disadvantaged pre-merger school and that this effect would be mediated by group-related justice perceptions, I used the following procedure. First, ANOVAs with pre-merger group membership (i.e., post-merger status) as independent variable were computed on the dependent variables to test whether there are differences between the advantaged and the disadvantaged pre-merger school. In case an ANOVA revealed a significant effect of pre-merger group membership on a dependent variable, an analysis of covariance (ANCOVA) with pre-merger group membership (i.e., post-merger status) as independent variable and group-related justice perceptions as covariate was additionally performed on the specific variable. The question behind this analysis was whether the expected significant difference between advantaged and disadvantaged pre-merger school would diminish, when the score of group-related justice perceptions were held constant.

The results for the ANOVAs are presented in Table 2.1 In the first ANOVA post-merger group status had a significant effect on ingroup bias. As expected, students of the advantaged pre-merger school indicated less ingroup bias than students of the disadvantaged school. The mean of ingroup bias was significantly above the scale midpoint 0, for the advantaged group, $t(76) = 3.75, p < .001$, and the disadvantaged group, $t(81) = 9.77, p < .001$. The ANCOVA revealed, as predicted, that group-related justice perceptions significantly adjusted the effect of pre-merger group membership, $F(1, 156) = 32.29, p < .001$, partial $\eta^2 = .17$. No significant main effect of pre-merger school membership emerged ($F < 1$). The adjusted pattern of means indicated that there were no noteworthy differences between the advantaged school ($M = 0.78$) and the disadvantaged school ($M = 0.71$) after adjusting the means.

As predicted, an ANOVA indicated a significant difference between the pre-merger schools on the measure of change in academic achievement. Students of the disadvantaged school reported a significant decrease, $t(81) = -3.12, p < .01$, whereas students of the advantaged school indicated no significant change in academic achievement, $t(76) = .32, p = .75$. As predicted, an ANCOVA yielded only a significant effect of the covariate group-related justice perceptions, $F(1, 156) = 6.52, p < .05$, partial

$\eta^2 = .04$, whereas the effect of pre-merger group membership diminished ($F < 1$). The adjusted means did not differ between the advantaged school ($M = 2.92$) and the disadvantaged school ($M = 2.86$). Contrary to the expectations, an ANOVA revealed no significant effect of pre-merger group membership on well-being. Thus, I did not compute an ANCOVA on well-being at school. The mean of well-being was significantly above the scale midpoint 3 for the advantaged school, $t(76) = 6.19, p < .001$, and for the disadvantaged school, $t(81) = 4.69, p < .001$.

For the dependent variables pre- and post-merger identification, a 2 (pre-merger school membership: advantaged vs. disadvantaged) x 2 (categorization level of identification: pre-merger identification vs. post-merger identification) repeated-measures ANOVA was conducted. The analysis yielded a significant interaction effect of pre-merger school membership and categorization level of identification, $F(1, 157) = 27.02, p < .001$, partial $\eta^2 = .15$. In line with the prediction, students of the advantaged pre-merger school identified more strongly with the new school than students of the disadvantaged pre-merger school. Furthermore, students of the advantaged school identified less strongly with their pre-merger school than students of the disadvantaged school. There was also a significant main effect of categorization level of identification, which I did not interpret due to the disordinal character of the interaction.

As expected, the corresponding 2 (pre-merger status: advantaged vs. disadvantaged) x 2 (categorization level of identification: pre-merger identification vs. post-merger identification) repeated-measures ANCOVA yielded a significant interaction effect of group-related justice perceptions and categorization level of identification, $F(1, 156) = 45.67, p < .001$, partial $\eta^2 = .25$. The interaction effect of pre-merger school membership and categorization level of identification was no more significant. The adjusted pattern of means indicated no significant differences in the level of pre-merger identification between advantaged ($M = 3.58$) and disadvantaged pre-merger school ($M = 3.78$), simple effect: $F = 1$. There was also no significant difference in the level of post-merger identification between advantaged ($M = 3.17$) and disadvantaged pre-merger school ($M = 3.15$), simple effect: $F < 1$. Additionally, there was a main effect of categorization level of identification, $F(1, 156) = 66.81, p < .001$, partial $\eta^2 = .30$, indicating that the level of pre-merger identification was significantly higher than the level of post-merger identification across both status groups.

Table 2.1

Means and standard deviations dissolved for pre-merger school membership, including F-statistics for difference tests between the schools (Study 2.1)

	Advantaged pre-merger school	Disadvantaged pre-merger school	$F(1,157)$	Partial η^2
Perceived post-merger status	3.51 (0.88)	2.02 (0.93)	107.99***	.41
Group-related justice perceptions	3.50 (0.72)	2.44 (0.82)	74.52***	.32
Current pre-merger school identification	3.39 (1.12)	3.96 (0.96)	11.77**	.07
Post-merger school identification	3.51 (0.95)	2.82 (1.00)	19.88***	.11
Ingroup bias	0.48 (1.13)	0.99 (0.92)	9.86**	.06
Well-being at school	3.64 (0.90)	3.48 (0.92)	1.24	< .01
Change in achievement	2.77 (0.67)	3.03 (0.71)	5.55*	.03

Note. Standard deviations are specified in brackets. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Consequences of group-related justice perceptions and post-merger identification

Furthermore, I hypothesized that group-related justice perceptions would be positively related to well-being at school and to change in academic achievement after a school merger, and negatively to ingroup bias. It was moreover expected that these relationships would be at least partially mediated by students' post-merger identification. I assumed that this process would uniformly emerge within both the advantaged and the disadvantaged pre-merger school.

To test for the validity of the hypothesized structural model and its invariance across the advantaged and the disadvantaged pre-merger school, Version 5.0 of the AMOS program (Arbuckle, 2003) was applied. Multigroup analysis was used to test

whether the structure of the fully unconstrained model fits equally well across both pre-merger schools. Separately for both groups, all variables were tested for missing data, normality of distribution, and outliers. According to a recommendation of Schafer and Graham (2002), the missing data were deleted listwise, as they represented less than two per cent of the sample size. For the disadvantaged group, the Mardia's multivariate kurtosis coefficient suggested low multivariate kurtosis, whereas it was found to be 6.84 for the advantaged group indicating a significant positive kurtosis. Thus, it seemed evident that the data within the disadvantaged group were multivariate normally distributed, but they were not in the advantaged group.

In order to handle multivariate non-normality, I applied the bootstrap estimation method for the subsample of the advantaged school. Bootstrapping is a resampling procedure by which multiple subsamples of the same sample size as the original dataset are randomly created to generate information on parameter estimates and fit indices (Byrne, 2001). This technique does not rely on assumptions of normal distributions and is therefore less biased in parameter estimation than the standard maximum likelihood estimation method (see Yung & Bentler, 1996, for more details on the bootstrap technique). For the disadvantaged group, the standard maximum likelihood estimation method was used.

I assessed the model's goodness of fit by using the chi-square ratio, the Normed Fit Index (NFI), the Root Mean Square of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SMSR). An acceptable fit is indicated by a non-significant chi-square value, a NFI value greater than .95, a RMSEA value smaller than .06, and a SMSR value smaller than .08 (Hu & Bentler, 1999). I also computed modification indices to identify parameters that would improve model fit. The hypothesized model was tested with manifest variables. Group-related justice was entered as exogenous variable, and post-merger identification, ingroup bias, well-being at school, and change in academic achievement were inserted as endogenous variables. The relationships between group-related justice and ingroup bias, well-being at school, and change in academic achievement were examined as direct and indirect effects mediated by post-merger identification (compare Table 2.2 for correlations between the variables).

Table 2.2*Intercorrelations, means, standard deviations, N = 159 (Study 2.1)*

	Perceived post-merger status	Group-related justice	Post-merger identification	Ingroup bias	Well-being at school	Change in academic achievement
Perceived post-merger status						
Group-related justice	.51***					
Post-merger identification	.40***	.58***				
Ingroup bias	-.22**	-.47***	-.34***			
Well-being at school	.18*	.41***	.55***	-.47***		
Change in academic achievement	.24**	.27***	.26***	-.04	.13	
M	2.74	2.95	3.16	.74	3.55	2.89
SD	1.17	.94	1.04	1.05	.91	.70

Note. *** $p < .001$, ** $p < .01$, * $p < .05$

According to Byrne (2004), testing for invariance across groups requires a multistep process. As a first step, I tested for the validity of the hypothesized model across the two groups simultaneously. The fit of this fully unconstrained model provided the baseline value, against which the subsequent invariance model was compared. Fit indices provided poor evidence for the adequacy of the proposed model, $\chi^2 = 23.12$, $df = 6$, $p < .001$, RMSEA = .13, SMSR = .10, NFI = .88. Inspection of the modification indices revealed that the proposed model could obtain a better model fit when allowing residuals between well-being and ingroup bias to correlate. This modification yielded to a significantly better fitting model, $\Delta\chi^2 = 19.45$, $df = 2$, $p < .001$. The modified model represented a satisfactory fit to the data, $\chi^2 = 3.67$, $df = 4$, $p = .45$, RMSEA = .00, SMSR = .05, NFI = .98.

As a second step, a further model was tested using the same structure as the initial model, but with all paths constrained to be equal across the advantaged and the disadvantaged group. To test for invariance, the fit of this constrained model was compared with the fit of the initially unconstrained model. The difference in chi-square between the two models was not significant, $\Delta\chi^2 = 11.23$, $df = 7$, $p = .13$, suggesting that the hypothesized structure of regression weights applies for both the advantaged and disadvantaged subsample. Fit statistics related to the constrained model are presented in Figure 2.1.

Figure 2.1 also depicts an overview of all significant direct paths in the model for both groups resulting from the second, constrained model. I predicted that group-related justice would be positively related to well-being after the school merger and to change in academic achievement, whereas it would be negatively associated with ingroup bias. The results strongly supported the predictions for well-being and ingroup bias across both groups. There were significant effects of group-related justice on well-being at school, $\beta = .19$, $p < .05$ ($\beta = .21$, $p < .01$)⁴, and on ingroup bias, $\beta = -.27$, $p < .01$ ($\beta = -.41$, $p < .001$). The predicted direct effect of group-related justice on change in academic achievement did not reach the level of significance.

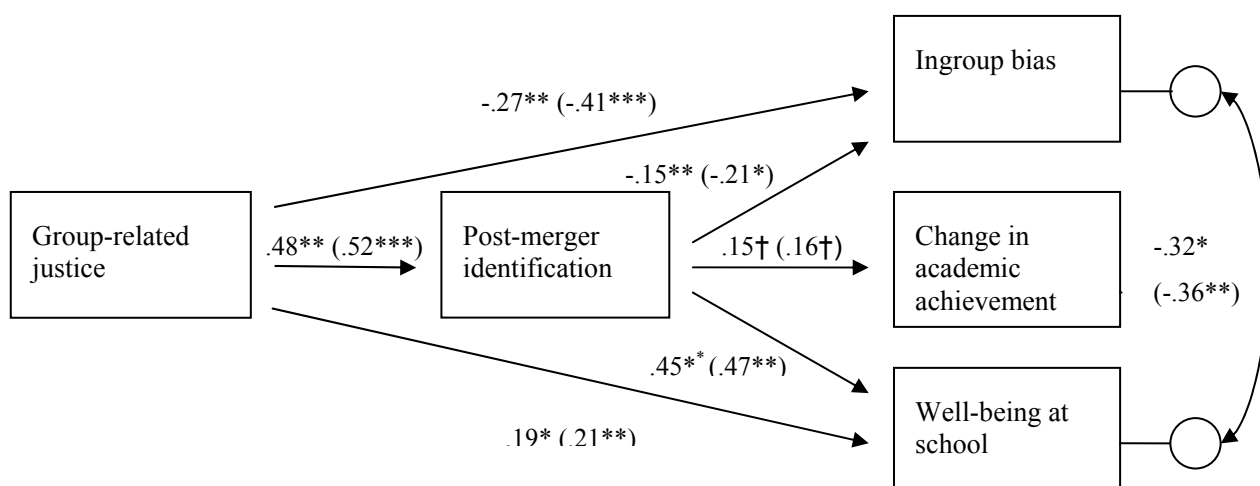
⁴ The first values always refer to the sample of the advantaged pre-merger group, the second values to the disadvantaged group.

Furthermore, I expected identification with the merged school to function as a mediator of the effects exerted by group-related justice on ingroup bias, well-being at school and change in academic achievement. The results strongly confirm this prediction for the indirect effect on well-being, $\beta = .22, p < .01$ ($\beta = .25, p < .01$), and on ingroup bias, $\beta = -.07, p < .01$ ($\beta = -.11, p < .01$).⁵ The indirect path on change in academic achievement reached marginal significance for the advantaged group, $\beta = .07, p < .10$, but failed the level of significance for the disadvantaged group, $\beta = .08, p = .12$. Due to the suggestions of the modification indices, there was also a significant negative correlation between the residuals of ingroup bias and well-being, $r = -.32, p < .05$ ($r = -.36, p < .01$). These negatively correlated residuals might be due to a common variance between ingroup bias and well-being at school that was not captured by the predictor variables of the model. It might be debatable whether, for example, the underlying school climate in the merged school functions as such a common factor that accounts for mutual variance in both variables (cf. Tischendorf, 2007).

Note that the findings presented here are based on cross-sectional survey data and thus, they do not allow causal interpretations. However, to underline the interpretation of the proposed model in terms of causality, an alternative model was tested in which all the paths were reversed. The alternative unconstrained model did not fit the data, $\chi^2 = 23.94, df = 11, p < .05, RMSEA = .09, NFI = .88$. This suggests that the hypothesized model applied better to the data, although it does not completely rule out the possibility of reversed causal relationships.⁶

⁵ All indirect effects were estimated with the bootstrap-technique.

⁶ Although my theoretical focus lay particularly on the mediating effect of post-merger identification, I also explored whether the fact that students learned in a mixed or an unmixed class composition after the merger had any influence on the predicted relationships of the proposed model (see contact hypothesis: Allport, 1954; Pettigrew, 1986). I incorporated class composition, coded as a dummy variable (0 = unmixed / 1 = mixed), as exogenous variables specified to predict direct paths on each of the endogenous variables and to correlate with each of the other exogenous variables. However, the predicted regression weights of the proposed model did not change substantially. This result indicates that the effects of group-related justice on ingroup bias, well-being at school, and change in academic achievement mediated by post-merger identification were not influenced by class composition. It has to be noted, however, that class composition and grade level were confounded in the analyses.



$\chi^2 = 14.89$, $df = 11$, $p = .19$, RMSEA = .05, SMSR = .09, NFI = .92.

Figure 2.1 Final path-analytic model (Study 2.1): Influences of group-related justice on post-merger identification, ingroup bias, well-being at school, and change in academic achievement. Standardized regression weights for the advantaged group (first value) and the disadvantaged group (second value); ^{***} $p < .001$, ^{**} $p < .01$, ^{*} $p < .05$, [†] $p < .10$.

Discussion

Effects of post-merger group status adjusted by group-related justice perceptions

Study 2.1 widely confirmed the hypothesis based on SIA that students of the advantaged pre-merger school adjust better to a school merger than students of the disadvantaged school. Consistent with previous findings on employee identification after corporate mergers (Terry & Callan, 1998; Terry & O'Brien, 2001), students of the disadvantaged school identified less with the new merged school, adhered stronger to their pre-merger school identity, and were more likely to engage in ingroup bias than the students of the advantaged school. The finding that identification with pre-merger school was stronger than post-merger identification for students of the disadvantaged school but not for students of the advantaged school is also in line with previous findings on adult employees affected by mergers (Boen et al., 2005; Terry et al., 2003; van Knippenberg et al., 2002; van Leeuwen et al., 2003). Furthermore, students of the advantaged school reported, as predicted, significant less change in academic achievement after the school merger than students of the disadvantaged school. However, the fact that the impact of

pre-merger school membership (i.e., post-merger status) on all these variables disappeared in the ANCOVAs supported my proposition that the differences in students' adjustment between advantaged and disadvantaged school are indirectly explained by differences in students' justice perceptions regarding the status position.

I observed no difference in well-being at school between students of the advantaged and the disadvantaged school. Both student groups indicated a positive well-being. This finding can perhaps be explained by the fact that students of the disadvantaged school moved from a quite ruined school-building to a completely renovated and better equipped school-building. In accordance to research in architectural psychology (Borrelbach & Walden, 2002), it could be speculated that the improvement of the school environment and the school facilities flowed into the evaluation of well-being at school. However, the path analysis revealed that even though group status had no effect on well-being group-related justice turned out to be positively related to well-being at school.

Consequences of group-related justice perceptions and post-merger identification

Regarding the effects of group-related justice for students' adjustment to a school merger, the findings of the first study revealed strong support for the proposed model. The finding that students who perceived their group status as just reported higher well-being and less endorsement of ingroup bias add to previous research (Lipponen et al., 2004; Shin, 2003; Terry & O'Brien, 2001) that stressed the importance of justice concerns for group-related and individual outcomes after a business merger. Furthermore, the result that these relationships were partially mediated by post-merger identification is in line with the assumptions of the group engagement model (Tyler & Blader, 2003).

The indirect relationship between group-related justice and change in achievement mediated by post-merger identification, albeit it was quite weak, corroborates the proposition of the group engagement model even more (Tyler & Blader, 2003) that perceptions of fairness are important predictors of human behavior, because they involve information relevant to social identity. The more just students judged their post-merger status the more they identified with the new merged school and the less decrease in achievement they reported. Finally, the multigroup model testing

demonstrated that the same model structure applied for both pre-merger schools, suggesting that group-related justice perceptions and post-merger identification are generally meaningful in predicting students' adjustment to a school merger, irrespectively to which status group they belong.

2.2.2. Study 2.2

Study 2.1 yielded first evidence regarding the role of group-related justice perceptions for students' adjustment to a school merger. For further examination and generalization of my approach, I conducted a second study focusing on a school merger that differed from the first one in three aspects. First, Study 2.2 focused on a school merger between two urban secondary schools with lower and middle school track (German 'Regelschule') in Thuringia. Opposed to the college-bound character of the school in Study 2.1, the diploma of this type of school does not allow graduates to enroll in a college or a university, but it prepares them for a vocational training in a white-collar job. Given the quite strong association of students' school track and their socio-economic backgrounds in Germany, the sample of Study 2.2 can be considered to by and large represent a less privileged stratum of society.

The second aspect referred to the pattern of integration that differed between the first and the second school merger. Prior to the second merger, the pre-merger schools had been located in two neighbored suburbs of a small Thuringian town. Like in Study 2.1, the two pre-merger schools had not differed in terms of prestige and performance before the merger. But opposed to Study 2.1, they had considerably differed in the number of students. One pre-merger school had about 40 per cent more students than the other one (319 students / 229 students). Although, Study 2.2 also concerned a school merger with an imbalanced status relation between the merger partners, this differential in post-merger status seemed to be not as well-defined as in Study 2.1. This was, for instance, evident in the fact that the former principal of the smaller school became the new principal of the post-merger school and the former deputy principal of the larger pre-merger school became the new deputy in the post-merger school. Moreover, the name of the new post-merger school was a mixture of both schools referring to the town in which the merged school is located.

However, one potential source for post-merger imbalance between the merging schools was based on the fact that the school-building of the small pre-merger school was closed and the school-building of the larger school became the host building for the new merged school. This pattern of redistribution outcome suggests that the LEA strived for an equal integration of both schools. Yet, it is rare in reality that two merger partners are of exactly equal status (van Oudenhoven & de Boer, 1995). There is always one partner that more or less dominates the other, be it in terms of size, performance or in influence on organizational decisions (van Knippenberg et al., 2002). Accordingly, in the present merger case, I assumed a *proportional integration pattern*, characterizing an unequal proportion of the two pre-merger cultures, to be applied in the new post-merger school (cf. Giessner et al., 2006). More specifically, I argued that the larger pre-merger school that remained in its previous school-building presumably has a higher post-merger status compared to the smaller school that lost its school-building.

The students remained in their initial class composition and were not mixed between the two pre-merger schools. As in Study 2.1, the merger was initiated by the regional parliament and implemented by the LEA. It had been announced by the regional parliament about one year before the merger was implemented.

The third difference concerned the assessment of change in academic achievement. One limitation of Study 2.1 was that change in achievement was assessed as a self-reported single-item measure, which can be only considered as a proxy for objective change in achievement. In order to obtain a more reliable and valid measure of change in academic achievement, an objective grade point difference score was used in Study 2.2.

Method

Participants, procedure and measures

Participants were 136 students of the 8th, 9th, and 10th grades of the middle school track (German “Realschulzweig”). The sample comprised 82 students from the larger school (60%) and 54 students from the smaller school (40%). Ages ranged from 13 to 18 years ($M = 15.60$). Eighty-two per cent of the participants were female students.

The procedure was the same as in Study 2.1, the questionnaire consisted of the same instruments as used in the previous study. Apart from the measure of change in academic achievement, perception of post-merger status, group-related justice perceptions ($\alpha = .76$), pre-merger identification ($\alpha = .89$), post-merger identification ($\alpha = .87$), ingroup bias ($\alpha = .84$), and well-being at school were all operationalized exactly as in Study 2.1.

Change in academic achievement after the school merger. To assess change in academic achievement, students reported their grade points from the last end-term report prior to the merger (summer semester) and the first mid-term report six months after the merger (winter semester). Grades in four main subjects were required: maths, German language, English language and biology. In Germany, grades range from 1 (very good) to 6 (unsatisfactory). Reliabilities of the four-item measures for achievement were good (achievement score summer: $\alpha = .70$; achievement score winter: $\alpha = .67$). For each subject a difference score was obtained by subtracting the grades after the merger from the grades prior to the merger. I used the mean of the difference scores as the overall measure for change in academic achievement. Means scores greater than zero indicate an increase in achievement, negative scores point to a decrease in achievement.

Results

Preliminary variables

An ANOVA by pre-merger school membership on perceived post-merger status revealed, as expected, a significant difference in students' perceived relative post-merger status (compare Table 2.3 for means, standard deviations, and F -statistics). Students of the advantaged pre-merger school indicated a higher post-merger status, which, however, was not significantly different from the scale midpoint ($t < 1$), than students of the disadvantaged pre-merger school, who rated the relative status of their school significantly lower than the midpoint of the scale, $t(52) = -4.10$, $p < .001$. Students of the advantaged pre-merger school perceived also significantly higher group-related justice than students of the disadvantaged school. Students of the advantaged school rated group-related justice not significantly different from the midpoint of the scale 3, $t(76) = 1.66$, $p = .10$, whereas the mean of group-related justice among students

of the disadvantaged school was significantly lower than the scale midpoint, $t(52) = -4.59, p < .001$.

These findings underline my assumption that the post-merger status differential in this school merger is not as clear as in the first study. Whereas students of the disadvantaged school indicated a significantly lower and unjust post-merger status of their own group, the results were more ambiguous for students of the advantaged school. Even though the mean score of perceived post-merger status within this subsample was slightly above the midpoint, it did not reach the level of significance. The same was true for the mean score of group-related justice perceptions. Thus, these students perceived no significant difference in post-merger status between the pre-merger schools, and they were on average indefinite regarding the justice of this status quo. However, for a comprehensible distinction of the two pre-merger schools, I continue to use the terms advantaged and disadvantaged pre-merger schools.

Effects of post-merger status adjusted by group-related justice perceptions

To examine the predictions that students of the advantaged pre-merger school would adjust better to the school merger than students of the disadvantaged pre-merger school and that this difference would be exerted by group-related justice perceptions, I followed the same procedure as in Study 2.1. First ANOVAs with pre-merger group membership as independent variable were computed. If the ANOVAs revealed a significant difference between advantaged and disadvantaged school, then, as a second step, ANCOVAs with group-related justice perceptions as covariate were conducted.

As can be seen in Table 2.3, the ANOVA on ingroup bias did not reveal a significant effect of pre-merger group membership. The mean of ingroup bias within the advantaged pre-merger school was significantly above the scale midpoint, $t(76) = 7.50, p < .001$, as was the mean for students of the disadvantaged school, $t(52) = 5.73, p < .001$. There was also no difference in change in academic achievement between the two pre-merger schools. The students of the advantaged school showed a significant decrease in academic achievement, $t(76) = -3.24, p < .01$), as did the students of the disadvantaged school, $t(52) = -3.68, p < .01$. For well-being at school, an ANOVA by pre-merger school membership revealed a significant main effect. As predicted, students of the advantaged school reported higher well-being at school, which was significantly

different from the midpoint of the scale 3, $t(76) = 4.43, p < .001$, than students of the disadvantaged school, $t(52) = .66, p = .51$. However, a corresponding ANCOVA yielded, as expected, only a significant effect of the covariate group-related justice perceptions, $F(1, 127) = 19.46, p < .001$, partial $\eta^2 = .13$, whereas the effect of pre-merger group membership disappeared ($F < 1$). The adjusted means did not significantly differ between the advantaged school ($M = 3.35$) and the disadvantaged school ($M = 3.24$).

As in Study 2.1, I performed a 2 (pre-merger school membership: advantaged vs. disadvantaged) x 2 (categorization level of identification: pre-merger identification vs. post-merger identification) ANOVA with repeated measures on the second factor to analyze the dependent variables pre- and post-merger identification. The analysis yielded, as in Study 2.1, a significant interaction effect of pre-merger school membership and categorization level of identification, $F(1, 128) = 11.82, p < .01$, partial $\eta^2 = .08$. In line with the prediction, students of the advantaged pre-merger school identified more strongly with the new school than those of the disadvantaged school. Furthermore, students of the advantaged school identified less strongly with their pre-merger school than students of the disadvantaged school. Additionally, the ANOVA revealed a significant main effect of categorization level of identification, $F(1, 128) = 79.65, p < .001$, partial $\eta^2 = .38$, indicating that students of both schools reported a significantly higher current identification with their pre-merger school than with their post-merger school.

I also computed a corresponding 2 (pre-merger status: advantaged vs. disadvantaged) x 2 (categorization level of identification: pre-merger identification vs. post-merger identification) repeated-measures ANCOVA. This analysis yielded, as expected, a significant interaction effect of group-related justice perceptions and categorization level of identification, $F(1, 127) = 19.33, p < .001$, partial $\eta^2 = .13$. The interaction effect of pre-merger school membership and categorization level of identification was no more significant, $F(1, 127) = 2.78, p = .10$, partial $\eta^2 = .02$. The adjusted pattern of means indicated no significant differences in the level of pre-merger identification between advantaged ($M = 3.73$) and disadvantaged pre-merger school ($M = 3.92$), simple effect: $F(1, 127) = 1.04, p = .31$, partial $\eta^2 < .01$. There was also no significant difference in the level of post-merger identification between advantaged (M

= 2.89) and disadvantaged pre-merger school ($M = 2.68$), simple effect: $F(1, 127) = 1.51$, $p = .22$, partial $\eta^2 = .01$. There was additionally a significant main effect of categorization level of identification, $F(1, 127) = 45.80$, $p < .001$, partial $\eta^2 = .27$, indicating that the level of pre-merger identification was significantly higher than the level of post-merger identification across both status groups.

Table 2.3

Means and standard deviations dissolved for pre-merger school membership, including F -statistics for difference tests between the schools (Study 2.2)

	Advantaged pre-merger school	Disadvantaged pre-merger school	$F(1,157)$	Partial η^2
Perceived post-merger status	3.09 (1.02)	2.34 (1.18)	15.10***	.11
Group-related justice perceptions	3.13 (0.72)	2.48 (0.82)	23.06***	.15
Current pre-merger school identification	3.68 (0.98)	4.00 (0.94)	3.34†	.03
Post-merger school identification	3.01 (0.97)	2.50 (1.00)	8.69**	.06
Ingroup bias	0.83 (0.98)	1.02 (1.29)	< 1	< .01
Well-being at school	3.47 (0.93)	3.08 (0.83)	6.12*	.05
Change in achievement	-0.16 (0.43)	-0.19 (0.37)	< 1	< .01

Note. Standard deviations are specified in brackets. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Consequences of group-related justice perceptions

As in Study 2.1, the AMOS software program (Version 5.0) was used to test for the validity of the hypothesized structural equation model regarding the role of group-related justice perceptions and post-merger identification for students' adjustment to a merger. All variables were tested for missing data, normality of distribution and outliers. Two per cent of the sample size represented missing values, they were deleted listwise. Within advantaged and disadvantaged school, indices of normality corresponded to low levels of univariate skewness and kurtosis, as did the Mardia's multivariate kurtosis coefficient. Table 2.4 shows the zero-correlations between all variables.

Table 2.4*Intercorrelations, means, standard deviations, N = 130 (Study 2.2)*

	Perceived post-merger status	Group-related justice	Post-merger identification	Ingroup bias	Well-being at school	Change in academic achievement
Perceived post-merger status						
Group-related justice	.44***					
Post-merger identification	.33***	.41***				
Ingroup bias	-.16†	-.37***	-.33***			
Well-being at school	.34***	.41***	.70***	-.30***		
Change in academic achievement	.19*	.24**	.03	-.15	.05	
M	2.78	2.87	2.81	.91	3.31	-0.17
SD	1.14	.83	1.01	1.12	0.91	0.41

Note. *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$

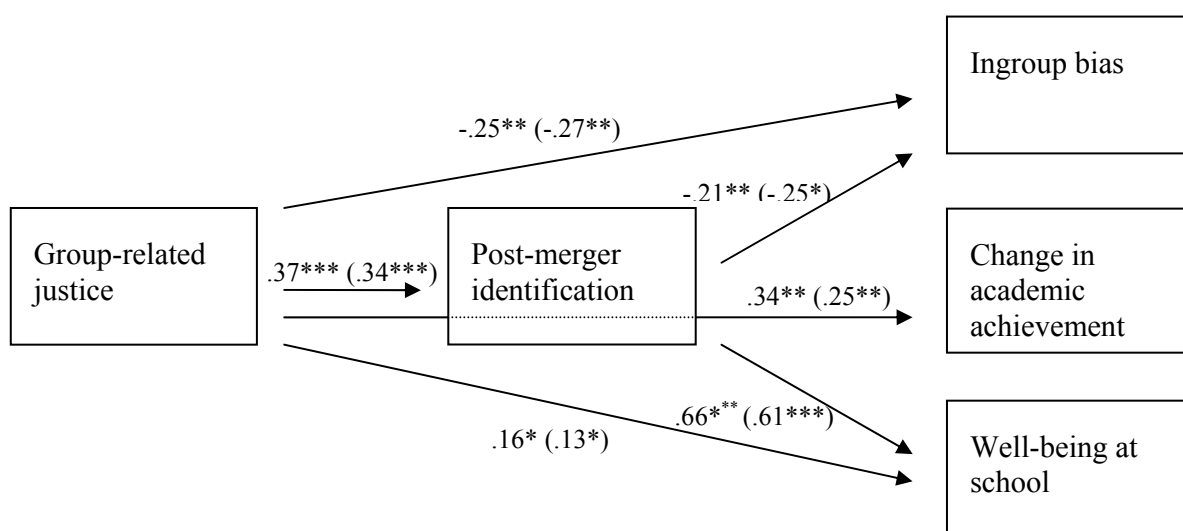
As the Mardia's coefficient indicated no violation of multivariate normality, I tested the hypothesized model with manifest variables using the standard maximum likelihood estimation method. Like in Study 2.1, group-related justice was entered as exogenous variable, and post-merger identification, ingroup bias, well-being at school, and change in academic achievement were inserted as endogenous variables. Initially, I tested for the validity of the hypothesized model structure simultaneously across both groups and obtained a quite acceptable goodness of fit statistic, $\chi^2 = 8.56$, $df = 6$, $p = .20$, RMSEA = .06, SMSR = .04, NFI = .94. Comparing this unconstrained model with a second model constraining all regression weights to be equal, revealed no significant difference in model fit, $\Delta\chi^2 = 4.94$, $df = 7$, $p = .67$. As in Study 2.1, these results indicate that the proposed model structure fits equally well across advantaged and disadvantaged pre-merger school (see Figure 2.2 for fit statistics of the constrained model).

All significant direct paths in the constrained model are presented in Figure 2.2. In accordance with what I predicted, all of the direct effects of group-related justice perceptions on the individual and the group-related outcome variables were significant. Across both pre-merger schools, group-related justice perceptions led to a significant increase in well-being after the school merger, $\beta = .16$, $p < .05$ ($\beta = .13$, $p < .05$)⁷, a significant positive change in academic achievement, $\beta = .34$, $p < .01$ ($\beta = .25$, $p < .01$), and significantly less ingroup bias, $\beta = -.25$, $p < .01$ ($\beta = -.27$, $p < .01$). Additionally, I assumed post-merger identification to mediate the effects of group-related justice on ingroup bias, well-being at school, and change in academic achievement. The results strongly support this prediction for the indirect effects on well-being and ingroup bias. Group-related justice had a significant indirect effect on well-being at school, $\beta = .25$, $p < .001$ ($\beta = .21$, $p < .001$), and on ingroup bias, $\beta = -.08$, $p < .01$ ($\beta = -.08$, $p < .01$).⁸ However, the mediation hypothesis was not confirmed for change in academic achievement. Even though post-merger identification was, as expected, related to group-related justice, $\beta = .37$, $p < .001$ ($\beta = .34$, $p < .001$), it was not related to change in academic achievement.

⁷ The first values refer to the sample of the advantaged pre-merger group, the second values to the disadvantaged group.

⁸ All indirect effects were estimated using the bootstrap method.

In sum, the multigroup structural equation results are in line with the prediction that group-related justice perceptions are related to well-being at school, to change in academic achievement, and to ingroup bias after a school merger. Additionally, it was shown that these relationships are partially mediated by post-merger identification. However, these findings were, as in Study 2.1, based on correlational data. Therefore, no causal interpretations can be made. Thus, I tested again an alternative reversed model to approximate a causal interpretation of the proposed model. The alternative unconstrained model did not fit the data, $\chi^2 = 29.09$, $df = 13$, $p < .001$, RMSEA = .10, NFI = .80. The hypothesized model better applied to the data, although caution with causal conclusions is still recommendable.



$\chi^2 = 13.51$, $df = 13$, $p = .40$, RMSEA = .02, SMSR = .06, NFI = .91.

Figure 2.2 Final path-analytic model (Study 2.2): Influences of group-related justice on post-merger identification, ingroup bias, well-being at school, and change in academic achievement. Standardized regression weights for the advantaged group (first value) and the disadvantaged group (second value); ^{***} $p < .001$, ^{**} $p < .01$, ^{*} $p < .05$.

Discussion

Effects of post-merger status adjusted by group-related justice perceptions

The results of the second study provided further support for the hypothesis that students of an advantaged pre-merger school adjust better to a school merger than those of a disadvantaged pre-merger school. The findings also corroborated my assumption that these differences between status groups are due to differences in students' group-related justice perceptions. In line with the hypothesis and with the findings of the first study, students of the advantaged school reported higher post-merger and lower pre-merger identification compared to students of the disadvantaged school. Contrary to Study 2.1, students of the advantaged school also indicated higher well-being at school than students of the disadvantaged school.

All these differences between advantaged and disadvantaged pre-merger schools disappeared after adjusting the results by the covariate group-related justice perceptions. This finding again strengthens my argument that the differences between advantaged and disadvantaged merger groups are only an indirect result of differences in group status. Instead, they are completely mediated by the extent to which this status is perceived as just or not.

Contrary to what I initially hypothesized, students of both pre-merger schools did neither significantly differ in their level of ingroup bias nor in change in academic achievement. Students of both pre-merger schools endorsed ingroup bias and showed a significant decrease in academic achievement after the school merger. However, as will be discussed in more detail below, group-related justice perceptions were significantly related to ingroup bias as well as to change in academic achievement. These findings again suggest that it is important to focus on justice perceptions students have about their post-merger group status and not only on mere status differences to better understand adjustment to a merger.

Consequences of group-related justice perceptions and post-merger identification

The findings of Study 2.2 further provided support for the prediction that group-related justice perceptions substantially contribute to predict students' level of well-being at the merged school, change in academic achievement, and students' expression of ingroup bias after a school merger. This study also provided support for the assumption that post-merger identification partially mediates these relationships. In so far, these results are in line with the findings of Study 2.1.

Yet, the findings on change in academic achievement were somewhat different between the two merger studies. Whereas group-related justice had a slightly indirect but no direct effect on change in academic achievement in the first study, it had a direct but no indirect effect on change in achievement in the second study. These opposing results might be due to the differing operationalizations of change in academic achievement between the two studies.

2.2.3. General discussion of Chapter 2

Previous investigations have offered clear evidence for the importance of social identity processes for the success of an organizational merger (e.g., Giessner et al., 2006; Haunschild et al., 1994; Terry et al., 2001; Terry & O'Brien, 2001). It has also been demonstrated that post-merger justice and fairness perceptions play a critical role in determining employees' adjustment to mergers (e.g., Amiot et al., in press; Lipponen et al., 2004; Meyer, 2001; Shin, 2003). Despite the high prevalence of school mergers, no studies have explicitly investigated the success of school mergers and the impact they might have on students. Thus, I considered it most relevant, both from a theoretical and from an applied perspective, to explore the unknown field of a school merger. In particular, I focused on the role group-related justice perceptions in conjunction with social identity processes play for students' adjustment to a school merger.

The effects of post-merger status on students' adjustment to a merger adjusted by group-related justice perceptions

On the basis of SIA (Tajfel, 1978; Tajfel & Turner, 1979; Turner et al., 1987) and previous studies on organizational mergers (e.g., Amiot et al., in press; Gaertner et al., 2001; Terry & O'Brien, 2001; Terry et al., 2001), I expected that students of an advantaged pre-merger school would adjust better to a school merger than students of a disadvantaged pre-merger school. However, as an extension to previous studies, I assumed that these differences between advantaged and disadvantaged pre-merger schools would be indirectly explained by differences in students' group-related justice perceptions about the post-merger status relation and not by differences in status directly. The two studies widely confirmed this expectation.

Students of advantaged pre-merger schools indeed adjusted better to a school merger, as they showed a smaller decrease in academic achievement, lower levels of pre- and higher levels of post-merger identification as well as less ingroup bias than students of disadvantaged schools. Additional analyses of covariance suggested that all these differences can be explained by differences in group-related justice perceptions. Students of an advantaged pre-merger school showed more positive responses to the school merger than students of a disadvantaged school, because they tended to perceive their status more just than students of a disadvantaged school.

Group-related justice perceptions could also explain, why in the second school merger, no remarkable differences in the levels of ingroup bias and change in achievement were found between students of the pre-merger schools. Due to the proportional integration pattern applied in the second school merger, students of both pre-merger schools experienced no markedly advantaged post-merger status. The low mean scores of group-related justice perceptions indicated that students of both pre-merger schools did not judge their group status to be just. Therefore, they might have felt almost equally threatened in their social identity which might have accounted for a similar negative merger adjustment in terms of ingroup bias and change in achievement.

The initial findings that the current level of pre-merger identification was significantly higher than the level of post-merger identification in both pre-merger schools in the second study and in the disadvantaged but not the advantaged pre-merger

school in the first study are in accordance with recent research by van Leeuwen, van Knippenberg, and Ellemers (2003) and van Knippenberg and colleagues (2002). Their research on the importance of identity continuation after mergers is based on the assumption that members of a non-dominant or disadvantaged merger partner do not manage to construe a merger as a partial continuation of their pre-merger identity. Accordingly, they are less likely to identify with the post-merger organization but are more likely to adhere to their pre-merger identity. In contrast, members of a dominant or advantaged merger partner are more likely to feel a sense of continuity that leads them to stronger identify with the new merged organization.

Even though van Leeuwen and colleagues (2003) and van Knippenberg and colleagues (2002) argued that a specific level of a sense of continuity would correspond to a specific level of social identity threat, they did not empirically illustrate the underlying process of why a sense of continuity should have a positive effect on post-merger identification and subsequent merger outcomes. The present research could add to the understanding of this process. Consistently across both studies, it has been shown that differences in the identification pattern between advantaged and disadvantaged pre-merger schools were due to differences in group-related justice corresponding to a certain group status. Although I did not measure the sense of continuity, it seems plausible that perceptions of group-related justice might also explain the impact of a sense of continuity on post-merger identification. In line with identity-based approaches on justice (e.g., Tyler & Blader, 2003) it could be speculated that those who feel that their pre-merger identity is continued in the post-merger organization perceive this as more just and less threatening, because they perceive their group as more valuable, compared to those whose pre-merger identity is not continued. Future research could profit from examining the effects of a sense of continuity in conjunction with a measure addressing the justice perception of a specific level of continuity.

Noteworthy from an applied perspective, the present research covered two school mergers that differed substantially in their integration pattern and in the resulting clarity of the status differential between the merger partners. Whereas the assimilation pattern in Study 2.1 led to a well-defined status relation of an advantaged and a disadvantaged party, the proportional integration pattern applied in the second merger resulted in an ambiguous status relation with no definite advantaged merger partner. Although one

might assume that integration is generally more beneficial to a positive merger adjustment of *both* merging groups than assimilation (cf. Mottola et al., 1997), the opposite effect was found in the second study. Even though the LEA strived to integrate characteristics of both schools equally, this strategy failed to provide a successful post-merger situation and students across *both* pre-merger schools adjusted rather poorly to the school merger. This result not only corroborates van Oudenhoven's and de Boer's (1995) conclusion that equal status is difficult to establish between merging groups. It is also in line with Giessner and colleagues' (2006) findings that it is not the integration pattern (i.e., the post-merger status relation) per se that might harm or foster the success of a merger, but it is group members' perceptions regarding the justice of this integration pattern that considerably drive their responses to a merger.

The role of group-related justice and post-merger identification with school for students' adjustment

The path analytical results widely support the assumptions regarding justice perceptions and extend earlier findings on their importance for the merger responses of adult employees (e.g., Amiot et al, in press; Meyer, 2001; Lipponen et al., 2004; Shin, 2003; Terry & O'Brien, 2001) to the field of a school merger. Across both studies, students' group-related justice perceptions were positively related to their level of post-merger identification and their sense of well-being at school, and negatively to the level of ingroup bias. Moreover, the present findings confirmed my prediction made on the basis of the group engagement model (Tyler & Blader, 2003) that group-related justice is strongly related to post-merger identification and that post-merger identification, in turn, mediates the relation between group-related justice and well-being at school, and ingroup bias, respectively.

The proposed structural pattern was prevalent across the advantaged and the disadvantaged pre-merger schools suggesting that group-related justice is equally important for students' adjustment to a school merger, irrespectively to which status group they belong. The fact that these findings are consistent across both school merger cases is even more important, because the cases differed in the type of school, in the pattern of integration, and in the clarity of the post-merger status differential. This consistency across different school mergers sustains confidence in the generalizability of

the present findings. Yet, it remains open to debate whether these findings can be transferred to school mergers in general.

However, the data provided inconsistent support for the prediction of change in academic achievement. In the first study of this chapter, I found an indirect relationship between group-related justice and change in academic achievement that was completely mediated by post-merger identification. This result can be interpreted in support of Tyler and Blader's (2003) group engagement model. However, it is recommendable to treat this interpretation with caution, as the effect was only weak and the single-item self-report measure of change in academic achievement might involve problems of reliability and validity. Moreover, this interpretation was not supported in the second study with a more valid measure of change in academic achievement. The path analysis revealed a strong direct relationship between group-related justice and change in academic achievement, but no indirect effect mediated through post-merger identification. This latter unexpected finding corresponded to the fact that, contrary to the assumption based on previous educational research (e.g., Bronfenbrenner, 1979; Finn, 1989; Goodenow, 1993; Steele, 1992; Trusty & Dooley-Dickey, 1993), post-merger identification did not have an effect on change in academic achievement. This suggests that the decrease in academic achievement that occurred across both pre-merger groups in Study 2.2 is indeed contingent upon the level of students' perceived justice regarding the post-merger status differential. However, there must have been other factors over and above post-merger identification that may explain the relation between group-related justice and change in academic achievement.

In line with Griffith's (2004) proposition, according to which organizational stress generally reduces the effectiveness of schools, the overall organizational stress after a school merger may lead to reduced academic achievement. Group-related justice perceptions held by students may be only one expression of this organizational stress. An additional expression of organizational stress may be immanent to teachers' responses to the school merger. Given the likely situation that teachers' merger responses were equally negative as those of students (cf. Boen, et al., 2005; Verhoeven et al., 2002, as cited in Boen et al., 2005), one might speculate that teachers' lack of positive adjustment might have seriously reduced their working motivation and performance (cf. Christ, van Dick, Wagner, & Stellmacher, 2003; van Dick & Wagner,

2002). Previous educational research suggests that teachers' underperformance, in turn, could essentially account for a reduced academic achievement of their students (Brenninkmeijer, Vanyperen, & Buunk, 2001). However, to test this assumption, future research is required to assess both students' and teachers' adjustment to a school merger.

Moreover, future research should extend the focus to other important school-related outcomes beside academic achievement like, for example, academic motivation, classroom participation or persistence in schoolwork. These variables are related to students' academic performance (e.g., Buhs, Ladd, & Herald; 2006) and may be more sensitive to students' adjustment to school (i.e., to the strength of post-merger identification), as they reflect more directly current in-school emotions and behaviors than do grade points in biannual reports. Likewise, it seems reasonable for future studies to explicitly assess the post-merger school climate, which might function as an important in-school variable shaping the effects of social identity changes and group-related justice concerns on students' performance and well-being (see Haynes, Emmons, & Ben-Avie, 1997, for a comprehensive overview of the correlates of school climate).

Limitations

Besides the abovementioned reservations regarding the operationalization of change in academic performance, a similar limitation has to be mentioned regarding the measure of well-being at school. I assessed well-being at school by means of one global item. To gain clearer insight into students' school-related well-being after a merger, future research needs to develop a more reliable measure of well-being at school that captures a more differentiating coverage of the construct. Moreover, this research has another limitation: The data are based on cross-sectional designs. Thus, all conclusions regarding the impact of group-related justice and the mediating role of post-merger identification, respectively, have to be interpreted with caution. Even though the perception of group-related justice corresponded to the post-merger status differential, which was directly implied by the merger, one cannot completely rule out the possibility that the causal direction was different from the one I proposed. It is possible, for example, that students high in post-merger identification or well-being also tend to evaluate their group status to be fair (cf. Hinkle & Brown, 1990). Future research is required to test the proposed predictions in a longitudinally design. Using such an approach not only provides a more stringent test of the proposed associations between

the variables, it also accounts for changes that presumably occur throughout the different stages of a merger (cf. Amiot et al., in press; Gleibs et al., 2007a).

Implications

The limitations discussed notwithstanding, this part of the thesis can be considered an important extension to previous research. In particular, the present research adds to the growing body of intergroup relations research on mergers (e.g., Amiot et al., in press; Giessner et al., 2006; Haunschild et al., 1994; Lipponen et al., 2004; Meyer, 2001; Shin, 2003; Terry et al., 2001; Terry & O'Brien, 2001), in that it demonstrates that intergroup phenomena that have been observed among adult employees in merger contexts also occur among students who are affected by a school merger.

Importantly, this research can be considered an essential extension to previous findings on differences between high and low status merger partners (e.g., Amiot et al., in press; Gaertner et al., 2001; Gleibs et al., 2007a; Terry et al., 2001), in the sense that it provides an explanation for *why* these differences occur. In the light of the present data, one can conclude that differences in merger adjustments between members of different post-merger status groups emerge, because they inherently imply differences in group-related justice. In this respect, this research corroborates the propositions of the group engagement model (Tyler & Blader, 2003) and extends the external validity of this approach to the field of a school merger.

Furthermore, the present research demonstrates that intergroup phenomena and group-related justice are associated with variables of individual school success. In doing so, it constitutes a new contribution to the integration of intergroup relations research and justice research into the field of educational research on school success. In a broader sense, it strengthens the notion that for research on mergers it is instructive to apply an intergroup perspective in simultaneous consideration with a justice perspective, because this focus not only adds to the understanding of peoples' merger responses at the group level, but also on their responses at the individual level.

From the perspective of justice research, the present results suggest that it is worthwhile focusing particularly on group-related justice perceptions to determine students' responses to a merger. As the consequences of group-related justice perceptions have been widely ignored in justice research as well as in educational

research (cf. Tyler, 2001), the present findings can be considered an important contribution to both fields. Future justice research in the merger context, however, might particularly benefit from the assessment of individual and group-related justice perceptions. This would allow analyzing to what extent each of these uniquely contributes to predict employees' or students' responses to a merger.

At an applied level, the present research findings have also important implications for educational authorities involved in the management of school mergers. These people first need to be aware of the possibly negative consequences a school merger can have for students' well-being at school, their academic achievement as well as for the intergroup relations between students of two merging schools. Especially students of disadvantaged pre-merger schools show a poor adjustment to a school merger due to the fact that they judge their disadvantaged status to be an unjust result of the process of merging. In the light of the present data, the post-merger status (i.e., the outcome of the merger implementation) per se seems less important for students' adjustment to a school merger. Instead, the findings of this thesis suggest that group-related justice perceptions related to this status position are of major importance for the quality of students' adjustment to a school merger.

It is therefore recommended that educational authorities try to ensure that students and teachers experience the post-merger status relation as fair as possible. Based on justice literature (Greenberg, 1987; Folger, 1977; McFarlin & Sweeney, 1992), according to which people tend to perceive an even unfavorable outcome as fair as long as they evaluate the underlying decision-making process to be fair, the most successful way to achieve group-related justice after a school merger among students of advantaged and disadvantaged schools is to try to create the implementation *procedure* as fair.

3. Antecedents of students' group-related justice perceptions: A social categorization approach

3.1. Theoretical introduction

Chapter 2 outlined the importance of group-related justice perceptions for students' adjustment to a school merger. With group-related justice perceptions having such a substantial significance for the success of a school merger, the following part of my research was designed to analyze possible antecedents of these justice perceptions. Based on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), I particularly aimed at exploring how group membership and ingroup prototypicality might influence students' justice evaluations regarding the post-merger status relation between two pre-merger schools. To approach this research aim, first, a conceptualization of group-related justice with regard to the concept of entitlement is given.

3.1.1. Group-related justice and the concept of entitlement

A common definition in social psychology frames justice as a state where people get what they deserve or what they are entitled to (Lerner, 1991). According to this definition, the perception of justice is inherently associated with the concept of entitlement (Major, 1994; Wenzel, 2001). Whether a situation is perceived as just or not results from a comparison between the actual outcome a recipient receives and the outcome the recipient feels entitled to (cf. Adams, 1965). Taking this further, every experience of injustice presupposes the evaluation that someone's entitlements have been violated (Mikula & Wenzel, 2000).⁹

This definition was originally developed to define distributive justice. Distributive justice is one of two primary aspects discussed in justice literature which refers to the perceived fairness of the distribution of outcomes. The other aspect, procedural justice, is defined as perceived fairness of the procedures used in decision-

⁹ According to Mikula and Wenzel (2000), the subjective evaluation of violated entitlements is the fundamental but not the only element of an injustice perception. Two further elements are the identification of an agent responsible for the violation and the lack of justification for the violation.

making about the distribution of outcomes (Hauenstein et al., 2001). However, I would argue that the definition provided above also applies to procedural justice. Regardless of whether the fairness of distributions or procedures is questioned, they both are judged on the basis of entitlements. Whereas the first one is based on entitlements regarding material outcomes, the second one is based on entitlements about socio-emotional or immaterial outcomes (cf. Cropanzano & Ambrose, 2001). Moreover, recent research has demonstrated that these two justice constructs affect one another. Individuals make inferences about procedural justice from distributive justice perceptions and vice versa (e.g. Brockner & Wiesenfeld, 1996; McFarlin & Sweeney, 1992; Van den Bos, Lind, Vermunt, & Wilke, 1997; see for a meta-analysis: Hauenstein et al., 2001). Thus, it seemed most appropriate to me to extend the definition on a broader justice concept that includes both distributive and procedural justice.

Potential recipients of an entitlement could be either a person or a group depending upon the salience of either personal or social identity (Ellemers et al., 1993; Tyler, 2001; Tyler & Smith, 1998). Due to the fact that the intergroup encounter of a school merger heightens the salience of the pre-merger school memberships (cf. Haunschild et al., 1994), I assumed that students would become particularly aware of justice issues affecting their pre-merger school as a whole group. Hence, I focused attention on the emergence of group-related justice after a school merger, and group entitlement, respectively. In more concrete terms, I was interested in students' justice perceptions regarding the post-merger status relation between the two pre-merger schools. In particular, the aim of the present research was to analyze the antecedents of these group-related justice perceptions. The main research question was how students decide about which post-merger status position their pre-merger school is entitled to after a school merger in relation to the other pre-merger school. Stated differently, how do students judge whether the post-merger status relation between two merging schools is just or not? Related to the definition of justice provided above, group-related injustice might be implied when students perceive that the actual post-merger outcome (i.e., the relative status of their pre-merger school) does not match the claimed post-merger outcome (cf. Mikula, 1993; Syroit, 1991).

However, the notion of entitlement leaves unanswered several questions addressing the specific criteria students use to decide whether the status relation between

the pre-merger schools is a just outcome: Where do students derive a group entitlement of their pre-merger school from? How do they decide, whether their pre-merger school's entitlements were violated or not? What are relevant criteria students take into account to evaluate group-related justice after a school merger? This part of the thesis was designed to answer these questions.

3.1.2. Social categorization processes as antecedents of justice perceptions

Justice research has provided quite a few theoretical approaches that address antecedents of justice evaluations (e.g., Adams, 1965; Berger, Zelditch, Anderson, and Cohen, 1972; Deutsch, 1985; Homans, 1961; Lerner, 1980; Lind & Tyler, 1988; Walster, Walster, & Berscheid 1978). However, Wenzel (1997, 2001) has identified two crucial shortcomings of these approaches: Either they focus more or less on individual justice judgments neglecting the social dimension of a justice context (e.g., Adams, 1965; Deutsch, 1985; Homan, 1961; Walster, et al., 1978) and / or they fail to detect the roots of the values, norms, and principles that are supposed to underlie justice decisions (e.g., Adams, 1965; Berger, et al., 1972; Deutsch, 1985; Folger, 1986, 1987; Lerner, 1980; Lind & Tyler, 1988). These approaches leave the question to be answered, which characteristics should be taken into account for the justice decision and which attributes are relevant for judging entitlements in a given justice context.

This question has been elaborated by a recently developed social categorization approach to justice by Wenzel (1997, 2001). The core assumption of this approach is that entitlement beliefs are based on social categorizations of people according to who they are and to what they have done. The theoretical basis of this approach is rooted in self-categorization theory (SCT; Turner, 1985; Turner et al., 1987). According to a central proposition of SCT, individuals derive a part of their self-concept from their belongingness to social categories, thus, from self-categorization. Self-categorization is the cognitive grouping of an individual as identical and interchangeable to other members of the own category in contrast to members of other categories. Self-categories vary in their level of inclusiveness and are hierarchically structured. A comparison between two social categories always requires a shared categorization on the next inclusive category (e.g., biologists and chemists compare themselves in terms of the category „scientist“). The inclusive category implies the relevant dimensions for a

comparison. The evaluation of subcategories depends upon the extent to which they are relatively prototypical of this inclusive category.

As mentioned above, Wenzel (1997, 2001) stresses that entitlement beliefs are also deduced on the basis of social categorization processes. More specifically, the entitlement of a person or a group is deduced from what Wenzel terms a primary category. This primary category represents a social category at any level of inclusiveness to which the person or group belongs. The persons or groups that are regarded as potential recipients of an allocation are termed recipient units (Cohen, 1987; Eckhoff, 1974). Like the definition of a primary category, the definition of a recipient unit also involves a social categorization process. This means that a recipient unit can also be a social category at either level of inclusiveness (Wenzel, 1997). The primary category includes all potential recipients in the justice context, thus, it can be considered the same as the SCT conceptualization of an inclusive category in a structural sense. Likewise, a recipient unit can be considered the same as a subcategory in terms of SCT. However, according to Wenzel (2001), the terms primary category and recipient unit explicitly emphasize the specific meaning of categorical inclusiveness and subordination in a justice context.

Wenzel (1997, 2001) further suggests that the primary category might be undifferentiated or differentiated. In the first case, potential recipients are perceived as equal members of this category and are therefore supposed to deserve the same outcomes as other people belonging to the same category. In the second case, potential recipients can be subcategorized and are perceived as belonging to different, less-inclusive categories. In line with notions of SCT (Turner, 1985; Turner et al., 1987), potential recipients might be differentiated on certain dimensions that are characteristic of the primary category. Depending on the specific social context, there are certain prototypical dimensions best defining the characteristics of the primary category. The prototype of the primary category serves to provide a comparison standard for evaluating all included recipient units. Thus, it can be considered to have a normative function (cf. Mummendey & Wenzel, 1999). A difference in relative prototypicality of recipient units results in a difference in norm-conformity and might therefore justify different entitlements between these recipient units (Weber, Mummendey, & Wenzel, 2002; Wenzel, 2001).

Importantly, not any primary category is supposed to serve as a normative background. First, people need to be sufficiently identified with the primary category for it to have a normative function. Secondly, people also need to identify with their subcategory (i.e, recipient unit) in order to be motivated to gain a positive social identity through membership of this particular subcategory (Wenzel, Mummendey, Weber, and Waldzus, 2003).

Wenzel (1997, 2001) and Weber and colleagues (2002) have presented evidence for the social categorization approach to justice within several correlational and experimental laboratory studies. For example, Wenzel (2001) demonstrated in a correlational study that the more German participants perceived Germany to be relatively prototypical of Europe compared to Turkey the more just they evaluated the EU's denial of Turkey's candidature to EU membership. The more strongly they identified with the primary category Europe the stronger was this relationship. In a personal selection scenario, Wenzel (2001) experimentally corroborated the assumption that entitlements of recipient units (job applicants from different psychological departments) are derived from the extent to which they display prototypical qualities of the primary category (psychologists in general). More specifically, the findings of this study suggest that the representation of the primary category and, thus, the normative frame for entitlements seemed to be a result of the specific cognitive-motivational process of ingroup projection (Mummendey & Wenzel, 1999; Wenzel, 2001).

3.1.3. The role of ingroup projection for social categorization processes

The ingroup projection model was developed by Mummendey and Wenzel (1999) to provide a theoretical approach to explain social discrimination and tolerance between social groups. Rooted in SCT, this approach specifies the underlying processes that lead to prototypicality perceptions and outgroup evaluations in intergroup contexts. According to the ingroup projection model, group members arrive at regarding their ingroup as being relatively prototypical of the inclusive category by projecting their distinctive ingroup attributes onto the inclusive category. Because of the normative power of the inclusive prototype the ingroup that is perceived to be relatively prototypical is then perceived to be more normative and positive. Likewise, one can draw conclusions for the deduction of entitlement beliefs from the ingroup projection

model. The more potential recipients project their ingroup attributes onto the primary category the more relatively prototypical their ingroup would become and the more entitled to valued outcomes they would feel. By the same token, an outgroup that is perceived to be less relatively prototypical is regarded more deviant and less entitled to valued outcomes (Mummendey & Wenzel, 1999).

Given that striving for a positive social identity is a fundamental motive for group members (Tajfel & Turner, 1986), it is likely that groups often disagree on their representations of the inclusive category (Mummendey & Wenzel, 1999). Dependent upon certain reality constraints, intergroup (justice) contexts might be characterized by diverging perspectives concerning the best representation of the inclusive (primary) category. Thus, according to the ingroup projection model, groups should tend to overestimate their prototypicality of the inclusive category in a way that they perceive their own subgroup as being more relatively prototypical than do members of the outgroup (Mummendey & Wenzel, 1999, Wenzel et al., 2003).

Research has demonstrated a general tendency to project ingroup attributes onto the inclusive category in various intergroup contexts (e.g., Vossen, 2006; Waldzus, Mummendey, & Wenzel, 2005; Weber et al., 2002; Wenzel et al., 2003). However, there are differences in the extent to which ingroup projection is possible in a given intergroup context. Limited ingroup projection may result from social reality constraints including for example majority-minority proportions or unequal access to material or immaterial resources (Vossen, 2006). In particular, being factually underrepresented in a specific intergroup context might inhibit an inferior subgroup to project their own attributes onto the inclusive category and might therefore lead to an agreement upon the high relative prototypicality of the superior group (Vossen, 2006; Waldzus, Mummendey, Wenzel, & Boettcher, 2004). However, this agreement still coexists with a perspective divergence regarding the magnitude of relative ingroup prototypicality (Vossen, 2006; Waldzus et al., 2004; Wenzel et al., 2003).

Another restraint to ingroup projection originates from the evaluation of the inclusive category (Tischendorf, 2007; Weber et al., 2002; Wenzel et al., 2003). More specifically, only prototypicality of a positive comparison standard represented by a positively valued inclusive category serves to achieve a positive social identity (Weber et al, 2002; Wenzel et al, 2003). Although, according to a central assumption of SCT,

self-categories tend to be positive, in some contexts an inclusive category might indeed be evaluated negatively (Turner et al., 1987) and members may still identify with it and regard it as a relevant reference group (Correll & Park, 2005; Mlicki & Ellemers, 1996; Wenzel et al., 2003). Identification with a group can thus be considered as a neutral connection to a group which defines the self-relevance to this group but not its evaluation (Correll & Park, 2005). In line with this reasoning, Ellemers, Kortekaas, and Ouwerkerk (1999) suggest to distinguish between three components that may contribute to one's social identity: a mere cognitive awareness of self-categorization (the cognitive component), a value connotation attached to a group membership (the evaluative component), and a sense of emotional involvement or affective commitment with a group (the emotional component). They stress that especially in natural social contexts, people who acknowledge that they belong to a particular social group might not necessarily feel committed to this group, or have a positive attitude towards this group.

However, within a negatively valued inclusive category, the meaning of prototypicality is supposed to change, in that group members should tend to psychologically distance their ingroup from the negative prototype of the inclusive category rather than to project their own attributes. Indeed, previous research has demonstrated that relative ingroup prototypicality of a negatively valued inclusive category was associated with less legitimate entitlements for the ingroup and more favorable attitudes towards the outgroup (Tischendorf, 2007; Weber et al., 2002; Wenzel et al., 2003).

Transferring the predictions of the ingroup projection model (Mummendey & Wenzel, 1999) and its potential limitations to a justice context, it is assumed that the primary category serves as a subject of ingroup projection. Any recipient unit representing the projected attributes better than another would be regarded as being more entitled (Wenzel, 2001). Furthermore, perspective divergence on the representation of the primary category will be reflected in a dissent on respective group entitlements and will thus enhance the occurrence of conflict between the recipient units (Mummendey & Wenzel, 1999). Thus, according to Mummendey and Wenzel (1999), justice and social discrimination between groups seem to be two sides of the same coin.

Regarding the limitations of ingroup projection, I would suggest that valence of the primary category is an important moderator that impacts on the meaning of

prototypicality for group entitlement deduction. Prototypicality of a negatively valued primary category in a justice context should reflect negatively on a recipient unit's entitlement, whereas unprototypicality should justify a high entitlement (cf. Weber et al., 2002; Wenzel et al., 2003).

Moreover, it seems plausible to assume that an inferior status position within a narrowly defined primary category restricts ingroup projection. For example, if in a merger context the post-merger organization (i.e., the primary category) is predominantly characterized by the attributes of the high status or dominant merger partner, then members of the low status or dominated partner might be inhibited in projecting their own attributes. In such a case, members of the high and low status merger partner are likely to agree upon the higher prototypicality of the high status partner. However, this agreement should still involve a perspective divergence regarding the extent of relative prototypicality and of relative group entitlement, respectively (cf. Vossen, 2006; Waldzus et al., 2004). Group members of the dominated merger partner should perceive their pre-merger group as being more prototypical of the post-merger group and more entitled to receive valued outcomes (i.e., post-merger status) than group members of the dominant merger partner perceive them to be. Likewise, group members of the dominated merger partner should perceive the other dominant pre-merger group as being less prototypical of the post-merger group and less entitled to receive valued outcomes than group members of the dominant merger partner perceive themselves to be.

3.1.4. The present research: Applying the analysis to the context of a school merger

To further validate the assumptions of the social categorization approach to justice (Wenzel, 1997, 2001) and its specification by the ingroup projection model (Mummendey & Wenzel, 1999), I aimed at investigating their implications in the specific intergroup field context of a school merger. More precisely, I sought to explore whether students' group-related justice perceptions regarding the post-merger status relation are related to ingroup projection and to prototypicality perceptions. A school merger seems to be a particularly interesting intergroup context to examine the social categorization approach to justice and the ingroup projection model due to the three

following aspects. The first aspect concerns the fact that a school merger is a highly self-relevant institutional intergroup context. This can be considered a substantial extension of previous studies that predominantly focused on non-institutional intergroup contexts (e.g., psychology vs. business students, East vs. West Germans, Germany vs. Turkey). Secondly, in the present research I particularly focused on students affected by a school merger, whereas previous examinations of the social categorization approach exclusively dealt with adult participants, primarily with university students. Against this backdrop, the present research promises to be particularly instructive regarding the generalizability and the external validity of the social categorization approach and the ingroup projection model.

Thirdly, the intergroup encounter of a school merger is characterized by specific reality constraints. These field constraints allow examining how contextual features might impact on ingroup projection and the derivation of group entitlement and group-related justice. The first field constraint in the context of a school merger is given by the fact that the decision to merge is externally demanded by educational authorities and not voluntarily made by the school-boards, least of all by the students themselves. Given this prerequisite of involuntary change of group memberships, it seems realistic that some students might not have a positive attitude towards an upcoming merger and towards the primary category of the merged school (Tischendorf, 2007). Even though these students might be willing to deny their self-categorization with this assigned group membership, they cannot do so, because it is an objective fact that they belong to the post-merger school. However, their response to this enforced categorization might be expressed in poor psychological commitment with the post-merger school (cf. Ashmore, Deaux, & McLaughlin-Volpe, 2004). Accordingly, the post-merger school should indeed be self-relevant, in the sense that it provides a comparison standard for the subordinate pre-merger schools. However, this comparison standard should be associated with a negative valence (cf. Correll & Park, 2005; Mlicki & Ellemers, 1996; Tajfel & Turner, 1979) and should therefore change the meaning of ingroup prototypicality. The second field constraint results from the fact that due to the specific resource redistribution process within school mergers, it seems quite likely that the prototype of the new post-merger school (i.e., the primary category) is more or less dominated by the characteristics of the advantaged pre-merger school. Against this background, it is possible to analyze to what extent ingroup projection and the deduction

of group entitlement beliefs vary dependent upon the factual representation of the primary category.

3.1.5. Hypotheses

Based on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), I expected that students' judgments about group entitlement and group-related justice, respectively, would be derived from their perceptions of relative prototypicality in terms of the primary category, post-merger school. In particular, I predicted that relative prototypicality would be related to relative group entitlement. I expected this relationship to be moderated by perceived valence of the post-merger school. A positive relationship between relative prototypicality and relative group entitlement should emerge when students evaluate their post-merger school positively. Given a negative valence of the post-merger school, the relationship should be negative (H1).

Regarding the predictions of group-related justice perceptions, it was assumed that the relationship between relative prototypicality and group-related justice would vary between students of advantaged and disadvantaged pre-merger schools as well as it would vary dependent upon the perceived valence of the post-merger school. I predicted for students of a disadvantaged school that relative prototypicality would be positively related to group-related justice of the current status relation, when perceived valence of the post-merger school would be negative. Given a positively valued post-merger school, this relationship should be negative (H2). Essentially the opposite pattern of results was predicted for students of an advantaged pre-merger school. For these students it was predicted that given a positive evaluation of the merged school, the relationship between relative prototypicality and group-related justice would be positive. For those who evaluate the merged school negatively a negative relationship between relative prototypicality and group-related justice was expected (H3).

Taking into account the likelihood of a factual underrepresentation of a disadvantaged pre-merger school in a new post-merger school, I expected that ingroup projection would be inhibited for students of a disadvantaged school. In order to test this assumption, in one study an alternative primary category was introduced and the extent of ingroup projection onto this category was compared with the extent of ingroup

projection onto the primary category of the actual post-merger school. The alternative primary category did not exist in reality, but referred to the psychological representation that students have about an *ideal school in general*. In doing so, I tried to artificially establish a primary category representation that was not predefined by the characteristics of one pre-merger school and that should therefore facilitate the process of ingroup projection, in particular, for students of a disadvantaged school.

Thus, I assumed that for students of a disadvantaged group relative prototypicality of the ideal school category would be significantly higher than relative prototypicality of the actual post-merger school category. For students of an advantaged school, these two types of relative prototypicality should not be significantly different, as ingroup projection should also be possible onto the real existing primary category post-merger school (H4). Finally, I predicted that the extent to which students of a disadvantaged pre-merger school perceive their own school as being relatively prototypical of the representation of the ideal school category would be negatively related to students group-related justice perceptions. As the question for an ideal school literally implies a positive evaluation of this ideal school, I did not assume that valence of the primary category would be a relevant moderator here. I rather assumed that perceived post-merger status would moderate this relationship. The lower students perceive their current status to be the stronger the negative relationship between relative prototypicality of the ideal school category and group-related justice should be. For students of an advantaged school, I assumed a positive relationship between relative prototypicality of the ideal school category and group-related justice which would be also moderated by perceived status. The higher students of an advantaged school perceive their status to be the stronger should be the positive relationship (H5).

The following two cross-sectional field studies were designed to test these hypotheses. However, as outlined in more detail below, the two studies differed with respect to their field situation and with respect to the measures that were used. Therefore, in Study 3.1 I particularly examined hypotheses 1 and 2. Hypotheses 2 to 5 were tested in Study 3.2.

3.2. *Empirical evidence*

3.2.1. Study 3.1

Study 3.1 focused on a school merger between two secondary schools with lower and middle school track (German ‘Regelschule’) in Thuringia. The merger was initiated by the regional parliament and implemented by the LEA. It had been announced by the regional parliament about one year before the implementation.

Prior to the merger, the two pre-merger schools had been located in two neighbored small towns in a rural area. The distance between these two towns is about 10 kilometers. The two pre-merger schools had not differed in terms of status prior to the merger. They slightly differed in terms of size (260 students / 219 students). According to the decision of the LEA, the former principal of the smaller school became the new principal of the post-merger school and the former deputy principal of the larger pre-merger school became the new deputy of the post-merger school. The former principal of the larger school was, thus, downgraded and worked as an ordinary teacher in another school after the merger. With respect to a decision of the new school-board, the grades remained unmixed in their original composition.

The school-building of the small pre-merger school was closed and the school-building of the larger school became the host building of the new merged school. Consequently, teachers and students of the smaller school had to take a longer way to school after the merger. The name of the new post-merger school was a mixture of both schools referring to the region in which both schools were located. This pattern of redistribution outcome proposes that the LEA strived for an equal integration of both schools, in that one school keeps the school-building, the other one keeps the principal and power. Yet, as research on organizational mergers suggests, it is rather unrealistic to establish a merger with merger partners of exactly equal post-merger status (e.g., van Oudenhoven & de Boer, 1995). Indeed, anecdotic evidence suggests that students of the larger *host* school felt rather dominated by the other school and the new principal who represented a more authoritarian style of leadership as compared to their former principal. Thus, even though students of the host school remained in *their* school-building, they might have experienced a drastic change in their everyday school life and

school culture. By the same token, they lamented their former principal and their former rules.

Against this background, I assumed a *proportional integration pattern* characterizing an unequal proportion of the two pre-merger cultures to be applied in the new post-merger school (cf. Giessner et al., 2006). Accordingly, it seemed quite challenging in the given intergroup context to objectively identify a clear-cut status difference between advantaged and disadvantaged pre-merger school. To differentiate between the pre-merger schools, however, I decided to refer to an objective feature of the school merger and used the labels *host* versus *moving* pre-merger school. This unclear status differential has to be taken into account in the further analyses.

Method

Participants and procedure

With permission of the regional school authorities and the new school-board, a cross-sectional field study was conducted in the merged school approximately six months after the merger. Prior to the study the parents of potential participants gave their agreement that their child may participate in the study. Participating students were informed that they had the opportunity to express their opinions about the school merger and the newly merged school. They participated voluntarily in the study. Participants were ensured that the individual data would be anonymous and that they would not be made available to teachers and the school-board. All of the participants received a bar of chocolate after they had completed the questionnaire. The questionnaires were completed in class within two lessons. Students were supervised while filling in the questionnaire. About two months after the study, the school-board was given an aggregated feedback of the study.

Participants were 116 students of the 9th and 10th grade of the middle school track. These were about 95 % of all students of the 9th and 10th grade. The other 5 per cent were either not allowed by their parents to take part in the inquiry or were absent from school at the day of data collection. The sample comprised about twice as many students of the host school (76 students, 66 %) than of the moving school (40 students,

34 %). Ages ranged from 14 to 17 years ($M = 15.85$). Fifty-four per cent of the participants were female students.¹⁰

Measures

The questionnaire started with an open question. Students were asked to describe their new merged school in all its characteristics. This open question was asked to get a general view of the particular merger situation. Unless otherwise mentioned, all measures described in this paper were rated on five-point scales ranging from 1 (*not at all*) to 5 (*very much*). The measures were presented in the subsequent order.

Relative prototypicality. Participants were asked to indicate to what extent each of a number of attributes would characterize their own pre-merger school and the other pre-merger school. The eight attributes (six positively valued, two negatively valued) had been selected, at face value, as being potential dimensions for characterizing secondary schools with lower and middle track in general: achievement-oriented (+), wide range of extracurricular activities (+), friendly towards students (+), susceptible for violence (-), engaged in sports (+), engaged in fine arts and music (+), rigid house rules (-), having a good reputation (+). The same attributes were then presented to indicate their applicability to the new merged school.

By means of these attribute ascriptions, attribute profiles for each of the two pre-merger schools and the post-merger school were generated. Then, the square root of the sum of the squared attribute differences between each pre-merger and the post-merger school was calculated (cf. Bortz, 1999) obtaining profile dissimilarities between each pre-merger school and the post-merger school. The profile dissimilarity reflects how different to the post-merger school each pre-merger school was considered to be. Thus, I defined the prototypicality of each pre-merger school to the post-merger school as the reverse of the respective profile dissimilarity. Subtracting the profile dissimilarity of the ingroup from the profile dissimilarity of the outgroup, I obtained a measure of relative prototypicality of the ingroup in terms of the primary category, post-merger school. Scores above zero indicate that the ingroup is regarded as being more relatively

¹⁰ Some students answered the questionnaire incompletely. I did not exclude them from the analyses for reasons of power. Due to this, degrees of freedom slightly differ across the analyses.

prototypical of the post-merger school than the outgroup, scores below zero indicate relative outgroup prototypicality, and a score of zero refers to equal prototypicality of ingroup and outgroup.¹¹

Perceived valence of the post-merger school. On a single item students indicated how they evaluated their new post-merger school (1 = *very negatively*, 5 = *very positively*).

Perception of post-merger status. A single item was used to assess students' perception of the overall post-merger status of their own pre-merger school. Students indicated on a five-point scale whether they perceive that students and teachers of their own pre-merger school are worse or better off in the new post-merger school compared to the other pre-merger school (1 = *much worse off*, 5 = *much better off*).

Group-related justice perceptions. Four items assessed students' group-related justice perceptions of the post-merger status. Three of these items referred to distributive justice (e.g. „I think it is just how students and teachers of my own pre-merger school came off after the merger.“, „I think it is fair how students and teachers of the other pre-merger school came off after the merger.“, “I find the position that my own pre-merger school has in the merged school compared to the other pre-merger school unjust.” [reverse-coded]). The fourth item referred to an overall justice evaluation including both distributive and procedural justice (“In general, the way the two schools were merged was fair.”). The overall scale was sufficiently reliable ($\alpha = .71$).

Relative group entitlement. To assess relative group entitlement, students indicated how the status of their pre-merger school [of the other pre-merger school] *should* be in the new school (1 = *much worse than now*, 5 = *much better than now*). I obtained the measure of relative group entitlement by subtracting the entitlement of the other pre-merger school from the entitlement of one's own pre-merger school. Scores greater than zero indicate relative higher entitlements for one's own pre-merger school, negative scores point to relative higher entitlements for the other pre-merger school.

¹¹ I also checked how relevant each of the attributes was perceived to be for the description of a lower-track secondary school. Apart from the attributes oriented towards fine arts and music ($M = 2.97$) and rigid rules of the house ($M = 3.05$), all attributes were perceived to be relevant, as all the means were significantly higher than the midpoint 3 (all M s > 3.70), all $t(115) > 7.71$, $p < .001$. However, excluding the two attributes did not reveal different results of the main analyses. Thus, I included all eight attributes in the analyses.

Identification with the pre-merger and the post-merger school. Based on Doosje, Ellemers und Spears (1995), four items were designed to assess the current identification with the pre-merger and the post-merger school, respectively (“I still perceive myself as a member of my former school [our new combined school].”, “I am glad to be a student of my former school [our new combined school].”, “I feel very attached to my former school [our new combined school]”, and “I identify with my former school [our new combined school]”). Both scales revealed a high reliability (pre-merger identification: $\alpha = .83$, post-merger identification: $\alpha = .87$).

Results

Preliminary results

In order to get a general picture of the specific school merger context, several preliminary analyses of variance (ANOVAs) were computed by pre-merger school membership on all relevant measures of the questionnaire. Means and standard deviations are reported in Table 3.1. A first ANOVA by pre-merger school on perceived post-merger status revealed, as expected, a significant difference in students’ perceived post-merger status, $F(1, 114) = 13.65, p < .001$, partial $\eta^2 = .11$. Students of the host school rated their pre-merger school as relatively lower in post-merger status and significantly lower than the scale midpoint 3, $t(75) = -6.32, p < .001$, than students of the moving pre-merger school, who experienced no significant status difference ($t < 1$). A second ANOVA by pre-merger school revealed a significant difference in perceived group-related justice, $F(1, 114) = 5.62, p < .05$, partial $\eta^2 = .05$. Both student groups perceived group-related justice significantly lower than the scale midpoint 3, $t(75) = -7.60, p < .001$, for students of the host school, and $t(39) = -2.67, p < .05$, for students of the moving school. On the measure of relative group entitlement, the effect of pre-merger school membership was not significant ($F < 1$), with students of both pre-merger schools indicating significantly higher entitlement for their own school than for the other, $t(75) = 7.06, p < .001$, for students of the host school, and $t(39) = 4.36, p < .001$, for students of the moving school. Regarding the measure of relative prototypicality of the post-merger school, an ANOVA revealed a significant difference between students of both pre-merger schools, $F(1, 108) = 7.25, p < .01$, partial $\eta^2 = .06$. Students of the host school perceived both schools as being equally prototypical of the post-merger

school, $t(71) = -.42, p > .05$, whereas students of the moving school perceived their own school to be significantly less prototypical of the post-merger school, $t(37) = -2.77, p < .01$.

I also checked current identification with the pre-merger school and identification with the post-merger school. Using a two-tailed t -test, ingroup identification was significantly higher than 3 (i.e., the scale's midpoint) for students of the host school, $t(75) = 4.28, p < .001$, and for students of the moving school, $t(39) = 5.88, p < .001$. Post-merger identification was significantly lower than 3 for students of the host school, $t(75) = -3.81, p < .001$, and for students of the moving school, $t(39) = -2.01, p = .05$. Even though identification with the primary category was rather low, I would not take this result as a hint for the absence of a relevant intergroup context. By contrast, I argue in accordance with previous findings on mergers (Boen et al., 2005; Terry & Callan, 1998; Terry et al., 2001; Terry & O'Brien, 2001; van Dick et al., 2004; van Knippenberg et al., 2002) that the pattern of high pre-merger / low post-merger identification is a typical outcome of a merger that even stems from the importance of underlying social identity processes.

According to my earlier argument regarding the distinction between a mere cognitive component of social identification and an emotional and evaluative component, I also inspected the mean of the item referring to the mere cognitive aspect of categorization (i.e., "I am a member of our new post-merger school."). Indeed, the mean of this item was significantly above the scale midpoint 3 for students of the host school ($M = 3.45, SD = 1.23$), $t(76) = 3.18, p < .01$, and for students of the moving school ($M = 3.55, SD = 1.43$), $t(39) = 2.43, p < .05$. This finding corroborates my argument that the overall low mean of post-merger identification might rather reflect a negative attitude towards the merger in general and towards the new post-merger school specifically. Given this pattern, it could be suggested that the post-merger school still serves as a relevant frame of reference.

I also computed an ANOVA by pre-merger school membership on valence of the post-merger school which revealed a significant difference between students of the two pre-merger schools, $F(1, 113) = 5.26, p < .05$, partial $\eta^2 = .04$. Students of the host school evaluated the post-merger school more negatively - and significantly lower than the scale midpoint 3, $t(75) = -3.91, p < .001$ - than students of the moving school ($t < 1$).

These preliminary results seem to point to the fact that the present school merger context is indeed characterized by rather negative attitudes towards the new merged school. Intercorrelations, means and standard deviations for all constructs are presented in Table 3.1.

As the preliminary analyses indicate, none of the two pre-merger schools was perceived to be in an advantaged position relative to the other school. Therefore, I tested only the first two hypotheses accorded to disadvantaged pre-merger schools in Study 3.1. However, I assumed the same processes to take place for students perceiving equal status. As all the hypotheses specified directional effects derived from theory, I tested them one-tailed with $\alpha = .05$.

Table 3.1

Intercorrelations, means, standard deviations for the host school, N = 72, and the moving pre-merger school, N = 38 (Study 3.1)

	Valence of the post-merger school	Perceived status	Pre-merger identification	Post-merger identification	Relative prototypicality	Relative group entitlement	Group-related justice perceptions
Valence of the post-merger school		-.08	-.25	.52***	.54***	-.19	.39*
Perceived status	.40***		-.29†	-.13	-.10	-.04	-.01
Pre-merger identification	.07	-.22*		-.07	-.18	.24	-.35*
Post-merger identification	.67***	.43***	-.01		.42**	-.43**	.50**
Relative prototypicality	.02	.15	-.07	.09		-.34*	.41*
Relative group entitlement	-.49***	-.36**	.12	-.36**	-.28*		-.59***
Group-related justice perceptions	.51***	.54***	-.11	.59***	.12	-.52***	
$M_{\text{Host}} (SD_{\text{Host}})$	2.55 (1.00)	2.25 (1.03)	3.48 (0.98)	2.57 (0.98)	-0.08 (1.57)	1.18 (1.48)	2.30 (0.80)
$M_{\text{Moving}} (SD_{\text{Moving}})$	3.00 (0.97)	3.08 (1.34)	3.85 (0.91)	2.61 (1.22)	-1.12 (2.50)	1.05 (1.45)	2.67 (0.79)

Note. Intercorrelations above the diagonal refer to the moving school, intercorrelations below the diagonal refer to the host school.

†p < .10, *p < .05, **p < .01, ***p < .001 (two-tailed).

Relative prototypicality as antecedent of relative group entitlement

In the first hypothesis, I predicted that relative group entitlement would be related to relative prototypicality and that this relationship would be moderated by perceived valence of the post-merger school. Specifically, it was expected that relative prototypicality would be related positively to relative group entitlement when students perceive the valence of the post-merger school to be positive. The opposite pattern was expected given a negative valence of the post-merger school. I computed a hierarchical regression analysis with predictor variables entered in the following order: (1) relative prototypicality as predictor variable and perceived valence of the post-merger school as moderator variable and (2) the interaction effect of relative prototypicality and perceived valence of the post-merger school. To correct for multicollinearity, the independent variables were centered by subtracting the sample mean from each variable before generating the interaction term (Aiken & West, 1991).

As can be seen in Table 3.2, relative prototypicality and perceived valence of the post-merger school had significant negative effects on relative group entitlement, but because the interaction between both variables was significant, I focused on this. Following Aiken and West (1991), regression slopes were computed for different levels of valence of the post-merger school. A low value was represented by a value 1 standard deviation below the mean and a high value by 1 standard deviation above the mean. In line with my expectation, when valence of the post-merger school was at the low level, a significant negative relation between relative prototypicality and relative group entitlement emerged ($\beta = -.31, p < .001$). By contrast, at the high level of valence of the post-merger school, no significant relation emerged ($\beta = -.004, p > .05$).

Table 3.2*Results of the hierarchical regression analysis on relative group entitlement (Study 3.1)*

Variables	ΔR^2	ΔF	p	β	SE
Step 1	.20	13.26	.001		
Relative prototypicality (RP)				-.16*	.13
Valence of the post-merger school				-.34***	.13
Step 2	.03	4.51	.017		
RP x Valence of post-merger school				.19*	.11

Note. SE, β und p are coefficients of the second step

* $p < .05$, ** $p < .01$, *** $p < .001$.

Relative prototypicality as antecedent of perceived group-related justice

It was predicted under H2 that among students of a disadvantaged school relative prototypicality should have a negative effect on group-related justice perceptions, when valence of the post-merger school was positive. The relationship between relative prototypicality and group-related justice was expected to be positive when valence of the post-merger school was negative. Again, hierarchical regression analyses were computed with predictor variables entered in the same order as in H1: (1) relative prototypicality as predictor variable and perceived valence of the post-merger school as moderator variable and (2) the interaction effect of relative prototypicality and perceived valence. As can be seen in Table 3.3, the regression for the host school was significant in the first step, and a marginally significant change emerged in the second step. Inspecting the simple slopes at 1 SD above the mean of the moderator revealed a significant positive relationship between relative prototypicality and group-related justice perceptions ($\beta = .27, p < .05$). However, there was no relationship between both variables at 1 SD below the mean ($\beta = .01, p > .05$).

Within the subsample of the moving school, the first step of the regression revealed a significant amount of explained variance, whereas the second step did not. Focusing on the first step, relative prototypicality and valence of the post-merger school had marginally significant positive effects on group-related justice perceptions. Thus,

contradictory to the predictions, students of the moving school evaluated their group status the more just the more relatively prototypical of the post-merger school they perceived their pre-merger school to be. This relationship was not moderated by valence of the post-merger school. Moreover, students perceived the more group-related justice the more positive they valued the post-merger school. Altogether, these results do not support the second hypothesis.

Table 3.3

Results of hierarchical regression analysis on group-related justice perceptions (Study 3.1)

<i>Host school (N = 71)</i>					
Variables	ΔR^2	ΔF	<i>p</i>	β	<i>SE</i>
Step 1	.27	12.96	.001		
Relative prototypicality (RP)				.13†	.10
Valence of the post-merger school				.51***	.08
Step 2	.03	2.38	.063		
RP x Valence of post-merger school				.16†	.09
<i>Moving school (N = 37)</i>					
Variables	ΔR^2	ΔF	<i>p</i>	β	<i>SE</i>
Step 1	.12	4.51	.009		
Relative prototypicality (RP)				.27†	.11
Valence of the post-merger school				.24†	.14
Step 2	.01	.157	.347		
RP x Valence of post-merger school				-.07	.08

Note. SE, β und *p* from the host school are coefficients of the second step

†*p* < .10, **p* < .05, ***p* < .01, ****p* < .001.

However, almost all the reported effects of relative prototypicality were only marginally significant, notwithstanding the one-sided testing. Seeking for an explanation for the weakness of the effects of relative prototypicality, I inspected whether relative group entitlement might have worked as a suppressor variable accounting for the weak association between relative prototypicality and group-related justice perceptions.¹²

On the one hand, relative group entitlement can be considered the basis for justice judgments regarding the relative group status (Wenzel, 2001). This is empirically reflected in significantly negative correlations across both subsamples. On the other hand, relative group entitlement has been shown earlier in this work to be (negatively) related to relative prototypicality, albeit only when valence of the post-merger school was at a low value. Therefore, a moderated mediation analysis was computed to explore whether relative group entitlement would mediate (i.e., suppress) the relationship between relative prototypicality and group-related justice and whether the relation between the predictor and the mediator would vary at high and low levels of valence of the post-merger school. I computed the regression analyses by means of the SPSS-macro “moderated mediation” (Preacher, Rucker, & Hayes, 2006) separately for each pre-merger school. The indirect effects for the high (i.e., 1 standard deviation above the mean) and the low level (i.e., 1 standard deviation below the mean) of valence of the post-merger school were calculated on the basis of the Sobel test (Baron & Kenny, 1986). The results are presented in Table 3.4.

¹² Following a more recent development of mediation analysis (Kenny, Kashy, & Bolger, 1998), an initially significant effect of the predictor on the criterion does not have to exist to identify mediation. If the direct effect was opposite in sign to the indirect effect, then it could be the case that the total effect (i.e., the initial effect between predictor and criterion) is zero, but mediation is still there. In this case the mediator acts like a suppressor variable.

Table 3.4

Moderated mediation effects of relative prototypicality on group-related justice perceptions, mediated by relative group entitlement (Study 3.1)

<i>Host school (N = 71)</i>				
Levels of the moderator valence of the post-merger school	B_{axb}	SE	z	p
Negative valence (- 1 SD)	.18	.07	2.36	.009
Positive valence (+ 1 SD)	-.02	.06	-.42	.388
<i>Moving school (N = 38)</i>				
Levels of the moderator valence of the post-merger school	B_{axb}	SE	z	p
Negative valence (- 1 SD)	.13	.07	1.78	.037
Positive valence (+ 1 SD)	-.02	.10	-.21	.418

Note. B_{axb} – unstandardized indirect effect at different levels of the moderator, z – test statistics of the Sobel test

In accordance to my post-hoc assumption, the results of the Sobel test indicated an indirect effect of relative prototypicality on group-related justice via relative group entitlement that only emerged when valence of the post-merger school was negative. This positive indirect effect occurred across both subsamples. This finding suggests that relative group entitlement indeed worked as a suppressor variable that accounted for the weak relation between relative prototypicality and group-related justice perceptions, however, only when students perceived the primary category to be negative.

Discussion

The results of Study 3.1 support the first hypothesis and suggest that relative group entitlement is indeed negatively related to relative prototypicality, when students evaluate their post-merger school negatively. Given a negatively valued comparison standard, students perceive their pre-merger school to be more entitled to possess a higher status after the merger than the other pre-merger school the less relatively

prototypical of the post-merger school they conceive their pre-merger school to be. Thus, in line with more recent research on the ingroup projection model (e.g., Weber et al., 2002, Wenzel et al., 2003, Tischendorf, 2007), relative unprototypicality of the negatively valued primary category (i.e., post-merger school) reflected positively on the recipient unit's entitlements (i.e., pre-merger school).

However, relative prototypicality did not impact on the derivation of relative group entitlement, when valence of the post-merger school was at a high level. This lack of association might be due to the negativity of this specific intergroup context that is reflected in high levels of pre-merger and low levels of post-merger identification across the entire sample. Likewise, valence of the post-merger school was evaluated quite negatively. If one takes into account effects of social desirability, then even the neutral evaluation within the moving school subsample might be indicative of lower levels. Against this background, it seemed to be most successful for the students to achieve positive distinctiveness and thus higher relative entitlement for their pre-merger school by distancing the ingroup's prototype from the negatively valued prototype of the post-merger school. This interpretation receives support by the low mean level of relative prototypicality indicated by students of the moving school. Students of the host school, however, perceived on average both schools to be equally represented in the primary category. Nonetheless, they conceived their own school to possess unfairly lower relative status in the post-merger school and claimed for a superior group status within the post-merger school. Thus, one could conclude that they might have claimed to be more relatively prototypical than they actually were and that they might have experienced a loss in status through the school merger.

Our second hypothesis that group-related justice perceptions would be negatively related to relative prototypicality for students of a disadvantaged school and that this would be moderated by valence of the post-merger school, received no clear support. Within the subsample of the host school, valence of the post-merger school indeed worked as a moderator, however, the effect was only marginal and it was opposite to what I predicted. When valence of the post-merger school was at a high level, students perceived their group status the more just the more relatively prototypical they perceived their pre-merger school to be. There was no relationship between both variables at a low level of the moderator. Although these results seem to contradict the second hypothesis,

they might nevertheless be in accord with the assumptions of the social categorization approach to justice (Wenzel, 1997, 2001), because the mean level of valence of the post-merger school was fairly low and the level at 1 standard deviation above the mean was still around the neutral scale midpoint. Thus, based on this consideration, the marginal positive relationship between relative prototypicality and group-related justice perceptions might be interpreted in the sense that prototypicality of a negatively or at least a non-positively valued primary category justifies lower group status.

Within the subsample of the moving school, valence of the post-merger school did not turn out as a moderator, but relative prototypicality and valence of the post-merger school were both marginally positively related to group-related justice perceptions. The finding that students of the moving school perceived their post-merger status the more just the more relatively prototypical they perceived their school to be can be interpreted in line with the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999). Taking into account the significant positive correlation between relative prototypicality and valence of the post-merger school, this finding suggests that high relative prototypicality coming along with a positive valence of the post-merger school is related to higher group-related justice perceptions. Vice versa, unprototypicality coexisting with a negatively valued post-merger school is related to lower group-related justice. However, the relationships were only marginal.

Therefore, I tested in a post-hoc assumption whether relative group entitlement might have worked as a suppressor variable accounting for the weak associations between relative prototypicality and group-related justice perceptions. The result of the moderated mediation analysis corroborated my assumption. Relative group entitlement indeed turned out as a mediator suppressing the relation between relative prototypicality and group-related justice perceptions, however, only when students perceived the primary category to be negative. This finding is not only in accordance with the theoretical conceptualization that the concept of entitlement is closely associated with the concept of justice (Major, 1994; Wenzel, 1997, 2001). It also supports previous findings in the context of the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), according to which relative unprototypicality of a negatively valued primary category justifies higher

relative entitlements, and in turn a higher relative group status compared to another relevant recipient unit (Weber et al., 2002; Wenzel et al., 2003).

In sum, these findings provide some support for the assumptions of the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999) and they extend previous experimental findings by Weber et al. (2002), in that they show that students of a disadvantaged pre-merger school tend to distance their ingroup from the prototype of the post-merger school, when they evaluate this primary category negatively. However, the effects were rather weak. One reason for this could have been that the measure of relative prototypicality did not include stereotypical attributes of the pre-merger schools, but attributes that were chosen at face value to typically describe a secondary school with lower and middle school track in general. This might have impeded the process of ingroup projection. Another limitation of Study 3.1 may have resulted from the negatively connoted intergroup justice context in this study which corresponded to the fact that no pre-merger school was perceived to have an advantaged status position. Due to this, I could neither test the predictions for an advantaged pre-merger school nor for a positively framed primary category. Therefore, I ran another study focusing on a school merger, in which post-merger status differences between the pre-merger schools were supposed to be more pronounced and in which the post-merger school seemed to be framed more positively than in Study 3.1. In the second study, I also tried to improve the measure of relative prototypicality.

3.2.2. Study 3.2

Study 3.2 was identical to Study 2.1, but focused on the hypotheses related to the second research question. As outlined in Chapter 2, this study took place within a school merger between two urban secondary schools with upper school track as. The fact that the assimilation integration pattern applied to this school merger revealed a clear-cut status differential between an advantaged (i.e., acquiring) and a disadvantaged (i.e., acquired) pre-merger school allowed testing both the theoretical propositions for a disadvantaged and for an advantaged pre-merger school.

As an extension to Study 3.1, I incorporated an additional measure of relative prototypicality of an *ideal upper track secondary school* in Study 3.2. In doing so, I

sought to explore the hypotheses on the impact of factual underrepresentation on the relation between relative prototypicality and group-related justice perceptions. Study 3.2 did not include a measure of relative group entitlement. Thus, the first hypothesis was not tested in this study.

Method

Participants and procedures

As in the other studies, I first secured all the permissions necessary for data collection in schools. The questionnaires were also completed in class during lesson time. The students were supervised during data-collection. All of the participants received a bar of chocolate after they had completed the questionnaire.

Respondents were 162 students of the 10th and 11th grades. The sample included 95 per cent of the population of the 10th and 11th grades. The remaining 5 per cent were either not allowed by their parents to take part in the study or were absent from school at the day of data collection. The sample comprised 79 students from the advantaged pre-merger school and 83 students from the disadvantaged pre-merger school. The mean age of the students was 16.62 years, ranging from 15 to 19 years. Fifty-six per cent of the sample were female students.

Measures

The questionnaire mainly consisted of the same instruments as used in Study 3.1. The measures of perceived valence of the post-merger school, perception of post-merger status, pre-merger identification ($\alpha = .90$), and post-merger identification ($\alpha = .89$), were all operationalized exactly as in Study 3.1.

Relative prototypicality. Relative prototypicality was assessed by means of the same procedure as in Study 3.1. However, the attributes presented were different in number and in content. Students rated six attributes. Two of them had been selected at face value as being potential dimensions for characterizing upper track schools in general: ambitious (+), and high on academic performance (+). Two attributes were typical of the advantaged pre-merger school: science oriented (+) and ecology-minded

(+), two attributes were characteristic of the disadvantaged school: oriented towards foreign languages (+) and oriented towards fine arts and music (+).¹³

Relative prototypicality of an ideal school. To assess relative prototypicality of an ideal school, students had to indicate the applicability of the six attributes to an ideal school. By means of the attribute ascriptions, attribute profiles for each of the two pre-merger schools and the ideal school were generated. Then, profile dissimilarities between each pre-merger school and the ideal school were calculated. Subtracting the profile dissimilarity of the ingroup from the profile dissimilarity of the outgroup resulted in a measure of relative ingroup prototypicality of the primary category ideal school.

Group-related justice perceptions. Students' group-related justice perceptions were measured with nine items in Study 3.2 including the four items assessed in Study 3.1. Four of the additional items referred to distributive justice („The students and teachers of my own pre-merger school deserve their relative position in the post-merger school.“, „I think it is fair how things turned out after the school merger.“, “This outcome reflects how well the two pre-merger school performed before the school merger.”, “This outcome is appropriate for the quality our pre-merger school achieved before the merger.”) One item referred to procedural justice (“I think that the outcome of the school merger results from a fair decision-making process.”). The overall nine-item scale was highly reliable ($\alpha = .87$).

Results

Preliminary results

As in Study 3.1, preliminary analyses were conducted on all relevant measures to get an overview of the specific school merger context. Means and standard deviations are presented in Table 3.5. A preliminary ANOVA by pre-merger school on perceived post-merger status revealed, as expected, a significant difference in students' perceived

¹³ Originally, I presented four other attributes: uneducated (-) unathletic (-), unfriendly (-), unorderly (-). However, the students perceived these attributes to be irrelevant for the description of an upper-track secondary school. All means were significantly lower than the scale midpoint 3 (all M's < 2.68), all t's(158) > |2.60|. Even though, the resulting measure of relative prototypicality could not be considered balanced in valence anymore, I excluded the irrelevant attributes from the further analyses, as ingroup projection should only work for relevant ingroup attributes.

relative post-merger status, $F(1, 157) = 106.00, p < .001$, partial $\eta^2 = .40$. Students of the advantaged school indicated that their pre-merger school possesses a relatively higher post-merger status which was significantly above the scale midpoint 3, $t(76) = 5.03, p < .001$, than students of the disadvantaged pre-merger school who experienced significant lower status, $t(81) = -9.51, p < .001$. A second ANOVA by pre-merger school revealed a significant difference in perceived group-related justice, $F(1, 157) = 145.86, p < .001$, partial $\eta^2 = .48$. Students of the advantaged school perceived their status significantly more just, $t(76) = 6.81, p < .001$, than students of the disadvantaged school, $t(81) = -10.21, p < .001$. On the measure of valence of the post-merger school, the effect of pre-merger school membership was not significant ($F < 1$) with students of both pre-merger schools perceiving the post-merger school significantly positive, $t(76) = 6.49, p < .001$, for students of the advantaged school, and $t(81) = 6.74, p < .001$, for students of the disadvantaged school.

Regarding the measure of relative prototypicality of the post-merger school, an ANOVA revealed a significant difference between students of both pre-merger schools, $F(1, 153) = 40.56, p < .001$, partial $\eta^2 = .21$. Students of the advantaged school perceived their former school to be more relatively prototypical of the post-merger school, $t(74) = 7.43, p < .001$, whereas students of the disadvantaged school perceived their own school to be equally prototypical of the post-merger school, $t(79) = -1.03, p > .05$ (scale midpoint was 0). On the measure of relative prototypicality of an ideal school, an ANOVA revealed no difference between both schools ($F < 1$). Students of the advantaged school perceived their own school to be significantly more relatively prototypical than the other school, $t(73) = 5.19, p < .001$, as did students of the disadvantaged school, $t(79) = 6.17, p < .001$.

Ingroup identification was significantly higher than 3 (i.e., the scale's midpoint) for students of the advantaged school, $t(76) = 3.04, p < .001$, and for students of the disadvantaged school, $t(81) = 9.03, p < .001$. Post-merger identification was also significantly higher than 3 for students of the advantaged school, $t(76) = 4.74, p < .001$. Post-merger identification of students of the disadvantaged school was lower than the neutral midpoint of 3, however not significantly, $t(81) = -1.62, p > .05$. The inspection of the item referring to the cognitive aspect of categorization within the sample of the disadvantaged school revealed a mean significantly above the scale midpoint 3, $t(82) =$

5.37, $p < .001$. Intercorrelations, means and standard deviations for all constructs are presented in Table 3.5.

These preliminary analyses indicate that in the present school merger a clear-cut status relation exists between the two pre-merger schools and that the post-merger school can be considered to be a relevant comparison standard. Thus, I could test my hypotheses referring to disadvantaged and advantaged pre-merger schools (H2, H3, H4, H5). The positive evaluations of the post-merger school held by students of *both* pre-merger schools also suggest that the intergroup context is rather positively framed compared to that from Study 3.1.

Table 3.5

Intercorrelations, means, standard deviations for the disadvantaged pre-merger school, N = 80, and the advantaged school, N = 74 (Study 3.2)

	Valence of the post-merger school	Perceived status	Pre-merger identification	Post-merger identification	Relative prototypicality	Relative group entitlement	Group-related justice perceptions
Valence of the post-merger school		.02	-.13	.44***	.10	-.15	.37**
Perceived status	.07		.19	.26*	.03	.06	-.13
Pre-merger identification	-.41***	-.17		.13	.42***	.54***	.14
Post-merger identification	.57***	-.27*	-.53***		.16	-.06	.48***
Relative prototypicality	-.09	-.05	.27*	-.20†		.47***	.14
Relative group entitlement	-.06	-.37**	.19†	-.07	.20†		-.06
Group-related justice perceptions	.37**	.45***	-.35**	.52***	-.20†	-.40***	
M_{Disadv} (SD_{Disadv})	3.59 (0.76)	2.03 (0.92)	4.01 (0.91)	2.80 (1.00)	-0.15 (1.31)	0.99 (1.44)	2.21 (0.65)
M_{Adv} (SD_{Adv})	3.65 (0.85)	3.50 (0.90)	3.46 (1.08)	3.57 (0.92)	1.30 (1.51)	1.06 (1.75)	3.47 (0.60)

Note: Intercorrelations above the diagonal refer to the advantaged school, intercorrelations below the diagonal refer to the disadvantaged school.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed).

Relative prototypicality as antecedent of group-related justice perceptions

To test the second hypothesis that within the subsample of the disadvantaged school relative prototypicality would be related to group-related justice of the current status relation and that this relation would be moderated by perceived valence of the post-merger school, I computed a hierarchical regression analysis. Relative prototypicality and valence of the post-merger school were entered in the first step, the interaction of both variables were entered in the second step into the regression. The results are shown in the upper part of Table 3.6.

Within the subsample of the disadvantaged pre-merger school, relative prototypicality had, as expected, a marginally significant negative effect and valence of the post-merger school had a significant positive effect on group-related justice perceptions. Even though the interaction did not explain further variance, an inspection of the simple slopes revealed that the negative effect of relative prototypicality became stronger at a high level of the moderator valence of the post-merger school ($\beta = -.31, p < .05$), whereas it was weakened at a low level of the moderator ($\beta = -.09, p > .05$). These results support the hypothesis that students of a disadvantaged school perceive their status the less just the more relatively prototypical of the post-merger school they perceive their pre-merger school to be. The inspection of the simple regressions revealed that this relationship became stronger the more positive students evaluate the post-merger school.

Table 3.6

*Results of the hierarchical regression analysis on group related justice perceptions
(Study 3.2)*

<i>Disadvantaged school (N = 74)</i>					
Variables	ΔR^2	ΔF	<i>p</i>	β	<i>SE</i>
Step 1	.16	7.36	.001		
Relative prototypicality (RP)				-.17†	.07
Valence of the post-merger school				.35***	.07
Step 2	.01	.92	.170		
RP x Valence of post-merger school				-.11	.07
<i>Advantaged school (N = 74)</i>					
Variables	ΔR^2	ΔF	<i>p</i>	β	<i>SE</i>
Step 1	.15	6.13	.001		
Relative prototypicality (RP)				.14†	.06
Valence of the post-merger school				.34**	.06
Step 2	.06	5.34	.012		
RP x Valence of post-merger school				-.25*	.06

Note. SE, β und *p* from the advantaged school are coefficients of the second step
†*p* < .10, **p* < .05, ***p* < .01, ****p* < .001.

I conducted the same hierarchical regression to test the third hypothesis, according to which relative prototypicality within the advantaged school should be positively related to group-related justice perceptions when students evaluate the post-merger school positively and it should be negatively related given a negative valence of the post-merger school. As can be seen in the lower part of Table 3.6, relative prototypicality and valence of the post-merger school had positive effects on group-related justice perceptions. Additionally, the interaction turned out to be significant. Simple slope calculation revealed that the positive relation between relative

prototypicality and group-related justice became stronger, when valence of the post-merger school was at a low level ($\beta = .36, p < .05$). However, the relationship became weaker at a high level of the moderator ($\beta = -.08, p > .05$). On the first sight, this result seems to contradict the hypothesis. But given the relatively high mean and the rather low standard deviation of valence of the post-merger school, the level of 1 standard deviation below the mean was still above the neutral scale midpoint 3. Thus, the result of the interaction, according to which there is a significant positive relation between relative prototypicality and group-related justice perceptions, can be considered to be in line with the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999)

The effects of relative prototypicality of an ideal upper track secondary school

To test the fourth hypothesis that relative prototypicality of an ideal school would be significantly higher than relative prototypicality of the actual post-merger school within the subsample of the disadvantaged school but not within the sample of the advantaged school, paired-sample t-tests were computed. Within the sample of the disadvantaged school, both means were, as predicted, significantly different from each other, $t(79) = -5.88, p < .001$. Students perceived their pre-merger school more relatively prototypical of an ideal school ($M = 0.99, SD = 1.44$) than of the actual post-merger school ($M = -0.15, SD = 1.31$). Within the subsample of the advantaged school, the mean of relative prototypicality of the ideal school was lower ($M = 1.06, SD = 1.75$) than the mean of relative prototypicality of the post-merger school ($M = 1.30, SD = 1.50$). However, this difference was not significant $t(73) = 1.24, p > .05$.

To test the fifth hypothesis, according to which for students of a disadvantaged school relative prototypicality of the representation of an ideal school would be negatively related to group-related justice perceptions, which would become stronger the lower the current status is perceived to be, I computed a hierarchical regression. In the first step, I inserted relative prototypicality and perceived post-merger status into the regression, in the second step the interaction of both variables was entered. As shown in Table 3.7, relative prototypicality of an ideal school had, as expected, a significant negative effect on group-related justice perceptions. Moreover, perceived post-merger status had a significant positive effect on the criterion. However, the interaction explained no additional amount of variance indicating that perceived status did not

change the magnitude of the negative relationship between relative prototypicality of an ideal school and group-related justice perceptions.

To further test the hypothesis, I also computed a significance test of the zero-order correlations between relative prototypicality of an ideal school and group-related justice and between relative prototypicality of the current post-merger school and group-related justice. Using a formula provided online by Simple Interactive Statistical Analysis (Uitenbroek, 1997), a significant difference between these two zero-order correlations emerged ($z = -1.38, p < .05$). As expected, the correlation between relative prototypicality of the current school and group-related justice was significantly lower than that between relative prototypicality of an ideal school and group-related justice.

The same hierarchical regression analysis for the subsample of the advantaged school was conducted to test the hypothesis whether relative prototypicality of an ideal school would be positively related to group-related justice perceptions and whether this relationship would be moderated by perceived status. However, the regression analysis did not reveal any significant amount of explained variance, neither in the first nor in the second step (both $\Delta F_s < 1$). Contrary to what I hypothesized, relative prototypicality of an ideal school was not related to group-related justice perceptions, neither was perceived status. I also tested whether the zero-order correlations between relative prototypicality of an ideal school and group-related justice and between relative prototypicality of the current school and group-related justice were significantly different. Using the same online program mentioned above (Uitenbroek, 1997), a marginally significant difference between the two correlations ($z = -1.25, p = .05$) was obtained, indicating that the relation between relative prototypicality of the current school and group-related justice was higher than that between relative prototypicality of an ideal school and group-related justice.

Table 3.7

Results of the hierarchical regression analysis on group-related justice perceptions for the subsample of the disadvantaged school (Study 3.2)

Variables	ΔR^2	ΔF	p	β	SE
Step 1	.52	13.92	.001		
Relative prototypicality of an ideal school (RP_{ideal})				-.27**	.07
Perceived post-merger status				.35***	.09
Step 2	.01	1.44	.167		
$RP_{ideal} \times$ Perceived post-merger status				.15	.09

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Discussion

Study 3.2 provided further support for the second hypothesis. Students of the disadvantaged pre-merger school perceived their post-merger status the more unjust the more relatively prototypical of the post-merger school they perceived their own school to be. Even though there was no clear indication of a moderation effect of valence of the post-merger school, there was a tendency that the negative relationship between relative prototypicality and group-related justice became stronger the more positive students evaluated the post-merger school. This tendency is in line with the hypothesis.

In Study 3.2, I could also test the third hypothesis, according to which relative prototypicality would be related positively to group-related justice perceptions and that this relation would be moderated by perceived valence of the post-merger school within the subsample of the advantaged school. The data did not reveal clear support for this hypothesis. Even though the data revealed a moderation effect of valence of the post-merger school, this effect turned out to have the opposite effect. Relative prototypicality was related positively to group-related justice, when valence was at a low level, and no relation between the two variables emerged at the high level of valence of the post-merger school. Although, I originally predicted a positive interaction effect, this result

might still be in accord with the proposition of the social categorization approach to justice (Wenzel, 1997, 2001).

Against the background that the mean of the moderator was quite high and the standard deviation was rather low, the level of 1 standard deviation below the mean was still above the neutral midpoint of the scale 3. Accordingly, the positive relation between relative prototypicality and group-related justice around the neutral level of valence of the post-merger school could be interpreted in line with the social categorization approach to justice (Wenzel, 1997, 2001). Given a positive or at least a neutral valence of the post-merger school, students of the advantaged school judged their higher status the more just the more relatively prototypical of the post-merger school they perceived their pre-merger school to be. Thus, to understand the role of the moderator valence of the post-merger school, it is important to take into consideration its absolute mean score and standard deviation. As the pre-merger schools in this study were embedded in a rather positive valued primary category, the relevant processes seemed to happen in a positive rather than in a negative sphere of the primary category.

The findings of Study 3.2 supported the fourth hypothesis, according to which relative prototypicality of an ideal school would be significantly different from relative prototypicality of the current post-merger school within the subsample of the disadvantaged school, but not within the sample of the advantaged school. As predicted, students of the disadvantaged school indicated significantly more relative prototypicality of an ideal school than of the current post-merger school, whereas both measures did not significantly differ within the subsample of the advantaged school. In line with Waldzus et al. (2004) and Vossen (2006), these findings corroborate the proposition that ingroup projection is facilitated for members of a disadvantaged group, when reality constraints are slackened. Although these findings propose that for students of an advantaged school the possibility of ingroup projection was not substantially different, it turned out a tendency that relative prototypicality of the current post-merger school was higher than relative prototypicality of an ideal school. The equal relative prototypicality that students of the advantaged school perceived of the ideal school also backs up the proposition that ingroup projection is adjusted by reality constraints.

In Hypothesis 5 it was assumed that relative prototypicality of the representation of an ideal school would be negatively related to group-related justice perceptions for students of a disadvantaged school and that this negative relation would become stronger the lower the current status is perceived to be. Even though perceived status did not turn out to function as a moderator, the data revealed support for this hypothesis. Students perceived their lower status the more unjust the more relatively prototypical of an ideal school they perceived their former school to be. The fact that the zero-order correlation between relative prototypicality of an ideal school and group-related justice was substantially higher than that between relative prototypicality of the current school and group-related justice strengthens the assumption that ingroup projection varies to the extent that a primary category is narrowly defined by the characteristics of a dominant group.

The additional result that perceived status was positively related to group-related justice was not explicitly expected. However, this result is not surprising, as it is in line with previous research demonstrating that people perceive a higher post-merger group status more just or legitimate than a lower group status (e.g., Amiot, et al., in press; Gleibs et al., 2007a; Shin, 2003; Terry & O'Brien, 2001). Surprisingly, within the subsample of the advantaged school relative prototypicality of an ideal school was not at all related to group-related justice perceptions, neither was perceived status.

In sum, Study 3.2 replicated and extended the results of Study 3.1. Even though I tried to improve the measure of relative prototypicality in the sense that stereotypical attributes of the two pre-merger schools were provided, I did not succeed to balance the attributes in terms of valence. All the negatively formulated attributes had to be excluded from further analyses, as they were not perceived as relevant criteria to describe an upper track secondary school. The final measure of relative prototypicality comprised only positive attributes, which might be criticized as confounding between typicality and valence (cf. Bianchi, Mummendey, Steffens, & Yzerbyt, 2007).

3.2.3. General discussion of Chapter 3

The two studies presented in Chapter 3 were designed to examine the antecedents of students' group-related justice perceptions after a school merger. Based on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 2003), I expected that the extent to which students perceive their pre-merger school to be relatively prototypical of the post-merger school would be related to their relative group entitlement beliefs and their group-related justice perceptions, respectively. As particularly predicted in the first hypothesis, the data revealed a negative relationship between relative prototypicality and relative group entitlement, which was strongest given a negatively valued post-merger school (Study 3.1).

Regarding the prediction of group-related justice perceptions, I assumed that the relationship between relative prototypicality and group-related justice would differ between students of advantaged and disadvantaged pre-merger schools. In line with the second hypothesis, relative prototypicality was negatively related to group-related justice for students of a disadvantaged school and this relationship became stronger the more positive students evaluated the primary category (Study 3.2). Even though the second hypothesis seemed to be unsupported in Study 3.1, a closer inspection of the underlying processes revealed evidence for a positive relationship between relative prototypicality and group-related justice perceptions for students of a disadvantaged or at least a non-advantaged pre-merger school. However, this relation turned out to be indirect, this means mediated by relative group entitlement, and it showed up only when valence of the post-merger school was at a low level. Overall, the results regarding the disadvantaged schools are in line with previous research on the ingroup projection model (e.g., Weber et al., 2002; Wenzel et al., 2003; Tischendorf, 2007), in that they corroborate the proposition that unprototypicality of a negatively valued primary category reflects positively on a recipient unit's entitlement.

Whereas in Study 3.1 I could not test the third hypothesis regarding students of an advantaged pre-merger school, Study 3.2 provided evidence that relative prototypicality is positively related to group-related justice perceptions held by students of an advantaged pre-merger school. Apparently, the moderation effect of valence of the post-merger school did not turn out as predicted. It revealed a positive relationship at the

low level of the moderator, but not, as predicted, at the high level. However, I would still not reject the third hypothesis, as the largest part of the variance of the moderator valence of the post-merger school was located in the positive half of the scale. Given this structural specificity of the school merger in Study 3.2, the positive relationship between relative prototypicality and group-related justice at the low level of the moderator within the subsample of the advantaged school can be considered to be in line with the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999).

I found clear support for the fourth hypothesis that relative prototypicality of an ideal school is higher than relative prototypicality of the current post-merger school for students of a disadvantaged pre-merger school, but not for those of an advantaged school. This finding is in accordance with previous research on the ingroup projection model (Vossen, 2006; Waldzus et al., 2004). It strengthens the proposition that ingroup projection might be facilitated for members of a disadvantaged group, when the definition of the primary (i.e., inclusive) category is not predefined by the attributes of an advantaged or dominant group. However, this conclusion can be only drawn with caution, as relative prototypicality was assessed as a proxy (i.e., a result) of ingroup projection and not ingroup projection itself. To further validate this conclusion, future laboratory research needs to explore the interference of the cognitive *process* of ingroup projection.

Hypothesis 5 was supported in the way that relative prototypicality of an ideal school was indeed negatively related to group-related justice perceptions within the subsample of the disadvantaged school. The result that perceived status did not, as expected, turn out as a moderator of this relationship is not surprising, as there was no large variance in the perception of post-merger status within the subsample of the disadvantaged school. Most of the students perceived their own school to clearly possess lower status as compared to the other school. The finding that the zero-order correlation between relative prototypicality of the ideal school and group-related justice was significantly higher than that between relative prototypicality of the current post-merger school and group-related justice indirectly backs up the assumption that ingroup projection is facilitated, when the primary category is less narrowly defined (cf. Vossen, 2006; Waldzus et al., 2004). Moreover, it suggests that the ideal school might have

worked as a relevant frame of reference, from which legitimate entitlements regarding the current status position were derived.

However, the cross-sectional field data are not appropriate to answer the question whether students of the disadvantaged school indeed projected more ingroup attributes onto the ideal school category than onto the current post-merger school category. An alternative explanation could be that students might have taken the ideal school category as a more relevant frame of reference than the current post-merger school. It seems also plausible, that both of the mentioned processes might have worked interactively. According to the proposition of the ingroup projection model (Mummendey & Wenzel, 1999) that ingroup projection is strongest when group members highly identify with the subordinate *and* the inclusive category, students might have identified more with the presumably positively valued ideal school than with the current post-merger school. They might have been therefore more inclined to project ingroup attributes onto the ideal school. In sum, one could speculate that students of the disadvantaged school might have welcomed the ideal school as an alternative frame of reference that allowed them to justify higher group entitlement, because this category left more room for ingroup projection than the current post-merger school with its predefined prototype.

The data did not support hypothesis 5 in its assumptions regarding the students of the advantaged pre-merger school. Contrary to what I predicted, neither relative prototypicality of an ideal school nor perceived status were related to group-related justice perceptions of the current high (i.e., dominant) post-merger status. This unexpected finding seems to suggest that students of the advantaged school might not have taken the ideal school as a relevant frame of reference from which current group related entitlement beliefs were deduced. This interpretation receives further support from the finding that the correlation between relative prototypicality of an ideal school and group-related justice was substantially lower than the positive correlation between relative prototypicality of the current school and group-related justice, even though the latter correlation did not reach the level of significance.

In contrast to the students of the disadvantaged school, one could speculate that students of the advantaged school did not need the ideal school category to derive legitimate group entitlements. The current post-merger school with its predefined prototype might have served sufficiently to justify higher relative group entitlements for

students of the advantaged pre-merger school. In sum, the results of hypothesis 5 seem to propose that the primary category ideal school had different implications for students of the advantaged and the disadvantaged school. Whereas it seemed to be functional for students of the disadvantaged school to justify higher relative group entitlements, it seemed to be without relevance for students of the advantaged school. However, to further inspect the underlying processes, laboratory research is needed directly measuring the cognitive-motivational process of ingroup projection and its context-dependency.

Implications

The present research extends previous research on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999) in the sense that it applies their propositions to the highly self-relevant institutional context of a school merger. Moreover, the presented studies strengthen the generalizability of previous evidence mainly obtained from university student samples, as they revealed that the proposed relationship between relative prototypicality and group-related justice perceptions can be also found within samples of adolescents. The fact that the proposed pattern was found within both studies strengthens the generalizability argument even more, because the two school mergers differed in the pattern of integration, in the clarity of the post-merger status differential, and in the type of school.

Furthermore, Study 3.1 provides support for the proposition that a negatively valued inclusive category (i.e., primary category) that is the result of forced categorization can indeed be self-relevant in that it provides a comparison standard, although a negative one, for the subcategories. Likewise, the present data corroborates the assumption that the meaning of relative prototypicality for deducing legitimate entitlements varies dependent on the valence of the primary category. (cf. Weber et al, 2002; Wenzel et al., 2003). Study 3.2 adds to the understanding of how prototypes and the deduction of legitimate entitlements are context-dependent. The present research suggests that prototypicality might not only be dependent upon numerical proportions as suggested by Vossen's work on female underrepresentation in managerial positions (2006). The present research emphasizes that it might be also dependent upon the extent

to which the prototype of the inclusive category (i.e., primary category) is predefined by the attributes of an advantaged (i.e., dominant) subcategory (cf. Waldzus et al., 2004).

The results of this research also propose that the usage of primary categories might serve strategic concerns about establishing ingroup prototypicality in order to justify a high group entitlement. For instance, in the light of the present data, it could be concluded that group members of a disadvantaged group choose a primary category which is not restrained by a predefined prototype that reduces the possibility of ingroup projection. They might rather make use of a primary category without a fixed prototype in order to project ingroup attributes. Ingroup projection, in turn, would heighten relative prototypicality and would justify a higher group entitlement for their ingroup. In choosing the appropriate primary category, group members seem to actively define the frame of reference of a justice problem in a way that would justify demands and entitlements for their group.

Limitations

Even though the studies reported yielded some evidence for the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), the effects were rather weak. The school merger context to which the theoretical assumptions were applied was certainly a very complex one with quite a few uncontrollable factors. Moreover, the interpretations drawn from this research are limited to the extent that they relied on cross-sectional data. It is, thus, not possible to draw any conclusions about causal relations among the variables. Future research is required to test the proposed predictions longitudinally. Such research should also incorporate a more valid measure of relative prototypicality. This measure should involve a sufficient number of positive *and* negative stereotypical attributes of both pre-merger schools. Moreover, it seems reasonable to include a more differentiated measure of pre- and post-merger identification that explicitly reflects the three different facets of identification. In doing so, it could be examined to what extent each of the three facets contributes to variance in relative prototypicality and group-related justice.

Even though the present research contributes to the external validity of the social categorization approach and the ingroup projection model, it remains to be seen to what extent the results of the present studies can be generalized to other self-relevant

intergroup justice contexts. More field research on the social categorization approach to justice (Wenzel, 1997, 2001) is certainly needed. Furthermore, laboratory research is required to examine the theoretical conclusions on a strategic choice of primary categories that have been made in the light of the present data. This research should explicitly address the question whether there can be identified a strategic choice of primary social categories that varies to the extent that these categories are potent to justify legitimate entitlements.

4. General discussion

Within the last 10 years, many school mergers have taken place in the public educational system in Germany to compensate for the demographical decrease in this country. The five newly formed federal states of Germany and Berlin are particularly affected by a reduced number of students because of the German re-unification in 1990. Accordingly, hundreds of schools throughout all educational levels have been involved in school mergers up to now. This trend is going to continue throughout the next years.

Despite the high prevalence of school mergers, no research has been conducted so far to examine students' responses to such an event. Therefore, the first purpose of the present thesis was to examine how students adjust to a school-merger. Combining an intergroup perspective and a justice perspective, I was particularly interested in the question to what extent students' group-related justice perceptions could predict their responses to a school merger. In more concrete terms, I sought to investigate whether the extent to which students perceive the post-merger status of their former school as just or not has an impact on their merger adjustment. Provided group-related justice perceptions influence students' merger responses, the second aim of this thesis was to examine what criteria students use to decide whether their post-merger group status is just or not.

In this final chapter, the various findings reported in this thesis are put together to show the whole picture. First, the major findings of Chapter 2 and 3 are briefly summarized. Further, the findings are discussed in terms of their theoretical and practical implications. The major contributions and shortcomings of the present research are considered and directions for future research are suggested.

4.1. *Summary of the presented studies*

4.1.1. The role of group-related justice perceptions for students' adjustment to a school merger

The first aim of this thesis was developed to depict the role students' group-related justice perceptions have for their adjustment to a school merger. This research aim was realized by integrating intergroup relations research (e.g., Amiot et al., in press; Boen, et al., 2005; Buono & Bowditch, 1989; Gleibs et al., 2007a; Haunschild et al., 1994; Shin, 2003; Terry & O'Brien, 2001; Terry et al., 2001; Terry & Callan, 1998; van Knippenberg et al., 2002) and justice research (e.g., Cobb et al., 1995; Tyler & Blader, 2003). The integration of both research perspectives resulted from the structural characteristic of a merger. If two organizations come together to create a new organization, this process inevitably raises questions of justice between the merging organizations (cf. Gaertner et al., 2001, Cobb et al., 1995).

Intergroup relations research on mergers has repeatedly demonstrated that social identity processes can play a crucial role for the success or failure of a merger (e.g., Boen, et al., 2005; Buono & Bowditch, 1989; Gleibs et al., 2007a; Haunschild et al., 1994; Terry & Callan, 1998; Terry & O'Brien, 2001; van Dick, et al., 2004; van Knippenberg et al., 2002). In particular, employees' adjustment to a merger varies between high and low status merger partner, because different status positions imply differences in perceived social identity threat. Members of low status merger partners are less identified with the post-merger organization and more engaged in ingroup bias than members of high status merger partners (e.g., Gleibs et al., 2007a; Gleibs et al., 2007b; Terry & Callan, 1998; Terry & O'Brien, 2001).

It has also been shown that post-merger justice and fairness perceptions play a crucial role in predicting employees' adjustment to a merger (e.g., Amiot et al., in press; Lipponen et al., 2004; Meyer, 2001; Shin, 2003). Perceptions of justice after a merger are associated with identification with the post-merger organization, ingroup bias, merger support, turnover intentions, and job satisfaction (e.g., Amiot, et al., in press; Giessner et al., 2006; Lipponen et al., 2004; Shin, 2003; Terry & O'Brien, 2001).

Integrating the intergroup and the justice perspective, I hypothesized that students of a pre-merger school with an advantaged position after a school merger would adjust better to a school merger than students of a pre-merger school with a disadvantaged position. This difference was predicted to be indirectly explained by students' group-related justice perceptions. Both studies presented in Chapter 2 provided support for this hypothesis. Compared to students of a disadvantaged school, students of an advantaged pre-merger school adjusted better to the school merger, as they showed a smaller decrease in academic achievement, lower levels of pre- and higher levels of post-merger identification, as well as less ingroup bias. As predicted, group-related justice perceptions completely mediated these effects of group status on students' merger adjustment. This finding suggests that students of an advantaged school adjust better to a school merger, because they judge their post-merger group status more just than students of a disadvantaged school.

Derived from previous findings on the role of justice in merger contexts (e.g., Amiot et al., in press; Lipponen et al., 2004; Meyer, 2001; Shin, 2003), it was furthermore hypothesized that perceptions of group-related justice would be positively related to well-being at school and to change in academic achievement, and negatively to ingroup bias. Based on the group engagement model (Tyler & Blader, 2003), I predicted that these relationships would be at least partially mediated by post-merger identification. These relationships were expected to hold across advantaged and disadvantaged pre-merger schools. The path analytical results of both studies documented in Chapter 2 support my hypotheses for the prediction of well-being at school and ingroup bias. Students' group-related justice perceptions were positively linked to well-being at school and negatively to the level of ingroup bias. These relationships were partially mediated by post-merger identification. As predicted, the strength of these relationships did not significantly differ between the advantaged and the disadvantaged pre-merger schools.

However, the two studies of Chapter 2 provided inconsistent support for the prediction of change in academic achievement. Study 2.1 revealed, as predicted, an indirect relationship between group-related justice and change in academic achievement that was completely mediated by post-merger identification. Although this finding supported my hypothesis, it has to be interpreted with caution due to the methodological

weakness that change in academic achievement was assessed as a single-item measure in the first study. Study 2.2 with a more reliable and valid measure of change in academic achievement yielded a strong direct, but no indirect relationship between group-related justice and change in academic achievement. This was due to the fact that post-merger identification was not related to change in academic achievement. There must have worked other mediators over and above post-merger identification that accounted for the strong relationship between group-related justice and change in achievement. It could be speculated that teachers' lack of adjustment to the school merger and hence a reduced teaching performance might have contributed to the decrease in students' academic achievement after the school merger.

Summing up, the two studies reported in Chapter 2 reveal strong evidence for the hypothesis that group-related justice perceptions completely account for the effects post-merger group status exerts on students' adjustment to a school merger. Moreover, the path analytical results of the two studies supported the prediction that the effects of group-related justice perceptions on students' well-being at school and on their level of ingroup bias are partially mediated by post-merger identification. The findings furthermore suggest that post-merger identification might not necessarily function as a mediator of the relationship between group-related justice perceptions and change in academic achievement.

4.1.2. Antecedents of students' group-related justice perceptions

While the first research aim focused on the importance of group-related justice judgments for students' adjustment to a school merger, the second research aim was developed to analyze the antecedents of these justice appraisals. The question behind this research aim was what criteria students use to derive group entitlement of their pre-merger school relative to the other pre-merger school. I sought to investigate to what extent social categorization processes account for students' group-related justice perceptions and relative group entitlement, respectively.

Based on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), I argued in Chapter 3 that students' relative group entitlement and group-related justice, respectively, would be derived from group prototypicality perceptions in terms of the post-merger school. More

precisely, it was predicted that the extent to which students perceive their pre-merger school to be relatively prototypical of the inclusive post-merger school would be related to relative group entitlement and group-related justice perceptions.

Previous research on the ingroup projection model (Weber et al., 2002; Wenzel et al., 2003) has shown that perceived valence of the inclusive category changes the meaning of relative prototypicality in an intergroup context. Whereas prototypicality of a positively valued inclusive category leads to outgroup derogation and higher entitlement for the ingroup than for the outgroup, the opposite effect occurs when perceived valence of the inclusive category is negative. Hence, I predicted that perceived valence of the post-merger school would moderate the relationships between relative prototypicality and group-related justice, and relative group entitlement, respectively.

The studies reported in Chapter 3 provided some support for these predictions. The data revealed, as predicted, a negative relationship between relative prototypicality and relative group entitlement. This relation only emerged when students evaluated their post-merger school negatively. Thus, given a negatively valued post-merger school, students claimed the more a higher entitlement for their pre-merger school in comparison to the other pre-merger school the less relatively prototypical of the post-merger school they perceived their pre-merger school to be.

Regarding the prediction of group-related justice perceptions, I assumed that the relationship between relative prototypicality and group-related justice would differ between students of advantaged and disadvantaged pre-merger schools. In line with my predictions, relative prototypicality was negatively related to group-related justice perceptions for students who perceived their pre-merger school to have a disadvantaged or at least a non-advantaged status position after a school merger. This relationship was, as expected, moderated by perceived valence of the post-merger school. Given a positive valence, the negative relationship between relative prototypicality and group-related justice became stronger. Given a negative valued post-merger school, relative prototypicality was positively related to group-related justice. This positive relationship, however, was completely mediated by relative group entitlement. Regarding the predictions for students of an advantaged pre-merger school, the data tendentially supports the social categorization approach to justice (Wenzel, 1997, 2001). Relative

prototypicality was positively related to group-related justice when valence of the post-merger school was valued neutrally.

Recent research on the ingroup projection model has demonstrated that the extent to which ingroup projection is possible might be limited by social reality constraints (Vossen, 2006; Waldzus et al., 2004). Related to these research findings, I assumed that ingroup projection after a school merger would be inhibited for students of a disadvantaged but not for those of an advantaged pre-merger school. Students of a disadvantaged school should be less able to project their ingroup attributes onto the primary category of the post-merger school, because the prototype of the post-merger school is likely to be dominated by the attributes of the advantaged school.

In order to examine the context-dependency of ingroup projection after a school merger, I tested whether for students of a disadvantaged pre-merger school ingroup projection would be facilitated onto a primary category that is not predefined by the attributes of the advantaged pre-merger school. Therefore, students were asked to judge the relative prototypicality of their pre-merger school in terms of an ideal school, an alternative primary category without a predefined prototype. In line with my prediction, students of a disadvantaged school perceived their pre-merger school to be significantly more relatively prototypical of an ideal school than of the actual post-merger school. For students of an advantaged pre-merger school relative prototypicality of an ideal school was lower but, as expected, not significantly different from relative prototypicality of the actual post-merger school.

Finally, I assumed for both students of disadvantaged and advantaged schools that relative prototypicality of an ideal school would be also related to group-related justice perceptions and that this relationship would be moderated by perceived status. For students of a disadvantaged school I expected a negative relationship, which should become stronger the lower the status is perceived. The opposite effect was predicted for students of the advantaged school. Relative prototypicality should be positively related to group-related justice, which should become stronger the higher they perceive their status.

This hypothesis received some support for the prediction regarding the disadvantaged pre-merger school, but not for the prediction regarding the advantaged school. As predicted, students of the disadvantaged school perceived their lower status

the more unjust the more relatively prototypical of the ideal school they perceived their pre-merger school to be. Perceived status did not moderate this relation. However, as most of the students of the disadvantaged school perceived their status to be lower than the status of the students from the other pre-merger school, this result is in line with my assumptions based on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999). Members of a disadvantaged group evaluate their low status position the more unjust the more relatively prototypical of the primary category they perceive their school to be. In line with what I further assumed, the correlation between relative prototypicality of an ideal school and group-related justice was higher than that between relative prototypicality of the actual post-merger school and group-related justice, but only for students of a disadvantaged school. This result indirectly backs up the assumption that for members of a disadvantaged merger partner ingroup projection is facilitated if the primary category is not predefined by the attributes of the dominant merger partner.

Regarding students of an advantaged school, the hypothesis received no support. Neither relative prototypicality of an ideal school nor perceived status were related to group-related justice perceptions. This result suggests that for students of an advantaged school an ideal school category does not serve as a relevant frame of reference for group-related justice judgments.

Overall, the data presented in this dissertation give some evidence for the propositions of the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999). The results of the two studies reported in Chapter 3 suggest that relative prototypicality is related to students' relative group entitlement and group-related justice perceptions after a school merger. The data provide also support for the prediction that this relationship is moderated by the valence of the primary category (i.e., the post-merger school). Furthermore, it has been shown that the relationship between relative prototypicality and group-related justice was opposite between students of advantaged and disadvantaged pre-merger schools. Finally, there is evidence that the process of ingroup is context-dependent. In particular, ingroup projection seems to be inhibited for students of disadvantaged pre-merger schools when the primary category is predefined by the attributes of the advantaged pre-merger school. Ingroup projection appears to be facilitated for a primary

category of an ideal school without a predefined prototype. Relative prototypicality of such a primary category seems to be more relevant for the derivation of group entitlement than the predefined primary category for students of a disadvantaged school. Students of advantaged pre-merger schools might rather use the post-merger school as a relevant primary category than an ideal school.

Integrating the results of Chapter 2 and 3, one can conclude that students' group-related justice perceptions are strongly related to issues of social identity and social categorization. On the one hand, group-related justice is important for students' level of post-merger identification with school and subsequent merger responses at the individual level (well-being at school, change in academic achievement) and the group level (ingroup bias). On the other hand, students' group-related justice perceptions are derived from social categorization processes relevant within the intergroup context of a school merger. Hence, these results reveal evidence that group-related justice and social identity are inherently associated with each other.

4.2. *Implications*

4.2.1. Implications for research on school mergers

The research presented in Chapter 2 represents a first step towards the understanding of students' adjustment to a school merger. The results extend previous research on school mergers that solely focused on teachers' responses to a school merger (e.g., Kyriacou & Harriman, 1993; van Knippenberg et al., 2002; Verhoeven et al., 2002, as cited in Boen et al., 2005). Moreover, the present research goes beyond Boen and colleagues' (2005) work on predictors of students' post-merger identification, in that it depicts additional indicators of students' adjustment to a school merger, such as students' level of ingroup bias, sense of well-being at school, and change in academic achievement.

Both studies reported in Chapter 2 revealed that the same negative intergroup phenomena (i.e., ingroup bias, high pre-merger identification, low post-merger identification) that have been repeatedly observed among adult employees (e.g., Lipponen et al., 2004; Meyer, 2001; Shin, 2003; Terry et al., 2001; Terry & O'Brien, 2001, van Knippenberg et al., 2002) also occur among students who are affected by a school merger. This congruence strengthens the applicability of the social identity

approach (Tajfel, 1978; Tajfel & Turner, 1979; Turner et al., 1987) to the study of mergers even more, as students' social bonding to their school is presumably less self-relevant and less enduring than the social bonding that employees might have towards their organization (cf. Boen et al., 2005). Besides consequences at the group level, it has been shown that students are also substantially affected in their sense of well-being at school and their academic achievement. In doing so, the findings presented in Chapter 2 add to the understanding that threat to one's pre-merger social identity also influences merger responses at the individual level.

Applying an intergroup perspective, the present studies suggest that students' responses to a school merger vary dependent upon the relative standing (i.e., post-merger status) their pre-merger school has after a school merger. In line with previous findings on differences between high and low status merger partners (e.g., Amiot et al., in press; Gaertner et al., 2001; Gleibs et al., 2007a; Terry et al., 2001), it has been demonstrated that students of an advantaged pre-merger school adjust better to a school merger than students of a disadvantaged pre-merger school. Importantly, the present research provides an explanation for *why* these differences occur. In the light of the present findings, one can conclude that differences in school merger adjustment between students of advantaged and disadvantaged pre-merger schools emerge, because they imply differences in group-related justice perceptions. As differences in status between merging schools do not exist prior to a school merger, a disadvantaged post-merger status is associated with the perception of being treated unjust by the decision makers. Group-related injustice, in turn, reflects a threat to students' pre-merger school identity which negatively influences their post-merger identification and finally the adjustment to a school merger and to a merged school. In this respect, this part of my research project can be considered as an extension to research on the group engagement model (Tyler & Blader, 2003), in the sense that it adds to the external validity of this model.

Summing up, the present research project can be considered a major contribution to the understanding of students' adjustment to a school merger. The findings support the idea that the integration of an intergroup perspective and a justice perspective is particularly instructive to the investigation of students' responses to a school merger, because they reflect the two major structural characteristics of a school merger. First, a school merger is an intergroup encounter that makes students' pre-merger identities

salient. Second, a school merger involves resource redistributions between the pre-merger schools which result in a specific post-merger status relation between both merging schools. These resource redistributions are inevitably linked to questions of group-related justice. The present data suggest that group-related justice perceptions are of major importance for the quality of students' adjustment to a school merger.

4.2.2. Implications for research on organizational mergers in general

The present findings on the importance of group-related justice are not only instructive for research on school mergers specifically, but they also provide contributions for research on organizational mergers in general. Even though previous intergroup relations researchers have acknowledged the importance of justice issues for merger adjustment, they have usually examined the effects of justice separately from the effects of post-merger group status (e.g., Amiot et al., in press; Gleibs et al., 2007a; Lipponen et al., 2004; Shin, 2003; see for two exceptions: Giessner et al., 2006; Terry & O'Brien, 2001).

The present thesis suggests that it might be fruitful for research on organizational mergers to apply a research perspective that implies a simultaneous consideration of social identity issues and group-related justice concerns. The two studies presented in Chapter 2 indicate that the effects of social identity concerns (e.g., post-merger group status) on employees' adjustment to a merger can be understood more completely when justice perceptions related to this status (i.e., group-related justice) are taken into account simultaneously. In doing so, the present research adds to the understanding that differences in group-related justice judgments can explain *why* members of the low status merger partner usually adjust worse to a merger than members of the high status merger partner (e.g., Amiot et al., in press; Gaertner et al., 2001; Gleibs et al., 2007a; Terry et al., 2001; Terry & O'Brien, 2001). In accordance with the notions of identity-based models of justice (e.g., Tyler & Blader), it can be concluded that group-related justice perceptions seem to be the driving force behind differences in adjustment between dominant and dominated pre-merger groups.

However, it is debatable to what extent this conclusion can be transferred to the business merger context. Even though school mergers are very similar to business mergers in a structural sense, there are fundamental differences in the way resources

between the merger partners are allocated and in the roots of the post-merger status differential. Post-merger status differences between merging companies are not exclusively the result of a decision-making process held by a third party, as it is the case in school mergers. Instead, they reflect status differences that already existed prior to the merger. Thus, questions of status legitimacy might be more important in the context of business mergers than questions of group-related justice.

Status legitimacy is a concept within SIA (Tajfel, 1978; Tajfel & Turner, 1979), which can be considered related to group-related justice. Like perceptions of group-related justice, perceptions of status legitimacy usually involve a claim of getting what a group is entitled to. Perceiving the group's status to be illegitimately low can be understood as a necessary prerequisite for the experience of group-related injustice (Syroit, 1991; Weber, et al., 2002). However, in order to perceive injustice, an allocator must be held responsible for the illegitimately incongruent status allocation (Mikula & Wenzel, 2000). This precondition is easily given in the context of a school merger, where the LEA leads the resource allocation process. Members of both pre-merger schools are likely to judge the post-merger status in terms of justice. In business mergers, the situation seems to be different, as the merging companies, mostly the high status merger partner, are actively involved in the allocation decisions. Whereas members of the dominated merger partner might indeed feel treated unjust by the dominant merger partner, members of the dominant company might perceive the allocation rather as a legitimate (or illegitimate) reflection of their higher status.

This differentiation between injustice and legitimacy seems to be important because it is supposed to imply different consequences for merger adjustment. The perception of group-related justice leads per se to positive outcomes across advantaged and disadvantaged pre-merger groups, as it has been demonstrated in the present thesis. The perception of status legitimacy is supposed to have different implications for high and low status groups. The perception that a low status position is legitimate may give rise to acceptance of the new organizational structure and thus, should lead to positive merger responses. For members of a high status pre-merger company the perception of legitimacy of the high status is related to the threat that the intergroup status relation may change through a merger. Thus, legitimacy of high status should result in more negative merger responses than illegitimacy of high status (Terry & O'Brien, 2001).

Terry and O'Brien have shown that status legitimacy is related to more positive merger responses (in terms of post-merger identification, perception of a common ingroup, and job satisfaction) within the low status group. It is linked to more negative merger responses (in terms of ingroup anxiety, perception of a common ingroup identity, and perception of threat) within the high status merger group (Terry & O'Brien, 2001).

In line with this reasoning, justice regarding the post-merger status in the context of business mergers might not have the same impact as in the context of school mergers. Yet, in order to gain a clearer insight into employees' adjustment to a business merger, the results of this thesis suggest that it seems worthwhile to analyze the effects of post-merger group status *with simultaneous consideration* of how legitimate and / or just this status is perceived to be.

The present research findings have also implications for the research on a sense of continuity in the context of organizational mergers (van Knippenberg et al., 2002; van Leeuwen, 2001; van Leeuwen et al., 2003). According to this research approach, the experience of continuity of the pre-merger identity in the post-merger identity can reduce the extent to which a merger is perceived as a threat to the pre-merger group identity. The perception of identity continuation should therefore heighten post-merger identification as well as positive adjustment to a merger. The results presented in Chapter 2 indirectly enrich this approach. They provide an explanation for the effects of identity continuation on post-merger identification and merger adjustment. Consistently across both studies of Chapter 2, it has been demonstrated that differences in the identification pattern between students of advantaged and disadvantaged pre-merger schools are a result of differences in group-related justice perceptions. Although a sense of continuity was not directly measured in this thesis, it seems plausible on the basis of identity-based models of justice (e.g., Tyler & Blader; Wenzel, 1997, 2001) that group-related justice also accounts for the effects of identity continuation.

The results of this thesis might be also interesting in the light of the research on cognitive representations during mergers (Gaertner et al., 2001; Giessner, 2004; Giessner et al., 2006). This research is based on the common ingroup identity model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). According to this model, members of different groups that succeed to recategorize themselves as members of the same superordinate category will improve their attitudes towards former outgroup

members. A common ingroup identity extends the positive ingroup attitudes to former outgroup members by encouraging group members to mentally include the outgroup into the ingroup. Applied to a merger context, this means that a person who highly identifies with the post-merger organization and who perceives a member of the other merger partner as a part of the merged organization should show reduced ingroup bias. However, previous merger studies revealed mixed evidence for the common ingroup identity model in the context of mergers. Whereas some studies supported the assumption that a common ingroup representation is associated with more positive evaluations of the pre-merger outgroup (Gaertner et al., 2001; Giessner, 2004; Giesner et al., 2006) other studies failed to provide consistent support for the importance of post-merger identification for ingroup bias (Lipponen et al., 2004; Terry & O'Brien, 2001).

Even though the cognitive representation of a common ingroup was not directly measured in the present thesis, the data reported in Chapter 2 provide indirect evidence for the common ingroup identity model (Gaertner et al., 1993). Both of the studies revealed that the strength of students' post-merger identification was inversely associated with ingroup bias. Moreover, post-merger identification functioned as a partial mediator between the relation of group-related justice and ingroup bias. The high correlations between group-related justice and post-merger identification in both studies further indicate that group-related justice might trigger post-merger identification and the perception of a common ingroup after a merger.

4.2.3. Implications for research on antecedents of justice perceptions

The findings of the present thesis have also implications for research on antecedents of justice perceptions. Research on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999) has provided evidence for the proposition that entitlement beliefs and justice perceptions, respectively, are rooted in social categorization processes. In particular, within several artificial and natural group contexts, group-related justice appraisals have been shown to be related to the extent to which individuals perceive their ingroup as relatively prototypical of a primary category compared to a salient outgroup (Weber et al., 2002; Wenzel 2001). Moreover, it has been suggested that ingroup projection functions as a key mechanism in generating perceptions of ingroup-prototypicality (Mummendey and

Wenzel, 1999; Wenzel et al., 2003) and, in turn, group entitlement beliefs (Weber et al., 2002, Wenzel, 2001). However, no studies have been conducted so far to examine the implications of the social categorization approach to justice (Wenzel, 1997, 2001) and its specification by the ingroup projection model (Mummendey & Wenzel, 1999) within an institutional field context.

Thus, the present dissertation can be considered an important extension to research on the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), in that it applies their propositions to the highly self-relevant institutional context of a school merger. Moreover, the presented studies strengthen the generalizability of previous evidence mainly obtained from university student samples (e.g., Wenzel, 1997, Wenzel, 1998, Weber et al., 2002), as they reveal that the proposed relationship between relative prototypicality and group-related justice perceptions can be also found within samples of adolescents. The fact that I found the proposed pattern within both studies presented in Chapter 3 strengthens the generalizability argument, because the two school mergers differed in the pattern of integration, in the clarity of the post-merger status differential, and in the type of school.

Furthermore, the present data corroborate the assumption that the meaning of relative prototypicality for deducing group entitlement varies dependent upon the valence of the primary category (cf. Weber et al, 2002; Wenzel et al., 2003). It has been shown in the present thesis that given a positive evaluation of the primary category, relative prototypicality leads to higher group entitlement for the ingroup relative to the outgroup. Furthermore, an advantaged post-merger group status was perceived to be the more just the more relatively prototypical students perceived their own school to be of the post-merger school. The opposite effect has been observed when the primary category was negatively valued. Students derived the more relative group entitlement and perceived a disadvantaged status the more unjust the less relatively prototypical they perceived their pre-merger school to be.

In this respect, the findings of this thesis have also implications for research on the role of identification with a group. They indirectly corroborate the notions of the existence of multiple facets of self-categories (Ellemers et al., 1999) and of treating identification as a neutral, self-relevant link to a social category that is independent from

evaluative judgments (Correll & Park, 2005). The two studies presented in Chapter 3 provide support for the proposition that a negatively valued inclusive category, that is the result of forced categorization, can indeed be self-relevant and it can provide a comparison standard, although a negative one, for the subcategories. The present data suggest that the mere cognitive awareness of being a member of a specific category, thus the neutral link to a category, is sufficient to provide a relevant frame of reference for comparing subordinate groups. A negative evaluation of this category does not imply that the category is not important to the self, but it changes the meaning of the comparison standard (cf. Ellemers et al., 1999; Correll & Park, 2005).

The research of this thesis adds also to the understanding of how prototypes and the deduction of group entitlement are context-dependent. The present findings suggest that prototypicality might not only be dependent upon numerical proportions as suggested by Vossen (2006). It might also depend on the extent to which the prototype of the inclusive category (i.e., primary) category is predefined by the attributes of an advantaged (i.e., dominant) subcategory (cf. Waldzus et al., 2004).

Furthermore, the results of this research shed an interesting light on a strategic usage of primary categories. Based on the findings presented in this thesis, one could speculate that the usage of primary categories might serve strategic concerns to establish ingroup prototypicality in order to justify high group entitlement. For instance, in the light of the present data, it could be concluded that group members of a disadvantaged group choose a primary category which is not restrained by a predefined prototype that reduces the possibility of ingroup projection. They might rather make use of a primary category without a fixed prototype in order to be able to project ingroup attributes. Ingroup projection, in turn, would heighten relative prototypicality and would justify higher legitimate entitlement for their ingroup. In choosing the appropriate primary category, group members seem to actively define the frame of reference of a justice problem in a way that would justify demands and entitlements for their group.

4.3. Limitations of the presented studies and future research directions

Although the studies reported in this dissertation provide strong evidence for the importance of group-related justice perceptions for students' adjustment to a school merger and some evidence that social categorization processes are the basis of group-related justice perceptions, there are some limitations with regard to the presented studies. Foremost, the interpretations drawn from the data of Chapter 2 and 3 are limited to the extent that they are based on cross-sectional designs. It is therefore not possible to draw any conclusions about causal relationships among the variables. Even though the predictions were directly derived from theory, one cannot rule out the possibility that the causal relationships were different from what I predicted. The second drawback that stems from the cross-sectional character of the presented studies refers to the fact that the dynamic character of a school merger was not taken into account. A merger is not a stable situation but a complex and continuously changing organizational development (Amiot et al., in press; Gleibs et al., 2007a; Gleibs et al., 2007b). Issues of justice and identity are likely to change in their meaningfulness throughout the different stages of a merger. Future research is required to test the proposed relationships in a longitudinal design. On the one hand, a longitudinal approach makes it possible to test associations between variables with respect to their causal direction. On the other hand, by means of longitudinal research one can take into account changes throughout the merger process.

Although the field design was a strength of this research, the educational context of a school merger was a very complex one with quite a few uncontrollable factors. It remains to be tested to what extent the results obtained in the two studies of Chapter 2 regarding the importance of group-related justice perceptions for students' adjustment to a school merger can be generalized to other school mergers. The same drawback holds for the results presented in Chapter 3 on the antecedents of group-related justice perceptions. Even though the two studies contribute to increased external validity of the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999), the results were rather weak. More field research on these approaches in merger contexts and other self-relevant institutional contexts is needed.

Another caveat has to be discussed with regard to some of the measures used in the present thesis. Some of the measures (perceived post-merger status in all studies,

well-being at school in Study 2.1 and 2.2, change in academic achievement in Study 2.1, valence of the post-merger school in Study 3.1 and 3.2) were assessed by means of a single item. This was due to the fact that my research was part of a larger research project. The questionnaire, including a number of other measures irrelevant to my specific research aims, had to be completed within one lesson for reasons of practicability. However, the single-item measures are limited in terms of reliability and validity.

Moreover, the measure of relative prototypicality relevant in the studies of Chapter 3 involved some limitations. The measure in Study 3.1 was not based on stereotypical attributes of both schools, which might have reduced the possibility of ingroup projection. In Study 3.2 the relative prototypicality measure included stereotypical attributes of the pre-merger schools. However, it was not balanced in terms of attribute valence, as it only involved positive attributes. This can be criticized to confound between prototypicality and valence (Bianchi et al., 2007). Students might not have projected their distinctive attributes onto the primary category, irrespectively from whether they are positive or negative. Instead, they might have claimed to be as positive as the primary category. Future research should prefer a measure of relative prototypicality based on a sufficient number of positive and negative attributes pretested for being stereotypical of the two pre-merger schools.

Besides the methodological caveats, the research presented in this thesis has some theoretical limitations. The presented data have shown that group-related justice perceptions are important for students' adjustment to a school merger, because they are related to identification with the post-merger school which in turn is linked to subsequent merger responses. It was not shown how group-related justice exerts its influence on post-merger identification. Thus, the theoretically assumed process that group-related justice perceptions entail the judgment that the decision makers treat one's pre-merger school as a valuable subgroup which heightens post-merger identification with school remains to be investigated in future research.

Furthermore, in the present thesis the role of pre-merger identification for students' adjustment to a merger was underexposed. Derived from research on the group engagement model (Tyler & Blader, 2003), it was only assumed that post-merger identification mediates the effects exerted by group-related justice on merger responses.

The data of Study 2.1 and 2.2 suggest that group-related justice also influences students' association with their pre-merger school. However, pre-merger identification was not examined as a mediator. In future research, the role of pre-merger identification in conjunction with group-related justice in the course of a merger has to be elaborated.

In Chapter 3 it was argued on the basis of the social categorization approach to justice (Wenzel, 1997, 2001) that group-related justice and relative group entitlement are derived from relative prototypicality perceptions regarding the post-merger school and an ideal school, respectively. It was further assumed that relative prototypicality perceptions result from the cognitive-motivational process of ingroup projection. This process of projecting ingroup attributes onto the primary categories, however, was not explicitly examined. This process can only be examined by means of experimental research and is therefore difficult to establish in field contexts. It seems therefore important for field research to develop a valid and reliable measure of relative prototypicality, as described earlier in this chapter.

A final comment should address the integration of the assumptions made in Chapter 2 and 3 into a broader research model. In the present thesis the role of group-related justice for students' merger adjustment was not examined in simultaneous consideration with the antecedents of these justice perceptions. The relatively low sample sizes of the studies presented in this thesis did not allow working with such a complex research model. Future research could profit from applying a structural equation approach to examine both antecedents and consequences of group-related justice perceptions in the context of a school merger. Such a research requires quite a large sample size which seems difficult to achieve. However, the findings of the present research put forward that the relationships between the variables are quite similar across different school mergers. Therefore, it might be suggested for future studies to include several school mergers in one sample.

Further research on school mergers should also extend the focus from academic achievement to other important indicators of individual school success, such as academic motivation, classroom participation or persistence in schoolwork. These variables are supposed to be more sensitive to emotions and behavior in school than grade points in biannual reports. From an educational perspective, it seems also

interesting to examine whether group-related justice perceptions affect the perception of the post-merger school climate.

4.4. Implications for educational practitioners

Many thousands of students throughout Germany have been involved in a school merger up to now. According to the ongoing demographical trend in Germany, many thousands of other students will undergo a school merger in the future. The practical significance of the present dissertation accrues from the educational importance of fostering students' well-being at school, their academic performance as well as positive intergroup relations throughout the process of a school merger. Students' well-being at school and their academic achievement are two of the most important indicators of individual school success (Helmke & Schrader, 2000). Moreover, the quality of the intergroup relations can be considered to essentially shape the school climate after a school merger (Tischendorf, 2007). The educational authorities should therefore try to implement a school merger in a way that is not jeopardizing the quality of these in-school variables. The present studies suggest that one way to ensure students' adjustment to a school merger is to enhance their perceptions of a fair merger process and a fair post-merger status relation between the merging schools.

In the light of the present data, it seems to be quite challenging to apply an implementation pattern that satisfies both pre-merger schools, even if the intention is to equally integrate characteristics of both merger partners. For example, students might even evaluate an equal status to be unfair to the extent that they feel entitled to have a higher post-merger position than the other pre-merger school (cf. Hornsey, van Leeuwen, & van Santen, 2003). Therefore, it is recommended that educational authorities first of all try to ensure that students and teachers perceive the implementation *procedure* that leads to a certain post-merger status relation to be as fair as possible. This recommendation emanates from findings on the interplay between procedural and distributive justice, according to which people tend to perceive an even unfavorable outcome as fair as long as they evaluate the underlying decision-making process to be fair (Greenberg, 1987; Folger, 1977; McFarlin & Sweeney, 1992).

Based on findings from research on procedural justice (for an overview, see Tyler & Smith, 1998), it is advisable that, on the one hand, the educational authorities should

try to communicate their decision-making procedures and outcomes throughout the implementation process with the highest possible level of transparency. On the other hand, students and teachers should be allowed, as much as possible, to have a say in matters that affect them, to speak out their needs and ideas, as well as to pose questions and to declare disagreement during the implementation process. To sum up, a transparent communication as a top-down process and participation as the bottom-up counterpart should mutually facilitate perceptions of justice and a positive adjustment to a school merger.

4.5. Conclusion

The present thesis provides a first step into a systematic research of students' adjustment to a school merger. Applying an integrative approach including insights from intergroup relations research and justice research, the focus of the present thesis lay on perceptions students have regarding the justice of the post-merger status relation between two pre-merger schools. Central to the first part of my thesis was the question which role group-related justice perceptions play for students' responses to a school merger. The findings presented in Chapter 2 reveal that group-related justice perceptions are indeed relevant for students' merger responses at the individual level (well-being at school, change in academic achievement) and the group level (ingroup bias). The documented studies show that group-related justice perceptions are closely related to issues of students' school-related social identity. Group-related justice perceptions completely account for the effects exerted by different post-merger group status positions. In turn, the effects of group-related justice are partially mediated by students' strength of post-merger identification with school.

The central question to the second part of my thesis was to what extent group-related justice perceptions are based on social categorization processes. The studies documented in Chapter 3 provide some evidence that group-related justice perceptions are derived from the extent to which students perceive their own school to be relatively prototypical of a self-relevant primary category (the post-merger school and an ideal school in general). The findings further show that the relationship between relative prototypicality and group-related justice is opposite between students of advantaged and disadvantaged pre-merger schools. Moreover, the meaning of prototypicality changes

with respect to the valence of the primary category, post-merger school. Relative ingroup prototypicality only implies higher entitlement for the ingroup relative to the pre-merger outgroup when students evaluate the primary category, post-merger school, positively. Given a negatively valued post-merger school, relative ingroup unprototypicality justifies higher entitlement for the ingroup relative to the outgroup. The findings support also the assumption that the process of ingroup projection underlies the perception of relative prototypicality and hence the deduction of group-related justice and entitlement. Furthermore, the present research provides some evidence for the context-dependency of ingroup projection in a school merger context.

The results regarding the meaningfulness of group-related justice for students' merger responses imply important recommendations for educational managers responsible for the implementation of school mergers. By the same token, the presented findings provide several theoretical implications. They enrich intergroup relations research on the study of mergers (e.g., Amiot et al., in press; Boen, et al., 2005; Buono & Bowditch, 1989; Gleibs et al., 2007a; Haunschild et al., 1994; Shin, 2003; Terry et al., 2001; Terry & Callan, 1998; van Knippenberg et al., 2002; van Leeuwen et al., 2003;) by outlining that issues relevant to social identity and group-related justice are inherently related in their meaningfulness for merger responses at the individual level as well as at the group level. In doing so, the present research also adds to the external validity of the group engagement model (Tyler & Blader, 2003) stressing that justice is important because it implies information relevant to a person's identity. Moreover, the current research approach extends the external validity of the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999) by focusing on the role relative prototypicality plays for the deduction of students' relative group entitlement and group-related justice, respectively. The findings of this thesis also enrich research on the ingroup projection model (Vossen, 2006; Waldzus et al., 2004) in that they add to the understanding of the context-dependency of ingroup projection. Finally, the current data shed an interesting light on a strategic usage of primary categories.

Summing up, the present research work shows that the understanding of students' (and employees') adjustment to a merger benefits from an integrative approach including an intergroup and a justice perspective. Moreover, the current thesis provides

evidence that group-related justice perceptions after a merger are based on social categorization processes. More generally speaking, the findings of this field research add to the understanding that justice and identity are inherently related to each other. Social identities provide the norms and values for justice judgments. Justice judgments, in turn, build up values that are important for identity. The experience of injustice is therefore associated with a threat to one's identity. The present field studies back up the central claim of identity-based models of justice, such as the group engagement model (Tyler & Blader, 2003) or the social categorization approach to justice (Wenzel, 1997, 2001), that justice is not motivated merely by instrumental concerns that involve the maximizing of one's own outcomes. It is the threat to an important aspect of a person's identity and to identity-relevant values that drives the importance of justice issues. Accordingly, attempts to restore justice always imply the motive to enhance one's identity.

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Appendix

Measures – Study 2.1 and Study 2.2

Perception of post-merger status

Meine ehemals eigene Schule ist im Vergleich zur ehemals anderen Schule in der neuen, gemeinsamen Schule ... (1 = *viel schlechter gestellt*, 5 = *viel besser gestellt*).

Group-related justice perceptions

Ich finde es gerecht, wie die Schüler und Lehrer meiner alten Schule nach der Fusion abgeschnitten haben.

Ich finde es gerecht, welchen Stand die Lehrer und Schüler der ehemals anderen Schule im Vergleich zu uns haben.

Es ist unfair, welche Stellung meine alte Schule verglichen mit der ehemals anderen Schule nach der Fusion hat. (reverse-coded).

Insgesamt finde ich die Art und Weise der Zusammenlegung der beiden Schulen fair.

Identification with the pre-merger school

Ich sehe mich immer noch als Mitglied meiner ehemals eigenen Schule.

Ich bin froh, Schüler meiner ehemals eigenen Schule zu sein.

Ich fühle mich immer noch mit meiner ehemals eigenen Schule sehr verbunden.

Ich identifiziere mich immer noch mit meiner ehemals eigenen Schule.

Identification with the post-merger school

Ich sehe mich als Mitglied unserer neuen, gemeinsamen Schule.

Ich bin froh, Schüler unserer neuen, gemeinsamen Schule zu sein.

Ich fühle mich mit unserer neuen, gemeinsamen Schule sehr verbunden.

Ich identifiziere mich mit unserer neuen, gemeinsamen Schule.

Ingroup bias

Ich finde die Schüler der ehemals eigenen Schule (der ehemals anderen Schule) sehr sympathisch.

Ich mag die Schüler der ehemals eigenen Schule (der ehemals anderen Schule) sehr gern.

Ich kann den Schülern meiner ehemals eigenen Schule (der ehemals anderen Schule) vollkommen vertrauen.

Ich unterstütze Schüler meiner ehemals eigenen Schule (der ehemals anderen Schule) sehr gern.

Well-being at the post-merger school

Zurzeit fühle ich mich in der neuen, gemeinsamen Schule ... (1 = *sehr unwohl*, 5 = *sehr wohl*).

Change in academic achievement after the school merger

Seit der Fusion haben sich meine Schulleistungen ... (1 = *sehr verschlechtert*, 5 = *sehr verbessert*). (only in Study 2.1)

Measures – Study 3.1 and Study 3.2

Attributes for the measure of relative prototypicality

Study 3.1

- leistungsorientiert (+)
- vielseitig im Freizeitangebot (+)
- schülerfreundlich (+)
- gewaltanfällig (-)
- sportlich engagiert (+)
- künstlerisch-musikalisch orientiert (+)
- starr bezüglich Hausordnung und Regeln (-)
- von gutem Ruf (+)

Study 3.2

- ehrgeizig (+)
- naturwissenschaftlich orientiert (+)
- sprachlich orientiert (+)
- leistungsstark (+)
- umweltbewusst (+)
- musisch orientiert (+)

Perceived valence of the post-merger school

Insgesamt bewerte ich meine neue, gemeinsame Schule ... (1 = *sehr schlecht*, 5 = *sehr gut*)

Perception of post-merger status

Meine ehemals eigene Schule ist im Vergleich zur ehemals anderen Schule in der neuen, gemeinsamen Schule ... (1 = *viel schlechter gestellt*, 5 = *viel besser gestellt*).

Group-related justice perceptions

Ich finde es gerecht, wie die Schüler und Lehrer meiner alten Schule nach der Fusion abgeschnitten haben.

Ich finde es gerecht, welchen Stand die Lehrer und Schüler der ehemals anderen Schule im Vergleich zu uns haben.

Es ist unfair, welche Stellung meine alte Schule verglichen mit der ehemals anderen Schule nach der Fusion hat. (reverse-coded).

Insgesamt finde ich die Art und Weise der Zusammenlegung der beiden Schulen fair.

Die Schüler und Lehrer meiner alten Schule haben ihren Stand in der neuen Schule verdient. (only in Study 3.2)

Ich finde es gerecht, so wie es gekommen ist. (only in Study 3.2)

Dieses Ergebnis spiegelt die Leistungen beider Schulen vor der Fusion wider. (only in Study 3.2)

Dieses Ergebnis ist angemessen für die Qualität, die unsere Schule vor der Fusion geleistet hat. (only in Study 3.2)

Ich finde, das Ergebnis der Schulfusion resultiert aus einem fairen Entscheidungsprozess. (only in Study 3.2)

Relative group entitlement

Wie sollten die Lehrer und Schüler Deiner ehemals eigenen Schule (der ehemals anderen Schule) gestellt sein? (1 = *viel schlechter als jetzt*, 5 = *viel besser als jetzt*)

Identification with the pre-merger school

Ich sehe mich immer noch als Mitglied meiner ehemals eigenen Schule.

Ich bin froh, Schüler meiner ehemals eigenen Schule zu sein.

Ich fühle mich immer noch mit meiner ehemals eigenen Schule sehr verbunden.

Ich identifiziere mich immer noch mit meiner ehemals eigenen Schule.

Identification with the post-merger school

Ich sehe mich als Mitglied unserer neuen, gemeinsamen Schule.

Ich bin froh, Schüler unserer neuen, gemeinsamen Schule zu sein.

Ich fühle mich mit unserer neuen, gemeinsamen Schule sehr verbunden.

Ich identifiziere mich mit unserer neuen, gemeinsamen Schule.

Summary

This dissertation thesis dealt with the role group-related justice perceptions play for students' adjustment to a school merger and with antecedents leading to these justice perceptions. Group-related justice perceptions herein concern students' judgment about the fairness of the post-merger status differential between their pre-merger school and the other pre-merger school.

Within the last decade and a half, school mergers have been frequently undertaken in the German public educational system throughout all educational levels. This trend is going to continue in the next years. Despite this high prevalence of school mergers, almost no research has been conducted so far to examine students' responses to such an event (see Boen, Vanbeselaere, Hollants, & Feys, 2005, for an exception). Most of the psychological knowledge about the effects of mergers stems from research on employees' responses to a business merger (e.g., Buono & Bowditch, 1989; Cartwright & Cooper, 1994; Marks & Mirvis, 1986; Shin, 2003; Terry & Callan, 1998; Terry, Carey, & Callan, 2001; Terry & O'Brien, 2001, van Dick et al., 2004; van Knippenberg, van Knippenberg, Monden, & de Lima, 2002) as well as from laboratory research with artificial groups (e.g., Giessner, Tendayi Viki, Otten, Terry, & Taeuber, 2006; Haunschild, Moreland, & Murrell, 1994; van Leeuwen, van Knippenberg, & Ellemers, 2003). However, a systematic analysis of students' adjustment to a merger has been lacking so far.

Therefore, the first purpose of the present thesis was to examine how students' adjust to a school-merger and to what extent group-related justice influence this adjustment. The starting point of the present research was an integrative approach including an intergroup perspective and a justice perspective. Based on the social identity approach (Tajfel, 1978; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), intergroup relations research on mergers has demonstrated that social identity processes play a critical role for employees' adjustment to a merger (e.g., Boen, et al., 2005; Buono & Bowditch, 1989; Gleibs, Mummendey, & Noack, 2007a; Haunschild et al., 1994; Terry & Callan, 1998; Terry & O'Brien, 2001; van Dick, et al., 2004; van Knippenberg et al., 2002). More specifically, it has been found that employees' merger responses vary between high and low status merger partners,

because different status positions imply differences in perceived social identity threat. Thus, members of low status merger partners usually react more negatively to a merger than those of high status merger partners (e.g., Gleibs et al., 2007a; Gleibs, Noack, & Mummendey, 2007b; Terry & Callan, 1998; Terry & O'Brien, 2001). Furthermore, it has been shown that post-merger justice and fairness perceptions play an important role in the context of a merger in that they facilitate positive merger responses (e.g., Amiot, Terry, & Callan, in press; Giessner et al., 2006; Lipponen, Olkkonen, & Moilanen, 2004; Meyer, 2001; Shin, 2003; Terry & O'Brien, 2001).

Integrating the intergroup and the justice perspective, I hypothesized that students of an advantaged pre-merger school would adjust better to a school merger than students of a disadvantaged school. In a school merger context, post-merger status differences between schools are a direct result of a redistribution process led by educational authorities. These status differences should inevitably raise questions of group-related justice between the merging schools. Accordingly, group-related justice perceptions were predicted to completely mediate the effects of different post-merger status positions on students' adjustment to a school merger. Moreover, it was expected that group-related justice perceptions would be positively related to students' well-being at school and to their change in academic achievement, and negatively to their level of ingroup bias. On the basis of the group engagement model (Tyler & Blader, 2003), a model claiming that issues of justice are strongly associated with a person's identity, it was furthermore predicted that these relationships would be partially mediated by students' post-merger identification with school.

With group-related justice perceptions having a likely substantial importance for students' responses to a school merger, the second purpose of this thesis was to examine what criteria students take into account to decide whether their post-merger group status is a just outcome of the merger. This research question was addressed within the framework of the social categorization approach to justice (Wenzel, 1998, 2001). Rooted in self-categorization theory (Turner et al., 1987), the social categorization approach to justice is based on the central assumption that justice concerns are inherently related to issues of identity and social categorization. The assumptions of this approach have been enriched by the ingroup projection model (Mummendey & Wenzel, 1999). The ingroup projection model was developed to explain the underlying cognitive-

motivational processes of social discrimination and tolerance between groups. Wenzel (2001) proposed that the process of ingroup projection that leads to the perception of different degrees of fit of two social groups in relation to a third inclusive social category (relative group prototypicality) also underlies perceptions of justice between groups.

Applying the social categorization approach to justice (Wenzel, 1997, 2001) and the ingroup projection model (Mummendey & Wenzel, 1999) to the present school merger context, it was argued that group-prototypicality perceptions affect students' perceptions of group-related justice and entitlement. According to previous findings on the two approaches (Weber, et al., 2002; Wenzel et al., 2003), it was predicted that the relationship between relative prototypicality and group-related justice and relative group entitlement, respectively, would be moderated by valence of the primary category, the post-merger school. It was further expected that the relationship between relative prototypicality and group-related justice would be opposite between students of an advantaged and a disadvantaged school. The relationship should be positive for students of an advantaged school and negative for students of a disadvantaged school. Moreover, recent research on the ingroup projection model has demonstrated that the extent to which ingroup projection is possible might be limited as a result of social reality constraints (Vossen, 2006; Waldzus, Mummendey, Wenzel, & Boettcher, 2004). Related to these research findings, I assumed that students of a disadvantaged school would be less able to project their ingroup attributes onto the primary category of the post-merger school, because the prototype of the post-merger school should be dominated by the attributes of the advantaged school.

Three cross-sectional field studies were conducted to test the outlined hypotheses. One of these studies was run to test both the hypotheses on the role of group-related justice for students' merger adjustment (Study 2.1) and on the antecedents of group-related justice perceptions (Study 3.2). All studies were conducted in the German federal state of Thuringia. The studies took place about half a year after the mergers had been implemented. Chapter 2 focused on two cross-sectional field studies to examine the first research question regarding the role of group-related justice perceptions for students' responses to a school merger. Study 2.1 (N = 162) focused on a school merger between two upper track secondary schools (German "Gymnasium")

located in a middle-sized city in Thuringia. This school merger followed an assimilation integration pattern which resulted in a clear-cut post-merger status relation between an advantaged and a disadvantaged pre-merger school. The results of this study widely supported the hypothesis that students of the advantaged school adjust better to the merger than those of the disadvantaged school. In line with the hypothesis, these effects of post-merger group status on students' merger adjustment were completely mediated by group-related justice perceptions. Moreover, the path analytical results were in line with the hypothesis that group-related justice is positively related to well-being at school and to change in academic achievement, and negatively to ingroup bias. As predicted, post-merger identification mediated the relationships between group-related justice perceptions and well-being at school, change in academic achievement, and ingroup bias, respectively.

Study 2.2 (N = 136) was run in the context of a school merger between two secondary schools with lower and middle school track (German "Regelschule"). In contrast to the school merger presented in Study 2.1, the proportional integration pattern applied to this school merger resulted in a less clear-cut post-merger status relation. None of the pre-merger schools was perceived to have an advantaged position. One school was clearly perceived to be in a disadvantaged position by its students. Students of the other school conceived their school to be of equal status with the other school. The results of Study 2.2 replicated the findings of Study 2.1. Only the hypothesis that post-merger identification would mediate the relationship between group-related justice and change in academic achievement could not be confirmed.

Chapter 3 focused on two cross-sectional field studies that have been conducted to test the predictions on the role of social categorization processes for deducing judgments about group-related justice and entitlement. Study 3.1 (N = 116) focused on a merger between two secondary schools with lower and middle school track in a rural area in Thuringia. As the merger followed a proportional intergration pattern, the post-merger status difference between the two schools was quite ambiguous. Thus, there was no clear advantaged pre-merger school after the merger. The results of this study supported the hypothesis that relative prototypicality in terms of the post-merger school is negatively related to relative group entitlement, but only when students value the post-merger school negatively. The findings further supported the hypothesis that within

disadvantaged pre-merger schools relative prototypicality is negatively related to group-related justice when the post-merger school is evaluated negatively.

Study 3.2 is identical to Study 2.1, in that both studies were run within the same school merger context. However, Study 3.2 tested the hypothesis that relative prototypicality is related to group-related justice and that this relationship is moderated by valence of the post-merger school. This hypothesis was supported. Moreover, the findings confirmed the assumption that the relationship between relative prototypicality and group-related justice is opposite between students of advantaged and disadvantaged pre-merger schools. Study 3.2 further tested the hypothesis on the context-dependency of ingroup projection in a school merger context. According to this hypothesis, ingroup projection should be inhibited for students of the disadvantaged pre-merger school, because the primary category is predefined by the attributes of the advantaged school. The results supported this prediction and showed that ingroup projection is facilitated onto an alternative primary category, an ideal school in general, that is not predefined by the attributes of the advantaged school.

Summing up, the present research work shows that the understanding of students' adjustment to a merger benefits from an integrative approach including an intergroup and a justice perspective. Moreover, the current thesis provides evidence that group-related justice perceptions after a merger are based on social categorization processes. More generally speaking, the findings of this field research add to the understanding that justice and identity are inherently related to each other. The present research shed some light on the proposition that the threat to an important aspect of a person's identity and to identity-relevant values drives the importance of justice issues.

Zusammenfassung

Im Zentrum der vorliegenden Dissertation standen die Folgen und die Determinanten von gruppenbezogenen Gerechtigkeitswahrnehmungen von Schülern¹ nach Schulfusionen. Gruppenbezogene Gerechtigkeitswahrnehmungen stehen hierbei für die Bewertung dessen, ob Schüler die Statusbeziehung zwischen ihrer eigenen und der anderen fusionierenden Schule nach der Schulfusion als gerecht und fair beurteilen.

Aufgrund des anhaltenden Rückganges der Schülerzahlen sind Schulfusionen in den letzten 15 Jahren in hoher Anzahl im staatlichen Schulsystem in Deutschland durchgeführt worden. Auch für die nächsten Jahre ist ein anhaltender Trend zur Zusammenlegung von Schulen zu verzeichnen. Trotz dieser gesellschaftlich bedeutsamen Entwicklung existiert nahezu keine Forschung zu den Folgen von Schulfusionen für die betroffenen Schüler (vgl. Boen, Vanbeselaere, Hollants, & Feys, 2005, für eine Ausnahme).

Das meiste Wissen über die psychologischen Folgen von Fusionen stammt aus der wissenschaftlichen Befragung von Arbeitnehmern im Kontext von Unternehmensfusionen (e.g., Buono & Bowditch, 1989; Cartwright & Cooper, 1994; Marks & Mirvis, 1986; Shin, 2003; Terry & Callan, 1998; Terry, Carey, & Callan, 2001; Terry & O'Brien, 2001, van Dick et al., 2004; van Knippenberg, van Knippenberg, Monden, & de Lima, 2002) sowie aus der Laborforschung mit künstlichen Gruppen (e.g., Giessner, Tendayi Viki, Otten, Terry, & Taeuber, 2006; Haunschild, Moreland, & Murrell, 1994; van Leeuwen, van Knippenberg, & Ellemers, 2003). Diese Forschung hat gezeigt, dass Fusionen gemeinhin mit negativen emotionalen und behavioralen Konsequenzen für betroffene Mitarbeiter einhergehen. Zudem wurde in dieser Forschung deutlich, dass Fusionen häufig durch feindliche Intergruppenbeziehungen zwischen den Mitgliedern der fusionierenden Unternehmen bzw. Gruppen gekennzeichnet sind. Eine systematische Analyse der Reaktionen von Schülern auf eine Schulfusion steht bislang aus.

Das erste Ziel der vorliegenden Dissertation war es deshalb zu untersuchen, wie sich Schüler an eine Schulfusion anpassen und welchen Einfluss gruppenbezogene

¹ Zur einfacheren Lesbarkeit wird nur die maskuline Form zur Bezeichnung von Personengruppen verwendet. Damit sind gleichwohl auch weibliche Personen angesprochen.

Gerechtigkeitswahrnehmungen für diese Anpassung spielen. Der Ausgangspunkt zur Untersuchung dieser Forschungsfrage war ein integrativer Ansatz, der eine Intergruppenperspektive mit einer Gerechtigkeitsperspektive vereint. Die Intergruppenforschung im Bereich von Fusionen hat auf Basis des Ansatzes der sozialen Identität (Tajfel, 1978; Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) betont, dass soziale Identitätsprozesse eine entscheidende Rolle dafür spielen, wie Gruppenmitglieder auf eine Fusion reagieren (e.g., Boen, et al., 2005; Buono & Bowditch, 1989; Gleibs, Mummendey, & Noack, 2007; Haunschild et al., 1994; Terry & Callan, 1998; Terry & O'Brien, 2001; van Dick, et al., 2004; van Knippenberg et al., 2002). Die Reaktionen unterscheiden sich deutlich danach, ob die betroffenen Arbeitnehmer dem statushohen oder statusniedrigen Unternehmen angehören. Die Ursachen hierfür werden erklärt durch ein unterschiedliches Ausmaß an Bedrohung der sozialen Identität der Arbeitnehmer (e.g., Gleibs et al., 2007a; Gleibs, Noack, & Mummendey, 2007b; Terry & Callan, 1998; Terry & O'Brien, 2001). Darüber hinaus wurde gezeigt, dass auch Gerechtigkeits- und Fairnesserwägungen im Kontext von Fusionen bedeutsam sind, indem sie positive Reaktionen unter den Betroffenen begünstigen bzw. verhindern können (e.g., Amiot, Terry, & Callan, in press; Giessner et al., 2006; Lipponen, Olkkonen, & Moilanen, 2004; Meyer, 2001; Shin, 2003; Terry & O'Brien, 2001).

Basierend auf dem beschriebenen integrativen Ansatz wurde für den Fall von Schulfusionen angenommen, dass sich Schüler von bevorzugten (d.h. nach der Fusion besser gestellten) Prä-Fusions-Schulen besser an eine Schulfusion anpassen als Schüler von benachteiligten (d.h. nach der Fusion schlechter gestellten) Prä-Fusions-Schulen. Statusunterschiede nach Schulfusionen, das heißt das Ausmaß in dem eine Prä-Fusions-Schule besser oder schlechter gestellt ist im Vergleich zur anderen Prä-Fusions-Schule, sind ein unmittelbares Ergebnis eines mit jeder Schulfusion verbundenen Ressourcenverteilungsprozesses. Dieser Prozess der Aufteilung von Ressourcen zwischen zwei Prä-Fusions-Schulen wird gewöhnlich von der regionalen Schulbehörde geleitet, das heißt, nicht von den Schulen selbst. Es wurde angenommen, dass das Ergebnis dieses Aufteilungsprozesses durch eine Drittpartei unweigerlich gruppenbezogene Gerechtigkeitsfragen aufwirft. Folglich wurde erwartet, dass die Differenzen in der Anpassung an eine Schulfusion zwischen Schülern von besser und schlechter gestellten Prä-Fusions-Schulen indirekt durch gruppenbezogene

Gerechtigkeitswahrnehmungen erklärt werden. Zudem wurde erwartet, dass gruppenbezogene Gerechtigkeitswahrnehmungen in positivem Zusammenhang stehen mit dem Wohlbefinden der Schüler und mit ihren Veränderungen in der Schulleistung nach einer Fusion sowie in negativem Zusammenhang mit dem Ausmaß an Eigengruppen-Bias nach einer Schulfusion. Gemäß der „Group-Engagement“-Theorie (Tyler & Blader 2003), einer Theorie die postuliert, dass Gerechtigkeitsbelange stark verwoben sind mit der Identität einer Person, wurde weiterhin vorhergesagt, dass die Identifikation der Schüler mit der fusionierten Schule den Einfluss der gruppenbezogenen Gerechtigkeitswahrnehmungen auf Wohlbefinden, Veränderung der Schulleistungen sowie Eigengruppen-Bias zumindest partiell mediiert.

Ausgehend von der erwarteten Bedeutung, die gruppenbezogene Gerechtigkeitsurteile für die Reaktionen von Schülern auf Schulfusionen haben, wurde ein zweites Ziel dieser Forschungsarbeit abgeleitet. Dieses bestand darin, zu untersuchen welche Kriterien die Schüler zur Einschätzung der gruppenbezogenen Gerechtigkeitsurteile heranziehen. Diese Forschungsfrage wurde im Rahmen des sozialen Kategorisierungsansatzes zur Ableitung von Gerechtigkeit (Wenzel, 1997, 2001) bearbeitet. Dieser Ansatz wurzelt in der Selbstkategorisierungs-Theorie (Turner et al., 1987) und basiert auf der zentralen Annahme, dass Gerechtigkeitserwägungen von Grund auf mit Fragen der Identität und sozialen Kategorisierung verbunden sind. Diese Annahmen wurden bereichert durch das Eigengruppen-Projektions-Modell (Mummendey & Wenzel, 1999), welches ursprünglich entwickelt wurde, um die zugrunde liegenden kognitiv-motivationalen Prozesse von sozialer Diskriminierung und Toleranz zwischen sozialen Gruppen zu erklären. Wenzel (2001) postuliert, dass der gleiche Prozess von Eigengruppenprojektion, der zur Wahrnehmung einer unterschiedlichen Passung von zwei Gruppen in Bezug auf eine dritte, inklusive Kategorie führt (relative Gruppenprototypikalität), auch der Ableitung von Gerechtigkeits- und Anspruchsurteilen zugrunde liegt.

Auf der Basis des sozialen Kategorisierungsansatzes (Wenzel, 1997, 2001) und des Eigengruppen-Projektions-Modells (Mummendey & Wenzel, 1999) wurde gefolgert, dass Perzeptionen über Gruppen-Prototypikalität eine wichtige Grundlage für gruppenbezogene Gerechtigkeitsurteile von Schülern nach Schulfusionen darstellen. Angelehnt an frühere Forschung zu beiden Ansätzen (Weber et al., 2002; Wenzel et al.,

2003) wurde erwartet, dass der Zusammenhang zwischen relativer Prototypikalität und gruppenbezogenen Gerechtigkeitswahrnehmungen beziehungsweise Anspruchsurteilen moderiert wird von der Valenz der primären (inklusive) Kategorie, d.h. der gemeinsamen fusionierten Schule. Bei positiver Bewertung der gemeinsamen fusionierten Schule, sollte relative Prototypikalität zu höheren gruppenbezogenen Ansprüchen, das heißt zu einer besser gestellten Statusposition, relativ zur anderen Prä-Fusions-Schule führen. Bei negativer Bewertung der fusionierten Schule wurde der gegenteilige Effekt erwartet.

Jüngste Forschung zum Eigengruppen-Projektions-Modell (Vossen, 2006; Waldzus, Mummendey, Wenzel, & Boettcher, 2004) hat gezeigt, dass das Ausmaß an Eigengruppenprojektion durch sozial-kontextuale Restriktionen eingeschränkt sein kann. Angeregt durch diese Ergebnisse wurde für den Kontext von Schulfusionen angenommen, dass es für Schüler einer schlechter gestellten, benachteiligten Prä-Fusions-Schule weniger möglich sein sollte Eigengruppenprojektion zu betreiben als für Schüler einer besser gestellten, bevorteilten Prä-Fusions-Schule, da der Prototyp der gemeinsamen Schule dominiert sein sollte durch die Attribute der besser gestellten Prä-Fusions-Schule.

Um die beschriebenen Hypothesen zu testen, wurden drei querschnittliche Feldstudien im Bundesland Thüringen durchgeführt. In einer dieser Studien wurden sowohl die Hypothesen zur Rolle von gruppenbezogenen Gerechtigkeitswahrnehmungen für die Anpassung von Schülern an Schulfusionen (Studie 2.1) als auch die Hypothesen zur Vorhersage dieser Gerechtigkeitswahrnehmungen (Studie 3.2) untersucht. Die drei Studien wurden in etwa 6 Monate nach der Implementation der jeweiligen Schulfusion durchgeführt.

In Kapitel 2 dieser Dissertation wurden zwei Studien präsentiert, in denen der ersten Forschungsfrage zur Rolle von gruppenbezogenen Gerechtigkeitswahrnehmungen nachgegangen wurde. Studie 2.1 (N = 162) bezog sich auf eine Fusion zwischen zwei Gymnasien. Diese Schulfusion folgte einer Implementation nach dem Assimilationsprinzip, das in einer klar definierten Statusdifferenz zwischen einer besser gestellten, bevorteilten und einer schlechter gestellten, benachteiligten Prä-Fusions-Schule mündete. Die Ergebnisse dieser Studie stützten weitgehend die Hypothese, dass Schüler aus schlechter gestellten Prä-Fusions-Schulen eine schlechtere Anpassung an

eine Schulfusion zeigen als Schüler aus besser gestellten Prä-Fusions-Schulen. Erwartungskonform wurden diese Unterschiede vollständig durch gruppenbezogene Gerechtigkeitsbewertungen erklärt. Außerdem gingen die Ergebnisse der Pfadanalyse konform mit der Erwartung, dass gruppenbezogene Gerechtigkeitswahrnehmungen positiv mit dem Wohlbefinden der Schüler nach der Fusion und mit ihren Veränderungen der Schulleistung sowie negativ mit Eigengruppen-Bias nach der Fusion in Zusammenhang standen. Wie erwartet wurden diese Zusammenhänge durch Identifikation mit der fusionierten Schule mediiert.

Studie 2.2 wurde im Kontext einer Fusion zwischen zwei Regelschulen durchgeführt. Im Gegensatz zu Studie 2.1 führte das bei dieser Fusion angewandte Prinzip der proportionalen Integration zu einer uneindeutigen Statusbeziehung zwischen den Prä-Fusions-Schulen. Keine Schule wurde als die klar bevorteilte, besser gestellte Schule wahrgenommen. Eine Schule wurde von ihren Schülern als deutlich schlechter gestellt beurteilt. Die Schüler der anderen Schule nahmen ihre Schule als gleich gestellt zur anderen wahr. Die Ergebnisse dieser Studie replizierten die Befunde von Studie 2.1. Einzig die Rolle der Identifikation mit der fusionierten Schule als Mediator für den Zusammenhang zwischen gruppenbezogener Gerechtigkeitsbewertung und Veränderung in der Schulleistung konnte in dieser Studie nicht bestätigt werden.

Kapitel 3 widmete sich der Präsentation von zwei Studien, in denen der zweiten Forschungsfrage nach den Kriterien für die Ableitung von gruppenbezogenen Gerechtigkeits- und Anrechtsurteilen nachgegangen wurde. Studie 3.1 untersuchte eine Fusion zwischen zwei Regelschulen, die dem Prinzip der proportionalen Integration folgte. Die Statusbeziehung war entsprechend uneindeutig. Wie in Studie 2.2 gab es keine Anzeichen dafür, dass Schüler ihre Schule als besser gestellt bewerteten. Die Ergebnisse dieser Studie stützten die Hypothese, dass Schüler umso höhere Ansprüche für ihre Schule im Vergleich zur anderen Schule stellen, je weniger relativ prototypisch sie ihre eigene Schule für die fusionierte Schule einschätzen. Erwartungskonform galt dies nur unter negativer Valenz der fusionierten Schule. Die Befunde sprechen auch für die Annahme, dass in nicht besser gestellten Prä-Fusions-Schulen (schlechter oder gleich gestellt) und unter negativer Bewertung der fusionierten Schule relative Prototypikalität im negativen Zusammenhang zur Gerechtigkeitsbeurteilung der

Statusbeziehung steht. Für den Bereich von positiver Valenz konnten in dieser Studie keine Aussagen getroffen werden.

Studie 3.2 war identisch mit Studie 2.1, widmete sich allerdings der Fragestellung nach den Antezedenzen von gruppenbezogenen Gerechtigkeitswahrnehmungen. Studie 3.2 bestätigte abermals die Hypothese, dass relative Prototypikalität im Zusammenhang mit gruppenbezogenen Gerechtigkeitswahrnehmungen steht und dass dieser Zusammenhang durch die Valenz der fusionierten Schule moderiert wird. Außerdem zeigte sich erwartungsgemäß, dass dieser Zusammenhang entgegengesetzt ist zwischen Schülern der besser gestellten und der schlechter gestellten Prä-Fusions-Schule. In Studie 3.2 wurde ferner die Hypothese der Kontextabhängigkeit von Eigengruppenprojektion untersucht. Eigengruppenprojektion sollte eingeschränkt sein für Schüler der schlechter gestellten Schule, da die primäre Kategorie „fusionierte Schule“ vordefiniert sein sollte durch die Attribute der besser gestellten Prä-Fusions-Schule. Die Ergebnisse stützten diese Hypothese und zeigten, dass für Schüler der schlechter gestellten Schule Eigengruppenprojektion auf eine alternative primäre Kategorie „ideale Schule“, die nicht vordefiniert war, erleichtert wurde.

Die vorliegende Dissertation zeigt, dass die Erforschung der Anpassung von Schülern an eine Schulfusion von einem integrativen Ansatz profitiert, der eine Intergruppenperspektive mit einer Gerechtigkeitsperspektive verbindet. Diese Forschungsarbeit leistet weiterhin einen Beitrag zur Erforschung der Wurzeln von gruppenbezogenen Gerechtigkeitswahrnehmungen im Kontext von Schulfusionen. Zusammenfassend tragen die Ergebnisse dieser Feldforschung entscheidend zu dem Verständnis bei, dass Gerechtigkeit und Identität zwei einander innewohnende menschliche Belange darstellen. Die Bedeutsamkeit von gruppenbezogener Gerechtigkeit für das Erleben und Verhalten von Schülern nach Schulfusionen ergibt sich aus einer Wahrung von identitätsrelevanten Werten und somit aus der Sicherung eines positiven Selbstkonzeptes der betroffenen Schüler.

Curriculum Vitae

Name: Anja Weiß
 Geburtsdatum: 24.06.1974
 Geburtsort: Greiz, Thüringen
 Familienstand: ledig, 2 Kinder

Schullaufbahn:

1981 – 1983 Polytechnische Oberschule „Richard Sorge“ in Greiz
 1983 – 1989 Polytechnische Oberschule „G. E. Lessing“ in Greiz
 1989 – 1993 1. Staatliches Gymnasium in Greiz
 1993 Abitur

Hochschulstudium:

1994 - 2000 Studium der Psychologie an der Friedrich-Schiller-Universität Jena
 2000 Diplom der Psychologie

Berufliche Tätigkeit:

2000-2001 Referentin für Personalentwicklung bei der A. Müller GmbH & Co, Aretsried
 2003 Schulpsychologin am Staatlichen Schulamt Stadtroda

Dissertation:

seit 2002 Stipendium der DFG als Doktorandin des International Graduate College „Conflict and Cooperation between Social Groups“ , Friedrich-Schiller-Universität Jena (Deutschland), (Inklusive 2 Jahre Beurlaubung vom Stipendium aufgrund der Tätigkeit als Schulpsychologin und während der Elternzeit)

Ort, Datum

Unterschrift

Ehrenwörtliche Erklärung

Ich erkläre hiermit, dass mir die geltende Promotionsordnung der Fakultät für Sozial- und Verhaltenswissenschaften bekannt ist.

Ferner erkläre ich, dass ich die vorliegende Arbeit selbst und ohne unzulässige Hilfe Dritter angefertigt habe. Alle von mir verwendeten Hilfsmittel und Quellen sind in der Arbeit angegeben. Insbesondere habe ich hierfür nicht die Hilfe eines Promotionsberaters in Anspruch genommen und Dritte haben weder unmittelbar noch mittelbar geldwerte Leistungen von mir für Arbeiten erhalten, die im Zusammenhang mit dem Inhalt der vorgelegten Dissertation stehen.

Die Arbeit wurde weder im Inland noch im Ausland in gleicher oder ähnlicher Form einer anderen Prüfungsbehörde vorgelegt. Weder früher noch gegenwärtig habe ich an einer anderen Hochschule eine Dissertation eingereicht.

Ich versichere, dass ich nach bestem Wissen die reine Wahrheit gesagt und nichts verschwiegen habe.

Ort, Datum

Unterschrift