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Cognitive, Motivational and Ideological Determinants of Ingroup Projection

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To Nadire Altuğ

Abstract

This thesis examines the cognitive, motivational and ideological determinants of ingroup projection. Ingroup projection, which is defined as an ingroup's claim or perception of relative prototypicality in an inclusive category, is associated with belief in a greater entitlement to the resources of the superordinate group, and legitimization of inequality and discrimination among subgroups. Previous research has shown the influence of complex superordinate category representations, subgroup and superordinate group identification and perceived threat to be likely determinants of ingroup projection. This thesis looked at the influence of various cognitive, motivational and ideological variables on ingroup projection including the coherence of the inclusive category, subgroup status, intergroup threat, ingroup identification, group affirmation and system justification.

The results supported the argument that all three processes can determine the extent of ingroup projection depending on the specific context. Findings supported the conclusion that ingroup projection is a result of heuristic information processing when the representation of the superordinate category lacked clarity. A complex superordinate category representation also reduced ingroup projection, although this was at the expense of superordinate group identification. Moreover, when superordinate group threat was salient, subgroup members who were informed that their subgroup's status did not change distanced themselves from the threat source by inhibiting ingroup projection. Finally, the ideological motive to rationalize the status quo was observed among both low and high status subgroups through lowered levels of ingroup projection among low status subgroup members, and heightened levels of ingroup projection among high status subgroup members. Implications of these findings are discussed for the ingroup projection model as well as for intergroup relations in general.

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Chapter 1 – Ingroup Projection: Theory, Antecedents and Consequences

This chapter provides an overview of the concept of ingroup projection, which is defining one's ingroup in terms of the characteristics of the inclusive category (Mummendey & Wenzel, 1999). The origin of ingroup projection, namely social projection (i.e. defining one's ingroup in terms of self characteristics) is described, with a specific focus on its cognitive mechanisms, and the power of ingroup projection over and beyond social projection is emphasized. Following this, different measures of ingroup projection will be summarized, and cognitive, motivational and ideological determinants of the concept will be elaborated.

The world in which we live in today is governed by economic globalization, growing mobility and new communication technologies. These factors have played a significant role in making societies increasingly diverse, causing groups differing in national, cultural or religious identities to encounter one another at an increasing rate. However, this diversity has also caused different groups belonging to the same superordinate category to have different conceptions of what defines this superordinate category. For example, a recent report by the The Commission for Racial Equality (CRE; 2005) asked people living in the UK what they considered “Britishness” to be. The report concluded that respondents generally considered the values and attitudes they associated with Britishness (such as being reserved or having pride) as being synonymous with the values and attitudes they considered stereotypical of the White English population (not, for instance, the Asian or Welsh populations). Similarly, Devos and Banaji (2005)

demonstrated that White Americans are construed as prototypical exemplars of the category “American” by both low status group members (i.e. Asian Americans) and by White Americans. Moreover, this effect was intensified with implicit responses, showing that “the cultural ‘default’ value of ‘American’ is ‘White’” (p. 464). These findings are also replicated in the German context, such that West Germans are found to regard their own (as opposed to East Germans’) characteristics as being representative of what it means to be German (Waldzus, Mummendey, Wenzel, & Boettcher, 2004). East Germans also agreed on the higher representativeness of West Germans for being German, although this effect was more pronounced among West Germans. On the other hand, in the European Union context, debates over the formation of a constitution for the EU emerged as groups supporting a secular or Christian constitutions disagreed on what it meant to ‘be European’ (18//07/2003 European Convention in Salonnico, as cited in Bianchi, Mummendey, Steffens, & Yzerbyt, 2009). Finally, after the decision of the EU Commission to use only three languages in the press conferences of the Commission (15/2/2005, as cited in Bianchi et al., 2009), namely English, French and German, Spain, Portugal and Italy officially stood against this choice. The main argument of these latter countries was that they were central to the EU and therefore the language of the union should be representative of the countries that defined it. Therefore, the examples regarding the differential representativeness perceptions of subgroups within an inclusive category are abundant.

The conflation of Britishness with having stereotypical White English characteristics, or of being American with being White, or of being German with having stereotypical West German characteristics can all be described as *ingroup projection* (Mummendey & Wenzel, 1999). Ingroup projection is defined as “the perception, or claim, of the ingroup’s greater relative prototypicality for the superordinate group” (Wenzel,

Mummendey, & Waldzus, 2007, p. 337). In other words, it is an ingroup member's perception or claim that their own group is more prototypical of the superordinate category in relation to another subgroup. Ingroup projection represents a significant social issue for policy makers, practitioners and social scientists as it is associated with a belief in greater entitlement to resources for ingroup, which serves to legitimize inequality and intolerance (Wenzel, 2004).

Ingroup Projection: Definition and the Role of Self-Categorization

According to the ingroup projection model (Mummendey & Wenzel, 1999; Wenzel, Mummendey, & Waldzus, 2007), under conditions where superordinate and subgroup identities are simultaneously salient, subgroup members project their own subgroup's attributes onto the superordinate group to help them define the superordinate group. More specifically, when people are judging how representative their own subgroup and another subgroup are of the superordinate category, they come to view the superordinate group as possessing their own subgroup traits and characteristics to a greater extent than the other subgroup's traits and characteristics. In line with this, ingroup projection is defined as a generalization from the ingroup to the inclusive category (Mummendey & Wenzel, 1999).

This process of generalization from ingroup to the inclusive category can be explained in terms of processes outlined by social identity theory (Tajfel & Turner, 1979; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see also Hogg, 2006; Hogg & Abrams, 1988). In particular the social identity theory of the group, self-categorization theory (Turner, 1985; Turner et al., 1987), argues that people form their self-concept from their

membership of social categories whose levels of inclusiveness differ. These social categories (e.g., German, Polish) are compared to each other in the context of their shared next more inclusive social category (e.g. superordinate category such as European). The comparison dimensions of these social categories are based upon characteristics that apply to and define the relevant higher-order category.

The valued standard and relevant norm in these comparison dimensions is termed the *prototypical position* of the inclusive category (Oakes, Haslam, & Turner, 1998). In other words, a prototype of a category is claimed to be the best representative member of a category in a given context and frame of reference. As these inclusive categories are also considered to be ingroups, they also tend to be evaluated positively, and consequently the prototype of this inclusive category becomes a positive reference standard (Wenzel et al., 2007). Thus, the “ideal-type member” characteristic of prototypes causes subgroup members to perceive the prototypes as positive reference standards, upon which evaluations of ingroup and outgroups should be based.

However, this social comparison of ingroup and outgroups in relation to the prototype of the inclusive category does not occur in an objective way. As social categories can be represented in ways that serve the goals of the perceiver (Reicher & Hopkins, 2001) and as people strive to evaluate self-categories favourably (e.g., Tajfel & Turner, 1979), individuals adopt biased perceptions of the comparative framework which favour the ingroup over the outgroup, and therefore represent the ingroup as more prototypical. As a result of this bias, group members tend to perceive their ingroup as relatively prototypical of the relevant superordinate category compared to other subgroups, thus engage in ingroup projection (Wenzel et al., 2007). Mummendey and Wenzel (1999) liken ingroup members' judgments of relative prototypicality on valued dimensions of the inclusive

category to social identity theory's *positive distinctiveness* concept (e.g. Tajfel & Turner, 1979), according to which people strive toward a positive social identity. In a context where social categories are compared on the basis of the shared next more inclusive social category, positive evaluation of one's own social category (or in social identity theory's terms, positive distinctiveness) is attained by judging that ingroup characteristics are more prototypical of the superordinate category. In other words, superordinate category is defined by the attributes that are distinctive of the ingroup in relation to the outgroup (Mummendey & Wenzel, 1999).

Although ingroup projection helps ingroup members to achieve positive distinctiveness in an in-outgroup comparison setting, it also has its drawbacks (Mummendey & Wenzel, 1999). By viewing their own group as relatively prototypical of the superordinate group, people consider members of their own group to be more entitled than outgroup members to the superordinate group's rights or resources. For example, West Germans who regarded their subgroup as more representative of Germany by comparing each subgroup's size, status and power, might be more likely to claim that West Germans are more deserving of the rights and resources of Germany. By disregarding other possible definitions of the superordinate category and basing it only on characteristics or traits of their own subgroup, ingroup members justify their ingroup's superiority over other subgroups (i.e., outgroups), which can lay the groundwork for discrimination against other subgroups. Any out-subgroup trait or characteristic that is different from the projected traits/characteristics of the ingroup is perceived as a deviation from the norm of the superordinate group (Wenzel, 2001; 2004). In other words, ingroup members' projection of ingroup characteristics *legitimizes* their entitlement to the largest share of representativeness, and justifies discrimination aimed at the non-prototypical outgroups.

The link between relative prototypicality, perceived entitlement and legitimacy will be elaborated in greater detail in Chapter 2 of this thesis with a special focus on the social categorization approach to distributive justice (Wenzel, 2004). On the other hand, the association between ingroup projection and social discrimination has been established in the literature through different measures of outgroup evaluation, namely dimensions of intergroup liking, desire for intergroup contact, favourable intentions towards the outgroup, and tolerance towards the outgroup's difference from the ingroup (see Wenzel et al., 2007, for a review). However, in order to understand dynamics of projecting from one's group to the superordinate category, one must first look into the more basic process of projecting the characteristics of oneself to the ingroup, namely social projection.

Social Projection

Ever since Allport's preliminary conception of projection in 1924, the concept of social projection has been one of the central concepts in social psychology. Social projection is defined as "the process by which people come to believe that others are similar to them" (Krueger, 2007, p. 2). This process is argued to be highly automatic most of the time, such that individuals do not have to think hard to come to the conclusion that others are similar to them (Krueger, 2007). This view was supported by evidence suggesting that social projection was found to be just as strong when participants were under high cognitive load as opposed to when they were not (Krueger & Stanke, 2001), that time pressure increases social projection (Epley, Keysar, & van Boven, 2004), that simple forewarnings show no effect in social projection levels (Krueger & Clement, 1994).

Despite these evidence for the automaticity of social projection, the effect is moderated by social categorization, such that when the social target is regarded as an outgroup, social projection does not occur (see Robbins & Krueger, 2005, for a review). For example, when participants were categorized as members of one of the two laboratory groups but were then recategorized as members of a former outgroup, they projected their characteristics to the present ingroup that was once the outgroup but not the present outgroup that was once their ingroup (Clement & Krueger, 2002; Otten, 2005). Similarly, Mullen, Dovidio, Craig and Copper (1992) showed that participants who scored higher in conservatism perceived that their own choices were more similar to other conservatives instead of liberals. Although this moderating effect of social categorization is an obstacle to the idea of automaticity of social projection, the explanation of the construct remains highly cognitive. Social projection and self-anchoring theorists (Cadinu & Rothbart, 1996; Krueger & Clement, 1996; Krueger & Stanke, 2001; Otten & Wentura, 2001) proposed that social projection occurred as a result of the deep encoding, high accessibility and structuring of self-referent knowledge, making the self the locus of consciousness and direct phenomenal experience. Another way of putting this is to say that self is perceived to be the most salient and stable concept that social predictions can be anchored upon (Markus, 1977); as a result of this salience and stability, ingroup representations are usually based upon the perceptions of the self. Inferences from the self are also argued to be an adaptive heuristic process as they reduce judgmental uncertainty (Hoch, 1987; Krueger & Clement, 1996).

There are three main differences between the social projection and ingroup projection. The first clear distinction of ingroup projection from social projection is that the former has implications for the representativeness of a superordinate category from the

ingroup while the latter has implications for the representativeness of the ingroup from the self. The second crucial difference between the two concepts is that, while social projection has been predominantly described in terms of cognitive processes, the motivational account is predominant in the ingroup projection model (Mummendey & Wenzel, 1999). More specifically, Wenzel and colleagues (2003; 2007) argue that consistent with its foundations on Social Identity Theory (Tajfel & Turner, 1979), Ingroup Projection Model assumes that individuals engage in ingroup projection in order to attain a favourable evaluation of their ingroup compared to the outgroup. In this sense, ingroup projection is even farther away from being automatic or ubiquitous but rather depends on certain conditions, namely social identification and features of category representation (Wenzel et al., 2007). However, it is important to point out that in addition to the motivational explanation of ingroup projection, there are cognitive explanations of the process that are more similar to the processes that are argued to explain social projection. Basing their argument on Rosch and colleagues' (Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976) seminal work, which showed that higher order categories were less clearly defined than more proximal categories, Machunsky and Meiser (2009a) argued that just as individuals used their self knowledge as an adaptive heuristic process, they also inferred characteristics from their ingroup in order to characterize a weakly defined superordinate category¹.

The third difference between the two concepts is the strength of their emphasis on the directionality of representativeness judgments. Consistent with the argument of self-

¹ The two conditions that lead to ingroup projection, as well as empirical evidence regarding its cognitive and motivational determinants, will be summarized in great detail in the following subsections of this chapter.

categorization theory (Turner et al., 1987), self-perceptions can also be shaped by what is believed to be the majority attribute in the ingroup. Thus, instead of projecting their characteristics onto the ingroup, these individuals become more likely to perceive themselves in terms of their group membership and engage in what is called depersonalization or self-stereotyping. Although the existence of these processes was not denied by the social projection theorists, social projection was argued to be greater in strength over self-stereotyping (Krueger, 2007). In their comparative literature review, Krueger, Acevedo and Robbins (2005) provided seven pieces of evidence from different empirical research favouring the social projection hypothesis over self-stereotyping. These authors concluded that the contextual constraints operant for self-stereotyping, such as the salience of social categorization, high identification with the ingroup, perceived threat to the self, and positive evaluation of the attributes in question, did not apply to social projection. Moreover, their review suggests that none of these variables were sufficient on their own to elicit self-stereotyping over and above social projection (see Krueger et al., 2005, for a review). In line with this, the generality and robustness of social projection over self-stereotyping was emphasized. However, the vast literature on social projection also suggests that it is particularly strong in minimal group settings, implying that lack of group clarity might be a determinant of social projection, and that individuals are more likely to engage in self-stereotyping under conditions where group clarity is high (i.e. there is less uncertainty about the group; Crisp & Hogg, 2009).

Although the definition of ingroup projection suggests that the information flow occurs from the ingroup to the superordinate category rather than the other way round, ingroup projection theorists underline that the two processes cannot always be distinguished in their research. It is argued that the term ingroup projection was used as a

short general label for individuals perceiving, or claiming that their ingroup is relatively more prototypical for the more inclusive category (Wenzel et al., 2007). This was also in line with the argument made by Onorato and Turner (2004), who suggested that both introjective and projective processes might be evident in the depersonalization of individual group members. In sum, unlike social projection which claims to be a stronger process over and above self-stereotyping (Krueger et al., 2005; Krueger, 2007), ingroup projection theorists do not claim to distinguish the two processes. It is argued that the concept ingroup projection can imply both a generalization from an exemplar or subgroup to a more inclusive category, and assimilation of the prototype of the superordinate category to their ingroup (Wenzel et al., 2007).

Evidence for the strength of ingroup projection over social projection. Before reviewing the empirical evidence on ingroup projection, it is important to point to a study that distinguishes the effect of ingroup projection from social projection. As it is defined above, the main difference between ingroup projection and social projection is that the latter focuses on defining the ingroup based on one's own characteristics, whereas the former focuses on defining the superordinate category based on one's subgroup's characteristics. Bianchi, Machunsky, Steffens and Mummendey (2009) recently tested whether ingroup projection is actually different from social projection, or whether the former is just an artefact of the latter. In other words, they wanted to test whether there was a direct projection from self to the superordinate category without the need for an extra pathway between subgroup to superordinate category. After controlling for the influence of the self, the authors found that the association between the ingroup and the inclusive category remained. More importantly, ingroup projection was found to be stronger than social projection for ingroup stereotypical traits. Also, when the ingroup's image was

positive, ingroup projection exceeded social projection, whereas levels of social projection did not change. In order to illustrate, the authors gave the example of a German being asked what Europeans are like, in an Asian setting. Although this person would project some of his/her own attributes to Europeans, the predominant process would be to project some of the German attributes to being European. However, the latter would only occur if his/her image of Germans is positive. It is concluded that both social projection and ingroup projection are important when interpreting how individuals construe social groups, but that when a higher inclusive category's representativeness is in question, individuals were more likely to base their judgments on the ingroup's characteristics rather than characteristics of the self (Bianchi, Machunsky et al., 2009). Together with the arguments presented above, it can be concluded that although the ingroup projection idea follows the tradition of research on social projection, ingroup projection differs from social projection because of the former's special emphasis on the motivational processes stemming from social identity theory, because ingroup projection does not necessarily compete against the self-stereotyping argument as social projection seems to do, and because ingroup projection is not just an artefact of social projection.

Ingroup Projection: A Review of Empirical Evidence

In their review article, Wenzel and colleagues (2007) summarized the empirical evidence regarding ingroup projection by grouping the empirical research into two categories. One of these two types of evidence focuses on the differential perspectives that two subgroups hold regarding the intergroup context, whereas the other type of evidence

focuses on the same group's changing views of representativeness in relation to different intergroup contexts. These two types of evidence will be reviewed separately below.

Ingroup projection as divergent perspectives. One of the underlying assumptions of ingroup projection is that ingroup members are biased to view their ingroup as more prototypical of the superordinate category, in comparison to the relative prototypicality attributed to them by members of other subgroups. Thus, ingroup projection, in essence, requires a disagreement between subgroups regarding relative prototypicality. In the studies that use relative prototypicality as its dependent measure, individuals are asked to rate the representativeness of a number of characteristics in relation to the ingroup, the outgroup and the superordinate category. Two profile dissimilarity scores are calculated based on these ratings, as the sums of differences between subgroup and superordinate category ratings. These scores represent the opposite of relative prototypicality for each subgroup. However, in order to make the interpretations more simple, following Wenzel and colleagues' (2007) strategy, prototypicality ratings were reverse scored by subtracting the scores from the theoretical maximum. These new scores, which represent profile similarities of subgroups to the superordinate category, also represent the extent to which subgroups were perceived to be prototypical of the superordinate category².

Consistent with this idea, Wenzel, Mummendey, Weber and Waldzus (2003, Study 1) asked business administration and psychology students to rate their own group, the outgroup and the superordinate category (i.e. students in general), on a number of

² This reverse coding strategy was employed throughout this thesis wherever ingroup projection was measured using the above methodology.

attributes. These attributes were selected on the basis of a pretest that asked participants to categorize them as either being typical of business students, psychology students, both groups or neither of the groups. The valence of these attributes were also rated in order to make sure that the lists were balanced accordingly and the order of ingroup and outgroup ratings were counterbalanced. Results showed that the two groups disagreed regarding the prototypicality of the superordinate category. In other words, each subgroup regarded their own ingroup to be more prototypical of the superordinate category compared to the outgroup.

The same methodology was employed in a different context by Waldzus and colleagues (Waldzus, Mummendey, Wenzel, & Boettcher, 2004, Study 2), looking at primary school teachers' and high school teachers' prototypicality ratings towards being a teacher. Again, following a pretest that measured typicality and distinctiveness of certain characteristics for each subgroup, participants were asked to rate the representativeness of each attribute for their ingroup, the outgroup and the superordinate category. Results were again supportive of the ingroup projection model, such that primary-school teachers rated attributes that were representative of their ingroup (i.e. child loving, patient, subjective, patronizing, school masterly and helpless) as more representative than the attributes that were representative of the outgroup (i.e. scientific, achievement-oriented, specialized, demanding, arrogant and ambitious). Consistent with the predictions, the opposite pattern emerged for high school teachers.

These effects were replicated when participants were asked to rate the representativeness of characteristics that they generated themselves. Chopper bikers and sport bikers were asked to come up with four attributes that were characteristic of their ingroup in contrast to the outgroup and four that were characteristic of the outgroup in

contrast to the ingroup (Waldzus et al., 2004, Study 1). They were then asked to rate the extent to which these 8 attributes represented the superordinate category of bikers. Again, both chopper bikers and sport bikers claimed relative prototypicality for their ingroup as opposed to the outgroup. Together, the findings summarized above were supportive of the ingroup projection model.

However, not all groups claim relative prototypicality of their own group. In their third study, Waldzus and colleagues (2004) compared East and West Germans' relative prototypicality ratings of being a German. Results showed that these two groups agreed that West Germans were more prototypical of Germans than East Germans. On the other hand, despite the lack of relative prototypicality expressed by East Germans, there was still disagreement about the degree of prototypicality of West Germans, such that West Germans perceived their ingroup as even more prototypical of Germans in general compared to East Germans' perception of the prototypicality of West Germans. This finding is considered to reflect "strong reality constraints due to differences in group size, status and power" (Waldzus et al., 2004, p. 385). As West Germans were more numerous than East Germans, provided monetary resources for the unification of Germany, and had the new political program based on their own standards, Waldzus and colleagues (2004) argued that it was unavoidable that their higher status would be confirmed and reflected by the relative prototypicality ratings of East Germans. Therefore, these results support the idea that East Germans, as members of a lower status subgroup, were eager to engage in ingroup projection but that they are *constrained by* actual differences in prototypicality differences in society.

Evidence for the automaticity of ingroup projection: Implicit measures. In a different context, Devos and Banaji (2005) found similar results using an implicit

association test. First, the established relative representativeness finding was replicated for the high status subgroup. White Americans implicitly associated their own ethnic group more strongly with Americans than they associated African Americans and Asian Americans. African Americans, on the other hand, associated White American and African American subgroups equally with being an American, and associated Asian Americans significantly less with the superordinate category. As for Asian Americans, however, their responses were quite similar to White American participants' responses, such that they associated White Americans as being American more strongly than they associated their ingroup. The latter findings are interpreted as social reality constraints by ingroup projection theorists (Wenzel et al., 2007). However, Devos and Banaji (2005) also emphasize that these findings are consistent with system justification theory (Jost & Banaji, 1994), according to which disadvantaged group members can act in ways that are detrimental to the wellbeing of their ingroup, for the sake of supporting the status system of which it is a part. It is further argued that members of minority or disadvantaged groups in this study may have contributed to the *status quo* which retained the existing hierarchies by not claiming positive outcomes for their own groups (Devos & Banaji, 2005). According to this argument, rather than merely being a reflection of social reality, the lack of ingroup projection on the part of disadvantaged group members might actually show active legitimization of inequality guided by a motive to justify the system. This argument will be elaborated in the following chapters of this thesis.

Devos and Banaji's (2005) study is not the only study investigating relative prototypicality with the use of implicit measures. Bianchi, Mummendey, Steffens and Yzerbyt (2009, Study 1) also investigated whether ingroup projection might be a spontaneous process that occurred at an automatic level. The authors looked at whether

using a subliminal superordinate category prime “European” as opposed to a neutral prime “XXXXXXX” facilitated recognition of stereotypical ingroup attributes. The subgroups used were Italians and Germans and results were again supportive of the ingroup projection model. Italian participants recognized stereotypically Italian attributes faster as opposed to stereotypically German attributes when there was a subliminal superordinate category prime as opposed to when there was no prime. Similarly, German participants recognized stereotypically German attributes faster as opposed to Italian attributes after being primed with the superordinate category European. Based on the spontaneous association of ingroup attributes with the superordinate category, the authors concluded that “at least one component of ingroup projection is a more spontaneous, automatic process” (p. 30).

Before reviewing the evidence for the second type of ingroup projection, it is important to underline that ingroup projection researchers have also looked at whether these relative prototypicality measures based on the stereotypical attributes of each ingroup would correlate with direct questions regarding the representativeness judgments. Results indicated that when a direct question about relative prototypicality was added at the end of the questionnaire, there was a moderate correlation (Waldzus, Mummendey, Wenzel, & Weber, 2003), thus providing a modest validation of the relative prototypicality measure.

Ingroup Projection As Determined By Contextual Salience

The second type of evidence regarding ingroup projection does not require relative representativeness ratings of an ingroup and an outgroup but rather looks at contextual alterations in how an ingroup construes its stereotypes in relation to the target outgroup,

and how this ingroup stereotype modifies the stereotype of the superordinate category (Wenzel et al., 2007).

In one of the studies that employed this technique, Waldzus, Mummendey and Wenzel (2005) altered the frame of reference for ingroup judgments among German participants by presenting either Italians or the British as an outgroup. Participants were asked to rate their ingroup (Germans) and an outgroup (Italian or British) and the superordinate category (Europe) on a list of attributes which included 6 counter-Italian and 6 counter-British attributes. These attributes were pre-tested among German participants by asking them to rate Germans and one of these outgroups on a list of attributes that included stereotypical attributes that usually distinguish Germans from Italians rather than the British, and stereotypical attributes that usually distinguish Germans from British rather than the Italians. The counter-Italian attributes were: correct, orderly, punctual, quiet, disciplined and stiff whereas the counter-British attributes were: easygoing, frank, companionable, in love with life, sociable and having tasty meals. Results showed that the stereotype of Germans was more strongly characterized by counter-Italian attributes when the comparison outgroup was Italians, whereas it was more strongly characterized by counter-British attributes when the comparison outgroup was British. Moreover, Germans projected their counter-Italian characteristics to being European more than the counter-British characteristics when the comparison group was Italians and the opposite pattern occurred when the comparison group was British. These intriguing results demonstrated that it is the distinctiveness of the ingroup's attributes in relation to the comparison outgroup that makes ingroup members project these characteristics onto the superordinate category and claim greater prototypicality.

As well as investigating the automaticity of relative representativeness judgments for ingroup and outgroups by employing lexical decision tasks, Bianchi, Mummendey and colleagues (2009, Study 3) also looked at the effect of contextual changes in the definition of the superordinate category through the same implicit measurement procedure. Similar to their previous study, participants were either exposed to a subliminal prime “European” or a neutral prime “XXXXXXXX”. However, before this phase, participants were primed with the British or Italian outgroup context by being informed that their university’s research group was collaborating with a research group from a university in the UK or a university in Italy. Some of the items from Waldzus and colleagues’ (2005) pretest were used, such that the counter-Italian characteristics were: disciplined, punctual, correct, quiet and hard-working, whereas the counter-British characteristics were: easy-going, frank, sociable, cheerful and companionable. Results showed that when the British was the salient outgroup, being primed with the word European facilitated recognition of counter-British attributes. On the other hand, when Italians were the salient outgroup, being primed with the word European facilitated recognition of counter-Italian attributes. These findings are important for two reasons. First, they emphasize the level of automaticity in ingroup projection, by showing that associations between the ingroup and the superordinate category are drawn spontaneously. Second, they are in line with the findings on context-dependency of ingroup stereotyping (Doosje, Haslam, Spears, Oakes, & Koomen, 1998; Haslam & Turner, 1992; Hopkins & Murdoch, 1999; van Rijswijk, Haslam, & Ellemers, 2006), by showing that ingroup stereotypes, whether they be at the subgroup level or superordinate level, change as a function of the variations in social context. Finally, in combination these findings suggest that the mental representation of the superordinate

category is altered as a result of the subgroup and the context (Bianchi, Mummendey et al., 2009).

This latter measure of ingroup projection is used in the last study of this thesis (see Chapter 7). More specifically, the aim of this study was to test whether threat coming from a nested outgroup (i.e. an outgroup nested within the same superordinate category) would cause ingroup members to derogate the source of threat by projecting onto the superordinate category through accentuation of counter-outgroup attributes. It was hypothesized that when ingroup members perceive a threat as coming from a nested outgroup, they would be motivated to protect their ingroup and the superordinate category by claiming that neither of the latter groups were similar to the nested outgroup. This would not only differentiate the two groups from the threat source, but also causes the nested outgroup to be seen as the black sheep of the superordinate category. More details on the theoretical background and empirical results of this study can be found in Chapters 3 and 7 of this thesis respectively.

In sum, both lines of research on ingroup projection, namely the divergent perspectives on relative prototypicality and the malleability of ingroup projection as a result of contextual salience, provide substantial evidence to the robustness of the phenomenon. Although the underlying processes are discussed above, the conditions that lead to ingroup projection still needs further elaboration. Next, these determinants of ingroup projection will be summarized with a focus on the comparison between cognitive and motivational explanations in greater detail.

Antecedents of Ingroup Projection

Two main determinants of ingroup projection were demonstrated in previous research. These are dual identification and representation of the superordinate category. While the former focuses on the motivational aspects that lead to the phenomenon, the emphasis of the latter is more on the mental representation of the superordinate category, and how it affects the cognitive processes that lead to ingroup projection.

1 - Dual identification. The original ingroup projection model (Mummendey & Wenzel, 1999) argues that individuals who have high levels of identification with the subordinate and superordinate groups have a stronger tendency to engage in ingroup projection compared to individuals who do not identify with either of the groups. Consistent with this idea, in some of the studies summarized above, dual identification had a strengthening effect. For example, in Wenzel and colleagues' (2003) Study 1, which showed disagreement regarding the relative prototypicality of business administration and psychology students to being a university student, each subgroup's level of identification with their ingroup and the superordinate category was also measured. After median-splitting the data on ingroup and superordinate identifications, it was found that participants who identified strongly with their ingroup (business students or psychology students) as well as university students engaged in higher levels of ingroup projection compared to the other three cells.

These results were replicated in the European context. German participants were asked about the relative prototypicality of positive and negative German and Polish characteristics on being a European. Results showed that when German participants identified strongly with both being a German and being a European, their relative

prototypicality ratings were highest. More importantly, the relative prototypicality was associated with negative attitudes towards the outgroup, i.e. Poles (Waldzus et al., 2003).

In order to investigate whether dual identification is a determinant of ingroup projection rather than a consequence of it, identifications with the subgroup and superordinate levels were manipulated by providing participants with bogus feedback (Waldzus, Mummendey, & Rosendahl, 2007, as cited in Wenzel et al., 2007). The study employed 40 students who studied biology as their major. They were asked questions regarding their subgroup, the superordinate category (i.e. natural scientists) and about their self-image. An apparatus was also attached to their body, that ostensibly measured skin resistance from their non-dominant hand. Following the methodology of the bogus pipeline procedure (Ellemers, Spears, & Doosje, 1997), they were told that based on their performance, their levels of identification with the subordinate and superordinate categories were calculated. Feedbacks were arranged such that four conditions emerged: Strong subordinate and moderate superordinate group identification, strong subordinate and superordinate identifications, moderate subordinate and strong superordinate identification, and finally moderate subordinate and superordinate identifications. Consistent with the previous findings, dual identifiers were found to engage in highest levels of relative ingroup prototypicality as opposed to the participants who were in the other three conditions. This finding indicated that rather than being merely a consequence of ingroup projection, dual identification is one of the determining factors of the phenomenon.

However, it is important to note that, despite higher levels of ingroup projection among dual identifiers is a robust finding, this does not exclude the fact that disagreement regarding relative prototypicality judgments or ingroup projection as a result of

contextual salience occurred despite low levels of ingroup projection. Therefore, it can be concluded that rather than being *the* factor that causes ingroup projection, dual identification seems to intensify the strength of ingroup projection and its detrimental effects on intergroup relations.

Before going into the details of the effect of mental representations on ingroup projection, it is important to elaborate here as an aside the arguably evident conflict between ingroup projection model and common ingroup identity model regarding the consequences of dual identification.

Ingroup projection and common ingroup identity models: A closer look. As summarized above, the ingroup projection model predicts a negative relationship between dual identification and intergroup attitudes (Mummendey & Wenzel, 1999). However, this view is contrary to the main argument of the common ingroup identity model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993), which states that through conceiving the ingroup and the outgroup as a single superordinate category rather than two separate groups (i.e. recategorization), negative attitudes towards outgroup members will diminish. Because group members do not have to give up their social identities in recategorization, this process is not seen as a threat to the ingroup and therefore only the positive aspects of being in the same superordinate category, such as having a pro-superordinate category bias, are experienced (Gaertner, Dovidio, Nier, Ward, & Banker, 1999). Indeed, Crisp, Stone and Hall (2006) showed that when the salience of subgroups is maintained within a recategorized superordinate group, the ingroup bias experienced among high identifiers disappeared.

Wenzel and colleagues (2007) list a number of reasons why ingroup projection and the common ingroup identity model predict different consequences of dual identification.

One of the main differences, they argue, comes from the two models' reliance on two different mediating processes, namely the focus on perceived intergroup similarity and interchangeability, as opposed to the emphasis on the power of dual identification, in underlining intergroup differences and conflict over the definition of the superordinate category prototype. While the former leads to favourable evaluations of the outgroup by showing the complementarity of the subgroups, the latter leads to negative intergroup attitudes as the ingroup members strive to make their ingroup more prototypical than other groups. Although these processes are not mutually exclusive, due to the contextual salience of one over the other, ingroup members may choose to either favour or discriminate against nested outgroups.

Another crucial reason for the opposite predictions of the two models lies in their definition of the superordinate category (Wenzel et al., 2007). It is argued that when the superordinate category is characterized as fully inclusive of the two subgroups, individuals are more likely to compare their ingroup's representativeness with that of the outgroup and thus engage in ingroup projection and social discrimination. However, when the superordinate category is not fully inclusive, but rather is 'irrelevant and unrelated' to the two subgroups, this results in a bias reduction. In line with this, Hall and Crisp (2006) showed that, when participants were asked to generate multiple criteria for social categorization that were not related to superordinate category comparison context, this resulted in a reduction in bias. On the other hand, the authors argued that the generation of related categories might call attention to comparisons between ingroup and outgroup, and thus individuals might show heightened levels of intergroup bias as a reaction. Similarly, Wenzel and colleagues (2007) pointed out that studies which supported the Common Ingroup Identity Model employed an inclusive category which was truly inclusive (e.g.

As one of the major reasons for ingroup bias in an inclusive category context is argued to be ingroup projection, ways to reduce it have been proposed. Following Hewstone and Brown's (1986) mutual intergroup differentiation model, it is proposed that for intergroup contact to have positive outcomes, the ingroup and outgroup should continue to act as salient categories but they should also attempt to "develop an understanding of each other's strengths and weaknesses" (Waldzus et al., 2003, p.44). This acknowledgment of mutual superiorities and inferiorities is claimed to reduce ingroup projection as it makes ingroup members realize that they are not more prototypical than other subgroups (Wenzel et al., 2007). In line with this, Mummendey and Wenzel (1999) proposed that certain qualities of the prototypical representation of a superordinate category are likely to determine relative ingroup prototypicality and intergroup relations. These cognitive factors constitute the second antecedent of ingroup projection, and are summarized below.

2 - Mental representation of superordinate categories. In their seminal article on ingroup projection, Mummendey and Wenzel (1999) propose four structural properties that make up a prototype's degree of definition. These are clarity, scope, variance and complexity of the superordinate category. It is important to note that these structural properties are by no means mutually exclusive (Mummendey & Wenzel, 1999), rather their emphases differ with regard to which aspect of the superordinate category is most likely to reduce ingroup projection.

First, in line with Hogg and colleagues' (Hogg, Cooper-Shaw, & Holzworth, 1993) proposition that a prototype of a social category can be defined with varying degrees of clarity, Mummendey and Wenzel (1999) argued that when the superordinate category representation is weak – that is, when the differing attributes were not covered by the

bank merger study by Bachman, 1993; as cited in Wenzel et al., 2007), whereas studies which did not support the model used an inclusive category which was not completely inclusive (e.g. students of different race attending the same school). Crisp (2009) further clarified this issue by arguing that ingroup projection would occur only when the subordinate and superordinate categories are highly correlated. In other words, Crisp (2009) argued that when the two categories that comprise the dual identity have no relationship with one another (e.g. white women), individuals are less likely to project the characteristics of one identity over an inclusive category (e.g. women characteristics to define being female) because of the lack of overlap or correlation between the two identities (e.g. race and gender).

Meiser, Mummendey and Waldzus (2004; as cited in Wenzel et al., 2007) provided further support for the above argument within the framework of ingroup projection. Chemistry students' ingroup projection tendencies in relation to biology students were measured in two different intergroup contexts. When the superordinate category was framed as 'students of the natural sciences', and so was fully inclusive of the two subgroups, participants engaged in ingroup projection. However, when the superordinate category was students at the University of Jena, and so was shared among participants but was not totally inclusive, no ingroup projection was observed.

Other than these two factors, having a subgroup or a superordinate group as the focal group, as well as the salience of the two categories, also determines whether dual identification will result in positive or negative attitudes towards the nested outgroup (see Wenzel et al., 2007, for an elaborated account). Taken together, these results demonstrate that recategorization to a fully inclusive superordinate category may not always lead to a reduction in bias, but may lead to an increase.

perceived prototype – ingroup projection was argued to be inhibited. The lack of relevant attributes for the perceived prototype is argued to stop ingroup members from prescribing prototypicality judgments to their own group and the outgroup, thus inhibiting ingroup projection. Moreover, since no clear evaluative standard exists, tolerance is argued to follow this lack of ingroup projection.

The second structural property that is argued to reduce ingroup projection is the scope of the prototype (Mummendey & Wenzel, 1999). A small scope of prototype with few dimensions, as opposed to a large scope with many dimensions, is argued to restrict an ingroup member's judgment criteria, as s/he would be unable to apply the attributes in question to the relevant prototype. Therefore, when differing attributes of the outgroup are “beyond prescriptions” (p. 168), ingroup projection is argued to be inhibited.

The third dimension concerns the variance of the prototype. More specifically, if the superordinate category prototype has a large variance (i.e. is broad), this makes ingroup members accept outgroups' differences from themselves as equally representative of the superordinate category, and this inhibits ingroup projection. Since the differing attributes are considered to be part of the perceived prototype, they are also regarded as normative. Thus, a bigger variance around a normative position makes the ingroup projection process redundant (Mummendey & Wenzel, 1999).

The final structural property mentioned by Mummendey and Wenzel (1999) is complexity of the superordinate category. This property of the inclusive category had been the most investigated aspect of superordinate category representations so far. The idea behind this aspect is that if various distinctive positions are perceived as prototypical and normative, ingroup projection will be eliminated. Through perceiving a complex superordinate category whose distinctive positions are equally prototypical, ingroup

members are likely to evaluate both ingroup and outgroup attributes as equally representative of the superordinate category.

In the study that investigated the effects of dual identification on relative prototypicality judgments by comparing German participants' judgments regarding German and Polish representativeness to being European, Waldzus and colleagues (2003, Study 2) also tested the effects of complex superordinate category representation on ingroup projection and intergroup evaluation. Before asking participants about the representativeness of stereotypical German and Polish attributes for Germans, Poles and Europeans, half of the participants were primed with the simple superordinate category prototype, while the other half were primed with the complex superordinate category prototype. In the simple condition, participants were asked to imagine that they had to describe the *unity* of Europe, while in the complex condition, they were asked to imagine that they had to describe the *diversity* of Europe. Then, participants from both conditions were asked to type these ideas. It was argued that those who are primed to think about diversity of the superordinate category would be more likely to form a heterogeneous representation as a result of the activation of greater variety of exemplars or subgroups. On the other hand, those who are primed to think about unity of the superordinate category would generate fewer exemplars and thus form a homogenous representation of the superordinate category. While the former priming challenged participants' notion of their ingroup's greater prototypicality, the latter was in line with it and therefore supported ingroup projection. The results were in line with these predictions. Under complex superordinate category condition, ingroup projection was significantly lower compared to simple superordinate category condition. The authors concluded that when diversity was perceived, ingroup projection became pointless as superordinate category could not be

represented by a unitary subgroup anymore. Quite the contrary, diversity necessitated multiple subgroups with differing attributes that would be qualified as equally prototypical and essential (Waldzus et al., 2003).

Similarly, for the study that investigated the effects of contextual salience and compared German participants' relative prototypicality ratings by using counter-British and counter-Italian attributes, results showed that the complexity of the superordinate category moderated the contextual salience effects (Waldzus et al., 2005). More specifically, when the representation was simple, perceptions regarding ingroup projection depended on which outgroup was salient. On the other hand, when the representation was complex, this moderating effect disappeared, suggesting that complexity inhibits projection. Finally, through the mediating role of ingroup projection, complexity was found to lead to positive attitudes towards the outgroup.

While the effects of complexity of the superordinate category are fairly established, the other three structural dimensions of the superordinate category (i.e. clarity, scope and variance) are yet to be tested. However, Waldzus and colleagues (2003, Study 1) attempted to investigate the effects of clarity of superordinate category representation on ingroup projection. First, participants were asked to rate Europe on a number of dimensions. This was followed by a graph, which had false feedback about the opinions of other respondents in similar studies as well as participants' own response. A *fuzziness parameter* was employed, measuring the maximum difference between the participants' own response and false feedback responses. In the undefinable prototype condition, there was no consensus between the profiles on what it means to be European (i.e. high fuzziness parameter), whereas in the definable prototype condition, all the profiles were close to one another representing consensus regarding the definition of Europe (i.e. low fuzziness parameter).

Following this phase, the representativeness of self-generated attributes distinguishing Germans from Poles and Poles from Germans were rated according to their representativeness of the superordinate category Europe. It was hypothesized that ingroup projection and negative attitudes towards the outgroup would be lower when the prototype of the inclusive category is undefined compared to when it is defined. Results were partially supportive, indicating that relative prototypicality was lower in the undefined condition than in the well-defined condition. However participants who scored high on dual identification still claimed higher ingroup prototypicality after being primed with the undefined prototype. Thus, the authors concluded that having an undefined prototype is not sufficient to reduce ingroup projection. Another caveat of this study was the operationalization of the definable and undefinable prototype of the superordinate category, as it was confounded with perceptions of homogeneity versus heterogeneity.

Although Mummendey and Wenzel (1999) argue that the definability of the superordinate category reduces ingroup projection, evidence on social projection suggests that lack of clarity of the ingroup results in projecting attributes of the self as the latter is more clear and structured (Crisp & Hogg, 2009; Otten, 2002). In line with this, one could argue that the lack of clarity of the superordinate category might make ingroup members especially prone to rely on their ingroup characteristics when forming an impression of the inclusive category as the ingroup characteristics are usually more clear and structured. This argument was proposed by Machunsky and Meiser (2009b) as a critical response to the motivational explanations of ingroup projection and will be elaborated below.

3 - Representation of the ingroup as part of the inclusive category. Following the findings on complexity of superordinate categories inhibiting ingroup projection, Machunsky, Meiser and Mummendey (2009) hypothesized that having a complex

representation of the ingroup might also make perceptions of the superordinate category more complex and therefore reduce ingroup projection. Basing their argument on previous research on subtyping (i.e. mentally excluding stereotype inconsistent individuals from the rest of the group, Maurer, Park, & Rothbart, 1995; see Richards & Hewstone, 2001, for a review), which showed that subtyping clarified and simplified group representation, the authors argued that subtyping the ingroup would cause ingroup members to regard their own group as better conforming to the standard of the superordinate category than the outgroup. In other words, the main argument was that the complexity of an ingroup could be perceived as an abstract ingroup attribute and projected onto the superordinate category, making it as complex as the ingroup. Surprisingly however, ingroup subtyping did not alter perceptions of relative prototypicality. Results only showed a direct relationship between subtyping and ingroup bias. In light of these findings, the authors speculated that relative ingroup prototypicality was not influenced by perceptions of homogeneity, but is rather a result of an “overlearned, heuristic, and automatic” projection process (Machunsky et al., 2009).

As briefly mentioned at the beginning of this chapter, the automaticity of ingroup projection argument is mainly based on Rosch and colleagues' (1976) studies which showed that superordinate categories, which have higher level of abstraction (e.g. furniture) were less clearly defined than more common or basic categories, which have medium level of abstraction (e.g. table). Moreover, basic categories were found to be more readily available than superordinate categories. Following these findings, Machunsky and Meiser (2009a, 2009b) claimed that the same logic would apply to superordinate and subordinate categories in a social context. According to them, Europe for example could be considered as a superordinate category as it is weakly defined and diverse. The main

argument is that ingroup projection occurs as a result of the weak definition of superordinate categories and the readily available nature of subgroup's trait like presentation. This view involves a predominantly cognitive understanding of ingroup projection. It is argued that biased prototypicality judgments occur solely as a result of the higher prototype availability of the ingroup. In this sense, explaining the process through motivational processes such as the motivation to strive for ingroup favouritism becomes redundant as it is purely a cognitive process of learning and memory that is responsible.

In order to test the availability of subordinate and superordinate categories, and to compare the strength of social projection and ingroup projection, Machunsky and Meiser (2009a) asked German participants to make binary (yes or no) trait judgments about themselves, Germans, Italians and Europeans as fast as possible by pressing the relevant key on the computer. Each trait appeared on the screen with one of the four targets and remained there until an answer was provided. After the binary judgments of each trait for the four targets, the following trait appeared on the screen. Four traits that were prototypical of the ingroup of Germans, four that were prototypical of Italians and four that were neutral with respect to both groups were presented in a randomized order. Reaction times and binary responses were investigated.

Results from the reaction times confirmed the hypothesis that the superordinate category of Europeans, which formed the highest level of abstraction in this study, was less clearly defined than Germans, Italians and the self, which formed the basic level of abstraction (Machunsky & Meiser, 2009b). Moreover, when superordinate category ratings were preceded by ingroup ratings, the reaction times for trait judgments were faster compared to when superordinate category ratings preceded outgroup or self ratings. This was irrespective of the number of matches between the ingroup and the superordinate

category. These findings have a number of critical points. First, they underline the exclusive advantage of being primed with an ingroup rather than being primed with an outgroup or self. This is interpreted to be a result of the generalized, trait-like nature of the ingroup, especially on its positive traits. Not only positive were ingroup traits projected to the superordinate category more, they were projected quickest.

Second, the results are consistent with Bianchi, Machunsky and colleagues' (2009) findings regarding the power of ingroup projection over social projection as they showed that it was the ingroup category that was more proximal to the superordinate category rather than the self category, which was distal, that was used to define the superordinate category. Following Ames' similarity-contingency model (2004), the authors argued that the lack of self projection might be due to the fact that German participants did not consider themselves as similar to the national category of Germans to begin with. This, in turn, strengthened the effect of ingroup projection over social projection.

Although these findings are supportive of the automatic processes operant in ingroup projection, it was still unclear whether the trait like nature of the ingroup was responsible for relative prototypicality judgments or whether it was having a motive to strive for ingroup favouritism that was responsible for these biases. In order to provide evidence for the sufficiency of cognitive processes in predicting ingroup projection, Machunsky and Meiser (2009b, Study 1) manipulated the representation of various subgroups of a superordinate category in a minimal group setting. The information regarding the groups was either arranged in a prototype-based format, or it was arranged in an exemplar-based format. It was argued that prototype-based group would be more likely to be regarded as representative of the superordinate category than the exemplar-based group. Results confirmed this prediction. Therefore, despite the fact that ingroup and

outgroup distinctions were not mentioned, ingroup projection occurred purely as a result of the cognitive representation of each group.

However, when the authors attempted to manipulate prototype availability in an intergroup setting (Machunsky & Meiser, 2009b, Study 3), it became evident that motivational processes cannot be completely disregarded from ingroup projection. After being informed about the processing styles that individuals use, participants completed a number of tasks and were assigned to the superordinate category of *figurative* processors as opposed to *analytical* processors, and to the subordinate category of *basal* processors as opposed to *focal* processors. Then, they were informed that they would be provided with behavioural information about four subgroup members from the *basal* processor category (i.e. their ingroup) and four subgroup members from the *focal* processor category (i.e. the outgroup) and later asked to form an impression about the two groups. In the prototype-based mental representation condition, participants received trait information that was relevant to the behavioural information given regarding the ingroup or the outgroup before the behavioural information phase, whereas in the exemplar-based mental representation no additional information regarding the traits were provided. Finally, participants were directly asked how typical they perceived the *basal* and *focal* groups to be. It was hypothesized that when relevant trait information was provided about the outgroup (instead of the ingroup) before the behavioural background information, the outgroup as opposed to the ingroup would be regarded as more representative of the superordinate category. On the other hand, the authors predicted that only when extra trait information was provided about the ingroup (instead of the outgroup) before the behavioural information would they create a prototypical representation of the ingroup, which would lead to ingroup projection.

These arguments were partially supported, but the results also suggested that motivational factors can affect ingroup projection judgments. It was found that, overall, participants perceived their ingroup to be more prototypical of the superordinate category than they did outgroups. However, the mode of mental representations also moderated these effects, such that there was a significantly higher difference between relative prototypicality judgments for the ingroup and the outgroup in the ingroup prototype condition than there was in the outgroup prototype condition. These results forced Machunsky and Meiser (2009b) to come to the conclusion that both cognitive and motivational processes can contribute simultaneously to perceptions of ingroup prototypicality. Despite the clear evidence towards the strength of the motive to strive for ingroup favouritism, these findings are important as they show that cognitive processes that are related to prototype availability can also be found to be sufficient for reducing ingroup projection.

Bianchi, Mummendey and colleagues' (2009) research on the automaticity of ingroup projection using lexical decision tasks, which is summarized above, also supports this argument regarding the joint effects of cognitive and motivational factors in predicting ingroup projection. It is argued that one part of ingroup projection is governed by heuristic processes, through which individuals rely on the knowledge of their own subgroups due to its clarity. This leads to a more spontaneous automatic process. However, when these cognitive processes are operant, motivational processes that are involved also seem to go along with a fast and automatic reconfiguration of the cognitive system.

The important questions according to Machunsky and Meiser (2009a, 2009b) and Bianchi, Mummendey and colleagues (2009) is distinguishing the conditions under which cognitive processes will be predominant as opposed to motivational processes and vice

versa. While the use of available prototypes is proposed to be a crucial mechanism leading to varied levels of ingroup projection, mechanisms that elevate heuristic processing such as increasing one's cognitive load or positive mood are also argued to alter relative prototypicality judgments. On the other hand, motivational processes such as threat to the self or the ingroup, high ingroup relevance and increased salience of the intergroup situation are argued to elicit motivational processes.

This Thesis

In line with these arguments, in the first empirical chapter of this thesis, cognitive processes leading to ingroup projection will be further investigated with a special focus on the superordinate category coherence and complexity. It is proposed that, in addition to the effects of complexity, having a coherent mental representation of the superordinate categories would make participants engage in systematic processing, and thus eliminate relative prototypicality biases associated with heuristic processing. While the interacting effects of complexity and coherence will be summarized, the possible advantage of coherence over complexity of superordinate category representations will be proposed based on the assumption that complexity of an inclusive category would reduce superordinate level identification.

While Chapter 4's emphasis will be on the two cognitive determinants of ingroup projection, Chapter 5 will focus on looking at the effects of threat to the superordinate category on ingroup projection. If the effects of motivational processes are heightened through group-level threat (Bianchi, Mummendey et al., 2009; Machunsky & Meiser, 2009b), then one would expect to see heightened levels of ingroup projection, especially

after participants were exposed to threatening scenarios regarding their subgroups and/or the superordinate categories. It is proposed that ingroup projection would be highest when the superordinate category is under threat and when subgroup members identify highly with this threatened category. As a result they would be expected to *project* their ingroup's attributes onto the inclusive category in order to *protect* it. It was hypothesized that this tendency would be more prevalent among members of the high status subgroup as opposed to groups that are not distinctive in their status (i.e. equal status).

The Effects of Threat on Ingroup Projection

Since Walczus and colleagues (2005) pointed out the possibility that threat triggers ingroup projection to examine the link between the projection and motives for social competition, there have been a number of studies focusing on the effects of various types of threat on ingroup projection. Ullrich, Christ and Schlüter (2006) investigated the effects of perceiving threat from an outgroup nested within the same superordinate category. In their first study, after measuring levels of national and European identification, in order to manipulate perceived threat, half of the participants were told that the experimenters were interested in the “disadvantages and risks associated with the inclusion of the new Eastern European countries within the EU” (p. 862) and subsequently asked to list up to four disadvantages and risks. Conversely, the other half were asked to come up with “advantages and benefits of the EU enlargement” (p. 862), and list up to four advantages and benefits. Then, attitudes towards the new Eastern European countries were measured. It was found that individuals who were exposed to the high threat condition had significantly more negative attitudes towards the nested outgroups than individuals who

were in the low threat condition. Moreover, these effects were moderated by participants' dual identification with both their nationality and with Europe. Although this study did not specifically measure ingroup projection, the clear link between threat from a nested outgroup and negative attitudes towards these groups, as well as the moderating role of dual identification, were clearly evident.

To extend these findings onto the ingroup projection context, in Study 2, Ullrich and colleagues (2006) kept the superordinate category as Europe but used a different scenario in relation to Turkey's entry into the EU. Again after measuring the subgroup and superordinate group level identifications, in the high threat condition, participants were given information regarding the disadvantages and risks associated with Turkey's entry into the EU by giving examples related to Turkey's different cultural background and the Human Rights violations committed by the country. After this, instead of asking participants to list disadvantages and risks, participants were asked to think about Turkey's entry into the EU for 30 seconds and then tell the biggest risk or disadvantage this might have on Germany (the subgroup) and the union (the superordinate category). In the low threat condition, the instructions were similar but this time participants were asked to tell the biggest advantage or benefit of Turkey's entry into the EU for Germans and for EU. Following this, attitudes towards Turks were examined with the same scale used in the previous study, by changing the places where it said Eastern Europe to Turkey. As expected, participants in the high threat condition had higher relative ingroup prototypicality ratings compared to participants in the low threat condition. Moreover, among dual identifiers this effect was more pronounced though it was not a necessity to elicit significant differences between the two conditions. However, relative ingroup prototypicality did not mediate the effect of threat on attitudes towards the outgroup. The

authors argued that, though not entirely conclusive, the above results provide preliminary evidence for the relationship among perceived threat, ingroup projection and negative outgroup attitudes.

Chapter 7 of this thesis deals with the effects of a similar kind of threat to the superordinate category. More specifically, the effects of threat that is perceived to be coming from the nested outgroup is examined in the context of Britain. By providing individuals with terror scenarios involving either British Muslims (a nested outgroup) or Iranian Muslims (an unnested outgroup), the proximity of the threat source was manipulated. It was hypothesized that individuals who were exposed to the nested outgroup threat scenario would be more likely to regard counter-Muslim attributes as more representative of being British compared to individuals in the unnested outgroup threat condition. Moreover, moderating effects of certain ideological tendencies such as the motive to justify the system were also examined. The theoretical and empirical details of this study will be elaborated in Chapters 2, 3 and 7 of this thesis.

Another way in which threat is conceptualized in ingroup projection research is through the use of identity threat from an outgroup through their claims of perceived relative prototypicality. Finley and Wenzel (2003, as cited in Wenzel et al., 2007) showed that when highly identified psychology students were confronted with relative prototypicality arguments of the outgroup (i.e. economics students), they experienced identity threat from this outgroup and this in turn made them engage in ingroup projection in order to defend their group's relative prototypicality and positive value.

A final way in which threat was found to alter ingroup projection levels is positive distinctiveness threat (Finley, 2006). In a laboratory context, half of the participants were exposed to a merger context, in which they were told that the two subgroup categories

involving their ingroup and the outgroup would no longer exist, whereas the other half received information indicating that ingroup and outgroup would remain separate (the no merger condition). After this, measures of relative prototypicality for the superordinate category were measured. Results showed that participants who perceived a positive distinctiveness threat following the merger scenario perceived higher ingroup prototypicality compared to individuals who were in the no merger condition, as well as those who did not perceive a positive distinctiveness threat as a result of the merger manipulation. These results indicated that, one of the motivational processes of ingroup projection is the desire to repair or maintain one's group's positive distinctiveness. The findings are also in line with the effects of merging on social identification, ingroup bias and intergroup hostility (Skevington, 1980; van Leeuwen, van Knippenberg & Ellemers, 2003).

As mentioned earlier on in this chapter, the aim of Chapter 5 was to look at conditions under which subgroups would like to engage in ingroup projection to protect the superordinate category, when it is perceived to be under threat. It was predicted that high status subgroups would especially be eager to protect the superordinate category in order to keep their high status position. Although high levels of ingroup projection were found among high status group members, this effect was not determined by threat. Interestingly however, participants who were exposed to the equal subgroup status projected significantly less under threat. These findings are argued within the context of positive distinctiveness threat and group affirmation theories in Chapters 3 and 5.

Overall, these results provide preliminary evidence for the effect of threat on ingroup projection and intergroup bias. By looking at reactions to superordinate category threat in other settings and comparing relative prototypicality ratings of group members

with different status, the relationship between threat and ingroup projection is integrated with the work on outgroup derogation, group affirmation and system justification in this thesis. Finally, the above studies are also important as they provide further evidence for the motivational processes that come to surface as a result of threat.

Evaluation of the Superordinate Category

Although individuals have a general tendency to evaluate their ingroups favourably (Turner, 1987), this might not be possible under certain conditions. As Wenzel and colleagues (2007) point out there are many Germans who approach their national identity critically, due to World War II. In this case, it could be argued that perceiving one's superordinate category negatively might have negative consequences for ingroup projection judgments. In order to test this assumption, Wenzel and colleagues (2003, Study 3) manipulated the superordinate category valence by asking half of their participants to think and write about the negative aspects of Europe, while asking the other half to think and write about the positive aspects. Similar to other ingroup projection studies, they were then asked to rate the representativeness of the ingroup (i.e. Germans), the outgroup (Poles) and the superordinate category (i.e. Europe) and their identification with the ingroup. Results showed that in the positive superordinate category prime condition, high identification with the ingroup was correlated positively with relative ingroup prototypicality, while for the negative superordinate category prime, the two were correlated negatively. Moreover, positive priming of the superordinate category resulted in a positive relationship between relative ingroup prototypicality and negative evaluation of the outgroup. The opposite pattern was evident for the negative priming condition, such

that Germans who projected their characteristics onto the superordinate category when it was framed negatively, were more positive towards Poles.

In the preceding study to the one above, Wenzel and colleagues (2003) investigated the effects of superordinate category valence on perceptions of status legitimacy. In line with the findings above, under positive priming, the more relatively prototypical Germans were, the more status differences were perceived as legitimate. In other words, the high status position of Germans in relation to Poles was found to be legitimate. On the other hand, the opposite pattern was observed under negative priming, such that the less relatively prototypical Germans were, the more status differences were perceived as legitimate. The relationship between perceived legitimacy and ingroup projection will be elaborated in the next chapter. Moreover, the aim of Chapter 6 will be to investigate ingroup projection tendencies of low and high status groups under positive and negative superordinate category contexts. These chapters will specifically focus on the underlying reasons as to why low status group members project less and look at whether this pattern stays similar or changes as a result of manipulations in the superordinate category valence.

Strategic Uses of Ingroup Projection

Two recent articles focus on the instrumental uses of ingroup projection, which differ somewhat from the dominant motivational accounts of ingroup projection (Sindic & Reicher, 2008; 2009). In these studies, which focused on the Scottish context, Sindic and Reicher (2008; 2009) showed that Scottish participants' lower levels of projection for their ingroup towards being British can be interpreted as a way to keep their separatist position. More specifically, when asked about the representativeness of being Scottish towards

being British, participants who were in favour of Scottish independence projected significantly less compared to participants who did not support independence. This lower level of ingroup projection was interpreted to be a consequence of separatist participants' beliefs that their group interests were being undermined by the superordinate category. Therefore, subgroup members were actually using their prototypicality judgments to emphasize their argument that their identity practices were undermined through being defined as part of the superordinate category. This was interpreted as being an instrumental process in addition to a motivational one.

In their second study, Sindic and Reicher (2008) manipulated the rhetorical context in order to see whether instrumental motives would shape prototypicality judgments in different directions. Half of the participants received information making the issue of independence of Scotland from Britain salient, whereas the remaining half received information making the issue of the importance of Scottish history in Britain salient. In the independence-salient context, the same pattern of results as above emerged, such that Scottish participants who were pro-separatism projected less compared to the ones who were anti-separatist. However, when the importance of Scottish history in Britain was salient, supporters of independence emphasized the higher prototypicality of Scottish identity on being British compared to participants who were not supporters of independence. This made the authors conclude that relative ingroup prototypicality is dependent on which issue is salient in context and what kind of strategic concerns go along with this context.

In their subsequent study, Sindic and Reicher (2009) presented the notion of *identity undermining*, which is the belief of minorities or low status group members that by being part of the superordinate category, their identity-based practices will be undermined.

Although this concept is conceptually similar to distinctiveness threat, the authors believed that it deserved a new name as it was exclusively concerned with identity-based practices. Again in the Scottish context, it was found that perceptions of incompatibility and powerlessness resulted in identity undermining, which was in turn related to separatist positions that emphasized low ingroup projection.

The arguments of Sindic and Reicher (2008; 2009) are important in the sense that they are focused on how a minority or low status group uses its ingroup projection tendencies instrumentally to argue for a better position for its subgroup. Although it is possible that lower levels of projection that are evident among low status group members might be a consequence of identity undermining perceptions, it is also likely that under certain conditions, subgroup members might accept their inferiority and go along with the constraints of reality. It is also possible that their ideological beliefs regarding perceived legitimacy of the system might inhibit them from engaging in reacting against social inequality through ingroup projection tendencies. Chapters 2 and 6 will focus on this aspect and compare low and high status group's projection levels, and try to explain the ideological causes that might be apparent in these judgments. One of the main arguments of these chapters will be that there can be strategic motives in ingroup projection, one of them being the motive to justify the system.

All in all, the evidence that has built up over the last decade on ingroup projection has shown that it is a robust phenomenon, which has detrimental effects on intergroup relations. Moreover, from the overall empirical evidence, ingroup projection seems to be a consequence of a combination of cognitive, motivational and strategic concerns. The main aim of this thesis will therefore be to investigate these processes individually, through the use of critical determinants such as coherence of superordinate category representation

when focusing on the cognitive determinants; intergroup threat, identification and subgroup status when talking about the motivational determinants; and perceived legitimacy, stability and system justification when talking about the ideological determinants of ingroup projection. First however, a closer look at the link between perceived relative prototypicality and social discrimination towards outgroups through perceived entitlement and legitimacy is necessary to fully understand the justification process of ingroup projection, and why some groups project more than others. Chapter 2 aims to clarify these relationships.

Chapter 2 – Justice and Identity: Why Ingroup Projection Matters

This chapter provides a summary of the literature on distributive justice and entitlement beliefs, with a special focus on social identities and categorisation processes. Wenzel's (2004) social categorization approach to distributive justice is described, and the process of ingroup projection is explained in relation to it. More specifically, ingroup projection is proposed as a critical process that determines entitlement judgments among subgroup members regarding their ingroup and the outgroup, which belongs to the same superordinate category. This chapter also aims to give an overview of how low status group members come to view their disadvantaged positions as deserved through depressed entitlement. Finally, ingroup projection's role in legitimizing depressed entitlement judgments of low status groups (among both high and low status groups) is investigated. These arguments provide evidence for the critical role of ingroup projection as a critical process in legitimizing inequalities and social discrimination, and therefore form the background of the studies conducted in this thesis.

The notion of social justice has attracted researchers from many disciplines. Many different types of justice have been proposed over the years. One of them is procedural justice, which is essentially the fairness of the processes which are involved in reaching some conclusion (Wenzel, 2004). Procedural justice is also concerned with the quality of treatment by decision makers and authorities (Blader & Tyler, 2003; Lind & Tyler, 1988).

The second type of justice is retributive justice, which is defined as the fairness of punishments for breaking rules or laws (Vidmar, 2001). Interactional justice, on the other hand, is justice among human beings, so that they treat one another ethically (i.e. with dignity and respect) (Miller, 1999). This factor emphasizes justice among social actors, such as fellow citizens of one's country, rather than justice from authorities to the public (Miller, 1999). Finally, there is distributive justice, which is the fairness of distributions or allocations of benefits and burdens (Törnblom, 1992). The primary focus of this chapter will be on the social psychological account of distributive justice, and how subgroup members can judge fairness of distributions or allocations among subgroups based on ingroup projection. Research that provides evidence for the legitimization of inequality through claims of higher representativeness will be provided, and ingroup projection will be proposed as a critical strategy that leads to social discrimination through differential entitlement beliefs. These arguments will form the basis for the studies reported in the following empirical chapters.

One of the main issues in the distributive justice research is what should be considered a truly fair allocation of benefits and burdens, and what the underlying reasons are for choosing one principle of allocation over another (Jost & Kay, in press). Another way of framing this question is to ask how people judge entitlements and deservingness, and how they create an expectation regarding the way a target (a person or a group) should receive a certain outcome (Folger, 2001; Wenzel, 2004)? The answer to these questions mainly resides in the influence of identity and categorization processes in shaping justice concerns. Although the effect of identity on choices regarding distributive justice have been investigated directly or indirectly by researchers over the last forty years, the systematic framework on this notion was provided by Wenzel's (2004) social

categorization approach to distributive justice. In his approach, Wenzel (2004) argued that distributive entitlement judgments involved categorization processes through which social categorization judgments were used in order to “understand the identity of, and relationship between, people in a given situation, from which then notions of distributive justice are derived” (p. 222). This approach is based on Self-Categorization Theory (Turner, Hogg, Oakes, Reicher & Wetherell, 1987), which states that self-conception reflects a cognitive grouping of the self as identical to some class of stimuli, in contrast to some other class of stimuli (i.e. self-categorization). In light of this theory, Wenzel’s (2004) approach investigates the implications of social categorization in perceptions of the boundaries of the justice problem (i.e. in determining the nature of eligibility claims or implications in entitlement considerations) as well as the “groupings and differentiations between those eligible as either similarly or differently deserving in a given context” (p. 222). Wenzel (2004) argued that as social categorizations are used as reflections and expressions of our own identities and values, the processes of social identity determine perceptions of entitlement. In line with this emphasis on the link between identity and justice, before elaborating the details of the social categorization approach to distributive justice, the literature on distributive justice and identity is reviewed.

Social Identity and Distributive Justice

Clayton and Opatow (2003) argued that individuals are motivated to adhere to systems of justice in order to preserve their individual and group identities. Moreover, identity affects the operational definition of justice by clarifying whose justice matters and when justice is most relevant (Clayton & Opatow, 2003). In line with this claim, in the

Accessible Identity Model, Skitka (2003) also emphasizes that one must understand which of the many possible identities are activated within an individual in order to understand his/her justice reasoning. However, it was Deutsch (1975; 1985) who first stated that the choice of a distributive principle is based upon one's *interaction context* and one's *goals*. For example, in a close relationship situation in which one wishes to promote the well-being of another, the need principle (i.e. the belief that outcomes should be distributed based on each individual's levels of need) is likely to be employed in distributing resources. On the other hand, in a friendly social relationship context in which the individual has the goal of achieving interpersonal harmony, the equality principle (i.e. the belief that justice is achieved when outcomes are distributed equally among recipients) will be employed. Finally, where there is an economic or disinterested relationship in which the goal is productivity, the equity principle (i.e. the belief that justice is achieved when outcomes are proportional to inputs or contributions) will be the dominant principle guiding justice concerns. Although the notion of salience of relevant identities or the goals in relation to them are not underlined in this argument, they are implicitly referenced. The aspects of a situation that are most salient, or the goals one has for a situation, are linked to identity (Clayton & Opatow, 2003).

The salience of group identities and the importance of goals are demonstrated by a study conducted by Platow, O'Connell, Shave and Hanning (1995). In this study, the distributive justice of individuals was compared when they were in an interpersonal justice context as opposed to an intergroup justice context. Their findings revealed that evaluations of fairness changed as a function of which context was salient: When there were two equally needy ingroup members, individuals evaluated an ingroup member who distributed money equally to them in more favourable terms. However, when there was a

needy ingroup member and an equally needy outgroup member, individuals evaluated an ingroup member more positively when s/he allocated more money to the needy ingroup member compared to the equally needy outgroup member. These results showed that individuals altered their perceptions of justice as a function of contextual salience of identity. In other words, while equality was regarded to be fairer in intragroup contexts, inequality that was biased towards ingroup was regarded to be fairer in intergroup contexts (Platow et al., 1995).

Finally, Azzi (1992; Klein & Azzi, 2001), showed that the preference for a proportional or egalitarian distribution rule for the allocation of power was affected by whether one was a member of a majority or a minority group. This provided direct evidence to the argument that the perception of fairness depends on the extent to which one identifies with his/her group. While investigating the relationship between justice and identity, Clayton and Opatow (2003) focused on environmental conflicts, and how they are overcome with heightened levels of group identity. It was concluded that group identity mediates one's relation to nature, such that saving a particular species, habitat or ecosystem becomes more important when group identities are prominent. As group alliances and interests as well as intergroup conflicts become more salient, the possible likelihood of sacrificing other systems is increased. On the other hand, when group influences on identity are low, an individual becomes more likely to think of his/her relation to nature as a direct one. In this case, the rights of nature are perceived in an abstract way ungoverned by the interests of the group or conflicts with other groups.

Although these findings point clearly to the importance of identities in determining the norms and standards of justice (Klein & Azzi, 2001), it is Wenzel's (2004) approach to

distributive justice which provides the most detailed and inclusive framework on the subject.

A Social Categorization Approach to Distributive Justice

The primary assumption of the social categorization approach is that claims of distributive entitlement involve categorization processes (Wenzel, 2004). More specifically, in a given situation, a set of social categorizations that are hierarchically organized determine the identity of those individuals or groups that are considered for an allocation. Moreover, these potential recipients are argued to be subcategorized and differentiated in order to make judgments regarding their relative entitlement in relation to their social categorizations.

Wenzel's (2004) social categorization approach developed partially as a criticism towards the lack of clarification in *Equity Theory*. Equity Theory claims that individuals consider it just when the outcomes of all interaction partners are proportional to their relevant inputs (Adams, 1965; Homans, 1961, as cited in Wenzel, 2004). Although over time researchers have underlined the importance of self-interest in governing these claims of input relevance (Walster & Walster, 1975), Wenzel (2004) was the first to emphasize the importance of categorization processes in determining the nature of these inputs. In other words, the inputs that are relevant in order to come to a conclusion of entitlement and deservingness are determined by social categorization processes.

The first step in entitlement and deservingness judgments is to determine the target of one's justice concerns, and thus establish who is considered eligible for receiving some or all of the allocation (Wenzel, 2004). In other words, a categorization process occurs to

decide who the *recipient unit* (Cohen, 1987) of an allocation is. All potential recipients are argued to belong to the *primary category*, which is the most abstract category in the context of justice evaluations (Cohen, 1991, as cited in Wenzel, 2004). Based on the assumption of Social Categorization Theory (Turner, 1987) the primary category is also the most inclusive category on which justice judgments are made. In line with this, an inclusive category “provides the background (dimensions and values) for comparisons between its members or subcategories” (Wenzel, 2004, p. 227). These background dimensions and values are determined by what is regarded to define the primary category that is, what are its *prototypical dimensions* (Oakes, Haslam, & Turner, 1998).

The prototypical dimensions that define the prototype of the primary category form the basis of entitlement judgments (Wenzel, 2004) such that the subcategory that possesses these prototypical dimensions is perceived to be more deserving. What follows from this link between prototypicality and entitlement is that the target person or subcategory becomes entitled to be treated in a way that is prototypical for its salient self-category (Wenzel, 2004). To put it another way, the recipients who are perceived to be closer to the prototype-defining criteria are evaluated more positively and regarded as more deserving. To illustrate this, Wenzel (2004) gives the example of an organization which is believed to be characterized by ethicality and environmentalism values. When deciding which member or team to reward for their performance, the organization is likely to choose the one(s) that performed most ethically and most in line with its environmentalist terms. Therefore, by defining itself on these two dimensions, the organization justifies its reward allocation system.

Ingroup Projection and Legitimization of Inequality

Turner (1987) argued that the value of an ingroup is derived from its prototypicality for the inclusive category. In line with this, ingroup members are motivated to perceive ingroup norms and pressures to be more representative of the more inclusive category compared to a relevant outgroup. As a result of this, they are motivated to *project* their distinctive ingroup characteristics onto the inclusive category (Mummendey & Wenzel, 1999). This process of *ingroup projection* not only helps them to regard their own group in more positive terms, but also to feel that they are more deserving than the outgroup (Wenzel et al., 2003). For example, in the inclusive category of social scientists, both sociologist and social psychologist subcategories might claim to be more representative of being a social scientist. In other words, they would define what it is to be a social scientist based on the characteristics of their own subcategory and its values. This claim would make subgroup members of each category feel more entitled to the inclusive category's resources. If for instance a grant is to be given to an academic from one of these categories, it is likely that sociologists and social psychologists both claim that they have more right to receive it than the other, as their subgroup is more prototypical.

However, as described in the previous chapter, identification with both the subordinate and superordinate category are necessary in order for ingroup projection to occur. Wenzel (2001) investigated the relationships among identification, ingroup projection and entitlement judgments in the EU context. German participants were asked about the perceived prototypicality of Germany and Turkey of EU, their identification with being a German and the extent to which they agree with the EU's decision in December 1997 not to grant Turkey candidature to membership. Results showed that there was a

direct relationship between identification of being a German and prototypicality of Germany relative to Turkey. Moreover, the decline of candidature decision was regarded as *fairer*, and Turkey was considered to be less entitled to EU membership, when individuals perceived Germany to be relatively more prototypical for Europe in relation to Turkey. This study provides evidence for the hypothesis that a direct relationship exists among prototypicality judgments, entitlement beliefs and the perceived fairness of decisions made on the basis of these differences.

Wenzel (2001) also investigated how judgments of prototypicality changed as a function of subgroup membership in the context of university identification. Half of the sample of psychology students from Australian National University (ANU) were told that the psychology department of their university was strong in methodological skills, and the remaining half were told that it was strong in theoretical expertise in comparison to the psychology department at the University of Sydney. They were then asked what they considered to be important skills and prototypical attributes of psychologists in general. In line with the expectations, when ANU students were provided with information suggesting that their psychology department was better at methodological skills compared to the outgroup, they believed that the most important defining dimension of being a psychologist was being good at methodological skills. On the other hand, when they were told that their university's psychology department was strong at theoretical skills compared to the outgroup, they perceived theoretical expertise to be more prototypical for being a psychologist in general. This latter effect was particularly high among individuals who identified strongly with their university.

In the second part of the same study, participants were provided with a personnel selection problem. They were told that a business company was interested in employing a

psychologist and that two graduates of ANU were selected as candidates. They were also informed that, “in order to make a reasonable and just decision between these candidates” (p. 322), the personnel manager will engage in a close inspection of the candidates’ achievements in their psychology studies. Participants were provided with detailed accounts of candidates’ achievements suggesting that one of the candidates was better at methodological skills, while the other one was better at theoretical skills. In order to measure deservingness and the decisions that accompanied it, participants were asked to whom they would give the job as well as who deserved the job more. Results partially supported the hypothesis that prototypicality accompanies deservingness: Participants who were exposed to the information that ANU was stronger in theory, rated the candidate that had stronger theoretical expertise as more deserving for the job. However, the results for the opposite condition did not reach significance: Participants who received information regarding the strength of ANU psychology department in methodological skills, there was no difference between preference for the theoretically skilled candidate and the methodologically skilled candidate. Wenzel (2001) provided a “reality constraints” (see Ellemers, van Rijswijk, Roefs, & Simons, 1997) explanation for the latter finding. As ANU is generally regarded to be better at theoretical education and that theoretical knowledge is considered to be a better part of the psychology education in general, participants might have had a bias towards selecting the candidate with theoretical expertise by default. Despite the lack of support in this last finding, the studies summarized above show substantial evidence that prototypicality, entitlement and deservingness all work jointly when making justice decisions in an intergroup setting.

As a result of their direct relationship to entitlement judgments, ingroup projection is also used as a way to legitimize status differences among subcategories within an

inclusive category (Wenzel, 2004). These legitimate status differences are then used among subcategories as the basis for social discrimination and prejudice (Wenzel, 2000). Indeed, Weber and colleagues (2002) showed that when status differences among subcategories are perceived to be legitimate, this has negative consequences on intergroup attitudes, emotions, and behaviour. In their first study, negative correlations were found among perceived legitimacy of status differences and feelings of guilt as well as positive attitudes towards the outgroup. Moreover, perceived legitimacy was positively correlated with feelings of threat (Weber et al., 2002). In a follow up study, valence of the inclusive category was manipulated such that German participants in the positive valence condition were asked to think about the positive aspects of Europe, while participants in the negative valence condition were asked to think about the negative aspects. The outgroup was Poles, who were not yet members of the EU. It was hypothesized that in the positive valence condition, German participants who perceived the characteristics of Germans to be more representative of Europe compared to the characteristics of Poles should also justify their own status position by finding the status differences as more legitimate. On the other hand, this effect should not be observed in the negative valence condition. Results confirmed these hypotheses, showing that prototypicality and perceived legitimacy were moderated by the valence of the inclusive category, such that only in the positive valence condition perceived relative prototypicality resulted in higher levels of perceived legitimacy of status differences. Weber and colleagues (2002) also attempted to provide evidence for the direct causal relationship between prototypicality and legitimacy as a function of status, in a follow up study. Although, the results only partially supported the causal relationship between prototypicality and legitimacy, it was concluded that the lack of support might be

due to the artificial nature of the groups in this study and that the relationship between representativeness and legitimacy is a robust one (Weber et al., 2002).

As reviewed in Chapter 1, numerous studies established the robust finding that ingroup projection is positively correlated with negative attitudes towards the outgroup that belongs to the inclusive category (Waldzus et al., 2003; Waldzus et al., 2005; Waldzus & Mummendey, 2004; Wenzel et al., 2003). The findings reported above partially support the hypothesis that ingroup projection legitimizes status differences between subgroups. Therefore, it can be argued that members of a subgroup, who perceive the outgroup's representativeness of the inclusive category as low, would be likely to regard its members as deviants who do not deserve to be treated equally. This argument would bring with it a justification for social discrimination and prejudice. In sum, the bias that subgroup members have as a result of their group membership causes them to see their ingroup as more representative of the inclusive category. This makes them perceive themselves and fellow ingroup members as more entitled and deserving of the resources of the inclusive category compared to outgroup members. As well as legitimizing inequality, these entitlement judgments also serve as legitimizing tools for social discrimination processes.

Depressed Entitlement among Low Status Groups

The important role of entitlement beliefs is also underlined by Major and colleagues (Major, 1994; Major & Schmader, 2001). The main argument is that beliefs about entitlement determine how members of social groups react to socially distributed outcomes in affective, evaluative and behavioural terms. Although this notion is completely compatible with the arguments presented above, the main distinction is Major

and colleagues' emphasis on what they call *depressed entitlement*. According to this argument, as a result of constant social discrimination and social inequality, over time members of disadvantaged groups come to endorse the idea that they deserve lesser outcomes and therefore feel generally less entitled. On the other hand, the overprivileged members of society endorse the idea that they are entitled to their position of relative advantage. Therefore, this approach differs from Wenzel's (2004) social categorization approach as it implies that entitlement judgments might not always be self or group serving, but rather that they can be used to justify inequality (Major, 1994).

Crosby (1982) argues that individuals would feel they have been treated in unjustly when they do not receive valued outcomes they believe they are legitimately entitled to receive. In other words, individuals perceive injustice only when beliefs on entitlement do not fit with the actual treatment received. When this violation of entitlement occurs, it results in a feeling of anger that leads to social change (e.g. Shaver, Schwartz, Kirson, & O'Connor, 1987). In line with these arguments, one would expect to see reflections of anger and motivation to seek social change among those who are in disadvantaged groups. However, extensive research have shown that this may not often be the case (Major, 1994). For example, women pay themselves less money than men for the same amount of work (Pelham & Hetts, 2001) and although the inequality in the division of labour is perceived in a marriage, both spouses do not see this inequality as being unfair to either of the parties (see Ferree, 1990; Major, 1993; Spitze, 1988; Thompson, 1991, for reviews). In an attempt to explain the possible causes for these depressed entitlement judgments, Major (1994) has proposed three main antecedents to entitlement beliefs. These are comparisons with reference standards, legitimacy appraisals, and goals (see Deutsch, 1985, for a review).

1 - Comparison with reference standards. The first antecedent focuses on the fact that individuals have reference standards to which they make comparisons of entitlement judgments. A number of comparison standards have been proposed such as past experiences, intrapersonal comparisons, and comparisons with similar others (Berger, Zelditch, Anderson, & Cohen, 1972, as cited in Major, 1994; Festinger, 1954; Thibaut & Kelley, 1959). For example, Berger and colleagues (1972, as cited in Major, 1994) have proposed that “entitlement is based on a *referential rewards structure* that consists of *stereotypic* information about the typical relation between levels of characteristics (e.g. inputs, contributions) possessed and levels of rewards (e.g., pay, status) received by a generalized reference other” (p. 301). In other words, certain kinds of inputs or contributions are rewarded based on how it has always been rewarded in the past. This way, stereotypical beliefs regarding what *is* typically the case is argued to become what *ought to be* the case (Major, 1994). Judgments are also argued to be made based on internal standards that are derived from one’s past experiences (Festinger, 1954). Major (1994) concludes that as a result of the biases above, individuals adapt a tendency to feel that they deserve the same treatment or outcomes that they have received in the past, or that similar others have received.

2 - Legitimacy appraisals. However, in order for members of disadvantaged groups to feel that unequal distributions are deserved, they should perceive their own group’s or other group’s outcomes as legitimate (Major, 1994). Thus, legitimacy appraisals need to work hand in hand with entitlement judgments, such that inequality becomes justified when discrepancies between one’s own group’s outcomes and those of the comparison standard are perceived to be legitimate.

Major (1994) argues that one of the ways legitimacy appraisals are derived is through the accepted rule of distributive justice, in other words whether the equity, equality or need principle is dominant. However, based on Wenzel's (2004) social categorization approach to distributive justice summarized above, it can also be argued that legitimacy appraisals can be grounded in identification with certain groups in society. Following this logic, it can be argued that when members of disadvantaged groups, who identify with their ingroup and the inclusive category (i.e. the system), have to make a legitimacy judgment based on their entitlement, they would be more likely to be biased towards perceiving the unequal distribution of resources as just, and claim that their group deserves less. In other words, legitimacy appraisals would be likely to follow entitlement judgments because disadvantaged group members perceive that their subgroup's atypicality is representative of lower legitimacy compared to the normative standards that are set by the superordinate category (Wenzel, 2004).

Other than being affected by already existing beliefs regarding perceived entitlements themselves, legitimacy appraisals can also be affected by beliefs that contribute to maintaining the status quo (Major, 1994). Some of these beliefs are belief in a just world (Lerner, Miller, & Holmes, 1976), the belief in personal causation (e.g. Nisbett & Ross, 1980), and belief in personal control (e.g. Langer, 1977, as cited in Major, 1994). Moreover, Sidanius and Pratto (1993) underline the importance of myths in society such as "the oppressed have lower inputs to begin with" in legitimizing inequality, and attributing the misfortune of the disadvantaged to their own low levels of contribution. In sum, endorsing one or more of these beliefs causes members of both disadvantaged and advantaged groups to perceive the status differences to be legitimate and deserved.

3 - Goals. Major (1994) claims that entitlement beliefs are also governed by the goals and motives of an individual. These can occur in the form of a self-protection strategy (i.e. a desire to protect self-esteem or group esteem from threat) or self-improvement strategy (i.e. a desire to improve the outcomes of self or group). These goals are likely to motivate individuals to stop avoiding engaging in social comparisons that are unfavourable to themselves or their ingroup. As a result, if the individual is a member of a disadvantaged group, these motives would help him/her to perceive the illegitimacy of status inequalities, and in turn to be motivated to engage in social change (Singer, 1981, as cited in Major, 1994).

However, according to the system justification theory (Jost & Banaji, 1994), alongside self-serving and group justifying motives, group members also possess a third motive, which is to justify the system. In other words, group members are also motivated to legitimize status inequalities in order to maintain and bolster the status quo (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004). While this motivation works in perfect harmony with other motives (i.e. ego and group justification) for members of advantaged groups, there is a conflict for disadvantaged group members as their system justification motive causes them to perceive their disadvantaged position in society as legitimate, even though it is against their own group's benefit. This detrimental function of system justification among members of disadvantaged groups can manifest itself through legitimization of entitlement judgments. In sum, the salience of a specific norm is likely to determine the level of perceived legitimacy and entitlement among the disadvantaged.

Ingroup Projection among Low Status Groups

Although ingroup projection is a robust phenomenon, not all groups are able to engage in projection under all circumstances. For instance, Waldzus and colleagues (2004) have measured the perceived prototypicality of bikers, teachers and Germans in three different inclusive category settings. In the biker and teacher settings, both of the biker subgroups claimed higher prototypicality for the biker superordinate category and both of the teacher subgroups claimed higher prototypicality for the teacher superordinate category. On the other hand, for the West and East German subgroups there was consensus that West Germans were relatively more prototypical of the inclusive category of German. This finding is considered to reflect “strong reality constraints due to differences in group size, status and power” (Waldzus et al., 2004, p. 385). As West Germans were more numerous than East Germans, were provided monetary resources for the unification of Germany, and had the new political program based on their own standards, Waldzus and colleagues (2004) argued that it was unavoidable that their higher status would be confirmed and reflected by the relative prototypicality ratings of East Germans. These results seem to support the idea that low status group members are eager to engage in ingroup projection but that they are *constrained by* actual differences in prototypicality in society. However, these findings can also be interpreted as showing that reduced levels of ingroup projection that stem from depressed entitlement judgments might develop as a result of a motive to preserve or even bolster the *status quo*.

According to system justification theory (Jost & Banaji, 1994), one of the ways that members of disadvantaged groups justify the prevailing status hierarchy is by attaching value to domains, attributes and outcomes in which their group is disadvantaged relative to

higher status groups (Major & Schmader, 2001). The valuing of high status group characteristics as opposed to one's own group's is argued to be the default tendency that disadvantaged group members use. Schmader, Major, Eccleston and McCoy (2001) conducted a study to investigate whether disadvantaged group members would value the domains that their group is disadvantaged. University of California Santa Barbara (UCSB) students were informed at the beginning of the study that the experimenter was interested in comparing the scores of UCSB students on a novel personality test to either Stanford University students (i.e. high status group) or Santa Barbara City College School students (i.e. low status group). After taking the test, participants were informed that their own university had performed better or worse relative to the comparison school. They were then asked to rate the extent to which they valued the trait that they were informed to have scored better or worse on as a group relative to the comparison outgroup. Results showed that when the participants' ingroup was in a higher status position (i.e. status feedback given in relation to the SBCC School), they valued the trait that they were told to have scored higher on more, compared to the trait that low status group performed better on. However, when participants were told that their ingroup were of a lower status position (i.e. status feedback given in relation to Stanford University), they valued the trait of the high status group more compared to their own trait. These findings demonstrated that, when individuals do not possess relevant information regarding the legitimacy of status differences, they tend to value the high status groups' traits more than their own.

In a follow up study, the moderating role of legitimacy appraisals was investigated by providing half of the participants with cues of illegitimacy and the other half with cues of legitimacy regarding the status differences (Schmader et al., 2001). As expected, results showed that it is only when status differences between the groups were delegitimized by

informational cues (participants read an article that low status school's students were in fact just as intelligent as high status school's students), participants devalued the trait that the higher status outgroup was better at compared to themselves. This latter finding provides evidence for that although system justifying mechanisms might operate by default, when individuals are provided with evidence regarding the illegitimacy of inequality ego defensive mechanisms win over, making members of the disadvantaged group react against inequality and the status quo.

Ingroup Projection as System Justification

In this chapter, ingroup projection was proposed as a critical process for determining relative entitlement among subgroups belonging to the same superordinate category. Wenzel's (2004) social categorization approach to distributive justice was summarized, as was evidence suggesting that judgments regarding relative entitlement of subgroup members are determined in relation to their social categorizations. Moreover, Weber and colleagues' (2002) findings demonstrated that ingroup projection can be used to legitimize status differences among subcategories within an inclusive category. These perceptions of legitimate status differences are then used among subcategories as a basis of social discrimination and prejudice (Wenzel, 2000).

The reasons for the lack of ingroup projection among low status group members was discussed. While the higher status subgroups' higher representativeness (Devos & Banaji, 2005; Waldzus et al., 2004) was explained as resulting from social reality constraints by ingroup projection theorists, another explanation focused on lower status subgroups' endorsement of the idea that they are less deserving than high status subgroups

(Major, 1994). The finding that low status group members valued high status groups' characteristics unless the status differences were explicitly illegitimate (Schmader et al., 2001) suggested that legitimization of inequality was the default tendency among low status group members. Although these latter studies provided partial evidence for the idea that lower levels of ingroup projection might be something *more than a result of reality constraints*, no study has investigated this as yet. The studies reported in Chapter 6 specifically tested whether disadvantaged groups' low levels of ingroup projection are a mere reflection of reality constraints, or whether they are value judgments in favour of the advantaged groups, *motivated to maintain the status quo*. In other words, the focus of this chapter will be to see whether ingroup projection is used as a way to legitimize inequality among group members belonging to the same inclusive category. On the other hand, Chapter 7 focuses on whether individual differences in system justification moderate the effects of ingroup projection when individuals are faced with a threat to their inclusive category. Investigating the relationship between high status group members' system justification tendencies and their ingroup projection levels aims to provide insight into the strategic use of ingroup projection.

Although the ingroup projection model is based predominantly on social identity approaches, previous findings necessitate a review of other theoretical perspectives – including system justification theory – before the empirical research of this thesis is reported. In line with this, the following chapter of this thesis will provide an overview of theories that are proposed to explain cognitive, motivational and ideological processes that lead to ingroup projection.

Chapter 3 – Theoretical Perspectives Linked to Ingroup Projection

This chapter provides an overview of the major theories that are argued to offer an explanatory framework for explaining ingroup projection effects. The major theories that will be reviewed in this chapter in relation to the ingroup projection model are self-categorization theory, social identity theory, optimal distinctiveness theory, group affirmation theory and system justification theory. Moreover, the effects of superordinate category representativeness, intergroup status, subordinate and superordinate level identification, sociostructural variables (i.e. permeability, stability and legitimacy) and intergroup threat will also be discussed. In elaborating on these theories, rationales for the studies presented in each empirical chapter will also be provided.

The main aim of this thesis is to investigate the cognitive, motivational and ideological determinants of ingroup projection. In order to achieve this aim, it is necessary to start with an overview of these approaches. At this point, it should be noted that although a detailed review of these approaches will be provided in this chapter, an all inclusive review of all the major points is not intended, nor useful for the aims of the thesis. Instead, the focus will be on the concepts that have established links to, or are proposed to be related to, ingroup projection. Throughout this chapter, these concepts will be linked to the subsequent empirical chapters in which they are specifically investigated.

Cognitive Processes of Ingroup Projection

As stated in Chapter 1, one of the antecedents of ingroup projection is the mental representation of the superordinate category. Studies on this have focused predominantly on the complexity of superordinate category representation in reducing ingroup projection. More specifically, these studies demonstrated that as subgroup members perceived more diversity in the representation of the inclusive category, they were less likely to define this category with their subgroup's characteristics (Waldzus, Mummendey, Wenzel, & Weber, 2003; Waldzus, Mummendey, & Wenzel, 2005). However, in their seminal article, Mummendey and Wenzel (1999) also argued that clarity of the superordinate category was likely to inhibit ingroup members from ascribing prototypicality judgements to their own group. In other words, the authors claimed that when there was a lack of evaluative standard, subgroup members would be less likely to use the subgroup as an anchor.

However, recent research on social projection has suggested that when the ingroup representation lacked coherent structural organization (i.e. is ill-defined but not unsolvable), individuals would project their self characteristics onto the ingroup (Crisp & Hogg, 2009; Otten, 2002). Social projection as a result of lack of clarity in ingroup representation is argued to occur as a result of *heuristic information processing* (Otten, 2002), such that when individuals are trying to give meaning to a social category that is unclear, they automatically use their self-characteristics to define the ingroup.

Following this argument, Machunsky and Meiser (2009a) proposed that a similar mechanism is evident for ingroup projection such that when the representation of the superordinate category lacks clarity, subgroup members use their own group's characteristics to define the inclusive category. This is also regarded as a heuristic process

that occurs automatically. In this regard, the use of motivational mechanisms to interpret differences in ingroup projection was seen as redundant (Machunsky & Meiser, 2009a). Empirical evidence provided partial support for this argument by showing that weak definition of the superordinate category together with the availability of trait-like presentations of the subgroup resulted in ingroup projection (Machunsky, Mummendey, & Meiser, 2009). However, subsequent research showed that even when the outgroup is represented in a trait-like fashion, ingroup members still projected their characteristics onto the superordinate category (Machunsky & Meiser, 2009b). Although this finding underlined the joint contribution of cognitive and motivational factors in determining ingroup projection, it did not eliminate the influence of unclear superordinate category representation on ingroup projection.

In line with the findings above, Chapter 4 focuses on the influence of the complexity and coherence of the superordinate category representation in determining ingroup projection. It is argued that when the inclusive category is structured in a coherent way (i.e. in a clear, organized fashion), subgroup members would be less likely to engage in heuristic information processing and instead would have a clear understanding of the similarities and differences among groups, which lead to lower levels of ingroup projection. On the other hand, when the superordinate category is incoherent (i.e. unclear, unstructured, disorganized), subgroup members would be most likely to turn to their ingroup's traits as this is the group they would know best. As for the influence of complexity on projection, similar to the previous findings, it is expected that complex representation of the superordinate category would also reduce ingroup projection. However, this is argued to occur at the cost of superordinate group identification, such that individuals would identify less with highly complex superordinate categories.

Although the main focus of the above arguments is cognitive, this is not meant to imply that ingroup projection is governed exclusively by cognitive mechanisms. In fact, the argument that superordinate group identification would moderate the effects of superordinate category complexity on ingroup projection suggests that motivational processes might work jointly with cognitive ones. In the next section of this chapter, the motivational processes that are likely to influence ingroup projection will be elaborated with reference to the subsequent empirical chapters.

Motivational Processes of Ingroup Projection

Social Identity Theory

Tajfel and Turner (1975) stated that social identity is a person's definition of themselves with regard to some social group membership, together with the associated value connotations and emotional significance. In other words, it is that aspect of a person's self-concept based on their group membership (Turner, 1999). The main argument of social identity theory is that individuals have a need for positive social identity (Tajfel, 1974). This need is expressed through a desire to create, maintain or enhance the positively valued distinctiveness of ingroups compared to outgroups on relevant dimensions, which is aroused under conditions where people define and evaluate themselves in terms of their group memberships (Turner, 1999).

In order to attain a positive social identity, group members are motivated to think and act in ways that achieve or maintain a *positive distinctiveness* between one's own

group and relevant outgroups (Turner et al., 1987). It is this striving for positive distinctiveness that is argued to be at the root of intergroup differentiation and outgroup derogation. This positive distinctiveness can be attained by social comparison processes through which the characteristics and attributes of one's ingroup are perceived to be more valuable than that of the outgroup's (Tajfel & Turner, 1979). Applying this concept to the ingroup projection model, Mummendey and Wenzel (1999) argued that in an intergroup setting in which an inclusive category is salient, subgroup members will aim to achieve this positive distinctiveness by claiming greater prototypicality for the ingroup over the outgroup. However, there are a number of variables that already have established effects on ingroup projection (e.g. dual identification), and others whose effects are investigated more thoroughly in this thesis (e.g. subgroup status, sociostructural variables, perceived threat). Before going into details regarding the contribution of these variables to ingroup projection, self-categorization theory, which is closely related to social identity theory and is a central feature of ingroup projection model, will be summarized below.

Self-Categorization Theory

Turner's (1978, 1982, 1984) self-categorization theory branched out of social identity theory, with the aim to explain the cognitive mechanisms that make group behaviour possible. One of the main assumptions of this theory is that self-conception reflects self-categorization, which is defined as the cognitive grouping of the self as identical to one group of stimuli in contrast to some other group of stimuli (Turner, 1999).

It is argued that the relative salience of different levels of self-categorization (i.e. personal and social identities) in a certain situation determines the extent to which

behaviour is expressed in relation to individual differences or collective similarities (Turner, 1985; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). When personal identities are salient, *personalization* occurs, in which individuals perceive the differences between themselves and the rest of the group. On the other hand, when social identities are salient, *depersonalization* occurs. Depersonalization is one of the central aspects of self-categorization theory, and is defined as a cognitive redefining of the self from unique attributes and individual differences to shared social category memberships and associated stereotypes (Turner, 1984, 1999). Depersonalization occurs when shared social identities are salient; then individuals' perceptions of their similarities with regards to their social category memberships and stereotypes are enhanced (Turner & Reynolds, 2001). Through depersonalization, perceptions of attraction, agreement and cooperation increase with fellow ingroup members whereas dislike, disagreement and conflict arise in relation to outgroup members (Turner, 1999). In other words, group behaviour such as collective action and processes that are regulated by a shared social categorical self are produced. Therefore, self-categorization theory provides the fundamental basis of social orientation towards others.

Self-categorization theory emphasizes the context dependence of perceived similarity and difference. For example, while biologists and physicists can be perceived to be different when the contextually salient inclusive category is 'science faculty', they will be recategorized as scientists as opposed to social scientists when the inclusive category is 'university'. In the latter context, perceived similarity increases.

Self-categorization theory uses the *prototypicality* concept that it derived from research on categorization (Rosch, 1978), and explains differences between category members as the extent to which they represent categorical identity (Turner, 1991).

According to this principle, just as there are variations within natural categories in the degree to which particular objects represent the superordinate category as a whole (e.g. 'table' is a more representative member of the category 'furniture'), the same applies to individuals' and subgroups' representativeness of the salient inclusive group. Individuals are argued to be relatively prototypical of their ingroup, compared to other groups, to the extent that they differ more from outgroup members and less from ingroup members on some dimension or attribute, than do other ingroup members (Turner, 1999). This relative prototypicality is argued to affect the extent to which group members are perceived to be leaders of the ingroup and are regarded to be persuasive. In contrast, low levels of prototypicality lead other ingroup members to see the individual as a deviant of the ingroup, which will likely result in discrimination (Turner, 1999).

As elaborated in previous chapters, ingroup projection theory stems from the prototypicality argument of self-categorization theory by investigating the processes and outcomes of subgroups' relative prototypicality of the inclusive category. Just as relative prototypicality of individuals in an ingroup context determines their degree of influence on the ingroup, subgroups' varying degrees of representativeness for the inclusive category is argued to affect their levels of entitlement for the resources of the superordinate category as well as perceived legitimacy of their superiority and social discrimination.

Although the ingroup projection model is mainly influenced by self-categorization theory, its emphasis on the motivational processes leading to ingroup projection also brings it close to social identity theory. In line with this, a summary of these variables that demonstrate the role of motivation in ingroup projection (such as ingroup identification, social identity threat, and sociostructural variables) follows below.

Ingroup identification. Ingroup identification (group commitment) is defined as “the extent to which group members feel strong ties with their group” (Doosje, Ellemers, & Spears, 1999, p. 85). Doosje and colleagues (1999) divide the individuals into two categories based on their identification with their ingroup: those who feel committed to their group and those who do not. Individuals who are committed to their group (i.e. high identifiers) are often named as *die-hard fans* since they are more likely to display group-oriented behaviour and be ready to make sacrifices for it (Doosje et al., 1999; Wann & Branscombe, 1990). In other words, high identifiers are also more predisposed to think and act in terms of their group membership than are low identifiers. *Fair-weather fans* (i.e. low identifiers), on the other hand, are described to be more opportunistic and have an individualistic standing when it comes to group membership (Doosje, Ellemers, & Spears, 1995; Doosje et al., 1999). More importantly, when the group is facing difficult times, low identifiers are likely to disengage from it, whereas high identifiers are likely to stick by it (e.g. Branscombe & Wann, 1994).

High levels of ingroup identification are found to result in behaviour that is in line with the goals of the group, and this occurs without an explicit intergroup context or conflict (Doosje et al., 1999). For example, Ellemers, Spears and Doosje (1998) showed that psychology students who identified highly with their major spent more time on study oriented behaviour compared to low identifiers, who spent more time on other behaviour (e.g. socializing with friends). On the other hand, De Weerd, Ellemers and Klandermans (1996) showed the importance of social identity factors in determining individuals’ collective action tendencies. More specifically, Dutch and Spanish farmers who identified highly with their ingroup, and who reported more anger regarding the perceived disadvantages that their group was facing, also reported greater likelihood to participate in

collective protest. Finally, Jetten, Spears and Manstead (1996) demonstrated that high identifiers are more likely to follow a specific group norm than are low identifiers. They simultaneously manipulated ingroup identification and group norms (fairness or discrimination). When the group norm was discrimination, high identifiers followed this norm more strongly than low identifiers, whereas there was no difference in resource allocation judgments among high and low identifiers when the group norm was fairness. Together with the above studies, this study shows the robust effect of identification in determining individuals' group behaviour.

Ingroup identification is also a crucial variable determining ingroup projection. As mentioned in Chapter 1, identification with both the subordinate and superordinate categories simultaneously (i.e. dual identification) results in increased levels of ingroup projection (Mummendey & Wenzel, 1999). Previous studies showed that ingroup projection can be inhibited when the superordinate category representation is complex, that is when various distinctive positions were equally prototypical (Waldzus et al., 2003; 2005). In Chapter 4, it is argued that although complexity might reduce ingroup projection, it does so at the expense of superordinate category identification. More specifically, complexity is argued to increase the number of discrete positions in a superordinate category, which makes individuals perceive it as highly inclusive. As a result of this perceived high levels of inclusiveness, the need for differentiation is activated, making subgroup members disidentify with the superordinate category. Therefore, it is the disidentification as a result of complexity which is argued to be responsible for lower levels of ingroup projection.

This argument is supported by the optimal distinctiveness theory (Brewer, 1991), which states that individuals are characterized by two opposing needs that determine the

relationship between the self concept and the membership in social groups. The first is a need for assimilation and inclusion, which makes group members feel the need to belong to social groups. The second is a need for differentiation from others, which works against the need for assimilation, and forces group members to differentiate themselves from other group members. Brewer and colleagues (Brewer, Manzi, & Shaw, 1993) argued that individuals that belong to an exclusive rather than a highly inclusive ingroup show more group loyalty, as membership in such groups is satisfactory for both the need for assimilation and the need for differentiation simultaneously. It is argued that one of the major determinants of ingroup identification is relative group size. This is defined as the number of persons who qualify for inclusion in the category, compared with those excluded (Brewer et al., 1993). It was found that when group membership in a large, impersonal category is emphasized, group members consistently devalued this category and enhanced the value of group distinctiveness.

With regard to the relationship between complexity and ingroup projection, it is argued that just as relative group size functions to increase the need for differentiation and in turn reduce ingroup identification, complexity of the superordinate category, due to the high number of distinctive prototypical characteristics, works in the same fashion and reduces ingroup identification. As well as elaborating this argument, Chapter 4 will also focus on the coherence of superordinate category representation as an alternative to complexity to reduce ingroup projection, without risking levels of superordinate category identification.

Although ingroup identification is a major determining factor of group commitment and intergroup relations, previous research suggests that it is especially when the image of the group is threatened that identification becomes most important (see Branscombe,

Ellemers, Spears, & Doosje, 1999, for a review). The next section will review the literature looking at the relationship between social identity threat, identification and status.

Social identity threat, identification and intergroup status. Although many different kinds of threat affecting intergroup relations are established in the literature, research on social identity threat has predominantly emphasized threats to the value of a group identity or its distinctiveness (Branscombe et al., 1999). In their review article, Branscombe and colleagues (1999) identify four different types of intergroup threat affecting intergroup relations. These types are: categorization threat, distinctiveness threat, threats to the value of social identity and acceptance threat. In line with the focus of the empirical chapters that focus on the effects of threat, threats to the value of the social identity and its relationship to identification and intergroup status will be the main focus of this section.

The relationship between social identity threat and ingroup identification is demonstrated in a study by Branscombe and Wann (1994), in which American participants who were high or low in identification with their national ingroup were exposed to a short video presentation of a boxing match. In the value threat condition, the American athlete was portrayed to have lost the match to the Russian athlete, whereas in the no value threat condition the American won. Results showed that under value threat, individuals who strongly identified with being American showed significantly lower levels of collective self-esteem compared to individuals whose identification with being an American was low. Moreover, the degree to which exposure to the identity threat damaged individuals' collective self-esteem predicted their subsequent derogation of the outgroup. These results demonstrated that different levels of identification determine how threat to the value of a social identity is dealt with.

Outgroup derogation is not the only way in which highly identified group members respond to social identity threat. In order to reinforce or display commitment to their group, group members were found to perceive their ingroup as more cohesive or homogenous (Doosje et al., 1995; Ellemers, et al., 1997), stereotype their group on non-status defining stereotypic contributions (Ellemers & van Rijswijk, 1997), or seeing themselves as more representative of the ingroup (Spears, Doosje, & Ellemers, 1997). In the latter case, the authors have investigated the effects of self-perceived or public perceived threats to group status or group distinctiveness on similarity to prototypical ingroup members. It was argued that self-stereotyping would be especially high among high identifiers under ingroup threat compared to low identifiers. These expectations were confirmed, providing further evidence for the argument that low identifiers are more strategic in their group membership and would emphasize differences from the group under threat, whereas high identifiers are less instrumental in their relationship to the group and would especially emphasize their ties with it when the group is under threat.

Based on the findings above, the aim of the studies presented in Chapter 5 was to see the influence of identification and perceived threat on ingroup projection. In other words, Chapter 5 focused on the question of whether subgroup members who are highly identified with the superordinate category would be more likely to engage in ingroup projection compared to subgroup members who have low levels of identification with the superordinate category. It is argued that subgroup members who are highly identified with the superordinate category would be more likely to project their subgroup's attributes to the inclusive category when it is perceived to be under threat, in order to display their commitment to it. However, intergroup status differences are also argued to affect levels of ingroup projection, in the sense that members of high status subgroups will be more likely

to project their subgroup's attributes to the superordinate category than group members who do not belong to a high status subgroup (i.e. equal status). As high status subgroups are expected to benefit from the superordinate group most, they will also be more likely to invest in the positive value of this inclusive category in the long run.

Branscombe, Spears, Ellemers and Doosje (2002) conducted a series of studies to show that respected group members of a devalued group were most likely to engage in attempts to improve the ingroup's position. As these group members benefit from the well-being of their group most, they were most willing to show ingroup bias and invest time to make their group's image better. One can expect to see reflections of these findings in the ingroup projection context, such that high status subgroup members, being the respected group in a superordinate context, would be most likely to show their commitment to the inclusive category by defining it in terms of their subgroup's attributes.

Therefore, both superordinate category identification and subgroup status are argued to determine ingroup projection. In other words, high status subgroup members who identify with the superordinate category most would project their subgroup's attributes onto the inclusive category in order to protect and improve the image of the latter. On the other hand, high status subgroup members who do not identify with the superordinate category would be more likely to distance themselves from the inclusive category in an attempt to affirm the positive value of their subgroup.

In fact, when evaluating the strategies employed by high and low committed ingroup members, Ellemers, Spears and Doosje (2002) underline that when low committed group members are exposed to self-directed threat, they engage in self-affirmation. Self-affirmation theory (Steele, 1988; Steele & Liu, 1983) argues that individuals have a general motive to sustain a positive overall self-concept. When this self-concept is

threatened, individuals are motivated to restore it and this can be achieved by distancing themselves from the ingroup after being exposed to social identity threat (Ellemers et al., 2002). Group affirmation, on the other hand, is directed at restoring social identity (Derks, Van Laar, & Ellemers, 2006; Sherman, Kinias, Major, Kim, & Prenovost, 2007) and it is argued in Chapter 5 that the same kind of distancing that is evident in the self-ingroup context will be experienced in the subgroup-superordinate category context when the inclusive category is perceived as the source of threat. In order to elaborate on these arguments, Chapter 5 aims to compare ingroup projection levels among high status and equal status subgroups by investigating the moderating effect of superordinate category identification.

However, in order to fully understand the effects of intergroup status and ingroup projection, one needs to investigate the circumstances under which low status group members define the superordinate category with their subgroup's attributes. In line with this aim, the relationship between intergroup status, sociostructural variables and identity management strategies will be elaborated below in the light of social identity theory.

Low status groups, sociostructural variables and identity management strategies. According to social identity theory, although there is a general need for positive social identity among individuals, it is easier for members of high status groups to achieve positive distinctiveness compared to members of low status groups. Individuals who belong to the latter group might find it especially hard to achieve this positivity under certain sociostructural conditions. Tajfel and Turner (1979) emphasized the role of perceived *permeability* of group boundaries, the *stability* of the intergroup status system and the *legitimacy* of the intergroup status system in determining intergroup attitudes and action. It is the collective definition, understanding and perception of this social structure

of intergroup relations alongside the need for positive social identity that determines whether low status group members would engage in collective, ethnocentric social competition (Turner, 1996, as cited in Turner, 1999). Social identity theory argues that social competition would occur among members of disadvantaged groups when group boundaries are impermeable and the intergroup status system is unstable and illegitimate (Tajfel & Turner, 1979, p. 45). Although empirical research investigating the effects of these three sociostructural variables simultaneously is rare, their findings largely support the main argument of social identity theory as to when social competition occurs.

Wright, Taylor and Moghaddam (1990) tested the effects of perceived permeability of group boundaries on individual and collective action tendencies. After being told that they belonged to a disadvantaged group, participants were administered to one of the three conditions manipulating the extent to which group boundaries were permeable. When participants were informed that the high status group was open to members of their group, they endorsed acceptance and individual actions, whereas when the access to high status group was restricted, participants chose to engage solely in individual action. However, it was only when the high status group was completely closed to members of disadvantaged groups, disruptive forms of collective action were favoured. This demonstrated that impermeable group boundaries lead individuals to engage in collective action.

In an attempt to investigate the combined effects of permeability of group boundaries and ingroup commitment, Ellemers, Spears and Doosje (1997) created a minimal group situation in which participants were led to think that they belonged to a group named inductive thinkers and, based on their measured bodily arousal, they were either high or low in commitment to this group. They were then given false feedback stating that their group had performed worse than the other group (i.e. low status) and

while half of the participants were told that it was possible to change group membership after the next group task (permeable condition), the other half were told that this was not possible (impermeable condition). They were then asked the extent to which they preferred to perform another task with the same group instead of the other group, and the extent to which they would like to collaborate with their own group rather than the high status group. Results showed that participants in the high commitment condition preferred to stay as a member of the low status group independent of whether boundaries were permeable or impermeable, while low identifiers preferred individual mobility irrespective of permeability conditions. These results demonstrated the strength of group commitment in determining the choice to compete with a high status group.

On the other hand, Ellemers, van Knippenberg and Wilke (1990) assigned participants to high or low status groups, manipulated perceptions of stability and permeability, and measured group commitment and perceived legitimacy as dependent variables. Results demonstrated that when members of low status groups were given information regarding the instability of status differences, they identified with their ingroup more compared to when they were informed about the stability of status differences. This was argued to demonstrate that low status group members would aim to achieve a better position for their ingroup when the sociostructural situation allows them to think that this is possible. Moreover, perceived legitimacy of the current intergroup status difference depended on the stability of the group's status as well as the permeability of group boundaries, such that when group status was unstable, participants perceived status differences as relatively illegitimate. This was irrespective of permeability. However, when status differences were stable, it was only when individuals were primed with the impermeability of the status hierarchy that they found the status relations illegitimate.

Therefore, there was no intention for social change when status differences were framed to be stable and permeable.

Follow-up studies by Ellemers, Wilke and van Knippenberg (1993) showed that when individuals were led to think that they belonged to a group with illegitimately low status, they engaged in competitive behaviour towards the outgroup and had high levels of group identification, but this was conditional upon the perceived instability of the status structure. Therefore, perceived illegitimacy and instability jointly affected group commitment and socially competitive behaviour to improve the status of the ingroup.

In order to investigate the temporal changes in levels of ingroup identification in response to anticipated and actual changes to the social structure, Doosje, Spears and Ellemers (2002) measured disadvantaged group members' level of ingroup identification before and after they were informed about the possibility of anticipated changes in the intergroup status hierarchy. Results showed that high identifiers maintained commitment to their group despite the lack of an anticipated or actual change, while low identifiers expressed commitment only when status change was highly likely. These results supported the findings on the nature of group commitment by emphasizing the unconditional nature of group commitment and intention for collective action among high identifiers, and the instrumental use of group membership among low identifiers.

However, social competition seems to be only one among the many ways that the disadvantaged group members can cope with their low status. Tajfel and Turner (1979) argued that when low status groups perceived the status structure to be stable, they aim to reduce or avoid the impact of their negative social identity and outgroup favouritism and engage in "social creativity" strategies (p. 43). Together with the addition of alternative strategies since then (Blanz, Mummendey, Mielke, & Klink, 1998; Rubin, Hewstone, &

Voci, 2001; van Knippenberg, 1989), the mechanisms that disadvantaged group members employ to cope with their negative identity are termed *identity management strategies*.

Ellemers (2001) summarizes these strategies into three main headings, namely social mobility, social creativity and social competition. Social mobility occurs when individuals decide to leave their disadvantaged ingroup in an attempt to seek membership in a different, more satisfactory group. Social creativity, on the other hand, is the process of redefining the attractiveness of existing group attributes. Finally, social competition is when group members decide to engage in social action in order to change the existing situation. While social mobility is directed at improving the status of a particular individual, social creativity and social competition strategies are argued to occur with the aim to improve the social status of the disadvantaged group (Ellemers, 2001). Although the above studies compared the circumstances under which individuals choose social competition over social mobility, social creativity strategies are especially neglected. Despite being group level strategies, they might serve to legitimize the inequalities among groups. Below theoretical and empirical evidence will be provided as to why social creativity strategies might contribute to the legitimization and stabilization of existing intergroup differences rather than leading to a significant social change.

Legitimization of inequality through social creativity strategies. Ellemers, Van den Heuvel, De Gilder and Blijleven (2001; as cited in Ellemers, 2001) investigated how female professionals in a male dominated government organization perceived themselves in relation to other women. While low ranking women defined themselves more in feminine and less in masculine traits, high ranking women perceived themselves more in masculine traits and less in feminine traits. Moreover, women respondents perceived women more in gender stereotypical terms such that they believed that women would be

more committed than would men to their team of co-workers. Also, it was believed that the work of women would be more affected than the work of men by personal circumstances in the organization. On the other hand, men were stereotyped as being more career-oriented than women. Similarly, Spears and Manstead (1989) showed that positive differentiation by members of low status groups was restricted to status irrelevant dimensions, whereas outgroup favouritism occurred for status relevant dimensions. In their meta analysis, Mullen, Brown and Smith (1992) also demonstrated that while high status groups showed more ingroup bias on relevant attributes, lower status groups engaged in ingroup bias on less relevant attributes. Studies that investigated endorsement of stereotypes among disadvantaged groups in various domains in recent years replicated these findings by showing that group members psychologically disidentify from those domains in which their group is negatively stereotyped (Crocker, Major, & Steele, 1998; Osborne, 1997; Schmader, Major, Eccleston, & McCoy, 2001).

These findings are in line with the stereotype content model (Fiske, Cuddy, Glick, & Xu, 2002), which argues that stereotypes are captured by two dimensions, namely warmth and competence. According to this model, individuals' understanding of culturally shared stereotypes is shaped in relation to society's dominant reference groups, and the dominant view associates high status with competence and low status with the lack of it. As competence is a status defining dimension, when members of disadvantaged groups come to accept their low competence, this is argued to legitimate status differences. On the other hand, in order to compensate for the perceived lack of competence among the disadvantaged, members of both high and low status groups associate the disadvantaged with the stereotypical dimension of warmth. Therefore, for the disadvantaged groups, negative stereotype of incompetence works together with the positive stereotype of warmth

in order to reduce low status group members' social identity concerns but at the same time to legitimate the status inequalities. Paternalistic mixed stereotypes are exactly these kinds of stereotypes aimed at defining the disadvantaged (i.e. disadvantaged Blacks, elderly people, nonstandard speakers, and traditional women) with incompetence and warmth and serving the function of keeping the groups content and the inequality regarded as legitimate. In sum, engaging in these forms of social creativity is argued to harm motivation to perform well in domains that lead to higher societal status (Crocker et al., 1998; Derks, van Laar & Ellemers, 2009; Tajfel & Turner, 1986).

Previous research investigating the relationship between perceived legitimacy and stereotype valuing among high and low status groups also showed that the lack of perceived legitimacy by low status groups was related to devaluing of the domains in which the high status group outperforms. For example, Mummendey, Mielke, Wenzel and Kanning (1996) demonstrated that East Germans who perceived that their status relation to West Germans was illegitimate, devalued the importance of economic wealth. Similarly, Sachdev and Bourhis (1987) showed that when members of low status groups perceived their status differences as less legitimate, they valued the status defining dimensions to a lesser degree than members of high status groups. On the other hand, while admitting the importance of perceived legitimacy in moderating the extent to which lower status group members value domains dominated by high status groups, Schmader and colleagues (2001) showed that when no information regarding the legitimacy of the situation is provided, members of low status groups do not devalue the domains in which high status groups outperform them. Therefore, the default tendency among groups is to accept what is given as legitimate. Although legitimacy was a crucial moderator in these studies, it did not determine low status group members' tendencies to engage in social change. In fact,

independent of whether they valued or devalued the status defining dimensions, these group members still endorsed the belief that high status group was more representative of these characteristics. The findings presented above led Jost and colleagues (Jost & Banaji, 1994; Jost, Banaji & Nosek, 2004) to propose system justification theory as a possible explanation of legitimization of inequality among low status groups.

Ideological Processes of Ingroup Projection

System Justification Theory

According to Jost and Banaji (1994), there are three different motives or justification tendencies that are prevalent in individuals. The first one is the ego justification motive, which is guided by the need to develop and maintain a favourable self-image and to “feel valid, justified, and legitimate as an individual actor” (Jost et al., 2004, p. 887). The second is the group justification motive, which is the desire to develop and maintain favourable images of one’s own group and defend and justify the actions of ingroup members. As summarized above, this motive is the primary focus of the social identity theory. Finally, in system justification theory, individuals are argued to possess a system justification motive, which can be defined as the social and psychological needs to justify the status quo by seeing it as legitimate, fair, natural, desirable and inevitable (Jost et al., 2004). Although all of these motives can work hand in hand for high status group members, whether low status group members would engage in social change or accept the status quo depends on the relative strength of ego and group justification motives over the

system justification motive. More generally, system justification theory argues that the “depressed entitlement effect” among women (Major, 1994) and tolerance of injustice in society are caused by this motive to see status inequalities as legitimate and fair (Jost, Burgess, & Mosso, 2001).

Jost and colleagues have developed a number of studies investigating the existence of the system justification motive among members of low status groups (see Jost et al., 2004, for a review). In order to show that stereotypes and social judgments serve system justifying functions for their adherents, Jost, Mosso, Rubini and Guermandi (2000, as cited in Jost et al., 2001) asked Northerners (i.e. high status) and Southerners (i.e. low status) in Cincinnati US, to describe their own group and the outgroup in terms of various traits. Confirming the findings on the stereotype content model, both low and high status group members stereotyped the high status group with traits related to the competence dimension (productive, active, efficient, dominant, responsible), while low status group was defined with traits that are related to the warmth dimension (friendly, traditional, happy, emotional). Participants in this study were also asked to rate the magnitude of socioeconomic status differences, perceived legitimacy and the likelihood that these differences would change. However, these questions were administered either before or after the stereotyping task. Interestingly, results showed that participants who completed the questions regarding sociostructural variables after the stereotyping task perceived magnitude, legitimacy and stability of status differences to be higher compared to participants who completed these questions before the stereotyping task. This finding demonstrated that the mere act of thinking about stereotypes increases individuals’ perceptions of legitimacy and stability and therefore functions to legitimize inequality.

According to system justification theory, the belief among low and high status group members for the “poor but happy”, “poor but honest”, “rich but miserable” and “rich but dishonest” complementary stereotypes themselves serve as crucial legitimizations of inequality (Jost et al., 2001). It is argued that such complementary stereotypes are endorsed more strongly when system justification motives are temporarily or chronically activated. In an attempt to provide evidence for these hypotheses, ethnic and regional stereotypes in Italy, England and Israel were investigated (Jost, Kivetz, Rubini, Guermandi, & Mosso, 2005). As well as providing evidence for the endorsement of complementary stereotypes in different contexts and showing that endorsement of these complementary stereotypes increase the perceived legitimacy of status differences, Jost and colleagues (2005) also demonstrated that system threat, which increases the desire to justify the system, enhanced endorsement of complementary stereotypes among both high and low status groups. On the other hand, Kay and Jost (2003) showed that exposure to noncomplementary stereotypes implicitly activated the justice concerns as individuals reacted to justice related words compared to neutral words faster in a lexical decision task. In sum, these findings once again demonstrated that complementary stereotypes legitimize social inequality.

Social Identity Theory and System Justification Theory

As mentioned above, the biggest difference between social identity and system justification theories is the latter’s emphasis on the system justification motive and outgroup favouritism that occurs as a result of this motive (Jost et al., 2004). Although social identity theory does not deny the existence of outgroup favouritism, it explains this phenomenon in terms of social reality constraints (Spears, Jetten, & Doosje, 2001). Social

reality constraints refer to the publicly available and shared information regarding status differences among groups that are difficult to be disputed with credibility. Spears and colleagues (2001) give the example of a social group which is unable to express ingroup bias in the domain of better employment opportunities and work performance when educational results suggest their performance is poorer. It is important to note however that the social reality constraints emphasized by social identity theorists do not imply differences that are related to the essence of different groups (Yzerbyt & Rogier, 2001). Instead, it is the type of constraints that make it more difficult for the group to publicly claim superiority or parity. Therefore, unlike system justification theory, social identity theory perceives that the resistance to ingroup inferiority would be high. Although internalization of inferiority among members of low status groups are not entirely ruled out, this is argued to occur only when stable and institutionalized feedback regarding group differences is given by the system over many years (Spears et al., 2001).

According to system justification theorists, while focusing on the conditions that make disadvantaged group members move from positive acceptance to collective protest (Wright et al., 1990) and from social reality to social resistance (Spears et al., 2001), social identity theory acknowledges the possibility of system justification (Jost et al., 2004). However, these arguments treat the system justification process as a *passive* one suggesting that individuals would perceive the legitimacy and stability when they have no other alternative. System justification theory, on the other hand, argues that individuals may *actively* reject alternatives to the status quo under certain conditions and that members of both high and low status groups are motivated to perceive the status differences as legitimate and stable (Jost et al., 2004). In order to elaborate on these differences, in their review article comparing the arguments of these two theories, Rubin and Hewstone (2004)

argued that researchers working on system justification need to demonstrate that individuals are biased in favour of their social systems, instead of merely being cognizant of and responsive to them. They further claimed that a convincing test of system justification would show that members of low status groups would rate a relevant high status group more positively than do individuals who are unaffiliated with either of the groups. Moreover, members of low status groups would also be expected to rate their own group less positively than do unaffiliated individuals. According to this logic, individuals who are unaffiliated with either of the groups are expected to reflect the social reality constraints that members of low status groups experience. Therefore, if members of low status groups rate the high status group higher or themselves lower than the unaffiliated group does, this cannot be explained merely as a passive reflection of social reality, but rather an active attempt to legitimize the status differences.

Chapter 6 aims to focus on members of high and low status groups' ingroup projection tendencies in relation to the sociostructural variables such as perceived status differences, legitimacy, stability and group size. As argued in Chapter 2, if ingroup projection is one way to legitimize social inequality and discrimination, then low status group members' ratings regarding the extent to which the ingroup or the high status outgroup represents the superordinate category would determine whether status inequalities are legitimized. However, sociostructural variables are also expected to moderate group members' ingroup projection tendencies. Moreover, based on the argument made by Rubin and Hewstone (2004), comparing the ratings of low status groups with that of control groups regarding the former's representativeness of the superordinate category, the extent to which members of low status groups actively legitimize inequality is investigated. Also, in a follow up study, ingroup projection tendencies of high and low

status group members are compared when they are exposed to a negatively valenced superordinate category. It is argued that those members of the low status subgroup who believed in the stability and legitimacy of status differences might be more likely to project their negative characteristics onto the negative superordinate category, as a way of taking the blame for the latter's negativity. This assumption is based on the findings of Major and colleagues (Major, Kaiser, O'Brien, & McCoy, 2007) which demonstrated that members of low status groups that endorsed a meritocratic worldview blamed themselves for the discrimination their ingroup faced. On the other hand, members of low status groups who are low in perceived stability and legitimacy were expected to project high status group's negative characteristics onto the superordinate category as a way to claim that they have nothing to do with the negativity of the inclusive category. As well as pointing out the differences based on perceptions of sociostructural variables and investigating the underlying motivational mechanisms of ingroup projection, these studies are also important in the sense that they examine the instrumental use of ingroup projection.

System Justification under System Threat

Chapter 7 aims to examine the effects of threat on ingroup projection more closely in relation to the system justification motive. System justification theory argues that group members' needs to defend and justify the status quo would be especially pronounced when the prevailing system is threatened or attacked (Jost et al., 2004). Research investigating the social and psychological effects of 9/11 terrorist attacks demonstrated that American citizens showed increased presidential support (Moore, 2001, as cited in Jost et al., 2004), trusted the government more (Chanley, 2002) and engaged in more stereotyping of Arab

Americans (Goodwin & Devos, 2002, as cited in Jost et al., 2004) after 9/11. Jost and colleagues (2004) argued that these findings could be attributed to a higher need to defend and justify the system against threat. Based on this argument, Chapter 7 aimed to investigate the relationship between ingroup projection and system justification by looking at the effects of terror threat coming from a nested outgroup (i.e. a subgroup that belongs to the superordinate category) on projection of counter-outgroup attributes. It is argued that group members who score high in their system justification needs would be more likely to project their ingroup's characteristics onto the superordinate category, when they believe that the nested outgroup is the cause of the threat. By projecting counter-outgroup attributes onto the superordinate category, ingroup members engage in outgroup derogation.

Empirical Chapters

The extent to which one's ingroup engages in ingroup projection can be determined by cognitive, motivational and/or ideological processes. The following empirical chapters of this thesis aim to focus predominantly on one of these processes. Chapter 4 looks at the influence of cognitive determinants by manipulating the complexity and coherence of the representation of the superordinate categories. However, by looking at the effects of superordinate group identification, Chapter 4 also attempts to answer whether cognitive and motivational factors can act jointly in predicting ingroup projection. In line with this, the relationships between social identity theory, optimal distinctiveness theory and ingroup projection will be further investigated. Chapter 5 elaborates on the influence of superordinate identification but also looks at the effects of superordinate category threat in

predicting ingroup projection. The findings will be discussed in relation to social identity and group affirmation theories.

Chapters 6 and 7, on the other hand, focus predominantly on ideological determinants of ingroup projection. Chapter 6 will look at the effects of subgroup status in predicting ingroup projection with a special focus on sociostructural variables. The argument that under certain circumstances low status group members actively legitimize inequality will be tested, and the implications of these findings will be discussed in relation to system justification theory. Finally, Chapter 7 will look directly at the moderating effects of system justification in determining subgroup members' derogation of nested outgroup members, when they perceive the superordinate category to be under threat, through the use of ingroup projection. In sum, the following empirical chapters will focus on the interplay of the above-summarized contextual variables and motives to determine the conditions under which ingroup projection occurs. In the next chapter, the effects of cognitive representations of the superordinate category on ingroup projection will be investigated, and the importance of superordinate category identification in moderating the effects of cognitive representations will be introduced.

Chapter 4 – Cognitive Determinants of Ingroup Projection: Effects of the Coherence and Complexity of Superordinate Categories

This chapter investigates how projection of ingroup characteristics onto a superordinate category is moderated by both the perceived complexity (number of defining prototypes) and the coherence (organization, structure) of the superordinate category. Based on an integration of research on the effects of complex superordinate category representations on ingroup projection, the effects of a lack of group structure on self-anchoring, and optimal distinctiveness theory, it was predicted that ingroup projection would be determined by an interaction between superordinate complexity and coherence. In Studies 1 and 2, the predicted interaction between superordinate complexity and coherence was found: Coherence only had an impact on projection when complexity was low. In Study 3, complexity, but not coherence, predicted superordinate category identification. These findings suggest that complexity might reduce ingroup projection at the expense of identification. On the other hand, coherence seems to reduce ingroup projection by strengthening the structure of the superordinate category, thus making it impossible for ingroup members to project ingroup attributes onto the superordinate category. The findings clarify and refine our understanding of the cognitive determinants of ingroup projection and superordinate identification is proposed as an important motivational factor.

The aim of this chapter is to investigate the cognitive determinants of ingroup projection and investigate their relationship with a motivational determinant, namely identification with the superordinate category. As summarized in Chapters 1 and 3, the ingroup projection literature suggests that levels of ingroup projection can be determined by the cognitive representation of the superordinate category. More specifically, Mummendey and Wenzel (1999) proposed that ingroup projection may be less likely when a superordinate category representation is complex – defining complexity as “a multimodal distribution where distinct positions on given dimensions are perceived as equally prototypical” (Waldzus, Mummendey, Wenzel, & Weber, 2003, p. 39). According to this argument, when the superordinate category is explicitly defined as diverse, there is less scope for a single, definable prototype that is dominated by ingroup attributes, thus giving ingroup members less chance to project their attributes onto the superordinate category (Waldzus et al., 2003). In other words, when the superordinate category representation is complex, this “induce[s] changes in participants’ mental representations” (p. 38), making them concede that an array of different subgroups is relatively equally representative of the superordinate group. This situation not only inhibits ingroup projection but also protests against intergroup discrimination.

To test this idea, Waldzus and colleagues (2003) conducted a study. Before asking German students to rate attributes of Germans, Poles and Europeans, complexity was manipulated by asking half of the participants to define and write about the *diversity* of Europe and the other half to define and write about the *unity* of Europe. The authors argued that writing about the diversity of Europe would prime a larger number of exemplars or subgroups than the unity condition, and would thus generate a more heterogeneous image of Europe. The results confirmed this. Participants who wrote about the diversity of Europe

considered German and Polish attributes to be equally applicable to Europe, whereas participants who wrote about the unity of Europe considered German attributes to be more applicable than Polish attributes (i.e. showed ingroup projection).

In another similar study (Waldzus, Mummendey, & Wenzel, 2005), German participants listed 6 stereotypical attributes distinguishing Germans from Italians (i.e. counter-Italian) and 6 distinguishing Germans from British (i.e. counter-British). They then rated the applicability of 6 counter-Italian and 6 counter-British attributes to Germans, Italians, British and the superordinate category Europe. Trait attributions for Europeans were found to be more counter-Italian or counter-British when participants were told to think about the unity rather than diversity of Europe. In other words, outgroup traits were excluded from the superordinate representation when the superordinate category was perceived to possess a simple prototypic structure – evidence for the process of ingroup projection. However, when the superordinate category was perceived to be complex, group members did not exclude the outgroup traits. More importantly, perceptions of complexity resulted in more positive attitudes towards the outgroups. Not only does this study provide clear evidence for the role of complex superordinate category representations, it also shows how ingroup projection can be strategically used in line with the motivation of subgroup members.

Although these studies broadly support the idea that more complex superordinate prototypes weaken ingroup projection and negative attitudes towards outgroups, there is scope for refinement of this *complexity hypothesis*. First of all, although Mummendey and colleagues define complexity as *diversity* (i.e., multiple subgroups being equally prototypical), it is not certain whether their participants perceived complexity as consisting of multiple prototypes or merely as a higher number of discrete positions (McGarty,

Haslam, Hutchinson, & Grace, 1995) in a superordinate category. In line with this, the first aim of this chapter is to disentangle the definition of complexity, and look at its effects on ingroup projection in two studies. The second and more important aim is to argue that it is not only complexity that would reduce ingroup projection, but that coherent structural organization of the superordinate categories would also inhibit ingroup members' projection of group's attributes onto the superordinate category.

Research into self-anchoring (i.e. the ingroup as being defined similar to the self, Cadinu & Rothbart, 1996) in the minimal group paradigm provide partial support for this argument. According to Otten and Epstude (2006), self-anchoring is a *heuristic* process that people engage in such that when they are making judgments about a group, they sample information about themselves. This is partially due to the fact that the self concept consists of one of the most elaborated memory structures (Kuiper & Rogers, 1979) and partially due to the higher availability of information regarding the self (see Tversky & Kahneman, 1973, for an elaborated account of the availability heuristic). Moreover, Otten (2002) showed that self-anchoring is higher when individuals are asked to describe a novel, ill-defined group. In other words, they use characteristics of themselves to define the ingroup more when the ingroup lacks clarity. Otten and Bar-Tal (2002) also showed that efficient cognitive structuring could be achieved through self-anchoring when individuals are both "motivated and able to arrive at concrete judgments" (Otten, 2002, p. 21).

Together, these arguments seem to suggest that when the ingroup representation lacks coherent structural organization (i.e. is ill-defined but not unsolvable), individuals would be more likely to engage in heuristic information processing and use the self as a means to define their group. However, when the ingroup representation has a coherent

structural organization, individuals would be more likely to process information systematically, and thus engage in less self-anchoring (Crisp & Hogg, 2009).

Another way of looking at this phenomenon is through the lens of uncertainty-identity theory (Hogg, 2000a; 2001; 2007). According to this theory, when individuals are trying to give meaning to a social category that is vague, diffuse and insubstantial, they are motivated to reduce judgemental uncertainty. This is achieved by projecting self attributes onto the group (Crisp & Hogg, 2009, Otten, 2002). Incidentally, research investigating self-concept clarity (Campbell et al., 1996; Vallacher, Nowak, Froehlich, & Rockloff, 2002) has also argued that the incoherence and lack of clarity in an individual's self concept is likely to be experienced as self-concept uncertainty. From these arguments, it seems clear that certainty about the self or the group reflects coherence of self (Vallacher et al., 2002) or group structure (Crisp & Hogg, 2009) respectively. In the case of the latter, incoherent organization of groups could be resolved by self-anchoring.

More recently, Machunsky and Meiser (2009a) proposed that self-anchoring and ingroup projection could be explained by similar mechanisms. They argued that just as individuals have a more clear concept about themselves that they can use to define an ingroup, they also have a clear, stable and available mental representation of the ingroup that they can use to define a more inclusive category. In this sense, ingroup projection is regarded to be a heuristic process similar to that of self-anchoring, that does not necessarily require motivational processes. In line with this, ingroup projection is argued to occur as a result of the weak definition of the superordinate category, and of the availability of a trait-like presentation of the ingroup (Machunsky, Meiser, & Mummendey, 2009). These arguments were supported with empirical evidence, which suggested that under certain circumstances purely cognitive processes can explain ingroup projection.

Based on the above findings, it can be argued that just as the incoherent representation of an ingroup causes individuals to define the ingroup by self attributes (Crisp & Hogg, 2009; Otten, 2002), an incoherent representation of the superordinate category (i.e. lack of organization or structure among subgroup attributes) would result in ingroup projection, such that ingroup members would be more likely to engage in heuristic information processing and so define the superordinate category based on their ingroup attributes. In line with this claim, ingroup members who perceive the superordinate category as coherent would have a clearer understanding of similarities and differences among subgroups. Therefore, ingroup projection would be unlikely, since there would be an existing superordinate group representation that ‘blocks’ effective projection of ingroup attributes onto the superordinate category (see Crisp & Hogg, 2009, for a detailed summary of social projection and uncertainty).

What implications might these arguments have for developing the complexity hypothesis of the ingroup projection model? While the mere presence of multiple prototypes will undoubtedly influence the perceived complexity of the superordinate category, how those subgroup attributes relate to one another - whether they form a coherent or incoherent whole - should also have an effect. The research summarized above suggests that when the subcategories of the superordinate category form an integrated and coherent representation, subgroup members are more likely to perceive that both ingroup and other subgroups have strengths and weaknesses that make them more or less representative of a certain attribute dimension, and thus are equally representative of the superordinate category. Therefore they would engage in lower levels of ingroup projection. However, when the attributes of the subcategory do not come together coherently, ingroup

members would look for clarity, and as a result rely on their ingroup's characteristics to define the superordinate category's attributes.

On the basis of the above discussion, complexity and coherence can be expected to have independent effects on projection. That is, two main effects should be observed. However, there is also good reason to expect an interaction between complexity and coherence. Specifically, complexity, but not coherence, might be expected to have an impact on the degree of identification with the superordinate group and, according to the principles outlined by the ingroup projection model, this might prove highly instrumental to the subgroup which is engaging in projection.

The reasoning for this claim is as follows: Ingroup projection is greatest when ingroup members identify highly with both their subgroup and the superordinate category (i.e. dual identification, Wenzel et al., 2003). However, when the superordinate category representation is complex, this implies higher number of discrete positions which makes superordinate category highly inclusive. Based on the previous literature which suggests that identification with the group weakens when it is perceived to be highly inclusive (Brewer, 1991; Brewer, Manzi, & Shaw, 1993), it can be argued that high levels of inclusiveness would cause subgroup members to identify with the superordinate category less. Due to lower levels of superordinate category identification, complex mental representations would result in lower levels of ingroup projection.

In sum, the above argument is relevant because of the centrality of ingroup identification in the ingroup projection model. Accordingly, if it is correct that complexity reduces identification with the superordinate category, reduced projection would be expected. This is exactly what previous research on ingroup projection has shown (Waldzus et al., 2003; 2005). However, if complexity serves to reduce identification, the

prerequisite for projection, then levels of coherence will make *no difference* to projection when complexity is high. High complexity will mean low identification, which means no chance of projection no matter what level of coherence. In contrast, when complexity is low, consistent with the argument presented earlier, only higher levels of coherence should reduce projection. Taken together, this reasoning leads to the prediction that coherence will only make a difference to projection when complexity is low. In other word, it was hypothesized that projection will be highest when both complexity and coherence are low, relative to all other combinations. These predictions were tested in three experiments.

Study 1

Method

Participants and design. In exchange for course credit, 67 undergraduate students (32 male and 35 female) from Bogazici University, Istanbul with a mean age of 20 (range: 17 to 27) were randomly allocated to a 2 (coherent vs. incoherent) x 2 (complex vs. simple) between-subjects design.

Procedure. At the start of the experiment, participants were given a list of 20 positive traits. Depending on the experimental condition, they were asked to put a tick next to the three or four traits they found most applicable to themselves, and a cross next to the three or four that were least applicable (in the “simple” condition they were asked to pick three applicable and three not applicable traits; in the “complex” condition they were asked to pick four applicable and four not applicable traits). The purpose of having participants

choose the applicable traits was to ensure that they identified with the subgroup that they would be assigned to later in the experiment. After this, participants read background information related to the rest of the experiment (the number of subgroups and traits were higher in the complex condition than in the simple condition, as shown in parentheses below):

You and 11 (14) other participants are taking part in a university competition about team-building in which people are divided into four (five) groups in terms of their personality traits, which comprises a bigger group called Group X. You and two other individuals are representing one group and there are three (four) other groups having three members each. The winning group will be awarded 30 GBP and the money will be allocated to the winning group's members equally. The winning group members will be contacted after the study has finished. Please answer the following questions by taking into account the information that is represented above and please try to answer them as quick as you can.

While participants were reading this background information, trait lists were collected and the information on traits (three/four traits that participants claimed that they had and three/four that they said they did not have) were inserted next to one of four displays (see Figure 1).

Figure 1: The representation of the incoherent and simple (Group A), coherent and simple (Group B), coherent and complex (Group C), incoherent and complex (Group D) superordinate group figures in Experiment 1.

GROUP A

Subgroup1	Subgroup2	Subgroup3	Subgroup4
x	✓	✓	✓
✓	✓	✓	x
✓	✓	x	x
x	x	x	✓
✓	x	x	x
x	x	✓	✓

GROUP B

Subgroup1	Subgroup2	Subgroup3	Subgroup4
✓	x	x	x
✓	✓	x	x
✓	✓	✓	x
x	✓	✓	✓
x	x	✓	✓
x	x	x	✓

GROUP C

Subgroup 1	Subgroup 2	Subgroup 3	Subgroup 4	Subgroup 5
✓	✗	✗	✗	✗
✓	✓	✗	✗	✗
✓	✓	✓	✗	✗
✓	✓	✓	✓	✗
✗	✓	✓	✓	✓
✗	✗	✓	✓	✓
✗	✗	✗	✓	✓
✗	✗	✗	✗	✓

GROUP D

Subgroup 1	Subgroup 2	Subgroup 3	Subgroup 4	Subgroup 5
✓	✗	✓	✓	✗
✗	✓	✗	✗	✓
✗	✗	✗	✗	✓
✓	✗	✓	✓	✗
✗	✓	✗	✓	✓
✗	✗	✓	✓	✓
✓	✗	✗	✓	✗
✓	✗	✗	✗	✗

To manipulate coherence, participants received one of two sets of information about the superordinate group, conveyed using the four displays (labelled Group A, B, C, and D) shown in Figure 1. For half of the participants (coherent condition), the information about the absent and present traits in the subgroups was represented with ticks and crosses in a perceptually coherent way such that the overall figure was symmetrical. In other words, the similarities among subgroups were clustered in an organized fashion. For the other half (incoherent condition) the representation of ticks and crosses did not have perceptual coherence. In both the coherent and incoherent conditions the number of ticks and crosses that each subgroup had were equal (i.e. three/four ticks and three/four crosses each depending on the complexity condition)³. Participants' three/four absent-trait and three/four present-trait judgments were added to one of the two figures (coherent or incoherent), indicating their membership in one of the subgroups. In both coherent and incoherent conditions, the distribution of ticks and crosses were arranged such that traits that ingroup members possessed were absent in the outgroup and vice versa. However, the representativeness of all groups was kept the same.

Instead of manipulating complexity by instructing participants to think about the diversity or unity of the superordinate groups as Mummendey and colleagues (1999; 2003) did, complexity was manipulated by increasing the number of subgroups present in the superordinate group, as well as by the addition of two more attributes. This manipulation is adapted from McGarty and colleagues' (1995) study in which they operationalized

³ It is important to note once again that the content and amount of information remained the same for coherent and incoherent conditions, the way these information were organized was different across conditions.

diversity as “the number of discrete positions (i.e. the number of distinct positions which can be readily discriminated at the current level of abstraction) in a group” (p. 243). However, as large groups are perceived to be more diverse (McGarty et al., 1995), in order to make the manipulation stronger, group size is also increased in the complex conditions by addition of another subgroup. Crossed with the coherence manipulation, half of the participants in the complex condition received displays comprising eight traits in total (four present and four absent), whereas participants in the simple condition received displays comprising six traits in total (three present and three absent). These two manipulations resulted in four different displays, labelled “groups”, presented to participants. Group A was incoherent and simple (i.e., an incoherent superordinate structure as a result of the graphical asymmetry of the present and absent trait distributions, having four subgroups and six traits). Group B was coherent and simple (i.e., a coherent superordinate structure as a result of the graphical symmetry of the distribution of present and absent traits, having four subgroups and six traits). For both of these conditions, participants traits were arranged such that the subgroup that they were a member of was Subgroup 4 and the outgroup that they would judge the representativeness of was Subgroup 1. Group C was coherent and complex (i.e. graphically symmetrical superordinate structure, having five subgroups and eight traits). Group D was incoherent and complex (i.e., graphically asymmetrical superordinate structure, having five subgroups and eight traits). For both of these conditions, participants traits were arranged such that the subgroup that they were a member of was Subgroup 5 and the outgroup that they would judge the representativeness of was Subgroup 1.

Participants then rated the applicability of ingroup characteristics to the superordinate group, which was always named as (i.e. Group X). In other words, they were

asked to what extent ingroup attributes are representative of the superordinate group in general. After a distractor task in which participants solved a number of maths questions, they were asked to evaluate how representative the outgroup was of the superordinate category. Finally, participants were thanked and debriefed.

Ingroup projection. The measure of ingroup projection was adapted from Waldzus and colleagues' study (Waldzus, Mummendey, Wenzel, & Boettcher, 2004). In this study, in order to assess relative prototypicality of the ingroup (i.e. ingroup projection), participants were asked to rate self-generated attributes of two different subgroups in terms of their applicability to the inclusive category (i.e. superordinate group). Each group's mean applicability score represented the typicality of the respective subgroup for the superordinate group in general.

By using experimentally created groups, this experiment eliminated the possible confounding effect of actual differences that might exist between real groups. Accordingly, participants were directly asked to rate the extent to which they thought the attributes that they selected at the beginning of the experiment (i.e. those representative of ingroup and outgroup) were representative of superordinate group (i.e. Group X) in general (1 *does not represent at all*, 7 *represents very much*). Ingroup projection was measured by subtracting these average representativeness scores for the traits of the ingroup from the average representativeness of traits of the outgroup.

Results and Discussion

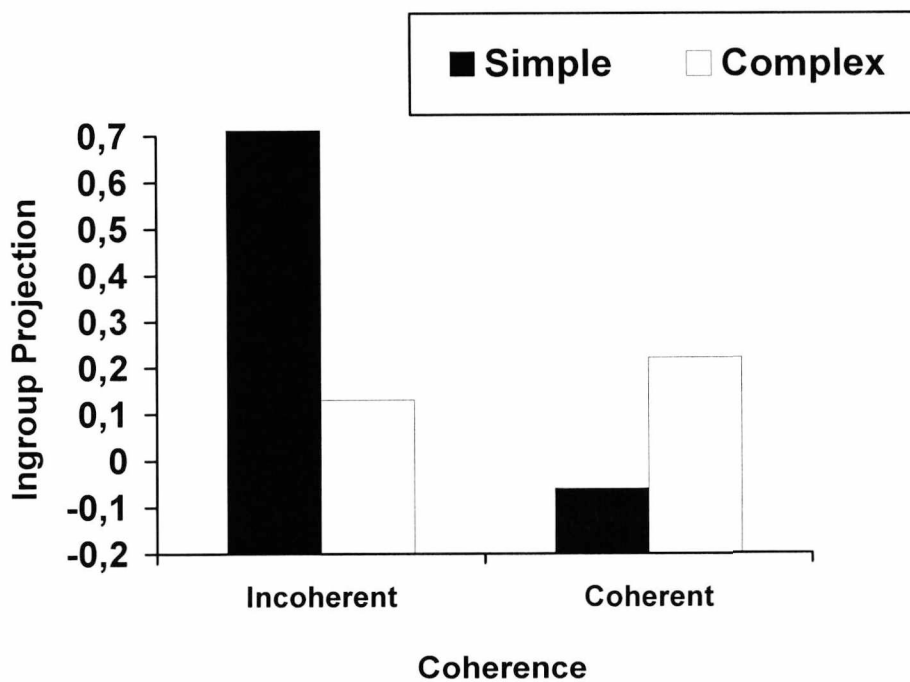
To analyze the effects of coherence and complexity on projection, planned contrasts were computed. Contrast analysis was chosen since it is recommended over more exploratory approaches in hypothesis-driven research (Judd & McClelland, 1989)⁴. It was hypothesized that projection will be highest when both complexity and coherence are low (i.e. incoherent and simple condition) relative to all other combinations. To provide a clear test of the predicted patterns, Helmert contrasts were used. The order for all contrasts was: Incoherent and simple vs. Coherent and simple vs. Incoherent and complex vs. Coherent and complex. Contrast 1 (0, 0, +1, -1) tested whether participants in the incoherent and complex condition projected more than in the coherent and complex condition. Contrast 2 (0, +2, -1, -1) tested whether projection was higher for the coherent and simple condition as opposed to incoherent and complex as well as coherent and complex conditions. Finally, Contrast 3 (+3, -1, -1, -1) tested whether the incoherent and simple condition differed from coherent and simple, incoherent and complex and coherent and complex conditions. In line with the hypothesis, only the last contrast was expected to be significant.

Contrast 1 was not significant, $t(63) = 0.198$, $p = .84$, showing that there was no difference between the complex conditions as a function of coherence. Contrast 2 was also not significant $t(63) = -0.61$, $p = .54$, showing that there was no difference between

⁴ Although a contrast analytic approach is adopted here, some readers might want to see the results using ANOVA. A 2 x 2 ANOVA revealed a main effect of coherence that approached significance $F(1, 66) = 3.58$ $p = .063$ and no main effect of complexity, $F(1, 66) = 1.66$ $p = .202$. The predicted interaction effect was significant, $F(1, 66) = 4.71$ $p = .034$.

projection levels in the coherent and simple condition compared to the coherent/complex and incoherent/complex conditions. Contrast 3 was, as predicted, significant, $t(63) = 3.04$, $p = .003$ (see Figure 2). The incoherent and simple condition produced greater ingroup projection than the coherent/complex, coherent/simple and incoherent/complex conditions. In other words, the coherence-or-complexity model was supported. Coherence only predicted less projection when complexity was low.

Figure 2: Projection scores as a function of coherence and complexity in Experiment 1.



Study 2

Study 1 found that people projected ingroup attributes onto a superordinate category more strongly when the superordinate category was defined in an incoherent and simple way, compared to all other combinations of coherence and complexity. This confirms the prediction that the coherent or complex representation of a superordinate category reduces ingroup projection.

However, two valid questions are whether the manipulations in Study 1 actually had the effects on *perceived* complexity and coherence that were predicted and, more importantly, whether coherence is perceived to be *independent* from complexity. Study 2 addresses these questions by measuring perceived complexity and coherence. Study 2 also ascertains whether the ingroup projection effect in the incoherent and simple condition could be replicated in a different context, where subgroups were asked to cooperate rather than compete with each other. As Turner (1981) points out, intergroup competition accentuates ingroup favouritism. In Study 1, instructions informed participants that they would be awarded with money provided that their group was the winning group. By having a competitive context, it is possible that ingroup favouritism as a result of competition between groups was the triggering factor of ingroup projection. In order to examine whether a competitive context was partially responsible for the greater projection observed for incoherent and simple superordinates, a cooperative context was created in Study 2. Finally, the manipulation of complexity is improved in line with the definition of Mummendey and colleagues, such that as well as increasing the number of subgroups and their attributes, the distribution of attributes among subgroups were arranged such that more than one subgroup was made prototypical.

Method

Participants. In exchange for course credit, 43 undergraduate students (19 male, 24 female) with a mean age of 23 (range: 18 to 40) from the University of Birmingham were randomly allocated to a 2 (coherent vs. incoherent) x 2 (complex vs. simple) between subjects design.

Procedure. Participants received four different figures followed by questions about the coherence and complexity of one of the figures. As in Study 1, the figures differed in coherence and complexity such that they were either incoherent and simple, coherent and simple, coherent and complex or incoherent and complex. The coherence manipulation was identical to Experiment 1. However, the complexity manipulation was improved: As well as increasing the number of subgroups and the number of attributes for these subgroups, more than one subgroup was made prototypical, since previous research on ingroup projection has considered a complex superordinate group to be one that has more than one prototypical subgroup (Waldzus et al., 2003).

In order to check whether coherence and complexity were independent constructs, participants were asked to compare the complexity and coherence of one of the four figures (incoherent and simple, coherent and simple, coherent and complex and incoherent and complex) to the other three. This figure varied systematically according to which condition participants had been allocated to. Participants were then asked to pick from a list of 20 positive traits three/four that represented them well and three/four that did not represent them at all (three if they were assigned to the simple condition, four if they were assigned to the complex condition). As part of the cover story, participants were then told that together with the other subgroups, they were competing against *another* university to win

an award, and that in order to win the award they had to *cooperate* with these other subgroups:

You and 11 (14) other participants are taking part in a competition between universities about team-building. People in your university are divided into four (five) groups in terms of their personality traits, which comprises a bigger group called Group X. You and two other individuals are representing one group and there are three (four) other groups having three members each. If your university (Group X) is the winning group overall, each group will be awarded 30 GBP (approx \$60) and the money will be allocated to the winning group's members equally. Please answer the following questions by taking into account the information that is represented above and please try to answer them as quick as you can.

Participants were then given the same figure that they were asked to compare at the beginning of the experiment and were asked to rate the applicability of their own group's attributes to the superordinate group (i.e. Group X) as well as to indicate the applicability of one of the other subgroups attributes to the superordinate group (i.e., an outgroup subgroup which possessed traits that were opposite to the ingroups' traits). The relative prototypicality was again calculated by subtracting the average representativeness scores for the traits of the ingroup from the average representativeness of traits of the outgroup.

Manipulation checks. Three questions, the first two taken from Waldzus and colleagues (2003), measured complexity (1 *not at all*, 7 *very much*): "Group X members

share their attributes to a larger extent than Group Y and Group Z members” (referring to the figures that were opposite the main figure in terms of complexity⁵), “In Group X, the similarities outweigh the differences to a greater degree than Group Y and Group Z” (1 *not at all*, 7 *very much*), and “Group X consists of one typical subgroup and other subgroups which are highly similar to the typical subgroup”. Coherence was measured by three questions (1 *not at all*, 7 *very much*): “The representation of Group X is systematic”, “The representation of Group X is orderly” and “The representation of Group X is organized”.

Results and Discussion

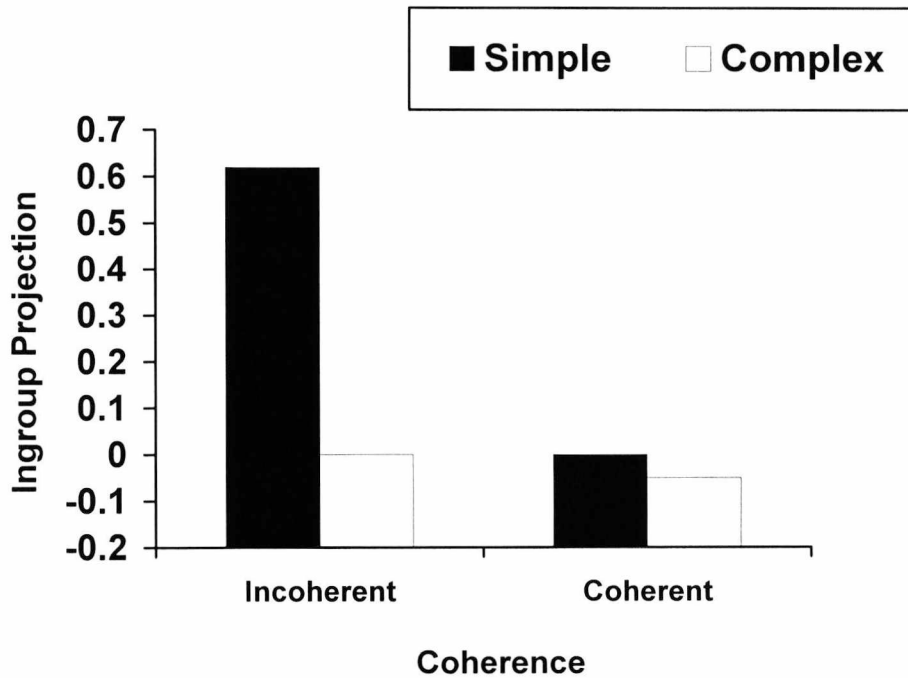
Manipulation check. The reliability of the complexity scale was .50, for the coherence scale it was .95. Although the complexity scale’s reliability is a little low, and could not be improved by item removal, both the complexity and coherence checks showed significant effects for the manipulations they were designed to check. A 2 (coherent vs. incoherent) x 2 (complex vs. simple) between subjects ANOVA on the complexity measure revealed a significant main effect for complexity (the complex group was considered more complex than the simple group, $M_s = 4.90$ and 3.94 , $F(1, 42) = 14.72$, $p < .0005$) but no effect of coherence and no interaction ($p_s > .180$). On the coherence measure there was a significant main effect of coherence (the coherent group was considered more coherent than the incoherent group, $M_s = 5.60$ and 3.55 , $F(1, 42) =$

⁵ Our manipulation checks were within subjects ratings that made our participants compare the representation of the figure that they would be assigned to later in the experiment to two other figures which were opposite to the main figure in terms of coherence and complexity. We chose this method because we believed that although coherence and complexity are two different constructs, it would be quite hard for the participants to judge the coherence and complexity of a superordinate category without the help of a comparison standard.

21.53, $p < .0005$) but no effect of complexity and no interaction ($ps > .180$). Thus the complexity manipulation increased complexity but not coherence and the coherence manipulation increased coherence but not complexity – the manipulations were successful.

Ingroup projection. As in Study 1, planned contrasts were used to test whether as predicted, the incoherent and simple condition would show significantly more projection than the other three conditions. The order for all contrasts was: Incoherent and simple vs. Coherent and simple vs. Incoherent and complex vs. Coherent and complex. Contrast 1 (0, 0, +1, -1) tested whether participants in the incoherent and complexity condition projected more than the ones in coherent and complexity condition. Contrast 2 (0, +2, -1, -1) tested whether projection was higher for the coherent and simple condition as opposed to incoherent and complex as well as coherent and complex conditions. Contrast 3 (+3, -1, -1, -1) tested whether the incoherent and simple condition differed from coherent and simple, incoherent and complex and coherent and complex conditions. Only the last contrast was expected to be significant.

Figure 3: Projection scores as a function of coherence and complexity in Study 2.



Contrast 1 was not significant, $t(39) = -0.117, p = .908$. This showed that there was no difference between the complex conditions as a function of coherence. Contrast 2 was also not significant $t(39) = -0.07, p = .947$. There was no difference between projection levels in the coherent and simple condition compared to the coherent/complex and incoherent/complex conditions. Contrast 3 was, as predicted, significant, $t(39) = 1.99, p = .05$, see Figure 3⁶. In sum, the findings from Study 2 replicated the ingroup projection pattern observed in Experiment 1 in a cooperative context (ruling out the possibility that a competitive context is a necessary pre-requisite for the effect) and established that

⁶ The 2 x 2 ANOVA revealed no main effect of coherence, $F(1, 42) = 1.17, p = .452$, nor complexity, $F(1, 42) = 0.54, p = .822$, nor an interaction effect, $F(1, 42) = 1.38, p = .360$.

perceived coherence is a statistically independent predictor of projection from perceived complexity.

Study 3

Although the findings were supportive of the prediction regarding the interaction between coherence and complexity, an important underlying assumption has not yet been tested: That identification would be lower when the superordinate category is complex. Since superordinate group identification is one of the preconditions of ingroup projection, lack of identification under the complexity condition would result in lowered levels of projection, as was observed in Studies 1 and 2. Research conducted by Waldzus and colleagues (2003; 2005) showed that there is no effect of category representations on ingroup projection. However, in their experiments the identification measure was given at the end, after the representativeness judgments had been completed. It is possible that representativeness judgments might have polluted the identification measure. In Study 3, the underlying theoretical assumption of the present model was tested, by looking at the effects of superordinate category representation on superordinate category identification directly.

Method

Participants. Twenty undergraduate students (6 male, 14 female) with a mean age of 19 (range: 18 to 40) from the University of Kent were randomly allocated to a 2 (coherent vs. incoherent) x 2 (complex vs. simple) within subjects design.

Procedure. Participants received the same four figures as in Experiment 2 (simple and incoherent, simple and coherent, complex and coherent, and complex and incoherent) in random order and were asked six questions regarding each of these figures concerning the levels of identification with each of them.

Dependent measure. The questions were adapted from Leonardelli and Brewer's (2001) Social Identification Scale. The six items were the following: "If I was a member of Subgroup 5 (i.e. ingroup), I would feel that Group X is an important reflection of who I am", "If I was a member of Subgroup 5, I would think that I don't act like the typical person of Group X", "If I was a member of Subgroup 5, I would think I have a number of qualities typical of members of Group X", "If I was a member of Subgroup 5, belonging to Group X would have been an important part of my self image", "If I was a member of Subgroup 5 and someone praised Group X, it would feel like a personal compliment" and "If I was a member of Subgroup 5 and someone criticized Group X, it would feel like a personal insult". Participants were asked to respond to these items using a 6-point response scale (1 = *Strongly Disagree*, 6 = *Strongly Agree*). After recoding the reverse-scored item, mean averages for each figure were calculated.

Results and Discussion

A 2 x 2 within subjects ANOVA revealed a main effect of complexity, $F(1,19) = 5.51, p = .03$ and no main effect of coherence, $F(1,19) = 0.03, p = .86$. No interaction was found between complexity and coherence, $F(1,19) = 0.05, p = .72$. In line with predictions, these results suggested that identification with the superordinate category was

significantly lower when the representation of the superordinate category was complex. This disidentification seems to be the underlying reason why coherence does not make any difference when superordinate category representation is complex, but significantly reduces ingroup projection when the representation is simple. This finding may also explain why ingroup projection was found to be lower in Mummendey and colleagues' (2003, 2005) experiments when participants were asked to think about the diversity of the superordinate category (i.e. complexity condition). In Study 3, it was also shown that identification is unaffected by the coherence of the superordinate category.

General Discussion

This chapter tested an elaborated account of the conditions under which superordinate category representation moderates ingroup projection. Previous research has noted that the more prototypical of the superordinate category an ingroup feels relative to other subgroups, the greater their feeling of entitlement to the superordinate category's resources (Wenzel, 2001). This belief in greater entitlement helps legitimize inequality among subgroups and results in negative attitudes towards other subgroups (Waldzus & Mummendey, 2004; Waldzus et al., 2005; 2003; Wenzel et al., 2003).

In an elaboration of the *complexity hypothesis*, it was argued above that projection is affected not only by the complexity of prototypic representation, but also by the organization of the superordinate prototype. Specifically, coherently organized prototypes inhibit projection – an effect that is independent of the effect of complexity. Across two studies, the complexity of superordinate category representation was manipulated by increasing the number of subgroups and their attributes, as well as by making more than

one subgroup prototypical. On the other hand, coherence of superordinate category representation was manipulated by organizing the similarities and differences among subgroups in a systematic way. These hypotheses were supported. Projection was consistently strongest when superordinate categories were represented in a simple and incoherent way. Importantly, complex categories that were incoherently organized weakened projection as much as coherently organized but simple categories, supporting the idea that coherence moderates projection independently from complexity. Thus, *either* a coherent *or* a complex superordinate group prototype is sufficient to reduce ingroup projection.

However, the results of the third study suggested that complexity reduces ingroup projection at the expense of lower levels of identification with the superordinate category. The finding that complexity reduces ingroup identification while coherence does not, is important because it explains why coherence only makes a difference when superordinate category representation is simple (i.e. when individuals identify with the superordinate category). This finding can be understood in light of the *optimal distinctiveness theory* (Brewer, 1991). This theory argues that the relationship between an individual's self concept and their membership in social groups is governed by two opposing needs, namely the need for assimilation and inclusion, and the need for differentiation from others (Brewer, 1991). When group membership becomes more inclusive, individuals' need for inclusion is satisfied, but at the same time the need for differentiation is activated. Conversely, when the inclusiveness decreases, the need for inclusion is activated while the need for differentiation is reduced. It can be argued that the greater inclusiveness of the complex superordinate categories in Study 3 might have increased the motivation for differentiation among subgroup members, leading them to disidentify with the

superordinate category. This disidentification seems to underpin lower levels of ingroup projection.

In sum, it has been shown that when complexity is low, an incoherent structural organization of superordinate categories results in ingroup projection. This finding is in line with the relationship between ill-defined groups and self-anchoring which demonstrates that individuals define an incoherent, unstructured group in terms of their self attributes (Crisp & Hogg, 2009; Otten, 2002; Otten & Bar-Tal, 2002). Both Otten (2002) and Crisp and Hogg (2009) argue that this projection results from individuals' feelings of uncertainty about their group. According to uncertainty-identity theory (Hogg, 2000a; 2007), people "pay as much attention to ingroup prototype clarity as to the clarity of social structural differentiation among groups" (Hogg, 2000b, p. 412). Moreover, recent research on ingroup projection, which underlines the importance of heuristic processing, also suggests that lack of clarity within the superordinate category increases ingroup projection (Machunsky et al., 2009). In line with these claims, the present results suggest that an incoherent and simple superordinate prototype produces exactly those conditions under which ingroup members are compelled to project ingroup characteristics to fill the representational void at the superordinate group level. It is known that people experiencing chronic uncertainty may join relatively extreme groups precisely because such groups have very clear prototypes (Hogg, 2007; Hogg, Sherman, Dierselhuis, Maitner, & Moffitt, 2007). But when existence within a category system cannot be denied, and the system (or superordinate) provides no clarity, people may resort to projecting their own (or their ingroup's) characteristics in an effort to create the clarity that is lacking. For these reasons, in future research level of group uncertainty should be measured in order to clearly define

its mediating role in the relationship between coherence of superordinate category representations and ingroup projection.

The present findings are in accordance with Mummendey and colleagues' claim (Mummendey & Wenzel, 1999; Waldzus et al., 2003) that positive effects of dual identification found in other studies (see Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Dovidio, Gaertner, & Validzic, 1998 for detailed accounts of the *common ingroup identity model*) might have been mediated by changes in the representation of the superordinate category rather than resulting from identification with both subgroup and superordinate group. However, the present findings disagree with the idea that making the mental representation of the superordinate category complex is the correct path towards achieving the positive effects of dual identification. In this chapter, it has been argued that making the mental representation of the superordinate category coherent would not only retain identification with the superordinate category but also would encourage subgroup members to engage in systematic information processing. This way, they can see the similarities and differences among subgroups in a more organized fashion, and come to realize that each subgroup contributes to the prototypicality of the superordinate category in its own distinct way. This argument is also in line with Hewstone and Brown's (1986) *mutual intergroup differentiation model* (see also Brown, Vivian, & Hewstone, 1999) which argues for the benefits of perception, acceptance and positive evaluation of intergroup differences. More specifically, the authors argue that for intergroup contact to have positive outcomes the ingroup and outgroup should continue to act as salient categories, but they should also attempt to "develop an understanding of each other's strengths and weaknesses" (Waldzus et al., 2003, p. 44). This aim could perhaps be

achieved through having a coherent superordinate category representation that emphasizes subgroups' strengths and weaknesses in defining the superordinate category.

Conclusions

This chapter emphasizes that as well as having diverse subgroups and more than one prototype in a superordinate category, a coherently structured superordinate category can also lower levels of ingroup projection. More importantly, this low level of ingroup projection occurs despite subgroup members' high levels of superordinate group identification. Therefore, when providing information about the diversity of a country/ethnic group or a smaller scale group, policymakers should focus on presenting the information about the representativeness of each subgroup in a structurally organized fashion. In other words, in efforts to promote tolerance and inclusion, for example the recognition that Britishness encompasses more than just being White and English, it would be more effective to show similarities and differences between subgroups that highlight their strengths and weaknesses in representing the superordinate category in a systematic fashion, rather than emphasize the diversity of these groups. In sum, complexity and coherence seem to be alternative pathways to more harmonious intergroup relations via the inhibition of ingroup projection. However, coherence is more advantageous than complexity, in that it does not seem to carry the risk that group members might find it hard to identify with the superordinate identity. Although the reduction of ingroup projection has positive consequences, if this comes at the cost of a common identity, the benefits of a common identity would be sacrificed.

By looking at the effects of the complexity and coherence of the superordinate category representation as well as superordinate category identification, this chapter attempted to investigate the interplay between cognitive and motivational mechanisms underlying ingroup projection. Although the differences observed in ingroup projection as a result of changes regarding the representation of superordinate categories suggested that the phenomenon might be explained by purely cognitive processes, the fact that superordinate category identification moderated the effect of complexity in Study 3 showed that both of these processes might be simultaneously operant. This conception of ingroup projection as being guided by motivational processes that go along with a fast and automatic heuristic processing is also held by several researchers working on the model (Bianchi, Mummendey, Steffens, & Yzerbyt, 2009; Machunsky & Meiser, 2009b; Machunsky et al., 2009). For example, Bianchi, Mummendey and colleagues (2009) agree that ingroup members rely on their knowledge of their own subgroups as a result of its clarity, and that this spontaneous automatic process is governed by heuristic thinking. However, they also add that motivational processes might go along with this “fast and automatic reconfiguration of the cognitive system” (p. 30). Therefore, the present findings together with the above arguments suggest that an either/or approach to the processes responsible for ingroup projection would be misleading.

In line with the arguments above, Machunsky and Meiser (2009b) argued that there are conditions under which predominantly motivational processes might be expected. They proposed high ingroup relevance, increased salience of the intergroup situation and threat to the ingroup as being critical in eliciting motivational processes. The focus of the following chapters will therefore be to determine the motivational factors influencing ingroup projection. In the next chapter, two studies will be presented that examine ingroup

projection tendencies in response to threat to the superordinate category, in relation to superordinate group identification and identity affirmation.

Chapter 5 – Motivational Determinants of Ingroup Projection: The Roles of Identification and Affirmation in the Instrumental Use of Projection

This chapter investigates the role of superordinate group identification and identity affirmation in determining ingroup projection tendencies in response to threat to the superordinate group. The findings on self-stereotyping, and how this varies as a result of threat to the ingroup identity, suggest that high ingroup identifiers are more likely to perceive themselves as representative of the ingroup, when it is under threat, compared to low ingroup identifiers. Moreover, the status of the group is likely to determine whether ingroup members are motivated to employ identity protecting/enhancing strategies. Applying these findings to subgroup-superordinate group relationships, it can be argued that subgroup members who were highly identified with the superordinate category would be more likely to engage in ingroup projection when the superordinate category was under threat, compared to individuals with low superordinate identification. Moreover, high status group members were expected to engage in higher levels of ingroup projection compared to members of the equal status subgroup. After eliminating the possible shortcomings of Study 4, Study 5 found that equal status subgroup members engaged in significantly lower levels of projection to the superordinate category when it was under threat compared to high status subgroup members. Surprisingly, identification did not play a significant role in this interaction. The findings are discussed within the context of group affirmation.

The main argument of this chapter is that ingroup projection can be used instrumentally among subgroup members as an identity management strategy. In the previous chapter, it was demonstrated that cognitive determinants such as the complexity and coherence of superordinate group representation could have an influence in subgroup members' ingroup projection levels. However, the influence of superordinate group identification on perceptions of superordinate category complexity also suggested that motivational mechanisms might go hand in hand with cognitive ones. As Bianchi, Mummendey, Steffens and Yzerbyt (2009) also argued, manipulation of variables such as threat to the self or the ingroup, high ingroup relevance and increased salience of the intergroup situation would be more likely to elicit motivational processes. In line with this argument, the aim of this chapter would be to investigate the motivational factors that lead to ingroup projection more elaborately. Therefore, this chapter investigates the conditions under which social identity threat promotes ingroup projection as a superordinate group protective strategy, or prevents it in order to protect the subordinate category.

Effect of Threat and Identification on Ingroup Bias

According to the principles of social identity and self-categorization, in order for ingroup bias to occur, individuals must accept and internalize the social identity and define themselves in terms of the group as prototypical group members. In other words, self-definition and self-stereotyping are argued to underlie subsequent intergroup judgments and behaviours (see also Simon & Hamilton, 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). In line with this, Spears, Doosje and Ellemers (1997) have proposed that

one should look at different levels of self-stereotyping in relation to identification in order to predict ingroup bias. It is argued that the dependent measures used in the social identity literature such as reward allocations or forms of evaluative judgments relating to the groups might be “one step too far removed” to measure the underlying effects of ingroup bias (Spears et al., 1997, p. 540). Therefore, in an attempt to provide a more clear link between identification and ingroup bias, Spears and colleagues (1997) focused on self-stereotyping and examined how it varies as a response to threats to group identity as a function of group identification.

In their studies, Spears and colleagues (1997) manipulated threat in different ways among a psychology student population. Threat was manipulated by informing participants that their group was inferior or superior on the focal dimension in relation to the comparison group, or by providing information that the public believed in the higher/lower status of the participants' group, or by altering the perceived distinctiveness of the ingroup by manipulating the perceived similarity of the relevant comparison outgroup. Alongside measuring participants' identification with the ingroup before the manipulation, self-stereotyping was measured at the end by asking participants to rate the extent to which they see themselves as different from the average psychology student and similar to them. After reversing the answer to the first question (i.e. difference score), these two scores are averaged to calculate participants' self-stereotyping average. Results from these four studies suggested that individuals who identified strongly with their ingroup engaged in higher levels of self-stereotyping compared to individuals whose ingroup identification was low (Spears et al., 1997). The authors concluded from this finding that low identifiers are more likely to distance themselves from the group when it is perceived to be under

threat, whereas high identifiers are more likely to unite in order to defend the common interests of the group in the face of threat (Spears et al., 1997).

Dion (1975) and Dion and Earn (1975) also looked at the effects of threat on self-stereotyping. They found that when participants perceived prejudice towards their Jewish identity, they evaluated themselves more favourably on positive traits underlying the Jewish stereotype compared to when there did not perceive such a threat. Spears and colleagues (1997) suggested that high levels of self-stereotyping in these studies could have arisen from the nature of the groups used, such that the identification with being Jewish was expected to be generally high amongst this sample. Moreover, the stereotypic dimensions of this research being generally positive and independent of the source of threat makes it hard to interpret whether these individuals would have engaged in similar levels of self stereotyping had the content of self stereotypes formed the basis of the threatened identity (Spears et al., 1997). By measuring identification as well as self stereotyping in general terms (i.e. not in relation to specific traits or attributes), Spears and colleagues (1997) clearly showed that self stereotyping under threat occurs significantly more among individuals who score high in their ingroup identification.

The proposition that is advanced here is in agreement with Spears and colleagues' (1997) research showing that variations in ingroup bias through the use of self-stereotyping could be directly assessed in relation to identification. However, what is defined as self stereotyping in their studies also bears a strong resemblance to *social projection*. Although they define self stereotyping as defining oneself in terms of the group (e.g., as a prototypical group member), this definition does not clarify whether the prototypicality judgment that is being made stems from projecting one's own characteristics towards the group, or whether it results from depersonalizing oneself in line with the characteristics of

the group. Therefore, what is argued to be self-stereotyping could also be interpreted as social projection.

Consistent with this interpretation, Crisp and colleagues (Crisp, Hogg, & Cortes, 2009) found similar effects of ingroup threat on social projection. Following a threat to their British identity through reading about criticism of British students by American students which stated that ‘Americans think Britons are weak-minded’, individuals who scored high in self-confidence projected their positive characteristics (e.g. strong-minded) when describing being British significantly more than individuals who scored low in self-confidence. In other words, highly self-confident individuals projected their positive characteristics onto the ingroup in order to protect the group image. This phenomenon is named as *projecting to protect* the group image (Crisp et al., 2009).

Although Crisp and colleagues’ (2009) research was the first to provide evidence of the effects of threat on social projection through differences in self-confidence, the link between self-esteem (which is a related concept to that of self-confidence) and ingroup protection is already established in the literature with the use of different dependent variables. For example, in their influential study, Crocker and Luhtanen (1990) showed that individuals who are high in trait collective self-esteem are more likely to react to group or collective threats by derogating outgroups and enhancing the ingroup. It was found that individuals who scored high in their collective self-esteem altered their ratings regarding the performance of an outgroup in relation to their own group’s performance whereas individuals who were low in collective self-esteem did not alter their responses. This finding underlined the importance of collective self-esteem in determining the level of collective defensiveness in the face of threats as well as establishing that collective levels of self-esteem is critical when investigating intergroup phenomena.

While the studies that have been mentioned above provide direct evidence for the relationship among identification, threat, collective self-esteem, self-stereotyping and social projection, more extensive evidence exists for a relationship between threat and identification (Doosje, Ellemers, & Spears, 1995; Doosje, Spears, & Koomen, 1995; Ellemers, Wilke, & van Knippenberg, 1993). These studies concluded that the effects of identity threat and identification might be bidirectional, such that while a common threat enhances identification, high identifiers might also be more susceptible to a group level threat.

One way in which low identifiers might distance themselves from the threatening ingroup is by reducing their perceptions of within-group similarity (Doosje, Ellemers et al., 1995). In their studies, psychology students received false feedback regarding their group's intelligence level compared to an outgroup (i.e. business students). When the false feedback was negative, individuals who identified weakly with being a psychology student rated within-group similarity as significantly less than high identifiers. Moreover, in a follow up study that manipulated both the status of the group and identification levels using false feedback, the findings of their first study was replicated such that individuals who were in the low identification condition perceived greater ingroup variation in comparison to the individuals in the high identification condition. The authors concluded that individuals, especially those whose identification is low with their ingroup, alter their perceived intragroup variability in a strategic manner in order to feel positive about themselves and their ingroup when there are ingroup-threatening comparisons (Doosje, Ellemers et al., 1995).

The findings of Doosje, Ellemers et al. (1995) and Spears et al. (1997) are complementary in the sense that perceptions of intragroup variability are likely to result in

lowered levels of self stereotyping. In other words, individuals who do not believe that their ingroup is homogenous would be less likely to claim that the ingroup traits are representative of themselves. One can also argue that the same mechanism would be operant in the opposite direction, such that perceived intragroup heterogeneity would make ingroup members less likely to claim that their own traits are representative of the ingroup. Thus, they would be expected to engage in lower levels of self projection.

The link between ingroup threat and intragroup variability found partial support in Rubin and colleagues' study (Rubin, Hewstone, & Voci, 2001). In an attempt to provide evidence towards strategic perceptions of intragroup variability, Rubin and colleagues (2001) asked male and female participants to rate traits in terms of how characteristic they are of males and females in general, followed by their ratings of valence for each trait. It was expected that both male and female participants would perceive more intragroup heterogeneity for traits that they regard as negative (i.e. individualization) in order to limit the impact of unfavourable intergroup comparisons. Results however showed that only male participants showed individualization while female participants engaged in depersonalization for negative traits (Rubin et al., 2001). The latter finding was unexpected as it showed that female participants reinforced the impact of the unfavourable intergroup comparisons by claiming that they imagined most females possessed these negative traits. The authors interpreted this finding by arguing that it might be easier for male participants to "switch off their gender identity" (Rubin et al., 2001, p. 422) as they tended to have lower social identity salience than women (Lorenzo-Cialdi, 1992, 1998; as cited in Rubin et al., 2001).

Subgroup Status as a Determinant of Ingroup Protection

Although different levels of gender salience might be a plausible explanation for the differential effects of negative valenced traits on perceived intragroup heterogeneity, status differences between these two gender groups might also be an alternative explanation for these differences. More specifically, in line with Martinot and colleagues' (Martinot, Redersdorff, Guimond, & Dif, 2002) findings on self protective strategies used only by dominant group members, it can be argued that low status group members might be less able to use self and group protection strategies compared to high status groups due to their lack of power. Martinot and colleagues' (2002) studies provide evidence for this argument as they found that members of a group with situational power (i.e. high status group members) can disregard unfavourable comparison information about outgroup members more easily compared to less powerful (i.e. low status) group members. Similarly, Ellemers, Doosje, van Knippenberg and Wilke (1992) demonstrated that when high status minority groups were faced with threat or resource scarcity, they engaged in more stereotyping in order to protect their privileged status while low status minority groups did not. Knowing the relationship between threat and self-stereotyping (Spears et al., 1997) and applying it to ingroup projection, it can be predicted that high status subgroup members would be more likely to project their characteristics onto the superordinate group, compared to individuals that belong to a low status subgroup, in order to protect the superordinate category and therefore their high status.

Predictions for Studies 4 and 5

In line with all of the above findings that stress the importance of identification, collective self-esteem, perceived threat and status in determining individuals' protective strategies towards their ingroup, this chapter aims to focus on the influence of these variables in a superordinate group context. It is proposed that ingroup projection would be strategically used by subgroup members depending on their status and superordinate group identification.

In other words, it is expected that subgroup members' ingroup projection would be determined jointly by the status of their subgroup in relation to other subgroups in the superordinate category, as well as their identification with the superordinate category. However, in relation to the findings of Crisp et al. (2009) that showed the effects of self-confidence on social projection under identity threat, as well as the robust finding of the effect of collective self-esteem in predicting enhanced trait based ingroup evaluations after negative feedback (e.g. Crocker & Luhtanen, 1990), collective self-esteem was also expected to be an important determinant of ingroup projection, especially among members of the high status subgroup.

In the two studies presented in this chapter, subgroup status and superordinate level threat were manipulated simultaneously. Ingroup projection was the main dependent variable, and individuals' subgroup and superordinate group level identifications and collective self-esteem were also measured. It was hypothesized that subgroup members who identify highly with their ingroup and the superordinate category would be more likely to project their subgroup characteristics when they perceive the superordinate category to be under threat. Moreover, individuals who were in the high status subgroup

condition were expected to engage in higher levels of ingroup projection compared to individuals who were in the equal status group condition, since they were expected to have a higher motive to protect and preserve the superordinate category which they are part of as a high status subgroup member.

Study 4

Method

Participants and design. Fifty-six undergraduate students (33 female, 23 male) with a mean age of 21 (range 18-26) from diverse departments at the University of Kent participated in this study in exchange for credit. Participants were randomly allocated to a 2 (equal status vs. high status subgroup) x 2 (no threat vs. threat to superordinate category) between-subjects design.

Procedure. At the beginning of the study, participants were told that the researchers were interested in what people thought about their department at the university and about the University of Kent in general. Following this, they were asked to write down five characteristics of students in their department that they thought best summed them up. These characteristics were to be used in later stages of the study to measure participants' ingroup projection.

In the next phase of the study, subgroup status was manipulated such that participants read the following story:

HEFCE, The Higher Education Funding Council for England, recently conducted a series of surveys in which it sought to assess the academic success of different departments in London and the South East of England.

As part of our study we have gathered the data from the HEFCE for all the departments at University of Kent and below you can find information regarding your department.

This year, in HEFCE's survey of academic performance of undergraduates studying (psychology), undergraduates at the (Department of Psychology) at the University of Kent were judged to have performed equally well (better than) as students at all the other (psychology) departments in the collected London Universities.

In the equal status subgroup condition, participants were told that their department performed equally well compared to the students in London Universities who are studying the same major. On the other hand, participants in the high status subgroup condition were told that their department performed better than the students at London Universities studying the same major.

Following this manipulation, in order to disguise the primary purpose of the study, participants were informed that the researchers were interested to know how undergraduates would react to the information once it is publicized. In line with this, they were asked to write down three words that characterized their reaction to the information they have just read.

In the next part of the study threat to the superordinate category was manipulated by providing feedback regarding the status of the superordinate category (i.e. University of Kent) in relation to universities in London. The information given was as follows:

In the HEFCE survey, as well as comparing individual departments at different universities, comparison was also made between the performance of all undergraduates in all departments at each University. That is, overall undergraduate performance at the University of Kent was compared to undergraduate performance at all the London Universities.

Results of this analysis revealed that this year undergraduates at the University of Kent were judged to have performed equally well as (worse than) students overall in at the London Universities in terms of academic performance.

In the superordinate threat condition, participants were told that in terms of academic performance, University of Kent students performed worse compared to students from London Universities, whereas in the no threat condition, participants were told that University of Kent students performed equally well compared to students from London Universities. They were again asked to write down three words that characterized their reaction to this information.

This part was followed by the ingroup projection measure. While the participants read the information regarding the status of their subgroup and superordinate category, the experimenter collected the sheets that the participants wrote five characteristics of their department. These characteristics were inserted onto the next page of the study where participants were to be asked about the representativeness of each of them to University of Kent students in general. In other words, in order to measure participants' ingroup projection, they were asked to rate the characteristics of their department in terms of their applicability to University of Kent students in general. A 9-point Likert-scale was used for all items with 1 representing *does not apply at all* and 9 representing *applies very much*.

Participants then filled out the 16 item Collective Self-Esteem Scale adapted from Luhtanen and Crocker (1992). The original questionnaire consists of four subscales that tap into group membership esteem (e.g. "I am a worthy member of the social groups I belong to"), private collective self-esteem (e.g. "I feel good about the social groups I belong to"), public collective self-esteem (e.g. "In general, others respect the social groups that I am a member of") and importance to identity (e.g. "The social groups I belong to are an important reflection of who I am"). This scale was modified such that the items would measure the collective self-esteem towards a particular group namely University of Kent. Therefore, some of the items of this scale were: "I am a worthy student of the University of Kent", "I feel good about the University of Kent", "In general, others respect the fact that I am a student at the University of Kent" and "The University of Kent is an important reflection of who I am". A 7-point Likert-scale was used for all items with 1 representing *strongly disagree* and 7 representing *strongly agree*.

Participants' subgroup and superordinate group level identifications were measured after they completed the Collective Self-Esteem Scale. The items for subgroup identification were: "I identify with students in my department", "I have a negative attitude towards students in my department", "I feel close to students in my department", and "I feel that I share a lot of similarities with students in my department". The items for superordinate identification were the same except that departmental identification was replaced with identification with the University of Kent. A 9-point Likert-scale was used for all items with 1 representing *do not agree at all* and 9 representing *very much agree*. After reversing the codings for the second items, averages for these scales were calculated.

Following this phase, in order to check whether the manipulations worked, participants were asked to recall the relative ranking of their department and the university

by selecting the multiple choice answer that they thought represented the story they have read accurately at the beginning of the study. These multiple choice answers for the subgroup status manipulation check were: “(The Department of Psychology) at the University of Kent has recently performed academically better than the (Psychology) departments at the London Universities”, “(The Department of Psychology) at the London Universities has recently performed academically better than (Department of Psychology) at the University of Kent” and “(The Department of Psychology) at the University of Kent has recently performed academically equally to the (Psychology) departments at the London Universities”. Similar multiple choice questions were administered for the manipulation check for superordinate category status.

In the last phase of this study, participants were asked to rate the stability, permeability and legitimacy of the subgroup and superordinate category status differences by answering 6 questions in total: “Do you think it is possible that departments/universities could change their position in the rankings in the future?” (i.e. stability of subgroup/superordinate category differences), “How easy do you think it is for students to change their degree topic/university once they have started their degree?” (i.e. permeability of subgroup/superordinate category) and “Do you consider HEFCE’s ranking of departments/universities to be fair? (i.e. legitimacy of subgroup/superordinate category differences). After participants filled in their demographic information, they were thanked and debriefed.

Reliability checks for collective self esteem scale, subgroup identification scale and superordinate identification scale. The 16-item collective self esteem scale, which was adapted from Luhtanen and Crocker’s (1992) original Collective Self-Esteem Scale,

showed quite high reliability ($\alpha = .82$). Similarly, the reliability scores for the subgroup identification ($\alpha = .80$) and superordinate identification ($\alpha = .72$) scales were high.

Ingroup projection. The dependent variable was measured by averaging the representativeness ratings for subgroup characteristics towards the superordinate category. Thus, the average superordinate category representativeness represented the ingroup projection variable.

Results

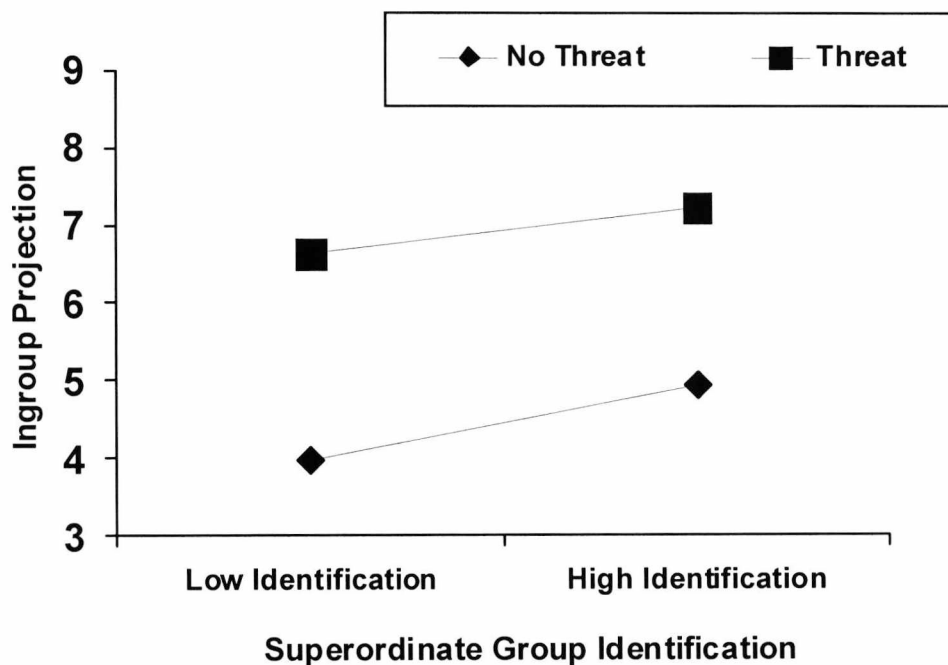
Manipulation check. The data from eight participants indicated that they did not follow either the status subgroup or superordinate group threat manipulations correctly. The participants in relation to the conditions were: equal subgroup status and no threat condition ($N = 13$), equal status and threat condition ($N = 14$), high status and no threat condition ($N = 15$) and high status and threat condition ($N = 14$).

Ingroup projection. In order to see whether ingroup projection levels differed as a function of subgroup and superordinate group status, a 2 x 2 between subjects ANOVA was computed. There was no main effect of subgroup status, $F(1,52) = .04, p = .84$, and no main effect of superordinate category threat, $F(1,52) = .21, p = .65$. Moreover, contrary to expectations, no interaction was found between subgroup status and superordinate threat, $F(1,52) = .27, p = .61$.

Identification as a moderator. In order to see whether identification with the superordinate category might be a possible moderator on ingroup projection as suggested by the previous research, a hierarchical regression analysis was performed, predicting projection levels from the two threat conditions (i.e. no threat and superordinate category

threat) and superordinate group identification, and their interaction entered in Step 2. This analysis was performed for the two different subgroup status conditions separately. For the equal status subgroup condition, the analysis revealed that there was no main effect of threat, $t(23) = -0.19, p = .85$, and no main effect of superordinate group identification, $t(23) = -0.55, p = .59$. There was also no significant interaction between threat and superordinate group identification, $t(23) = .19, p = .85$. When the same analysis was carried out for the high status subgroup condition, results showed that there was no main effect of threat, $t(25) = 1.41, p = .17$. There was, however, a main effect of superordinate group identification such that participants who were high in superordinate group identification engaged in higher levels of ingroup projection compared to those who were low in superordinate group identification, $t(25) = 2.12, p = .04$. No interaction effect was found between threat and superordinate identification, $t(25) = -1.34, p = .19$. The same analyses were conducted for the two different subgroup status conditions separately, this time by employing collective self-esteem as the moderating variable. However, no significant difference was found.

Figure 1: Ingroup projection as a function of threat condition at one standard deviation (SD) above and below the mean superordinate group identification score.



Bivariate correlations with ingroup projection. After splitting the data by condition, bivariate correlations were run in order to look at the independent correlations in each condition between the ingroup projection variable and the other measures. Two correlations that were marginally significant emerged in the high subgroup status and superordinate category threat condition. These were perceived instability of the subgroup status ($r = -.502, p = .068$) and perceived instability of the superordinate group status ($r = -.503, p = .067$), which correlated positively with ingroup projection. In other words, participants who perceived that the status differences among subgroup and superordinate categories were unstable in the high status and threat condition, engaged in higher levels of ingroup projection compared to those who perceived status differences as stable. These

findings can be interpreted such that when high status subgroup members perceive their status positions to be unstable, and when they are confronted with a superordinate level threat, they become more likely to defend the superordinate category by projecting their characteristics onto it. They also arguably engage in this protective strategy in an attempt to preserve their own status position within the superordinate category. However, due to the lack of stability effects in the other three conditions, it is hard to draw conclusions with great certainty.

Discussion

This study looked at the effects of subgroup status and superordinate category threat on ingroup projection with a specific focus on superordinate group identification as a potential moderator. Results did not provide evidence for the hypothesis. Identification with the superordinate category predict ingroup projection in the high status subgroup condition. Although these differences did not reach significance, as predicted high identifiers in the threat condition engaged in highest levels of ingroup projection, whereas low identifiers who were in the no threat condition engaged in lowest levels of ingroup projection.

Another important tendency was the relationship among subgroup status instability, superordinate status instability and ingroup projection, for individuals who were in the high status and superordinate category threat condition. This trend suggested that when individuals who are members of high status subgroups are faced with a superordinate category threat, those who perceive the status differences among subgroup and superordinate categories to be unstable project their subgroup's characteristics onto the

superordinate category. This tendency is in fact in line with Tajfel and Turner's (1979) argument that perceived instability (alongside perceived impermeability and illegitimacy of status differences) is likely to lead to social competitive behaviour among low status group members. In fact, for the study in which Ellemers, van Knippenberg and Wilke (1990) manipulated status, stability and permeability of groups and measured individuals' perceived legitimacy, they found that when low status group members were informed about the instability of status differences, they perceived the status differences to be illegitimate. Moreover this was irrespective of perceived permeability of group boundaries. Similarly, for the tendency observed in Study 4, it can be argued that threatened group identities led high status group members to engage in ingroup projection when they perceived the status differences to be unstable. This can be argued as a strategy employed in order to protect the superordinate category's image as well as an attempt to keep the high status position of their subgroup stable⁷.

One possible reason why significant differences were not found might be the use of participants from various departments within the University of Kent. The subgroup status manipulation, which involved information regarding the status of the participant's department in relation to the same department in universities around London, might not have been convincing to some participants. More specifically, participants that belong to a subgroup that is regarded exclusively high status within the UK (e.g. computing science) might not have given credit to the manipulation that suggested that their department were equal status compared to other departments in London universities. It is also possible that the high status subgroup manipulation might not have worked among participants who see

⁷ In the following chapter, low status subgroup's ingroup projection tendencies in relation to sociostructural variables is elaborated further.

their department as low status compared to other departments in London universities. These credibility issues might have made these participants less likely to believe and act upon the information they read. In order to eliminate these problems, only participants from the psychology student pool were employed in the next study.

Another possible problem with this study concerns the dependent variable. Ingroup projection was operationalized as the average of the representativeness of subgroup traits to the superordinate category. Although Waldzus and colleagues (2003) measured ingroup projection in this way by only asking about the representativeness of characteristics to the superordinate category in general, a more refined way in which ingroup projection is measured is by measuring the representativeness of generated traits to subgroup category followed by the same traits' representativeness to the superordinate category. These representativeness judgments are then subtracted from each other, and the square root of the sum of squared differences is taken. The resulting sum represented profile dissimilarity of each group from the superordinate category, and is therefore opposite of ingroup projection (Bortz, 1993; as cited in Wenzel et al., 2003). This is considered to be a more controlled way of measuring ingroup projection, as it takes into account individuals' judgments of traits' representativeness of the superordinate category in relation to their representativeness of the subordinate categories. Due to its controlled nature, this measure was employed to measure ingroup projection in the following study.

Therefore, Study 5 aimed to look at the relationships among subgroup status, superordinate threat and identification in a more refined manner. The hypotheses from Study 4 remained, such that high status subgroups that are exposed to superordinate category threat were expected to project most, and that collective self esteem was expected to moderate the effects of status and threat.

Study 5

The aim of Study 5 was to address some of the potential problems identified in Study 4 by improving the experimental manipulations, using only psychology students, and measuring participants' generated characteristics in terms of their applicability to subgroup and superordinate categories simultaneously.

Method

Participants and design. Seventy-eight undergraduate psychology students (67 female, 11 male) with a mean age of 19.65 (range 17- 26) from University of Kent participated in this study in exchange for credit or £2. Participants were randomly allocated to a 2 (equal status vs. high status subgroup) x 2 (no threat vs. threat to superordinate category) between-subjects design.

Procedure. The procedure was similar to the previous study. At the beginning of the study, participants were told that the researchers were interested in how students act and feel towards their department and their university. Then they were asked to write down five characteristics of psychology students at the University of Kent, that they thought best summed them up. As in the previous study, these characteristics were to be used in later stages to measure participants' ingroup projection.

In the next phase of the study, similar to the procedure of Study 4, subgroup status was manipulated with a passage informing participants about their subgroups' relative status in relation to other psychology departments in UK:

HEFCE, The Higher Education Funding Council for England, recently conducted a series of surveys in which it sought to assess the academic success of universities in the UK. The results of these surveys are closely followed by employers in the UK as a guide to employability of students from different institutions. It was recently reported in The Guardian that employers' primary concern was the academic status of applicants' universities rather than the specific departments they graduated from.

As part of our study, we have gathered the data from the HEFCE for all the psychology departments in the UK. Results of the survey revealed that this year psychology students at University of Kent were found to be amongst the best psychology students in the UK (the overall ranking of psychology students at University of Kent remained the same in relation to other psychology departments in the UK).

In order to make sure that superordinate category threat was taken into account, participants were told that employers gave primary importance to academic status of applicants' universities rather than their department. Moreover, subgroup status was manipulated such that in the equal status subgroup condition, participants were informed that the overall ranking of psychology students at the University of Kent in relation to other psychology departments in the UK remained the same, whereas in the high status subgroup condition, participants were told that psychology students at the University of Kent were found to be amongst the best psychology students in the UK.

Following this manipulation, participants were given feedback regarding the status of the University of Kent (i.e. superordinate category) in relation to the Russell Group Universities:

Results of the HEFCE survey also revealed that this year the University of Kent's overall ranking was well below (approaching that of) Russell Group Universities.

The participants were told at the bottom of the page the definition of the Russell Group in order to make sure that the participants understood the manipulation correctly. It was stated that The Russell Group is a group of British Universities that are consistently at the top of rankings, and receive the greatest share of research grant and contract incomes compared to other universities in UK. In the superordinate category threat condition, participants were informed that University of Kent's ranking was well below those of the Russell Group, whereas in the no threat condition they were informed that the university's ranking was approaching those of the Russell Group. Participants were again asked to write down three words that characterized their reaction to this information.

In the next part, participants were asked to rate the applicability of the five traits that they wrote down at the beginning of the study to psychology students and to University of Kent students in general. To clarify this procedure, participants were asked to rate how representative the five traits are for each of these groups, and they were provided with an example. A 9-point Likert-scale was used for all items with 1 representing *does not apply at all* and 9 representing *applies very much*. The psychology representativeness rating preceded the University of Kent rating for each trait.

Similar to the previous study, participants then filled out the 16 item Collective Self-Esteem Scale adapted from Luhtanen and Crocker (1992) followed by manipulation checks. The multiple choice answers for the subgroup status manipulation check were: "Psychology students at the University of Kent were found to be *amongst the best* Psychology students in the UK", "Psychology students at the University of Kent were found to be *amongst the worst* Psychology students in the UK" and "The overall ranking of

Psychology students at University of Kent *remained the same* in comparison to other psychology departments in the UK". The multiple choice questions for the manipulation check for superordinate category threat were "University of Kent's overall ranking was *approaching that of* the Russell Group Universities" and "University of Kent's overall ranking was *well below* the Russell Group Universities". This was followed by participants filling in their demographic information. They were then thanked and debriefed.

Reliability check for the collective self esteem scale. Similar to the results from Study 4, the 16-item collective self esteem scale that was adapted from Luhtanen and Crocker's (1992) original Collective Self-Esteem Scale showed high reliability ($\alpha = .85$).

Ingroup projection. Ingroup projection was measured in a more controlled fashion in this study. Following Bortz (1993; as cited in Wenzel et al., 2003), profile dissimilarity scores were calculated from the two representativeness ratings of the five traits for subgroup and superordinate categories. The superordinate category representativeness of each trait was subtracted from its subordinate category representativeness. Following this, the square root of the sum of squared differences is taken. This score represented perceived profile dissimilarity of the psychology department from the University of Kent. Therefore, the opposite of this score represented ingroup projection (see Wenzel et al., 2003 for a detailed summary of the measure).

Results

Manipulation check. The data from nine participants indicated that they did not follow either the subgroup status or superordinate group threat manipulations correctly. The remaining participants in relation to the conditions were: equal subgroup status and no

threat condition ($N = 18$), equal status and threat condition ($N = 13$), high status and no threat condition ($N = 18$) and high status and threat condition ($N = 20$).

Ingroup projection. A 2 (subgroup status) x 2 (superordinate group threat) between subjects ANOVA was performed. There was no main effect of subgroup status, $F(1, 66) = .03, p = .96$, and no main effect of superordinate category threat, $F(1, 66) = .94, p = .34$. However, the interaction between subgroup status and superordinate threat was significant, $F(1, 66) = 3.76, p = .05$. Simple effects analysis revealed that the interaction was the result of the threat affecting profile dissimilarity in the equal subgroup status conditions, $F(1, 29) = 4.27, p = .04$. More specifically, when participants who were in the equal status subgroup condition were exposed to threatening information regarding the superordinate category, they projected less compared to participants who were not exposed to threatening information. For participants who were in the high status subgroup, there was no effect of superordinate group threat on ingroup projection $F(1, 37) = .49, p = .48$. Similarly, when the effects of subgroup status on ingroup projection were examined for the no threat and threat conditions separately, there was no significant difference between equal status and high status subgroup conditions in the no threat condition, $F(1, 35) = 1.86, p = .182$ as well as threat condition, $F(1, 31) = 1.92, p = .176$. Therefore the significant interaction effect was stemming from the significant difference between threat conditions for participants who were in the equal subgroup status conditions.

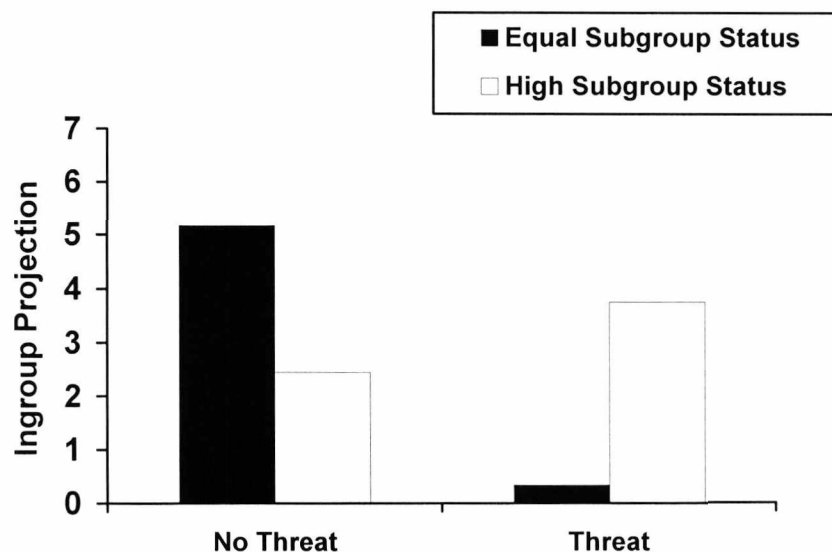
These findings showed that equal status subgroup members who perceived themselves as belonging to a superordinate category that was under threat engaged in lower levels of projection compared to when there was no threat. This is not quite the predicted pattern of results, as high status subgroup members were expected to engage in the highest levels of ingroup projection in order to protect the superordinate category.

However, the fact that equal status subgroup members showed lower levels of projection under threat shows that threat might have different consequences for subgroups of different status.

Collective self esteem as a moderator. In order to test the hypothesis that collective self esteem moderates the effect of threat on ingroup projection, a hierarchical regression analysis was performed predicting profile dissimilarity levels from the two threat conditions and collective self esteem, and their interaction entered in Step 2. This analysis was conducted for high status subgroup members only, as there were mixed results in the previous study regarding the moderating effects of identification on ingroup projection among high status subgroups. Results showed that there was no main effect of threat, $t(23) = -.17, p = .87$ and no main effect of collective self esteem, $t(35) = .92, p = .36$. There was also no significant interaction between these two variables, $t(35) = .11, p = .92$.

Together with the findings regarding equal status groups projecting least under threat, these findings were contrary to expectations.

Figure 2: Ingroup projection (reversed profile dissimilarity) scores as a function of subgroup status and superordinate threat.



General Discussion

This chapter investigated two motivational determinants of ingroup projection, namely superordinate group identification and subgroup status, in relation to superordinate level threat. The primary aim in doing this was to provide evidence for the hypothesis that ingroup projection can be used strategically among subgroup members. More specifically, it was hypothesized that high status subgroup members who are high in their identification with the superordinate category are more likely to engage in ingroup projection when the superordinate category is under threat. It was predicted that this would occur in order to protect the image of the superordinate identity. After correcting the possible shortcomings of Study 4, Study 5's findings showed a pattern that was not completely as expected: Those who were assigned to the equal status subgroup condition engaged in lower levels of ingroup projection when the superordinate category was under threat compared to when

there was no threat. Moreover, the high status subgroup's ingroup projection tendencies did not differ as a function of threat, and they were not moderated by individual differences in collective self esteem. Although these results supported the argument that the effects of superordinate category threat would differ in relation to subgroup status, the fact that there were only differences among equal status subgroups necessitates a reformulation of the previous arguments.

The most plausible explanation for the *inhibition of ingroup projection* among equal status subgroup members under superordinate threat comes from studies on self affirmation theory (Steele, Spencer, & Lynch, 1993). According to this theory, individuals can respond to threats to the self through affirmation of alternative sources of self-integrity. This helps them to be more open to self threatening interaction. In their seminal study, Steele and colleagues (1993) showed that participants who were in the high self-esteem condition rationalized the decision that threatened their esteem less compared to participants who were in the low self-esteem condition. This finding was explained by self-affirmation theory by arguing that high self-esteem participants had more favourable self-concepts with which to affirm and therefore more likely to repair their overall sense of self-integrity. Since self-affirmation would be more difficult among low self esteem participants, they reacted more against a decision that threatened their esteem.

Sherman and Kim (2002) also provided evidence for the self affirmation phenomenon. They showed that when the motivation to maintain self-integrity is satisfied, individuals became more willing to give up a cherished belief when it was the objectively reasonable thing to do. However, perhaps the most important study came from Sherman, Kinias, Major, Kim, & Prenovost (2007). They examined self affirmation at the group level by looking at whether affirming an important group value (i.e. group affirmation)

would increase the acceptance of threatening group information later on. It was found that highly identified basketball fans engaged in more biased attributions for their team's success and failure. However, when an alternative group value that is unrelated to sports was affirmed, group serving biases disappeared. The attribution of victory and defeat became equally likely after group affirmation.

In relation to these studies, the present findings suggest that the subgroup status manipulation used here might have especially acted as a group affirmation to high status subgroup members. Being informed that their subgroup is better than or one of the best among all other similar subgroups might have secured these participants' overall sense of self-integrity, making them less likely to act in order to change the threatening situation for the superordinate category. On the other hand, equal status subgroup members were informed that their subgroup's status position did not change/is equal in comparison to other similar subgroups. As this information is unlikely to have boosted their overall sense of self integrity, when participants in the equal status subgroup conditions were faced with threat to the superordinate category, they reacted towards this threat in an attempt to invalidate the threatening information (Sherman et al., 2007). Thus, they might have employed the easiest possible strategy, which is to distance themselves from the threat source.

Although motivation towards group affirmation seems to underlie the results of the last study, it is hard to conclude from these findings that this strategy is the only one used by these participants. It is likely that superordinate category identification might work hand in hand with subgroup identification in order for ingroup projection to occur under threat. As subgroup identification was not measured in this study, this point could not be investigated further. Another possibility for these effects that are not in line with previous

research might be the use of equal status subgroups rather than low status subgroups. One possibility is that equal status groups might endorse a higher need for distinctiveness from the superordinate category under threat compared to low status subgroups as the latter would be more likely to find ways to rationalize their lower status by affirming their group values on status irrelevant dimensions (Ellemers & van Rijswijk, 1997).

In order to further elaborate on the effects of status differences on ingroup projection, the next chapter will compare the ingroup projection tendencies of low and high status group members. Moreover, these tendencies will be investigated in relation to sociostructural variables (i.e. perceived stability, permeability and legitimacy of status differences). Based on the findings regarding the effects of perceived instability, impermeability and illegitimacy on social competition and ingroup bias (see Ellemers & Barreto, 2001 for a review) and following the tendency observed in Study 4, it is argued that ingroup projection among low status group members would depend on these sociostructural variables. However, ideological reasons for (the lack of) ingroup projection among low status group members is also investigated in relation to whether low status group members actively legitimize status differences in common ingroup contexts.

In sum, the most important finding from this chapter is perhaps the confirmation of the argument that ingroup projection can be used strategically among subgroup members as an identity management strategy. The following chapters, will look further at this strategic use of ingroup projection by investigating the differences among low and high status group members' levels of ingroup projection (Chapter 6), as well as its use as a way to derogate the perceived source of threat (Chapter 7).

Chapter 6 – Ideological Determinants of Ingroup Projection: Effects of Status Differences and System Justifying Tendencies among Low Status Subgroups

This chapter investigates whether low status subgroup members use ingroup projection to actively legitimize status differences in common ingroup contexts. In Study 6, the level of ingroup projection exhibited by participants in a low status subgroup was compared to participants in a control (non-relevant) subgroup. Results were supportive of the active legitimization hypothesis derived from system justification theory. Low status subgroup members rated a high status subgroup's traits as more representative of the superordinate category than did participants in the control group. In Study 7, the valence of the superordinate category was manipulated. If low status subgroups actively legitimize their low status, then portraying the superordinate group as negative should lead to greater projection. This hypothesis was partially confirmed. These findings are consistent with the idea that low status subgroup members can take the blame for negative superordinate groups via a projection mechanism. More generally, the findings suggest a role for system justifying tendencies through ingroup projection mechanisms.

The aim of this chapter is to compare the ingroup projection levels of low and high status subgroup members, and investigate whether low status subgroup members' lower levels of ingroup projection could be explained as an active attempt to legitimize status inequalities. Following the findings of Chapter 5 – which suggested that ingroup projection

differs as a result of status of subgroups, and also that the perceived stability of status differences might play an important role – this chapter also looked at whether the differences in low and high status subgroups' levels of ingroup projection could be due to the subgroup members' interpretation of sociostructural variables.

Various researchers have shown that when given a choice, low-income workers act in ways that maintain the status quo by defending and justifying conservative economic policies (Stacey & Green, 1971), women pay themselves less money than men pay themselves for the same amount of work (i.e. depressed entitlement; Pelham & Hetts, 2001) and women show implicit paternalism when naming their children (Jost, Pelham, & Carvallo, 2002). While these research seem to suggest that disadvantaged group members internalize their inferiority and come to accept and legitimize status inequality (Jost & Banaji, 1994; Major, 1994), this is not always the case. Collective action movements such as the Velvet Revolutions in Europe in 1989, the Palestinian Intifada, the South African anti-apartheid struggle (Reicher, 2004) and many more suggest that disadvantaged group members do not always accept and legitimize status inequality, but instead take action to change it. In this chapter, it is argued that ingroup projection might be a critical medium through which low status group members might legitimize the status inequality or attempt to engage in social change.

As mentioned in Chapter 2, despite the fact that ingroup projection is a robust phenomenon, not all groups are eager to claim relative prototypicality under all circumstances. For example, Waldzus, Mummendey, Wenzel and Boettcher (2004) showed that East and West Germans agreed on the higher representativeness of West German characteristics for being German. Similarly, Devos and Banaji (2005) demonstrated that the *White American* subcategory was associated with the superordinate

category *American* most on implicit measures, and this was the case for White Americans as well as Asian Americans, but not for African Americans. While these results are interpreted as *social reality constraints* by ingroup projection theorists (Wenzel, Mummendey, & Waldzus, 2007), the alternative explanation focuses on the endorsement of low status subgroups on the idea that they are less deserving than high status subgroups (Major, 1994). These findings can also be interpreted as showing that disadvantaged group members engaged in lower levels of ingroup projection as a result of their motive to preserve or even bolster the *status quo*. As stated previously, this latter argument is consistent with system justification theory (Jost & Banaji, 1994), which states that disadvantaged group members can act in ways that are detrimental to the well-being of their ingroup for the sake of supporting the status system of which it is a part. The aim of Studies 6 and 7 was to distinguish between these two possibilities. Specifically, the present studies controlled for the effects of social reality, in order to provide a clearer investigation of the effects of system justification processes on the prototypicality judgments of low status subgroup members.

System Justification Theory

System justification theory (Jost & Banaji, 1994) argues that people possess a general ideological motive to “defend, justify, and uphold the *status quo*” (Jost, Pelham, Sheldon, & Sullivan, 2003, p. 14). This support for the social system is likely to occur despite the negative consequences it might have for the individual’s personal and collective interests and esteem (Jost et al., 2003). Research on phenomena related to this system justification motive has shown that people show explicit and implicit cognitive, affective,

and behavioural biases towards higher-status groups (Jost et al., 2002), have a tendency to subjectively inflate the desirability of an unwanted outcome as its likelihood increases (Kay, Jimenez, & Jost, 2002) and believe that disadvantaged group members should be entitled to fewer resources than members of advantaged groups (Blanton, George, & Crocker, 2001; see Jost & Hunyady, 2002 for a summary). But perhaps what is most striking is that disadvantaged group members tend to accept and legitimize their own situations and, in turn, they internalize their inferior position (Haines & Jost, 2000).

There are informational and motivational reasons why disadvantaged groups rationalize the *status quo* (Jost & Banaji, 1994). Information processing factors include “need for cognitive consistency (e.g., need to reduce cognitive dissonance), cognitive conservatism, attributional simplicity, uncertainty reduction, and epistemic needs for structure and closure” (Jost et al., p. 15). Motivational factors include “fear of inequality, illusion of control, and belief in a just world” (p. 15). Together, these mechanisms serve a “palliative function of ideology” (p. 15) that makes people feel better and decreases the discomfort and guilt caused by rationalizing the *status quo* (Jost et al., 2003).

Ingroup Projection as System Justification

Researchers have shown that despite the negative consequences for one’s well-being, low status group members give more value to domains in which their group is disadvantaged relative to higher status groups (Schmader, Major, Eccleston, & McCoy, 2001). Moreover, instead of blaming the negative outcomes that their ingroup faces on prejudice and discrimination, low status group members tend to blame themselves or the factors for which they are responsible for their disadvantaged situation (Major, 1994;

Major & Schmader, 2001). These two findings may indicate a strategic use of *ingroup projection* among low status group members as a mechanism to legitimize status inequalities. By claiming that high status group's characteristics are more valued than theirs or by blaming themselves for the misfortunes of the inclusive category, low status group members can legitimize the belief in their *depressed entitlement* (Major, 1994). These depressed entitlement beliefs determine low status group members' affective, evaluative and behavioural judgments towards socially distributed outcomes in such a way that they support inequality (Major, 1994). This idea is consistent with system justification theory (Jost & Banaji, 1994). Members of low status subgroups project their ingroup characteristics less in order to actively legitimize the existing inequality between their group and the outgroup. By claiming that they are less representative of the superordinate category, low status subgroup members accept that they are less entitled to its resources. This legitimization of depressed entitlement and active support of inequality avoids any potential negative feelings that might be associated with the inconsistency of not acting towards changing the system's inequality.

In order to test the idea that low status subgroup members actively try to legitimize their status positions (versus being merely passive recipients of status inequality), Rubin and Hewstone (2004) argued that one needs to compare an unaffiliated judge's ratings of the high status groups' domains, attributes or outcomes with that of a low status group member's ratings. This comparison should control for the effects of social reality constraints, assuming that low status subgroup members and unaffiliated judges are equally familiar with the particular social system in question.

On the other hand, social identity theory argues that every attempt to attach value to domains for which the high status outgroup is better than the ingroup should not be taken

as evidence towards the internalization of inferiority (Reicher & Levine, 1994). These attempts are argued to reflect public conformity towards common values of the society and are regarded as attempt for impression management (Spears, Jetten, & Doosje, 2001). In fact, the only situation where internalization of inferiority occurs is when the status differences are perceived to be stable and legitimate (Tajfel & Turner, 1979, see Chapter 3 for a review of the effects of sociostructural variables on ingroup bias).

Therefore, according to social identity theory's *passive reflection* argument, there should be no significant difference in the extent to which low status subgroup members and unaffiliated judges perceive the high and low status subgroups to be representative of the superordinate category when the status system is perceived to be stable and/or legitimate. This should be the case because both low status subgroup members and unaffiliated judges are faithfully reflecting social reality in their unbiased judgments. However, when the status system is perceived to be unstable and/or illegitimate, then low status subgroup members should rate their group as significantly more representative and/or the high status subgroup as significantly less representative of the superordinate category compared to the ratings of unaffiliated judges. These significant differences will indicate in-group bias and an active attempt by low status subgroup members to change social reality. However, if system justification theory is correct, then, compared to unaffiliated group members, low status subgroup members should rate their group as significantly less representative and/or the high status subgroup as significantly more representative of the superordinate category than will unaffiliated judges. These significant differences will indicate an active attempt to defend and bolster social inequality on the part of low status subgroup members.

Study 6 compared relative representativeness ratings made by low status and high status subgroup members as well as unaffiliated judges regarding low and high status subgroups' positive stereotypical traits. Active legitimization and passive reflection predictions could be compared with respect to low status subgroup members.

Study 6

Method

Participants and design. Forty-six undergraduate students (31 female, 15 male) with a mean age of 20 (range: 18-26) from the University of Birmingham participated in the study in exchange for 3GBP. Among the 46 participants, 17 were law students (high status subgroup), 10 were psychology students (low status subgroup), 8 were medical students and 11 were humanities students (control groups⁸). Subgroup members were randomly allocated to one of the two conditions (psychology traits first or law traits first).

Procedure. Participants were told that their perceptions of similarities and differences between psychology and law students would be tested. They were asked to rate 10 traits in terms of their applicability to psychology and law students in general, on a 9-point scale ranging from "does not apply at all" to "applies very much". The traits were selected in a pretest asking 15 psychology and 10 law students as well as students from

⁸ Medical and humanities departments were chosen to be our control groups, because the former was found to be of higher status than both psychology and law departments, while the latter was found to be of lower status than both of these departments in our pre test. By using these two groups, we aimed to eliminate the possibility that our findings might be due to status differences among the target groups and the control groups.

other departments to generate five positive attributes that distinguished psychology students from law students, and five positive attributes that distinguished law students from psychology students. The 10 most prevalent traits were selected for the present study: *ambitious, articulate, hard-working, confident* and *persuasive* for law students, *observant, sensitive, sociable, open-minded* and *analytical* for psychology students. The order of psychology and law subgroups was counterbalanced such that half of the participants in each participant subgroup rated psychology representativeness of a trait followed by law representativeness, and the remaining half rated these subgroups in the opposite order. By asking about the representativeness of the traits for each subgroup one after the other, it was possible to make sure that participants gave comparative ratings of representativeness for each trait for the two groups.

Following this, participants were told the results of the pretest in order to make sure they were aware of the stereotypical traits representing psychology and law departments:

The questionnaire that you have just completed has been conducted on two other departments at University of Birmingham, which are unaffiliated with psychology and law departments. Results showed that *psychology students* are characterized as "*observant, sensitive, sociable, open-minded and analytical*" while *law students* are characterized as "*ambitious, articulate, hard-working, confident and persuasive*".

After this phase, participants were explicitly asked the representativeness of the same psychology and law student traits for university students in general.

Following the representativeness judgment phase, participants were asked about the status differences between psychology and law students followed by their perceptions of

stability and legitimacy of these differences. The status measure was comprised of four questions that were adapted from Weber, Mummendey and Waldzus' (2002) study.

Participants had to indicate to what extent they agreed with the following statements:

“Independent of whether it is justified or not, law students have higher prestige than psychology students”, “independent of whether it is justified or not, psychology students have a higher chance of finding jobs after graduation compared to law students”, “independent of whether it is justified or not, psychology students will earn less money than law students”, “independent of whether it is justified or not, psychology students earn less respect than psychology students” (1 *do not agree at all*, 9 *very much agree*).

The items that measured stability were “The different levels of prestige between psychology and law students may get smaller in time”, “the differences in job opportunities for psychology and law students may get smaller in time”, “the differences between income of psychology and law graduates may get smaller in time”, “the different levels of respect received by psychology and law students may get smaller in time”. The items that measured legitimacy were “The different levels of prestige between psychology and law students is justified”, “the differences in job opportunities for psychology and law students is justified”, “the difference between income of psychology and law graduates is justified”, “the different levels of prestige received by psychology and law students is justified”.

These questions were followed by questions measuring participants' identification with psychology, law and university student groups, and the estimated group size of psychology and law students at University of Birmingham. Psychology identification questions were: “I identify with psychology students”, “I have a negative attitude towards psychology students”, “I feel close to psychology students”, “I feel that I share a lot of similarities with psychology students”. Law and university identification items were the

same items with the names law and university inserted in the relevant space (1 *do not agree at all*, 9 *very much agree*). For the estimated group size measure, participants were asked to estimate the number of psychology and law students at the University of Birmingham. After the feedback phase, participants were thanked and debriefed.

Results

Before conducting the main analyses, it was important to check whether status differences between psychology and law subgroups was confirmed by these participants. In order to see whether different departments had different perceptions regarding status differences between psychology and law departments, one sample *t*-tests were conducted on each department separately. One sample *t*-test analyses conducted on the perceived status difference measure showed that departments perceived a status difference between psychology and law departments (i.e. psychology $t(9) = 3.99, p < .005$; law $t(16) = 17.22, p < .001$; medical school $t(6) = 25.56, p < .001$; humanities $t(10) = 10.54, p < .001$). Moreover, one-way between subjects ANOVA results showed that there was no difference in status perceptions of these four groups $F(3, 41) = 1.23, p = .31$. These results supported the prediction that all groups perceived the law department to have a higher status than the psychology department.

A 3 (department) x 2 (identification with psychology and law) mixed model ANOVA was conducted in order to compare the identification levels of low status, high status and control groups with low and high status departments. Results showed that there was a main effect of department ($F(2, 43) = 18.54, p < .001$), and a main effect of identification ($F(1, 43) = 13.89, p = .001$). There was also an interaction effect ($F(2, 43) =$

26.16, $p < .001$). In line with expectations, it was found that psychology students identified with their ingroup significantly more than control students identified with psychology students ($t(27) = 5.91, p < .001$). Similarly, law students identified with their ingroup significantly more than control students identified with law students ($t(34) = 6.35, p < .001$). However, although no difference between the identification levels of control participants towards psychology and law departments was expected, a paired samples t -test showed that control participants identified with psychology students more than they identified with law students ($t(18) = 2.78, p < .05$). This finding is important in that it violates one of the assumptions regarding the unaffiliated nature of the control group, so it is best to approach the following ingroup projection results by taking into account the control group's preference towards psychology students.

A 3 (department) \times 2 (group size of psychology and law) mixed model ANOVA conducted on perceptions of group size among departments showed that neither group size ($F(1,42) = 0.73, p = .40$) nor department has a main effect $F(2, 42) = 0.82, p = .45$. There was also no interaction effect, $F(2, 42) = 1.79, p = .18$. These results confirmed that there was no difference among departments regarding the perceptions of group size that could effect relative representativeness judgments.

Ingroup projection. Profile dissimilarity scores were calculated in order to measure the relative prototypicality of psychology and law students. The reverse of the profile dissimilarity measure represents how similar or how typical each subgroup is considered to be to the superordinate category (Wenzel et al., 2003). There were two different profile dissimilarity scores, namely profile dissimilarity for the law department and profile dissimilarity for the psychology department. Bortz's (1993; as cited in Wenzel et al., 2003) formula for profile dissimilarity was used:

$$d_{sup-sub} = [\sum(x_{sup \cdot i} - x_{sub \cdot i})^2]^{1/2},$$

where d denotes profile dissimilarity, sup denotes superordinate category, sub denotes subingroup or suboutgroup and x_i denotes value for attribute i .

A 3 (department: psychology/law/control) x 2 (profile dissimilarity: psychology/law) mixed model ANOVA conducted on the profile dissimilarity scores for psychology and law representativeness among departments showed that neither profile dissimilarity, $F(1, 43) = .50, p = .83$, nor department, $F(2, 43) = 1.14, p = .33$, had a main effect. However, in line with expectations, there was a significant interaction effect, $F(2, 43) = 3.74, p < .05$. In order to further compare relative representativeness in high (i.e., law), low (i.e., psychology) and control groups (i.e., medical and humanities students), contrast analysis were performed – the recommended strategy when performing analysis for specific and predicted effects (Judd & McClelland, 1989). Helmert contrasts were used for both psychology representativeness and law representativeness ratings in order to provide a clear test of the predicted patterns. The order for all contrasts was psychology students' ratings versus law students' ratings versus control group students' ratings. Contrast 1 was +1, -1, 0 and tested whether psychology students evaluated the representativeness judgments as higher than law students. Contrast 2 was -1, -1, +2 and tested whether participants in the control group evaluated the representativeness judgments as lower than did participants from the psychology and law departments.

The pattern of significance across these two orthogonal contrasts allowed a powerful test for the active legitimization hypothesis. For the high status subgroups' (law department) traits, it is expected that law participants would project their ingroup traits to the superordinate more than the control participants. High projection by law students

would justify their high status as well as reflect positively on the ingroup. However, psychology participants would be expected to project differentially depending upon whether they are actively trying to legitimize the high status of the law department or not. In the case of active legitimization, psychology students (the low status subgroup) should project law traits to the same extent as law students (the high status subgroup), in effect showing outgroup favouritism. This leads to the prediction that Contrast 1 (+1, -1, 0) will be nonsignificant (i.e., psychology participants will project law traits to the same extent as law participants), but that Contrast 2 (-1, -1, +2) will be significant (i.e. *both* psychology and law students will project law traits to a greater extent than the control participants).

For psychology traits, the same pattern was predicted⁹: Law participants will not actively project psychology traits. However, psychology students – if they are justifying their low status – will actively project fewer of their own traits to define the superordinate category. Again, this will result in Contrast 1 being non-significant (both psychology and law participants will project psychology traits to an equally low extent), but Contrast 2 will be significant (both psychology and law participants will project less than control participants).

For the law traits, as predicted, Contrast 1 was not significant, $t(43) = -.34, p = .73$, but Contrast 2 (-1, -1, +2) was significant, $t(43) = 2.02, p = .05$. This indicated that both psychology and law students regarded law traits as more representative of the University than control participants. This pattern supports the system justification account of projection because the low status psychology students project the outgroup (high status) law traits to the same extent as law students themselves, and to a higher extent than control

⁹ Medical and humanities students' ratings were tested under the name of controls for the remainder of the experiment since their data do not differ.

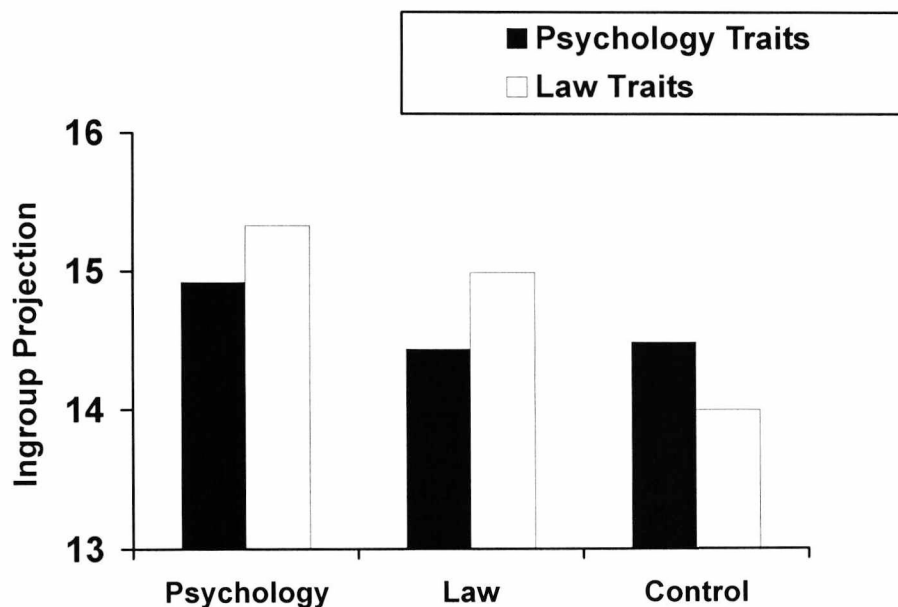
participants. For the critical low status group, these findings suggest that they are engaging in a legitimization process by which they actively feed onto the high status subgroup's superiority through judgments of higher representativeness. Figure 1 shows ingroup projection scores (which represent the opposite of profile dissimilarity scores) for low (i.e., psychology) and high (i.e., law) representativeness averages for each subgroup.

Results show that for the psychology traits' representativeness of the superordinate group neither Contrast 1 (+1, -1, 0), $t(43) = -.53, p = .603$, nor Contrast 2 (-1, -1, +2), $t(43) = -.62, p = .539$ was significant. This provided evidence for the argument that both psychology and law subgroups reflected social reality when judging the representativeness of psychology traits for the university as a whole.

Sociostructural variables. Sociostructural variables were taken into account in this experiment in order to find out whether differences in ingroup projection could be due to differences in beliefs in the legitimacy and stability of the inequality that exists between the high and low status groups.

Legitimacy. A one-way between subjects ANOVA on the perceived legitimacy scores revealed that there was a significant effect of department $F(2, 43) = 4.17, p < .05$. More specifically, psychology students (i.e. low status group members) perceived status differences to be significantly less legitimate than law students (i.e. high status group members), $t(25) = -2.72, p < .05$.

Figure 1: Ingroup projection (i.e., reversed profile dissimilarity) scores for psychology and law traits, among psychology student, law student, and control participants.



Stability. Although the perceived legitimacy of status differences was expected to correlate with relative prototypicality ratings of psychology students, this pattern did not emerge for psychology trait representativeness ($r(8) = .243, p = .50$), nor for law representativeness judgments ($r(8) = -.134, p = .71$). However, a significant positive correlation between perceived stability of status differences by psychology students and their profile dissimilarity ratings for their own traits ($r(8) = .647, p < .05$) was found. This seems to provide an explanation for differences in ingroup projection by the low status group such that when psychology students (i.e. low status group members) perceived status differences between high and low status groups as stable, they engage in lower projection than when they see the status differences to be unstable.

Discussion

This study looked at whether low status subgroup members engaged in active legitimization or passive reflection of status differences through ingroup projection. To do this, relative representativeness ratings of low status, high status and control groups were compared. High and low status subgroup members rated high status subgroup's traits to be significantly more representative of the superordinate category than unaffiliated others. For high status subgroup members, this pattern of results represents a form of ingroup bias. For low status subgroup members, this pattern of results supports the active legitimization hypothesis. However, these results were restricted to law (outgroup) traits. Psychology students only rated psychology traits as being significantly less representative of the superordinate category than did unaffiliated judges when they perceived the status differences between subgroups to be stable. Overall, these findings partially support the argument that low status subgroup members do not merely engage in passive reflection of social reality when making judgments of relative representativeness, but actively legitimize the status inequality that is to their disadvantage by claiming higher representativeness for the traits of the high status group than it actually deserves in reality. However, the fact that their claims for their subgroup's representativeness correlate with their perceived stability judgements suggests that the latter might act as a trigger to legitimize inequality.

Although the results for the law representativeness mainly support the active legitimization approach, and perceived stability is a possible reason as to why psychology students differ in their levels of ingroup projection, the problems regarding the differential liking levels of control groups towards law and psychology students meant that it was important to test the *active legitimization* hypothesis in a follow-up study. This was done

by manipulating the valence of the superordinate category. The aim was to examine projection processes when the superordinate category is *under threat*. Here, because the superordinate category is negatively valenced (under threat), it was predicted that low status subgroup members would engage in *higher* projection as a way of *taking the blame* for the superordinate category's low status situation (this is similar to the concept of *victim blame*, Major, Kaiser, O'Brien, & McCoy, 2007).

It was assumed that if a low status subgroup engaged in higher representativeness for their negative traits than a control group do for the same traits under the negative superordinate category condition, then this would indicate that they are engaging in a more elaborate process than a mere reflection of social reality, and instead are *actively* legitimizing the inequality between themselves and the high status outgroup. Study 7 tested these predictions.

Study 7

This study aimed to see whether *active legitimization* of low status subgroup members observed in the outgroup representativeness condition in Study 6 can be replicated when the superordinate category is negatively valenced. Following system justification theory, under superordinate category threatening conditions, low status subgroup members would be more likely to project their negative traits onto the superordinate category. This is explained by their motive to defend the superordinate category by taking blame for the negativity of it where necessary (Major et al., 2007). Since the main aim here was to compare low status subgroups with unaffiliated judges to resolve the dichotomy of *active legitimization* versus *passive reflection*, high status

subgroup members' judgments was not tested in the following study, and only low status subgroup members and members from the baseline control group were used.

Method

Participants. Forty undergraduate students (31 female, 9 male) with a mean age of 19.5 (range: 18-26) from the University of Birmingham participated in this study in exchange for 4GBP. Among the 40 participants, 23 were psychology students (low status subgroup) and 17 were humanities students (control group)¹⁰. Subgroup members were randomly allocated to a 2 (trait order: psychology first/law first) x 2 (valence of superordinate category: positive/negative) between-subjects design.

Procedure. Similar to Study 6, participants were told that they would be tested about their perceptions regarding the similarities and differences between psychology and law students, and they were asked to rate 20 items (10 positive and 10 negative traits) in terms of their applicability to psychology and law students in general on a 9-point scale ranging from "does not apply at all" to "applies very much". The 10 positive traits were the same as the ones that were used in Study 6 (i.e. *ambitious, articulate, hard-working, confident* and *persuasive* for law and *observant, sensitive, sociable, open-minded* and *analytical* for psychology). The negative traits, on the other hand, were selected in a pretest, which asked psychology and law students as well as students from other departments to generate five negative attributes that distinguished psychology students

¹⁰ Since we did not find any difference between the ratings of medical and humanities students in the previous experiment, we tested only humanities students as our control group in this experiment.

from law students, and five negative attributes that distinguished law students from psychology students. The 10 negative traits that were mostly given as distinguishing these groups from one another were selected for the present study. These negative traits were *pompous*, *materialistic*, *arrogant*, *opinionated* and *uncaring* for law students, *unstable*, *oversensitive*, *overanalyzing*, *too bland* and *lost in thought* for psychology students. These traits were presented to participants in a randomized fashion and the order of psychology and law subgroups was again counterbalanced.

The next phase was the manipulation of the valence of the superordinate category. The manipulations were similar to Weber and colleagues' (2002) manipulations, such that in the positive superordinate category valence condition participants were asked to imagine that they must explain to somebody else positive and commendable aspects of being a university student, and to write about the truly positive aspects of being a university student. In the negative valence condition, the words *positive* and *commendable* were replaced by *problematic* and *worthy to be criticized*, and participants were asked to write about the truly negative aspects of being a university student. After five minutes, these sheets were collected and participants were given information about the results of the pretest. The way this information was presented to the participants was the same as in Study 6, except that this time participants were informed about both the positive and negative traits of each subgroup. After this information, participants were explicitly asked the representativeness of the same psychology and law student traits for university students in general followed by measures of status, stability, legitimacy, identification and group size.

Results

Before conducting the main analyses, it was important to check whether status differences between psychology and law subgroups was confirmed by these participants. One sample *t*-test analyses for psychology (i.e. low status) and humanities (i.e. control) departments showed that both departments perceived a status difference between psychology and law departments (i.e. psychology $t(22) = 7.38, p < .001$; humanities $t(16) = 7.76, p < .001$). Moreover, there was no difference in status perceptions of these two groups $t(1, 38) = 2.53, p = .12$. These results again supported the prediction that both groups perceived law department to have higher status than psychology department.

A 2 (department) x 2 (identification with psychology and law) mixed model ANOVA was conducted in order to compare the identification levels of low status and control group with low and high status departments. Results showed that there was a main effect of department ($F(1, 38) = 6.91, p < .05$), and a main effect of identification ($F(1, 38) = 12.05, p = .001$). The interaction effect was marginally significant ($F(1, 38) = 3.80, p = .059$). In line with expectations, it was found that psychology students identified with their ingroup significantly more than control students identified with psychology students ($t(16) = .85, p = .41$). However, contrary to the findings of Study 6, there was no difference between the psychology identification and law identification scores in control participants, indicating that the control group in this study was not affiliated with either group, and that the results cannot be due to the preference for psychology students over law students.

Ingroup projection. The same formula from Study 6 was used to compute indices of profile dissimilarity. Four different profile dissimilarity scores were computed: Low

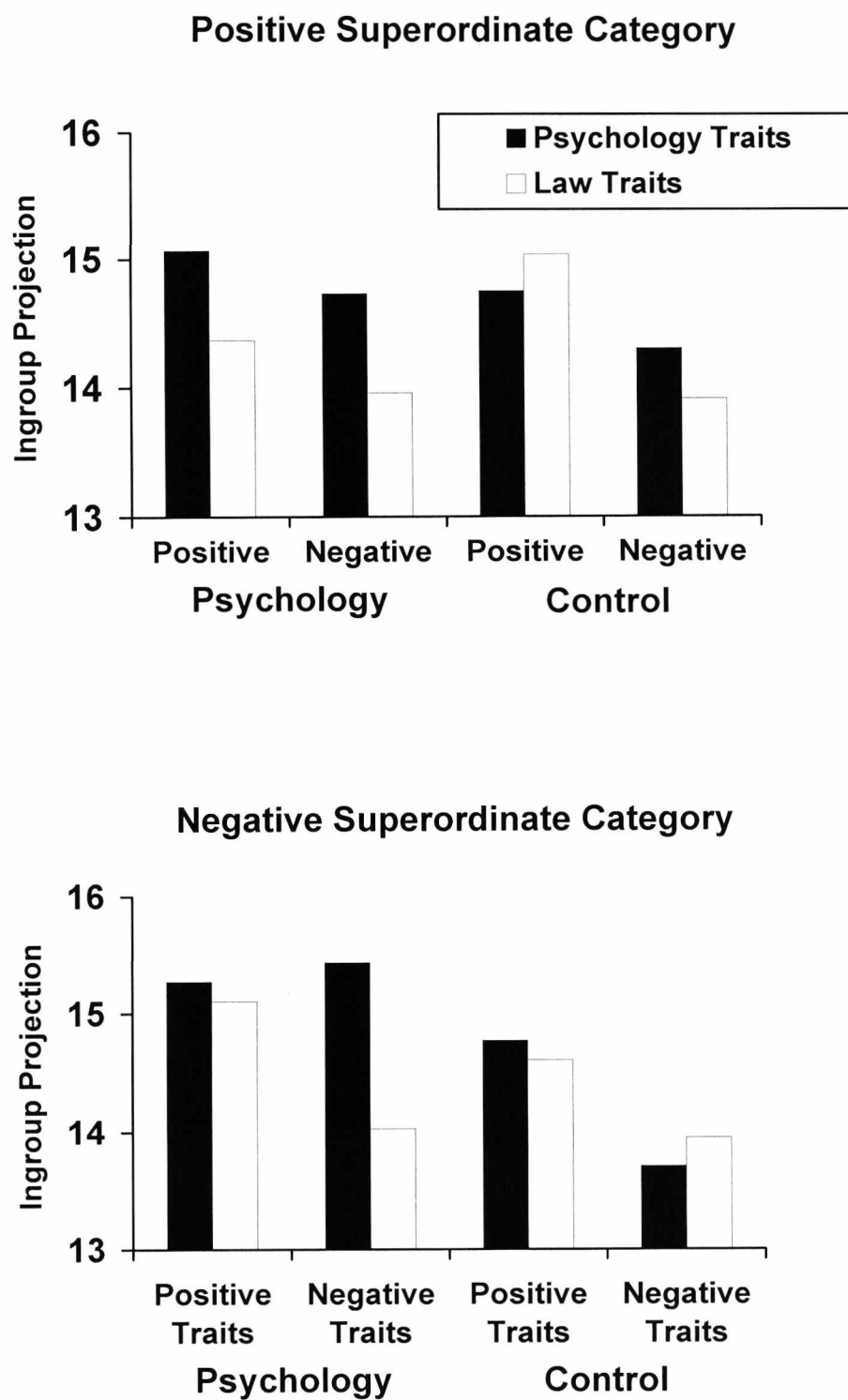
status subgroup's profile dissimilarity for positive traits, high status subgroup's profile dissimilarity for positive traits, low status subgroup's profile dissimilarity for negative traits, and high status subgroup's profile dissimilarity for negative traits. The means for ingroup projection ratings for positive and negative psychology and law traits by psychology and control groups in positive and negative superordinate valence conditions can be found in Figure 2.

A 2 (group: low status and control group) x 2 (superordinate category valence: positive/negative) between-subjects ANOVA on the profile dissimilarity rating for negative traits of low status subgroup revealed a significant main effect for department (low status subgroup projected negative traits more than control group, *M*s profile dissimilarity = 9.07 and 15.61, $F(1, 35) = 8.98, p < .01$) but no main effect of valence, $F(1, 35) = .04, p = .85$. However, there was an interaction between department and valence, $F(1, 35) = 4.44, p < .05$, such that in the negative valence condition, low status subgroup members projected their negative traits significantly more than members of control group, $t(16) = -3.18, p < .01$. In the positive valence condition, there was no difference between low status subgroup and control group members' claims of projection, $t(19) = .51, p = .48$.

These analyses were repeated for profile dissimilarity ratings for the positive traits of low status and high status subgroups, as well as the profile dissimilarity rating for the negative traits of the high status subgroup. No significant effects were found (all F s < 2.88, all p s > .10).¹¹

¹¹ Similarly, there were no effects of perceived stability or legitimacy of status differences on the positive and negative profile dissimilarity ratings of psychology and control participants, in either the positive or negative valence conditions.

Figure 2: Ingroup projection (i.e., reversed profile dissimilarity) of positive and negative Psychology and Law traits by Psychology and control (non-Psychology) student participants.



Discussion

The aim of this study was to look at low status subgroup members' ingroup projection levels when the superordinate category is negatively valenced. The findings partially confirmed the active legitimization hypothesis, such that when the superordinate category is faced with a threat condition (i.e., when participants are asked to think about the negative aspects of being a university student), low status subgroup members claimed that their negative traits represented the superordinate category more than control group members claimed. This finding can be interpreted as low status subgroup members *taking the blame* for the negative condition of the superordinate category. Moreover, consistent with Study 6, this result again suggests that members of low status subgroups are not merely reflecting the status differences between themselves and high status subgroup, but are in fact actively legitimizing their lower status. However, contrary to the findings of Study 6, there was no difference between projection ratings of low status and control groups for positive traits in the positive valence condition. This suggests that the overall findings should be interpreted with caution.

General Discussion

In this chapter, the question of whether low status subgroup member actively legitimize the status system or passively reflect it was tested by looking at differences in ingroup projection. Following Rubin and Hewstone (2004), the perceived relative prototypicality of low and high status subgroup's members was compared with that of

unaffiliated judges. Study 6 showed that members of low status subgroups did not simply reflect the existing status differences when making judgments of relative prototypicality, but rather attributed higher representativeness for the higher status outgroup than warranted by social reality.

On the other hand, the relationship between perceived stability and relative prototypicality ratings of the ingroup seemed to suggest that the more stable low status group members perceive the status differences between themselves and the high status outgroup, the lower they rate their ingroup in terms of relative representativeness. However, no relation was found between perceived illegitimacy by low status groups and depressed representativeness judgments regarding their ingroup. These findings are partially in line with the arguments made by social identity theory (Tajfel & Turner, 1979), such that perceptions of stability and legitimacy result in feelings of inferiority among low status group members, whereas when status differences are perceived as unstable and illegitimate, low status group members are more willing to engage in social change (Spears et al., 2001). As for Study 6, the crucial variable determining representativeness of the ingroup seemed to be the perceived stability rather than the legitimacy of the status differences. It can be argued that despite perceptions of illegitimacy, if group members think that the status inequality between their group and the high status outgroup is impossible to change, they are more willing to accept these differences and act in ways that legitimize their own inferiority. The lack of interaction between perceived legitimacy and stability of the system and ingroup and outgroup favouritism ratings by low status group members in the findings of Overbeck, Jost, Mosso and Flizik (2004) provide support for this argument. However, the authors also found that low status group members who scored high on the social dominance orientation scale (Pratto, Sidanius, Stallworth, & Malle,

1994) showed an increase in outgroup favoritism despite the decrease in perceived legitimacy (Overbeck et al., 2004). Together with the findings of Study 6, these results suggest that legitimacy of the system might not be a precondition for system justifying tendencies, but rather that if an individual has a system justifying orientation, s/he is more likely to actively restore the legitimacy of status inequality between their group and the high status outgroup.

Study 7 aimed to examine ingroup projection tendencies of low status subgroup members when the superordinate category is under threat. It was argued that if the system justification argument was correct, negative valence of the superordinate category (i.e. system threat) would result in higher ingroup projection for negative stereotypical characteristics of the low status subgroup members. It was predicted that if low status subgroup members have a motive to enhance and justify the inequalities of the system regardless of their ingroup's benefit, then when the superordinate category is negatively valenced, it is likely that they would project their characteristics to the higher order category in order to *take blame* for its negativity. This prediction was supported such that low status subgroup members perceived their ingroup's negative characteristics to be more representative of the superordinate category than control participants did. These findings are also in line with Major and colleagues' (2007) study which found that low status subgroup members who endorsed a meritocracy worldview blamed their ingroup for the discrimination they faced. Moreover, the fact that there was no effect of perceived stability or legitimacy of status differences again suggested that system justification tendencies might overcome the effects of sociostructural variables in predicting ingroup projection.

In sum, these findings suggest that when making judgments about the depressed relative representativeness of low status subgroups, it should be considered that the

situation might not merely be a reflection of reality, but also an active legitimization process by low status subgroup members, in order to justify their acceptance of inequality in society. In other words, lack of ingroup projection by low status subgroups might act as a *legitimizing myth* (Sidanius & Pratto, 1999), which provides both high and low status subgroups with moral and intellectual justification for the social inequality that exists between them. Although these findings partially suggested that perceived stability might act to legitimize inequality, future research should focus on manipulations on perceived stability in order to clarify this link.

The findings of this chapter provided initial support for the idea that when low status subgroup members engage in lower levels of ingroup projection, they might not be merely reflecting the social reality, but rather this act might be stemming from their motive to legitimize inequality and justify the system. In the next chapter, this ideological motive will be further studied among high status subgroup members, by looking at their ingroup projection tendencies when they are faced with a system threat. In the mean time, the moderating effects of system justification will be examined more directly.

Chapter 7 – Ideological Determinants of Ingroup Projection: Effects of Status Differences and System Justifying Tendencies among High Status Subgroups

This chapter examines the ingroup projection tendencies of high status group members within a superordinate category, when they are faced with a system threat. We hypothesized that high status subgroups derogate the outgroup that is seen as the cause of threat, by accentuating counter outgroup attributes. In other words, they are expected to project ingroup attributes that emphasize the differences between their ingroup and the outgroup onto the superordinate category. Moreover, based on system justification theory (Jost & Banaji, 1994), it was hypothesized that individuals' general beliefs in the fairness, legitimacy and justifiability of the social system would moderate these derogatory judgments. The results suggested that individual differences in need for balance and complementarity (i.e. measure of system justification) moderated ingroup projection levels only when the threat came from an outgroup which is also a member of the same superordinate category (i.e. nested outgroup). The findings are discussed within the context of instrumental and ideological use of ingroup projection.

Study 8

Chapter 7 aims to expand on the findings of Chapter 6, which suggested that ideological motives to justify the system might function to determine the ingroup

projection levels of subgroup members. In this chapter, effects of system justification in relation to perceived threat will be further investigated in the context of ingroup projection. It is argued that individuals who are high in their system justification motives are more likely to derogate the threatening nested outgroup, by projecting their ingroup characteristics that differentiate them from the outgroup to the superordinate category.

As previously described in Chapters 2 and 4, Waldzus, Mummendey and Wenzel (2005) showed that one way in which ingroup members engage in projection is through projecting their attributes onto the superordinate category. However, they do so by selecting attributes that differentiate their ingroup from the target outgroup. For example, when the target outgroup of comparison was Italians, Germans rated the stereotypical attributes that differentiated them from Italians (i.e. correct, orderly, punctual, quiet, disciplined and stiff) as more representative of the superordinate category than the attributes that differentiated them from British (i.e. easygoing, frank, companionable, in love with life, sociable and having tasty meals). The opposite pattern was observed when the target outgroup was British, such that attributes that differentiated Germans from the British was projected to the superordinate category more. These results showed how ingroup members can preserve the ingroup's relative prototypicality across changing intergroup conditions.

Although Waldzus and colleagues' (2005) provided evidence that ingroup projection is an adaptive mechanism, as the authors also admit this study lacked cognitive and motivational explanations as to why ingroup members showed a tendency to project attributes of themselves that differentiate them from the target outgroups. One possible future direction that the authors have suggested was looking at the effects of intergroup threat on ingroup projection, as it was argued to potentially be an important trigger of

ingroup projection. Indirect evidence for the link between threat and ingroup projection is already evident in Roccas and Brewer's (2002) social identity complexity study, which showed that participants in the threat condition viewed their multiple ingroups (i.e. Israelis and Jews) as more similar to each other than participants who were in the control condition. Therefore, this study suggests there is a link between threat and ingroup projection through the mediating role of dual identification (Ullrich, Christ, & Schlüter, 2006).

The only study so far that directly looks at the effects of intergroup threat on ingroup projection was conducted by Ullrich and colleagues (2006). The authors looked at how individuals with different levels of subgroup and superordinate identification respond to threats from an outgroup that is nested within the same superordinate category as the ingroup. In two studies, intergroup threat was manipulated by asking participants to list the advantages (disadvantages) or benefits (risks) associated with the EU East enlargement (Study 1) or Turkey's entry to the EU (Study 2). Results showed that individuals who were highly identified both with their subgroup and superordinate group were most susceptible to threat manipulations. Moreover, threat resulted in increased levels of ingroup projection (Study 2) and prejudice (Study 1 and 2) among these dual high identifiers. Following this evidence – and the findings in Chapter 6, which suggested that system justifying mechanisms might partially determine ingroup projection – Study 8 examines the effects of intergroup threat on ingroup projection in relation to system justification tendencies, among high status subgroup members.

Intergroup threat. One of the proposed causes of intergroup bias and prejudice is argued to be intergroup threat (see Riek, Mania, & Gaertner, 2006 for a meta analytic review of the literature). Intergroup threat is defined as the situation in which the goal

attainment or well-being of one is challenged by another group's actions, beliefs or characteristics (Riek et al., 2006). Stephan and Stephan (1996; 2000) proposed integrated threat theory, which classifies four basic types of threat. These are: realistic threat, symbolic threat, intergroup anxiety and negative stereotypes. Realistic threats can be threats to the physical and economic well-being of the group, the presence of conflicting goals or perceptions of competition. On the other hand, symbolic threat stems from a conflict in values, norms and beliefs between groups. The third type of threat that Stephan and Stephan (1996; 2000) mention is intergroup anxiety, which is the feeling of uneasiness and awkwardness in the presence of outgroup members, as a result of uncertainty. Finally, the fourth type of threat is negative stereotypes, in the sense that ingroup members have negative expectations concerning outgroup member's behaviour. It was shown that combination of these four types of threat predicts substantial amount of variance in negative attitudes. In sum, it is clear that any type of threat to the ingroup negatively affects relations between the ingroup and the outgroup.

While the relationship between intergroup threat and prejudice is clarified in the integrated threat theory, threat to the system has also been shown to be a useful tool in legitimizing inequality and rationalizing the status quo in society (Jost & Hunyady, 2002). According to system justification theory, following an ideological attack to the system, individuals who are motivated to perceive the system as fair and legitimate would defend and bolster it (Jost, Glaser, Kruglanski, & Sulloway, 2003). This is done by showing increased stereotypic differentiation in response to a system-level threat. For example, after being exposed to system threat, individuals were more likely to derogate low status group members on characteristics that were causally related to status outcomes (e.g. intelligence), and compensate the same group on characteristics that are causally unrelated to status

outcomes (e.g. physical attractiveness) (Kay, Jost, & Young, 2005). In these studies, the construct of *system-level threat* is operationalized as a situation that is likely to threaten the societal status quo. As a result of this, while high status group members *scapegoat* members of the lower-status groups, low status group members are likely to engage in self-scapegoating.

Jost, Kivetz, Rubini, Guermandi and Mosso (2005) also manipulated system justification needs by threatening the social system. It was found that when the system threat was high, ingroup members endorsed complementary stereotypes more, such that high status group members (Ashkenazi Jews) believed that their ingroup was better on agentic traits (i.e. competence) and worse on communal traits (i.e. warmth), while low status group members (Sephardic Jews) believed that they were better on communal than agentic traits. When the system threat was low, both low and high status groups showed mild ingroup favouritism. These findings were taken as further evidence that system related threat activates the motive to protect the system through the endorsement of complementary stereotypes, which in turn results in consensual stereotypic differentiation between target groups with different status (Jost et al., 2005).

Integrating the findings of Waldzus et al. (2005) and Jost et al. (2005), in this chapter it is argued that ingroup projection can be seen as a useful tool among high status group members for protecting the system and rationalizing the status quo. It is proposed that especially when system threat is coming from a member of a low status outgroup which also belongs to the same superordinate category, high status group members might derogate this low status group by projecting the ingroup attributes that differentiate them from this outgroup. In other words, based on the terminology of the *black sheep effect* (Marques & Paez, 1994), the low status outgroup would be derogated because it deviates

from the prototype of the superordinate category (Mummendey & Wenzel, 1999). It is also argued that these tendencies will be especially evident among high status group members who score high on system justifying tendencies. This is because for individuals more eager to rationalize the system, the easiest way to legitimize inequality and derogate the nested outgroup would be through ingroup projection.

In fact, Duckitt, Wagner, du Plessis and Birum (2002) showed that belief in a dangerous world and pro-ingroup attitudes increases negative attitudes to the more threatening outgroup (in this case, Africans) but not to the apparently less threatening outgroup (Indians). Therefore, it was hypothesized that when individuals high in system justifying tendencies are confronted with a threat to the superordinate category that is coming from an outgroup member who is also a member of the superordinate category (nested outgroup member), they would project the attributes of their ingroup that differentiate themselves from the outgroup. On the other hand, when the threat is coming from an outgroup member who is not a member of the superordinate category (unnested outgroup member), system justification motives would not moderate projection effects.

These hypotheses were tested by assessing the ingroup projection tendencies of White English participants towards being British, after being exposed to system threat (a potential terror attack on Britain) by an outgroup member who is also a member of the superordinate category (a British Muslim), as opposed to an outgroup member who is a member of another superordinate category (an Iranian Muslim). We have also measured system justifying tendencies of participants by using the *need for balance and complementarity scale* developed by Kay and Jost (2003). The attributes that were employed for projection ratings were selected by asking 15 students at the University of Kent to give five stereotypic attributes that describes Muslims in general. The five

attributes that were highest in frequency (*traditional, closed-minded, non-egalitarian, religious and collectivist*) were selected and the opposite of these attributes were employed for this study to represent non-Muslim attributes. These attributes were *modern, open-minded, egalitarian, nonreligious, and individualist*. We hypothesized that participants who scored high on the need for balance and complementarity scale would project these non-Muslim attributes to being British, especially when the terror threat came from a British Muslim (i.e. nested outgroup member) as opposed to an Iranian Muslim (unnested outgroup member).

Method

Participants and design. A hundred and twenty-eight undergraduate students (116 female, 12 male) with a mean age of 19.7 (range 17- 28) from University of Kent participated in this online study in exchange for credit. Participants were randomly assigned to *nested outgroup* threat (i.e. threat from a member of an outgroup which also belongs to superordinate category, $N = 44$), *unnested outgroup threat* (i.e. threat from a member of an outgroup which belongs to a different superordinate category, $N = 43$), and baseline conditions ($N = 41$).

Procedure. Participants read information indicating that the online study they were about to complete consisted of three different parts which are conducted by different researchers. While the first study was presented as a pretest that consisted of an attitudes scale, the second part was told to be about individuals' reactions towards specific news reports. The third study was argued to emphasize attitudes towards being British.

The first part of the study was the *need for balance and complementarity* scale which was used as a validation measure of the original system justification scale (Kay & Jost, 2003). After this scale, participants in the *nested outgroup* and *unnested outgroup* conditions read an essay that was presented as a news report published in *The Guardian*.

The information was:

In this part of the experiment, you will find a news report published on *The Guardian* on 23rd October. Please read this news report and answer the questions following.

“A British-born (*An Iranian-born*) Muslim student was jailed for eight years today for distributing material that glorified terrorism and suicide bombing in London.

Mohammed Abdullah, 25, was found guilty last month of providing training material on bomb making and of threatening to become a suicide bomber.

Mohammed was also convicted for distributing a range of terrorist material via the internet. He was convicted as guilty after a trial lasting eight months. He was accused of possessing and collecting items such as CDs and videos on weapons use, guerilla tactics and bomb making that could have been used for terrorist purposes. Witnesses also claimed that he glorified martyrdom operations regarding the suicide bombings on 7th July.”

In the *nested outgroup* threat condition, it was stated that the protagonist was a British-born Muslim student, whereas in the *unnested outgroup* threat condition, he was an Iranian-born Muslim student. Therefore, the membership of the protagonist to the superordinate category Britain was manipulated. Participants in the baseline condition did not receive any news report.

After this phase, participants completed three questions which measured their discomfort with the threat condition. These questions were: “I feel uncomfortable about what I have just read”, “I feel threatened about what I have just read” and “I feel uneasy about what I have just read”. A 6-point Likert-scale was used for all items with 1 representing *strongly disagree* and 6 representing *strongly agree*. These questions were added as a manipulation check of the perceived severity of the threat conditions.

As for the dependent variable, participants were asked to rate the applicability of the traits that they would see to being British in general (i.e. how representative these traits were for being British). These attributes were selected before the experiment by asking 15 White English undergraduate students at the University of Kent to list five attributes that characterize Muslims in general. The five most reported attributes were *traditional, closed-minded, non-egalitarian, religious* and *collectivist*. The opposite of these attributes were employed in the current experiment in order to find out to what extent White English participants would project non-Muslim attributes of themselves to the superordinate category. These attributes were *modern, open-minded, egalitarian, nonreligious*, and *individualist*. A 9-point Likert-scale was used for all items with 1 representing *does not apply at all* and 9 representing *applies very much*.

Need for “balance” and complementarity” measure. This scale was developed by Kay and Jost (2003) as a validation scale for their original system justification scale. As its name suggests, this scale measures general beliefs concerning need for balance and complementarity in the social world. The items of this scale were: “All in all, the world is a balanced place”, “some people have everything, while others have nothing” (reverse-scored), “a person who has recently experienced a string of bad breaks probably has something good coming to him or her”, “masculine traits perfectly complement feminine

traits (and vice versa)", "I agree with people who say that 'everything comes out even in the end', "the dice are basically 'loaded'; positive outcomes are distributed disproportionately to the 'winners' in society" (reverse-scored), "most people have both good and bad characteristics", "everything has its advantages and disadvantages" and "the social world is almost never in a state of 'harmony' or 'equilibrium'" (reverse-scored). A 7-point Likert-scale was used for all items with 1 representing *strongly disagree* and 7 representing *strongly agree*. The original alpha reliability index reported was .56¹². The items were averaged to come up with an overall need for balance and complementarity score for each participant.

Ingroup projection. Our only dependent variable was ingroup projection. This variable was calculated by averaging the representativeness ratings of five counter-Muslim attributes to being British.

Results

Reliability check for need for "balance" and "complementarity" scale. The nine-item need for balance and complementarity scale had adequate reliability ($\alpha = .51$). This reliability score was also quite close to the score reported by Kay and Jost (2003). As a result of the previously established correlation between need for balance and

¹² Although the reliability score for this test was found to be moderate, due to the untranslatable nature of the original system justification scale items to our British sample as well as the significant bivariate correlations among the two scales [$r(117) = .37, p < .001$], the use of this scale proved to be both necessary and adequate for our purposes.

complementarity scale with the original system justification scale, this reliability score was regarded as satisfactory for the purposes of this study.

Manipulation check. In order to see whether the two threat conditions differed from one another in terms of the discomfort they aroused in these participants, a one-way ANOVA was conducted on the average discomfort score. There was no effect of condition on perceived discomfort, $F(1, 85) = .056, p = .813$. This result showed that near-outgroup and far-outgroup threat did not change participants' perceptions of discomfort. Although this suggests that the manipulation did not work, the mean scores on the perceived discomfort in each condition suggest that both conditions resulted in equally high levels of discomfort ($M = 4.38$ for nested outgroup threat and $M = 4.44$ for unnested outgroup threat). As this might be interpreted as an inability of this manipulation check to show the finer differences between the conditions, threat conditions were used in the analyses below.

Ingroup projection. There was an overall positive correlation between need for balance and complementarity and ingroup projection, $r(128) = .181, p < .05$. Based on this finding, and the hypothesis on the moderating effects of need for balance on the two threat conditions, a hierarchical regression analysis was performed predicting projection levels from the two threat conditions (i.e. nested and unnested outgroup threat) and need for balance and complementarity ratings, with their interaction entered in Step 2. Results showed that there was a main effect of condition, $t(84) = 2.44, p < .05$ and a main effect of need for balance and complementarity, $t(84) = 3.01, p < .005$. There was also a significant interaction between condition and need for balance and complementarity, $t(84) = -2.46, p < .05$.

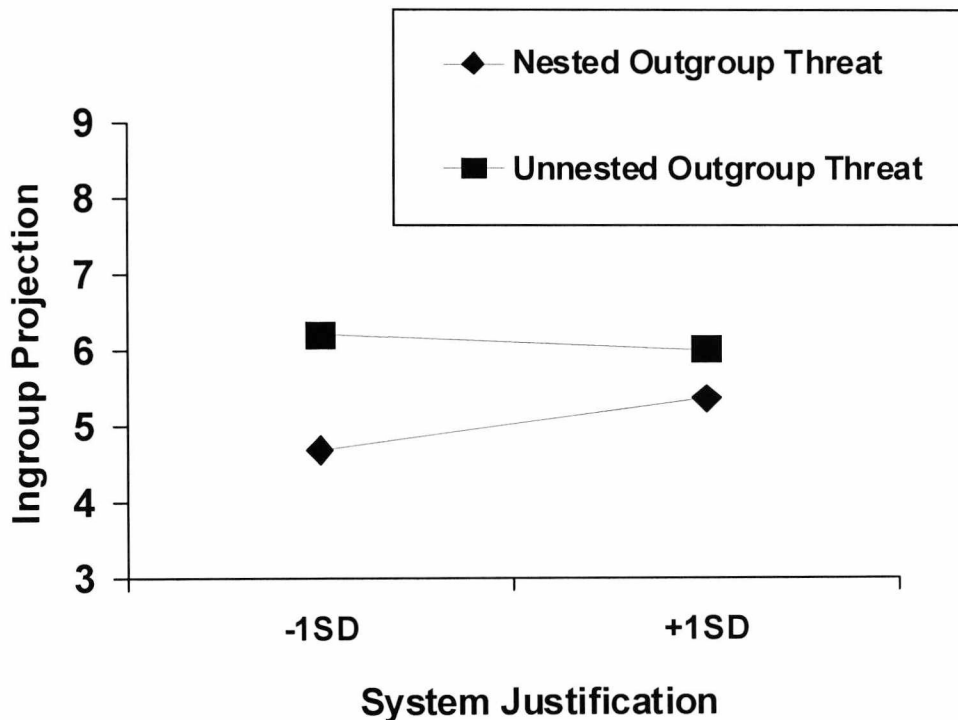
Table 1: Descriptive statistics and Pearson correlations for the two regression variables (need for balance and complementarity scale, and ingroup projection) for Study 8.

	Mean	SD	Pearson correlation (<i>r</i>)
			Need for Balance & Complementarity
Ingroup Projection (5 items)	5.87	.92	.218*
Need for Balance And Complementarity (9 items)	3.87	.58	-

* $p < .05$.

Figure 1 plots the relationship between threat conditions and ingroup projection for high and low need for balance and complementarity conditions (one SD above and one SD below the mean, respectively). Simple slopes analysis (following Aiken & West, 1991) showed that when the need for balance and complementarity was low, the relationship between threat condition and ingroup projection approached significance, $\beta = .29$, $t(84) = 1.87$, $p = .065$. On the other hand, when the need for balance and complementarity was high, the relationship between threat condition and ingroup projection was less reliable, $\beta = -.25$, $t(84) = -1.68$, $p = .096$.

Figure 1: Projection as a function of threat condition at one standard deviation (SD) above and below the mean need for balance and complementarity score.



In order to see whether there were within-condition differences as a function of need for balance and complementarity, simple slopes analyses were conducted for nested outgroup threat and unnested outgroup threat conditions separately. Results showed that the need for balance and complementarity scale was positively related to ingroup projection when the threat was from coming from the nested outgroup, $\beta = .41, t(42) = 2.90, p < .01$. This result showed that when the threat is coming from a nested outgroup, participants who were higher in their need for balance and complementarity engaged in higher levels of ingroup projection, compared to those who were low in their need for balance and complementarity. However, the same pattern did not emerge for the unnested outgroup threat condition $\beta = -.12, t(42) = -.74, p = .46$. Together, these results are in line with expectations and seem to suggest that need for balance moderates individuals' levels

of ingroup projection only when the threat is coming from an outgroup which is also a member of the same superordinate category.

Discussion

The final study of this thesis looked at high status group members' ingroup projection tendencies when they are faced with system threat. It was hypothesized that individuals' levels of need for balance and complementarity (i.e. measuring system justification tendencies) would moderate the effects of type of threat on ingroup projection such that when the threat is coming from a nested outgroup (i.e. another subgroup that belongs to the same superordinate category: British Muslims), individuals were expected to project their ingroup attributes that differentiate them from the outgroup more, compared to when the threat is coming from an unnested outgroup (i.e. an outgroup that does not belong to the same superordinate category; Iranian Muslims). Our results partially supported these predictions. It was found that when the threat was from a nested outgroup, participants who were higher in their need for balance and complementarity engaged in higher levels of ingroup projection compared to the ones who were low in their need for balance and complementarity. In other words, individual differences in need for balance and complementarity (which can also be perceived as a measure of system justification) predicted whether ingroup members would engage in ingroup projection to derogate the source of threat or not. This result is important because it shows that the need for preserving order and the status quo can be achieved by reducing the representativeness of the perceived threat source in society. However, as discussed in previous chapters, by reducing the representativeness of other subgroups, not only do ingroup members feel that

these outgroups are not entitled to the superordinate category's resources, they also justify any further discrimination towards them. By showing this link, it is argued that ingroup projection is used as a legitimizing myth of inequality, especially when the system is perceived to be under threat.

On the other hand, a direct relationship was found between the system justification measure and ingroup projection, such that irrespective of condition, individuals who were high in their system justification tendencies showed greater overall ingroup projection. This finding is important in the sense that it indicates the need for system justifying motives can be satisfied by claiming higher levels of ingroup projection among high status groups. In other words, it is likely that high status groups use ingroup projection as a tool for rationalizing status inequalities in society.

Although these results suggest a relationship between system justifying tendencies and ingroup projection among high status group members, they could also be interpreted as reflecting ego justification of high status group members. Since the ego and system justification mechanisms would operate in the same direction for high status group members, it is difficult to disentangle their effects (Jost & Hunyady, 2002). One possible way to clarify these findings would be through looking at ingroup projection tendencies among low status group members when they are faced with similar kinds of perceived threat coming from the nested outgroup. Although the system justifying tendencies of low status groups have been examined in previous chapters, it is argued that investigating the relationship between system threat and ingroup projection among low status groups deserves further consideration.

A possible interpretation of the direct effect of levels of system justification on ingroup projection is through the lens of uncertainty. Jost and Hunyady (2002) argue that

one of the underlying reasons for the motive to preserve the status quo is to avoid uncertainty. As described in Chapter 4, social projection is observed more when individuals' uncertainty about their group is high (Otten, 2002). Based on these explanations, it can be argued that individuals who score high on system justification might also show low tolerance to uncertainty, leading them to engage in higher projection. Although highly speculative at this point, the relationship between uncertainty and ingroup projection requires further investigation.

Finally, although it is proposed that system justification is the critical ideological motive leading subgroup members to derogate the threatening nested outgroup, it is also likely that other motives, such as the need to protect against anxiety concerning human vulnerability and mortality, might cause individuals to project more of their subgroups' characteristics to the superordinate category. In fact, Pyszczynski and colleagues (Pyszczynski et al., 1996) showed that when individuals are reminded of their mortality, they believed that higher numbers of people endorsed the same belief as them. This is in line with the basic idea of Terror Management Theory (Greenberg, Pyszczynski, & Solomon, 1986), which states that individuals provide protection against anxiety that concerns human vulnerability and mortality by defending their cultural worldviews. One of the mechanisms that they use to protect these worldviews is to argue that other people agree with their worldviews. However, this process of consensual validation can be at the expense of reality. The fact that mortality salience also leads to these false consensus estimates suggests that the effects of system threat on ingroup projection that was evident in Study 8 might also be explained by terror management theorists as a way to overcome existential threat. Future studies should aim to look at whether the system threat needs to

incorporate fear of death to increase subgroup members' derogatory judgments towards the nested outgroups.

In sum, despite Study 8's shortcomings, its findings are of critical importance in today's social and political atmosphere in which terror threat dominates the interaction among members of different ethnic or religious groups within a country. Study 8 suggests that ingroup projection could be used instrumentally to derogate the nested outgroup that is seen as the cause of threat. Moreover, this critical role of ingroup projection is more likely to be employed by individuals who are motivated to legitimize the inequality in society (i.e. high in system justifying tendencies). Together with the studies presented in Chapter 6, the above findings show that together with motivational mechanisms, ideological mechanisms are also critical to determine ingroup projection tendencies of subgroup members.

It is argued throughout this thesis that ingroup projection is a crucial mechanism through which subgroup members legitimize inequality, affirm their group's wellbeing and derogate subgroups that are seen as the cause of threat. It is argued that cognitive, motivational and ideological processes would work hand in hand in order to determine subgroup members' ingroup projection levels. In the next and final chapter of this thesis, an overall summary of the aims and findings will be presented and future work that needs to be carried out on ingroup projection research will be proposed.

Chapter 8 – General Discussion

This chapter provides a general summary of the conclusions that can be drawn from the eight studies presented in this thesis. The contribution of cognitive, motivational and ideological factors in determining ingroup projection was investigated in detail throughout the preceding empirical chapters. On the basis of these findings, it is concluded that cognitive determinants such as the coherence and complexity of superordinate category; motivational determinants such as subgroup status, intergroup threat, ingroup identification and group affirmation; and ideological determinants such as perceived stability and system justification contribute significantly to the emergence of ingroup projection. The joint effects of cognitive and motivational factors as well as motivational and ideological factors are further discussed. Finally, this chapter finishes by discussing the implications of these studies for ingroup projection research in particular and for intergroup relations in general.

This thesis is divided into three main sections, all of which aim to understand the dynamics of ingroup projection in greater detail with a different focus. Until recently, ingroup projection was argued to be predominantly guided by the motive to achieve and maintain *positive distinctiveness* (Mummendey & Wenzel, 1999). Basing the model's theoretical background on social identity and self-categorization theories, Mummendey and Wenzel (1999) argued that when the inclusive category was salient, positive distinctiveness could only be achieved through claiming greater relative prototypicality of

one's subgroup's characteristics to the superordinate category in relation to an outgroup that was also a member of the inclusive category. As a result of their greater relative prototypicality judgments, subgroup members were also argued to consider members of their own group to be more entitled than outgroup members to the superordinate category's rights and resources. Moreover, by disregarding other possible definitions of the superordinate category and defining it only on characteristics of their own subgroup, these group members were also argued to *justify* their ingroup's superiority over other subgroups. This legitimization process is argued to lay the foundations for discrimination against other subgroups (Wenzel, 2001; 2004). Although evidence has been provided for the relationships among relative prototypicality, perceived legitimacy and negative attitudes towards nested outgroups, research focusing on the other possible determinants of ingroup projection is currently at a developing stage. The aim of this thesis was to combine the existing literature and fill these gaps by investigating the different mechanisms through which ingroup projection can occur. A summary of each of the findings with regards to each of these mechanisms is provided below.

Cognitive Processes of Ingroup Projection

The aim of Chapter 4 was to examine the effects of complexity and coherence of superordinate category representations in determining subgroup members' levels of ingroup projection. Following the argument made by Mummendey and Wenzel (1999) suggesting that ingroup projection can be determined by the representation of the superordinate category, and the findings which suggested that having a complex

superordinate category representation reduces ingroup projection, in Studies 1 and 2 manipulated the complexity of the superordinate category representation in a minimal group paradigm. However, it was argued that complexity would reduce ingroup projection at the expense of superordinate group identification, and that there is an alternative way of reducing ingroup projection which does not lead to reduced levels of ingroup projection. It was proposed that by manipulating the coherence of the superordinate category (i.e. by making its structure more organized) ingroup projection would be reduced, as this way subgroup members would have a clearer understanding of the similarities and differences between their subgroup and the nested outgroup that makes up the inclusive category. This argument was based on the research on social projection, which showed that individuals use characteristics of themselves when they are asked to define a novel, ill-defined ingroup (Otten, 2002). Machunsky and Meiser (2009a) also provided support for this argument in the intergroup context by arguing that just like social projection, ingroup projection could be a heuristic process that subgroup members engage in when the definition of the superordinate category is unclear. Based on these arguments, in Studies 1 and 2, both complexity and coherence of superordinate category representations were manipulated in a minimal group setting. Results supported the above arguments by showing that both complexity and coherence reduced ingroup projection, such that ingroup members projected their subgroup's attributes onto a superordinate category more strongly when the superordinate category was defined in a simple and incoherent way. In order to provide support for the argument that complexity reduced ingroup projection at the expense of superordinate group identification but that coherence did not, in Study 3 superordinate group identification levels were measured after participants were exposed to superordinate category representations varying in complexity and coherence. Results showed that

subgroup members identified less with the superordinate category when its representation was complex compared to when it was simple. However, identification with the superordinate category was unaffected by coherence of the representation. These findings showed that although complexity and coherence might reduce ingroup projection to similar degrees, the former did so through reduced superordinate group identification. This is in line with the assumption of *optimal distinctiveness theory* (Brewer, 1991), according to which when group memberships become more inclusive, individuals' need for inclusion is satisfied but at the same time their need for differentiation is activated. Thus, complex superordinate category representation might have increased the motivation for differentiation among subgroup members, and this in turn might have made them disidentify with the inclusive category.

The above findings have two important implications. First, they provide further support for Machunsky and Meiser's (2009a) argument that there is a heuristic component of ingroup projection, such that when the superordinate category lacks clarity (i.e. is disorganized, unstructured, lacks coherence), individuals use their own subgroups – which they know best – to define the inclusive category. In this situation, ingroup projection is argued to be automatic. Therefore in Studies 1 and 2, the lack of clarity of the inclusive category through its incoherent superordinate representation activated the use of this heuristic processing strategy, and resulted in higher ingroup projection. These findings are also in line with *uncertainty-identity theory's* (Hogg, 2000a; 2007) assumption that individuals look for clarity and certainty in their group membership. Under conditions that lack this clarity, in order to reduce uncertainty, individuals would be more likely to identify with groups that have clear boundaries and are high in entitativity. Empirical studies supported this model such that when uncertainty was manipulated, both ingroup

identification and relative ingroup favouritism in the minimal group setting were also affected (Grieve & Hogg, 1999; Hogg, 2001; Hogg & Mullin, 1999). Following Otten's (2002) proposition that the effects of uncertainty reduction could be mediated by social projection, it is argued that ingroup projection might also occur for the same reason, that is to reduce the uncertainty that is experienced as a result of the superordinate category's lack of clarity. Therefore, it was proposed that future studies should directly look at the influence of uncertainty management on ingroup projection through heuristic processing.

The second important implication of these studies is that they underline the joint influence of cognitive and motivational factors in determining ingroup projection. The heuristic processing that seems to surface as a result of incoherent superordinate category representation makes it similar to social projection in the sense that both are predominantly automatic processes. However, just as social projection is argued to be moderated by social categorization (see Robbins & Krueger, 2005, for a review), the results of Study 3 suggest that the same can be true for ingroup projection, such that superordinate group identification works together with the representation of the superordinate category to determine subgroup members' representativeness judgments regarding the inclusive category. Thus, in line with Machunsky and Meiser's (2009b) conclusion, it is argued that both cognitive and motivational processes can contribute simultaneously to perceptions of ingroup prototypicality.

Following the above findings, it was crucial to determine the motivational factors that lead to ingroup projection. Based on the recent proposition of ingroup projection theorists, (Bianchi, Mummendey, Steffens, & Yzerbyt, 2009; Machunsky & Meiser, 2009a; 2009b) suggesting that threat to the ingroup might be a factor that elicits

motivational processes, the focus of Chapter 5 was to examine the ingroup projection tendencies of subgroup members in response to superordinate level threat.

Motivational Processes of Ingroup Projection

The main aim of Chapter 5 was to investigate the instrumental use of ingroup projection among subgroup members as an identity management strategy. Following the finding that superordinate ingroup identification works jointly with cognitive factors to determine ingroup projection, motivational determinants of ingroup projection were further investigated by manipulating superordinate category threat. It was argued that individuals who are highly identified with the superordinate category would be most likely to project their subgroup's characteristics when the former group is under threat in order to protect it. However, based on the findings on the effects of subgroup's status on stereotyping (Ellemers, Doosje, van Knippenberg, & Wilke, 1992; Martinot, Redersdorff, Guimond, & Dif, 2002), it was also argued that high status subgroup members would be most likely to engage in this protective ingroup projection in order to preserve their high status in the inclusive category.

In Studies 4 and 5, subgroup status and superordinate category threat are manipulated simultaneously. It was expected that ingroup projection would be strongest among high status subgroup members who are exposed to a superordinate level threat and who identify highly with the superordinate category. For Study 4, results only showed that in the high status subgroup condition, identification with the superordinate category predicts ingroup projection. However, there was an interesting tendency observed on the

relationship between perceived status stability, subgroup status, superordinate threat and ingroup projection such that among individuals who were in the high status subgroup and who were exposed to superordinate category threat, those who perceived status differences between subgroups and superordinate groups to be unstable engaged in higher levels of ingroup projection, compared to subgroup members who perceived status differences to be stable. Although this tendency is in line with Tajfel and Turner's (1979) argument underlining the importance of sociostructural variables in determining social competition and social change, the nonsignificant nature of these findings limits any further interpretation. As for Study 5, which replicated Study 4 after eliminating the shortcomings of its experimental manipulation, results did not support predictions in that high status subgroups did not show highest level of ingroup projection under threat. As for equal status subgroup members, on the other hand, they engaged in lower levels of ingroup projection when there was threat to the superordinate category compared to when there was not.

Although the predicted pattern of results was not observed in Studies 4 and 5, they provide insights to our understanding of strategic uses of ingroup projection. First, the different ingroup projection levels observed as a function of subgroup status and superordinate level threat suggest that subgroup status is a critical factor that determines the context in which ingroup projection will be used to protect the superordinate category. Second, the inhibition of ingroup projection among equal status subgroup members can be interpreted as a group affirmation strategy, such that these individuals who were unable to affirm their subgroup's integrity through acknowledging its high status, choose to repair the integrity of their subgroup by projecting less when the inclusive category is threatened. This interpretation is also in line with the findings of Sherman, Kinias, Major, Kim and

Prenovost (2007) as both suggest that when an alternative group value that is unrelated to the actual threat is affirmed, group serving biases disappear. Therefore, it is likely that the feedback high status subgroup members received regarding their subgroup's social standing acted as a buffer against the inhibition of ingroup projection in order to affirm their ingroup. However, another possible explanation for the observed effects among equal status subgroup members might be that equal status groups endorsed a higher need for distinctiveness from the superordinate category under threat compared to high status subgroups. In this situation, it is likely that the use of low status subgroups instead of equal status subgroups would have given different results, as the latter would have been more likely to find ways to rationalize their lower status by affirming their group values on status irrelevant dimensions (Ellemers & van Rijswijk, 1997).

In sum, with the findings of Chapter 5, strategic use of ingroup projection was underlined by showing that inhibition of ingroup projection under threat can be observed as a result of group affirmation needs. Moreover, subgroup status differences as a critical determinant on ingroup projection is established. However, a few questions stemming from the tendency which showed that lower levels of perceived stability resulted in higher ingroup projection among high status subgroup members' suggested that sociostructural variables needed further investigation. In order to address these issues, in Chapter 6 ingroup projection levels of high and low status subgroup members are compared in relation to sociostructural variables (i.e. perceived stability, legitimacy and permeability of status differences). These comparisons led to the debate on whether ingroup projection can be used as a strategy to legitimize status differences, in other words whether individuals can rationalize inequality through ingroup projection.

Ideological Processes of Ingroup Projection

The main aim of Chapters 6 and 7 was to look at whether reduced levels of ingroup projection observed among low status group members in earlier empirical studies could be explained by their endorsement of the idea that they were less deserving than high status subgroups (Major, 1994). It was proposed that one way which low status subgroup members might legitimize inequality between themselves and the high status subgroup was by claiming relatively lower representativeness regarding their subgroup compared to the outgroup. However, in order to show that this was not merely a matter of *passive reflection of social reality* but in fact an *active attempt to legitimize inequality* (cf. Rubin & Hewstone, 2004), Study 6 compared low and high status subgroup members' perceptions of their relative prototypicality of the superordinate category to those of unaffiliated group members. It was argued that if low status subgroup members' judgments of their ingroup's representativeness were lower than those of an unaffiliated control group, this could be interpreted as an attempt to actively legitimize inequality. Similarly, their prototypicality ratings for the high status subgroup were expected to be higher than the unaffiliated group's ratings of the high status subgroup, if indeed there was an active legitimization of inequality. The results of Study 6 partially supported these expectations such that both the high and low status subgroups regarded the high status subgroup to be more representative of the superordinate category than low status subgroup, compared to the ratings of the unaffiliated control group. On the other hand, the prediction regarding the lower representativeness judgments of the low status subgroup regarding their own traits was partially supported, such that only participants who perceived the status differences

between groups to be stable engaged in lower ingroup projection compared to members of the unaffiliated control group.

Although the above results were more supportive of the *active legitimization* argument, the fact that there was a positive correlation between ingroup projection among low status subgroup members and perceived stability of status differences suggested that active legitimization could be possible through the moderating role of perceptions of instability. Study 7 aimed to see whether active legitimization tendencies of low status subgroups would still be observed when the superordinate category was negatively valenced. In line with the arguments of system justification theory, it was proposed that low status subgroup members would project their subgroup's negative characteristics more when the superordinate category was negatively valenced. This was argued to occur as a result of low status group members' motive to *take blame* for the negativity of the inclusive category. Again, after comparing low status group members' relative prototypicality ratings to those of unaffiliated group members, low status group members claimed that their negative traits represented the superordinate category more than control group members did. Together with the findings of the previous study, overall these results suggested that low status subgroup members do not always merely reflect status differences between themselves and high status outgroups when they argue that they are less deserving. Instead, these lower levels of entitlement through ingroup projection might be an active attempt to legitimize inequality.

Although social identity theory (Tajfel & Turner, 1986) acknowledges the fact that low status group members might engage in outgroup favouritism, this is argued to be a result of *social reality constraints*, that force them to accept the stability and legitimacy of the status quo. In other words, according to this theory active social, cognitive and

motivational rejection of alternatives to the status quo is not possible. However, the findings of Study 6 and 7 challenge this assumption, by arguing that even members of disadvantaged groups can be motivated to legitimize the system. In line with these findings, it is argued that perceived legitimacy and stability might not be a precondition for system justifying tendencies, but rather if the low status subgroup members have a motive to engage in system justification, then they would be more likely to perceive the system as stable and legitimate.

In order to investigate the effects of system justification on ingroup projection more directly, and to see whether ingroup projection can be used strategically to derogate the threatening outgroup, Chapter 7 investigated ingroup projection tendencies of high status subgroup members when they are faced with a system threat. It was proposed that high status subgroup members would derogate the nested outgroup that was seen as the cause of threat by projecting their counter outgroup attributes to the inclusive category. On the other hand, the ideological motive to justify the system was argued to moderate these effects such that individuals who believed that the system was fair, legitimate and justifiable were expected to be more likely to accentuate their counter outgroup attributes. These predictions were supported in the context of terror threat in UK. It was found that White English participants (the high status subgroup) projected the characteristics that differentiated them from British Muslims to the superordinate category more when they were exposed to a system threat coming from a member of this nested outgroup. Moreover, as expected the accentuation of counter-Muslim characteristics was higher among individuals who scored high in the scale measuring system justification. These results show that the ideological motive to justify the system can lead subgroup members to justify the derogation of threatening subgroup members and in turn legitimize the

discrimination directed at them. In sum, by underlining the critical role of system justification on ingroup projection, the last part of this thesis provides direct evidence to how ideology can shape the representation of categories and serve the goals of the perceiver.

Conclusions, Implications and Directions for Future Research

This thesis provides support for the argument that cognitive, motivational and ideological processes can all determine the extent of ingroup projection depending on the specific context. Ingroup projection as a result of heuristic information processing is observed when the representation of superordinate category representation is unclear. On the other hand, lowered levels of ingroup projection as a result of complex superordinate category representations seem to occur at the expense of superordinate group identification. Together these findings suggest that although promoting diversity in society is crucial, its positive consequences partially depend on the fact that individuals still feel identified with the inclusive category. Moreover, the similarities and differences between subgroups should continuously be emphasized in an organized, systematic fashion so that subgroup members have a clear idea of how much each group contributes to the definition of the inclusive category. This way, heuristic processes can be inhibited, making subgroup members define the superordinate category in an unbiased fashion, favouring their own subgroup and the nested outgroups equally. These findings are in line with the arguments of Bianchi and colleagues (Bianchi, Mummendey, Steffens, & Yzerbyt, 2009; Machunsky & Meiser, 2009a; 2009b), such that they emphasize the joint influence of cognitive and

motivational factors in determining ingroup projection. One way in which this line of research can be further investigated is through looking at the moderating effects of subgroup members' levels of uncertainty following incoherent superordinate group representation. It is possible that the heuristic processes that accompany incoherent superordinate group representation activates the uncertainty reduction motive among subgroup members, which in turn makes them resort to the characteristics of their subgroup for certainty.

By emphasizing the lower identification of subgroup members with the superordinate category under heightened levels of diversity, or by underlining the group affirmation needs of equal status subgroups under superordinate threat, the strategic use of ingroup projection is demonstrated. However, more work is needed to see when and under what circumstances ingroup projection is inhibited among low status subgroup members. Although this thesis underlines the importance of the possibility of *active legitimization* of inequality among disadvantaged groups, further research is needed to determine the conditions that enhance and inhibit this system justifying tendency. For future research, stability and legitimacy of status differences can be manipulated in order to see whether they alter the ingroup projection levels of low and high status subgroup members.

As for the findings of Study 7, which demonstrated the moderating role of system justification in determining the strategic use of ingroup projection to derogate the outgroup, further research should look at whether this effect is specific to the system justification motive, or whether it could be explained by other motives such as uncertainty management, or terror management. Based on previous research on consensus judgments, it is possible to argue that under system threat, subgroup members might resort to ingroup projection in order to achieve certainty, or to protect themselves from death related

concerns. Finally, although previous research suggested the link between perceived legitimacy and ingroup projection as well as ingroup projection and negative attitudes towards outgroups, a more comprehensive study of the relationship among these three variables is needed, to provide an empirical model for the ingroup projection phenomenon.

It has been a decade since Mummendey and Wenzel's (1999) seminal article and ingroup projection is establishing itself as a critical step leading to discrimination in inclusive intergroup settings. In this thesis, it is concluded that cognitive determinants such as superordinate category coherence and complexity; motivational determinants such as subgroup status, intergroup threat, ingroup identification and group affirmation; and ideological determinants such as perceived stability and system justification contribute significantly to the subgroup members' ingroup projection. It is also shown that these processes do not occur independent of one another, but rather happen jointly depending on contextual factors.

The findings of this thesis offer a number of suggestions for policy makers with regards to promoting reduction of prejudice. First, it is suggested that when attempting to promote tolerance and inclusion, as well as emphasizing diversity, policy makers should aim to educate the public about similarities and differences between subgroups within the society, and how these characteristics define being a member of the inclusive category. This would help members of the dominant subgroup to recognize that being a member of the superordinate category encompasses more than just having the characteristics of their subgroup and therefore inhibit ingroup projection. For example, in the context of Britain, this attempt would involve making sure that subgroups within Britain realize that being British means more than just having White English characteristics.

Second, in order to address the different motives of subgroup members with different status, policy makers should aim to focus on each subgroup's needs in relation to their relative position in society. For example, positive feedback regarding the achievements of a low status subgroup within the society should be acknowledged in order to make sure that these group members do not feel inferior in relation to higher status subgroups, and affirm their group integrity. This would not only help disadvantaged group members to feel positive about their subgroup, but also make sure that both advantaged and disadvantaged subgroup members consider these subgroups as having equal entitlement of resources as a result of their positive contribution to society.

Third, in a world in which debates on multiculturalism and terrorism are in the headlines, ingroup projection through derogation of the 'threatening' subgroup plays a crucial role in legitimization of discrimination. Policy makers and researchers should realize that ingroup projection in this case is the missing piece that links ingroup bias and prejudice, and in this sense is likely to be the basis of extreme forms of nationalism. Therefore, policies should focus on underlining that the subgroups which might be derogated as a result of their link to terrorism can in fact be defined by other ways that emphasize their positive contribution to society.

In sum, in this thesis ingroup projection was proposed to be a crucial mechanism to measure the underlying effects of ingroup bias and discrimination. Extensive research should continue to uncover the content, context and processes of ingroup projection in order to achieve harmonious intergroup relations.

References

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267- 299). New York: Academic Press.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Allport, F. H. (1924). *Social Psychology*. Boston : Houghton Mifflin.
- Ames, D. R. (2004). Strategies for social inference: A similarity contingency model of projection and stereotyping in attribute prevalence estimates. *Journal of Personality and Social Psychology*, 87, 573- 585.
- Azzi, A. (1992). Procedural justice and the allocation of power in intergroup relations: Studies in the United States and South Africa. *Personality and Social Psychology Bulletin*, 18, 736- 747.
- Bianchi, M., Machunsky, M., Steffens, M. C., & Mummendey, A. (2009). Like me or like us: Is ingroup projection just social projection? *Experimental Psychology*, 56, 1618-1639.
- Bianchi, M., Mummendey, A., Steffens, M., & Yzerbyt, V. (2009). *What do you mean by European? Evidence for spontaneous ingroup projection*. Manuscript submitted for publication.
- Blader, S. L., & Tyler, T. R. (2003). A four-component model of procedural justice: Defining the meaning of a “fair” process. *Personality and Social Psychology Bulletin*, 29, 747- 758.

- Blanton, H., George, G., & Crocker, J. (2001). Contexts of system justification and system evaluation: Exploring the social comparison strategies of the (not yet) contended female worker. *Group Processes and Intergroup Relations*, 4, 127- 138.
- Blanz, M., Mummendey, A., Mielke, R., & Klink, A. (1998). Responding to negative social identity: A taxonomy of identity management strategies. *European Journal of Social Psychology*, 28, 697- 729.
- Branscombe, N.R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35- 58). Oxford, England: Blackwell.
- Branscombe, N. R., Spears, R., Ellemers, N., & Doosje, B. (2002). Intragroup and intergroup evaluation effects on group behaviour. *Personality and Social Psychology Bulletin*, 28, 744- 753.
- Branscombe, N. R., & Wann, D. L. (1994). Collective self-esteem consequences of outgroup derogation when a valued social identity is on trial. *European Journal of Social Psychology*, 24, 641- 657.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475- 482.
- Brewer, M. B., Manzi, J. M., & Shaw, J. S. (1993). In-group identification as a function of depersonalization, distinctiveness, and status. *Psychological Science*, 4, 88- 92.
- Brown, R., Vivian, J., & Hewstone, M. (1999). Changing attitudes through intergroup contact: The effects of group membership salience. *European Journal of Social Psychology*, 29, 741- 764.
- Cadinu, M., & Rothbart, M. (1996). Self-anchoring and differentiation processes in the minimal group setting. *Journal of Personality and Social Psychology*, 70, 661- 677.

- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavalley, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*, 141- 156.
- Chanley, V. A. (2002). Trust in government in the aftermath of 9/11: Determinants and consequences. *Political Psychology, 23*, 469- 483.
- Clayton, S., & Opatow, S. (2003). Justice and identity: Changing perspectives on what is fair. *Personality and Social Psychology Review, 7*, 298- 310.
- Clement, R. W. ,& Krueger, J. I. (2002). Social categorisation moderates social projection. *Journal of Experimental Social Psychology, 38*, 219- 231.
- Cohen, R. L. (1987). Distributive justice: Theory and research. *Social Justice Research, 1*, 19- 40.
- Crisp, R. J. (2009). Prejudice and perceiving multiple identities. To appear in In J. F. Dovidio, M. Hewstone, P. Glick & V. M. Esses (Eds.), *Handbook of Prejudice, Stereotyping & Discrimination*. Thousand Oaks: Sage.
- Crisp, R. J., & Hogg, M. A. (2009). *Depersonalization and projection in groups: Two paths to uncertainty reduction and self-construal*. Manuscript submitted for publication.
- Crisp, R. J., Hogg, M. A., & Cortes B. (2009). *Project to protect: Motivated identification for self-confident individuals*. Manuscript in preparation.
- Crisp, R. J., Stone, C. H., & Hall, N. R. (2006). Recategorisation and subgroup identification: Predicting and preventing threats from common ingroups. *Personality and Social Psychology Bulletin, 32*, 230- 243.
- CRE (2005). *Citizenship and belonging: What is Britishness?* London: Commission for Racial Equality.

- Crocker, J. & Luhtanen, R. (1990). Collective self-esteem and ingroup bias. *Journal of Personality and Social Psychology*, 58, 60- 67.
- Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., Vol.2, pp. 504- 553). New York: McGraw Hill.
- Crosby, F. (1982). *Relative deprivation and working women*. New York: Oxford University Press.
- Derks, B., van Laar, C., & Ellemers, N. (2006). Striving for success in outgroup settings: Effects of contextually emphasizing ingroup dimensions on stigmatized group members' social identity and performance styles. *Personality and Social Psychology Bulletin*, 32, 576- 588.
- Derks, B., van Laar, C., & Ellemers, N. (2009). Working for the self or working for the group: How self-versus group affirmation affects collective behaviour in low-status groups. *Journal of Personality and Social Psychology*, 96, 183- 202.
- Deutsch, M. (1975). Equity, equality, and need: What determines which value will be used as the basis of distributive justice? *Journal of Social Issues*, 31, 137- 149.
- Deutsch, M. (1985). *Distributive justice: A social-psychological perspective*. New-Haven, CT: Yale University Press.
- Devos, T., & Banaji, M. R. (2005). American = White? *Journal of Personality and Social Psychology*, 88, 447- 466.
- Dion, K. L. (1975). Women's reactions to discrimination from members of the same sex or opposite sex. *Journal of Research in Personality*, 9, 294- 306.
- Dion, K. L. & Earn, B. M. (1975). The phenomenology of being a target of prejudice. *Journal of Personality and Social Psychology*, 32, 944- 950.

- Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of Experimental Social Psychology, 31*, 410- 436.
- Doosje, B., Haslam, S. A., Spears, R., Oakes, P. J., & Koomen, W. (1998). The effect of comparative context on central tendency and variability judgments and the evaluation of group characteristics. *European Journal of Social Psychology, 28*, 173- 184.
- Doosje, B., Spears, R., & Ellemers, N. (1999). Commitment and intergroup behaviour. In N. Ellemers, R. Spears & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 59- 83).
- Doosje, B., Spears, R., & Ellemers, N. (2002). Social identity and both cause and effect: The development of group identification in response to anticipated and actual changes in the intergroup status hierarchy. *British Journal of Social Psychology, 41*, 57- 76.
- Doosje, B., Spears, R., & Koomen, W. (1995). When bad isn't all bad: Strategic use of sample information in generalization and stereotyping. *Journal of Personality and Social Psychology, 69*, 642- 655.
- Dovidio, J.F., Gaertner, S. L., & Validzic, A. (1998). Intergroup bias: Status, differentiation and a common ingroup identity. *Journal of Personality and Social Psychology, 75*, 109- 120.
- Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and prejudice: Testing a dual process model. *Journal of Personality and Social Psychology, 83*, 75- 93.

- Ellemers, N. (2001). Individual upward mobility and the perceived legitimacy of intergroup relations. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 205-222). New York: Cambridge University Press.
- Ellemers, N. & Barreto, M. (2001). The impact of relative group status: Affective, perceptual and behavioural consequences. In R. Brown & S. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup Processes* (Vol.3, pp. 324-343). Oxford: Blackwell.
- Ellemers, N., Doosje, B. J., van Knippenberg, & Wilke, J. (1992). Status protection in high status minority groups. *European Journal of Social Psychology*, 22, 123- 140.
- Ellemers, N., Spears, R., & Doosje, B. (1997). Sticking together or falling apart: In-group identification as a psychological determinant of group commitment and individual mobility. *Journal of Personality and Social Psychology*, 72, 617- 626.
- Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, 53, 161- 186.
- Ellemers, N., van Knippenberg, A., & Wilke, H. A. (1990). The influence of permeability of group boundaries and stability of group status on strategies of individual mobility and social change. *British Journal of Social Psychology*, 29, 233- 246.
- Ellemers, N., & van Rijswijk, W. (1997). Identity needs versus social opportunities: The use of group level and individual level identity management strategies. *Social Psychology Quarterly*, 60, 52- 65.
- Ellemers, N., van Rijswijk, W., Roefs, M., & Simons, C. (1997). Bias in intergroup perceptions: Balancing group identity with social reality. *Personality and Social Psychology Bulletin*, 23, 186- 198.

- Ellemers, N., Wilke, H., & van Knippenberg, A. (1993). Effects of the legitimacy of low group or individual status on individual and collective status- enhancement strategies. *Journal of Personality and Social Psychology*, 64, 776- 778.
- Epley, N., Keysar, B., & van Boven, L. (2004). Perspective taking as egocentric anchoring and adjustment. *Journal of Personality and Social Psychology*, 87, 327- 339.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117- 140.
- Ferree, M. M. (1990). Beyond separate spheres: Feminism and family research. *Journal of Marriage and the Family*, 52, 866- 884.
- Finley, S. (2006). *Social groups in times of change: The impact of a threatened identity*. Unpublished Doctoral Thesis. Australian National University, Canberra, Australia.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878- 902.
- Folger, R. (2001). Fairness as deonance. In S. Gilliland, D. Steinder, & D. Skarlicki (Eds.), *Theoretical and cultural perspectives on organizational justice* (pp. 3- 33). Greenwich, CT: Information Age.
- Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorisation and the reduction of intergroup bias. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 4, pp. 1- 26). Chichester, UK: Wiley.
- Gaertner, S. L., Dovidio, J. F., Nier, J. A., Ward, C. M., & Banker, B. S. (1999). Across cultural divides: The value of a superordinate identity. In D. A. Prentice & D. T.

- Miller (Eds.), *Cultural divides: Understanding and overcoming group conflict* (pp. 173- 212). New York: Russell Sage Foundation.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The cause and consequence of the need for self-esteem. A terror management theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189- 212). New York: Springer-Verlag.
- Grieve, P. G., & Hogg, M. A. (1999). Subjective uncertainty and intergroup discrimination in the minimal group situation. *Personality and Social Psychology Bulletin*, 25, 926- 940.
- Haines, E. L., & Jost, J. T. (2000). Placating the powerless: Effects of legitimate and illegitimate explanation of affect, memory, and stereotyping. *Social Justice Research*, 13, 219- 236.
- Hall, N. R., & Crisp, R. J. (2005). Considering multiple criteria for social categorisation can reduce intergroup bias. *Personality and Social Psychology Bulletin*, 31, 1435- 1444.
- Haslam, S. A., & Turner, J. C. (1992). Context-dependent variation in social stereotyping 2: The relationship between frame of reference, self-categorization and accentuation. *European Journal of Social Psychology*, 22, 251- 277.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the 'contact hypothesis'. In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 1- 44). Oxford, UK: Blackwell.
- Hoch, S. J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology*, 53, 221- 234.

- Hogg, M. A. (2000a). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. *European Review of Social Psychology, 11*, 223-255.
- Hogg, M. A. (2000b). Social identity and social comparison. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 401-422). New York: Kluwer Academic/Plenum Publishers.
- Hogg, M. A. (2001). Subjective uncertainty reduction through self-categorization: A motivational theory of social identity processes. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology* (pp. 223- 255). Chichester, UK: Wiley.
- Hogg, M. A. (2006). Social identity theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 111-136). Palo Alto, CA: Stanford University Press.
- Hogg, M. A. (2007). Uncertainty-identity theory. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 39, pp. 70-126). San Diego, CA: Academic Press.
- Hogg, M. A. & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge.
- Hogg, M. A., Cooper-Shaw, L., & Holzworth, D. W. (1993). Group prototypicality and depersonalized attraction in small interactive groups. *Personality and Social Psychology Bulletin, 19*, 452- 465.
- Hogg, M. A., & Mullin, B. A. (1999). Joining groups to reduce uncertainty: Subjective uncertainty reduction and group identification. In D. A. Abrams & M. A. Hogg (Eds.), *Social identity and social cognition* (pp. 249- 279). Oxford: Blackwell.

- Hogg, M. A., Sherman, D. K., Dierselhuis, J., Maitner, A. T., & Moffitt, G. (2007). Uncertainty, entitativity, and group identification. *Journal of Experimental Social Psychology, 43*, 135-142.
- Hopkins, N., & Murdoch, N. (1999). The role of the 'other' in national identity: Exploring the context-dependence of the national ingroup stereotype. *Journal of Community & Applied Social Psychology, 9*, 321-338.
- Jetten, J., Spears, R., & Manstead, S. R. (1996). Intergroup norms and intergroup discrimination: Distinctive self-categorization and social identity effects. *Journal of Personality and Social Psychology, 71*, 1222-1233.
- Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology, 33*, 1-27.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology, 25*, 881- 919.
- Jost, J. T., Burgess, D., & Mosso, C. (2001). Conflicts of legitimation among self, group, and system: The integrative potential of system justification theory. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 363- 388). New York: Cambridge University Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*, 339- 375.
- Jost, J. T., & Hunyady, O. (2002). The psychology of system justification and the palliative function of ideology. *European Review of Social Psychology, 13*, 111- 153.

- Jost, J. T., & Kay, A. C. (in press). Social justice: History, theory, and research. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *The handbook of social psychology* (5th ed.). Boston, MA: McGraw-Hill.
- Jost, J. T., Kivetz, Y., Rubini, M., Guermendi, G., & Mosso, C. (2005). System-justifying functions of complementary regional and ethnic stereotypes: Cross-national evidence. *Social Justice Research, 18*, 305- 333.
- Jost J. T., Pelham, B. W., & Carvallo, M. R. (2002). Non-conscious forms of system justification: Cognitive, affective, and behavioural preferences for higher status groups. *Journal of Experimental Social Psychology, 38*, 586- 602.
- Jost, J. T., Pelham, B. W., Sheldon, O., & Sullivan, B. N. (2003). Social inequality and the reduction of ideological dissonance on behalf of the system: Evidence of enhanced system justification among the disadvantaged. *European Journal of Social Psychology, 33*, 13- 36.
- Judd, C. M. & McClelland, G. H. (1989). *Data analysis: A model comparison approach*. San Diego, CA: Harcourt Brace Jovanovich.
- Kay, A. C., Jimenez, M. C., & Jost, J. T. (2002). Sour grapes, sweet lemons, and the anticipatory rationalization of the status quo. *Personality and Social Psychology Bulletin, 28*, 1300- 1312.
- Kay, A. C., & Jost, J. T. (2003). Complementary justice: Effects of “poor but happy” and “poor but honest” stereotype exemplars on system justification and implicit activation of the justice motive. *Journal of Personality and Social Psychology, 85*, 823- 837.
- Kay, A. C., Jost, J. T., & Young, S. (2005). Victim derogation and victim enhancement as alternate routes to system justification. *Psychological Science, 16*, 240- 246.

- Klein, O., & Azzi, A. (2001). Procedural justice in majority- minority relations: Studies involving Belgian linguistic groups. *Social Justice Research, 14*, 25- 44.
- Krueger, J. I. (2007). From social projection to social behaviour. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 18, pp. 1- 35). Hove, UK: Psychology Press.
- Krueger, J. I., Acevedo, M., & Robbins, J. M. (2005). Self as sample. In K. Fiedler & P. Juslin (Eds.), *Information sampling and adaptive cognition* (pp. 353- 377). New York: Cambridge University Press.
- Krueger, J. I., & Clement, R. W. (1994). The truly false consensus effect: An ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology, 67*, 596- 610.
- Krueger, J. I., & Clement, R. W. (1996). Inferring category characteristics from sample characteristics: Inductive reasoning and social projection. *Journal of Experimental Psychology: General, 125*, 52- 68.
- Krueger, J. I., & Stanke, D. (2001). The role of self-referent and other-referent knowledge in perceptions of group characteristics. *Personality and Social Psychology Bulletin, 27*, 878- 888.
- Kuiper, N. A. & Rogers, T. B. (1979). Encoding of personal information: Self-other differences. *Journal of Personality and Social Psychology, 37*, 499- 514.
- Leonardelli, G. J., & Brewer, M. B. (2001). Minority and majority discrimination: When and why. *Journal of Experimental Social Psychology, 37*, 468-485.
- Lerner, M. J., Miller, D. T., & Holmes, J. G. (1976). Deserving and the emergence of forms of justice. *Advances in Experimental Social Psychology, 3*, 133- 162.

- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- Luhtanen, R. & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302- 318.
- Machunsky, M., & Meiser, T. (2009a). Ingroup projection as a means to define the superordinate category efficiently: Response time evidence. *Social Cognition*, 27, 57- 75.
- Machunsky, M., & Meiser, T. (2009b). *Ingroup projection or prototype projection? Cognitive and motivational components of biased prototypicality judgments in group perception*. Manuscript submitted for publication.
- Machunsky, M., Meiser, T., & Mummendey A. (2009). On the crucial role of mental ingroup representation for ingroup bias and the ingroup prototypicality- ingroup bias link. *Experimental Psychology*, 56, 1618- 1639.
- Major, B. (1993). Gender, entitlement, and the distribution of family labor. *Journal of Social Issues*, 49, 141- 159.
- Major, B. (1994). From social inequality to personal entitlement: The role of social comparisons, legitimacy appraisals, and group membership. *Advances in Experimental Social Psychology*, 26, 293-355.
- Major, B., Kaiser, C. R., O'Brien, L. T., & McCoy, S. K. (2007). Perceived discrimination as worldview threat or worldview confirmation: Implications for self-esteem. *Journal of Personality and Social Psychology*, 92, 1068- 1086.
- Major B. & Schmader, T. (2001). Legitimacy and the construal of social disadvantage. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives*

on ideology, justice, and intergroup relations (pp. 176- 204). New York:

Cambridge University Press.

- Marques, J. M., & Paez, D. (1994). The black sheep effect: Social categorization, rejection of ingroup deviates, and perception of ingroup variability. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol.5, pp. 37- 68). New York: Wiley.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63- 78.
- Martinot, D., Redersdorff, S., Guimond, S., & Dif, S. (2002). Ingroup versus outgroup comparisons and self-esteem: The role of group status and ingroup identification. *Personality and Social Psychology Bulletin*, 28, 1586- 1600.
- Maurer, K. L., Park, B., & Rothbart, M. (1995). Subtyping versus subgrouping processes in stereotype representation. *Journal of Personality and Social Psychology*, 69, 812- 824.
- McGarty, C., Haslam, A., Hutchinson, K. J., & Grace, D. M. (1995). Determinants of perceived consistency: The relationship between group entitativity and the meaningfulness of categories. *British Journal of Social Psychology*, 34, 237-256.
- Miller, D. T. (1999). The norm of self interest. *American Psychologist*, 54, 1053- 1060.
- Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, 22, 103- 122.
- Mullen, B., Dovidio, J. F., Craig, J., & Copper, J. (1992). In-group out-group differences in social projection. *Journal of Experimental Social Psychology*, 28, 422- 440.

- Mummendey, A., Mielke, R., Wenzel, M., & Kanning, U. (1996). Social identity of East Germans: The process of unification between East and West Germany as a challenge to cope with 'negative social identity'. In G. M. Breakwell & E. Lyons (Eds.), *Changing European identities: Social psychological analyses of social change* (pp. 405- 428). Woburn, MA, US: Butterworth-Heinemann.
- Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: Reactions to intergroup difference. *Personality and Social Psychology Review*, 3, 158-174.
- Nisbett, R. E. & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall.
- Oakes, P. J., Haslam, S. A., & Turner, S. C. (1998). The role of prototypicality in group influence and cohesion: Contextual variation in the graded structure of social categories. In S. Worchel, J. F. Morales, D. Paez & J. C. Deschamps (Eds.), *Social identity: International perspectives* (pp. 75- 92). London, UK & Newbury Park, USA: Sage.
- Onorato, R. S., & Turner, J. C. (2004). Fluidity in the self concept: The shift from personal to social identity. *European Journal of Social Psychology*, 34, 257- 278.
- Osborne, J. W. (1997). Race and academic disidentification. *Journal of Educational Psychology*, 89, 728- 735.
- Otten, S. (2002). The self as determinant of ingroup favoritism. In J. P. Forgas & K. D. Williams (Eds.), *The social self: Cognitive, interpersonal and intergroup perspectives* (pp. 273-291). Philadelphia: Psychology Press.
- Otten, S. (2005). The in-group as part of the self: Reconsidering the link between social categorization, in-group favouritism and the self-concept. In A. Alicke, D. Dunning

- & J. Krueger (Eds.), *The self in social judgment* (pp. 241- 265). Philadelphia: Psychology Press.
- Otten, S. & Bar-Tal, Y. (2002). Self-anchoring in the Minimal Group Paradigm: The impact of need and ability to achieve cognitive structure. *Group Processes and Intergroup Relations*, 5, 267-284.
- Otten, S & Epstude, K. (2006). Overlapping mental representations of self, ingroup, and outgroup: Unravelling self-stereotyping and self-anchoring. *Personality and Social Psychology Bulletin*, 32, 957-969.
- Otten, S., & Wentura, D. (2001). Self-anchoring and in-group favouritism: An individual profiles analysis. *Journal of Experimental Social Psychology*, 37, 525- 532.
- Overbeck, J. R., Jost, J. T., Mosso, C. O., & Flizik, A. (2004). Resistant versus acquiescent responses to ingroup inferiority as a function of social dominance orientation in the USA and Italy. *Group Processes and Intergroup Relations*, 7, 35- 54.
- Pelham, B. W. & Hetts, J. J. (2001). Underworked and overpaid: Elevated entitlement in men's self-pay. *Journal of Experimental Social Psychology*, 37, 93- 103.
- Platow, M., O'Connell, A., Shave, R., & Hanning, P. (1995). Social evaluations of fair and unfair allocators in interpersonal and intergroup situations. *British Journal of Social Psychology*, 34, 363- 381.
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67, 741- 763.
- Pyszczynski, T., Wicklund, R. A., Floresku, S., Koch, H., Gauch, G., Solomon, S., & Greenberg, J. (1996). Whistling in the dark: Exaggerated consensus estimates in response to incidental reminders of mortality. *Psychological Science*, 7, 332- 336.

- Reicher, S. (2004). The context of social identity: Domination, resistance and change. *Political Psychology, 25*, 921- 945.
- Reicher, S., & Hopkins, N. (2001). Psychology and the end of history: A critique and a proposal for the psychology of social categorisation. *Political Psychology, 22*, 383-407.
- Reicher, S. & Levine, M. (1994). Deindividuation, power relations between groups and the expression of social identity: The effects of visibility to the outgroup. *British Journal of Social Psychology, 33*, 145- 163.
- Riek, B. M., Mania, E. W., & Gaertner, S. L. (2006). Intergroup threat and outgroup attitudes: A meta-analytic review. *Personality and Social Psychology Review, 10*, 336- 353.
- Robbins, J. M., & Krueger, J. I. (2005). Social projection to ingroups and outgroups: A review and meta-analysis. *Personality and Social Psychology Review, 9*, 32- 47.
- Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review, 6*, 88- 106.
- Rosch, E. H. (1978). Principles of categorization. In E. Rosch & B. Lloyd (Eds.), *Cognition and categorization*. Hillsdale, NJ: Erlbaum.
- Rosch, E. H., Mervis, C. B., Gray, W. D., Johnson, D. M., & Boyes-Braem, P. (1976). Basic objects in natural categories. *Cognitive Psychology, 8*, 382- 439.
- Rubin, M., & Hewstone, M. (2004). Commentary on Reicher, Jost et al., and Sidanius et al. *Political Psychology, 25*, 823- 844.
- Rubin, M., Hewstone, M., & Voci, A. (2001). Stretching the boundaries: Strategic perceptions of intragroup variability. *European Journal of Social Psychology, 31*, 413- 429.

- Sachdev, I., & Bourhis, R. Y. (1987). Status differentials and intergroup behaviour. *European Journal of Social Psychology, 17*, 277- 293.
- Schaver, P., Schwartz, J., Kirson, D., & O'Connor, C. (1987). Emotion knowledge: Further explorations of a prototype approach. *Journal of Personality and Social Psychology, 52*, 1061- 1086.
- Schmader, T., Major, B., Eccleston, C. P., & McCoy S. K. (2001). Devaluing domains in response to threatening intergroup comparisons: Perceived legitimacy and the status value asymmetry. *Journal of Personality and Social Psychology, 80*, 782-796.
- Sherman, D. K. & Kim, H. S. (2002). Affective perseverance: The resistance to affect to cognitive validation. *Personality and Social Psychology Bulletin, 28*, 224- 237.
- Sherman, D. K., Kinias, Z., Major, B., Kim, H. S., & Prenovost, M. (2007). The group as a resource. Reducing biased attributions for group success and failure via group affirmation. *Personality and Social Psychology Bulletin, 33*, 1100- 1112.
- Sidanius, J., & Pratto, F. (1993). The inevitability of oppression and the dynamics of social dominance. In P. Sniderman, P. E. Tetlock & E. G. Carmines (Eds.), *Prejudice, politics, and race in America today* (pp. 87- 103). Stanford, CA: Stanford University Press.
- Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.
- Simon, B., & Hamilton, D. L. (1994). Self-stereotyping and social context: The effects of relative in-group size and in-group status. *Journal of Personality and Social Psychology, 66*, 699- 711.

- Sindic, D., & Reicher, S. D. (2008). The instrumental use of group prototypicality judgments. *Journal of Experimental Social Psychology, 44*, 1425- 1435.
- Sindic, D., & Reicher, S. D. (2009). Our way of life is worth defending: Testing a model of attitudes towards superordinate group membership through a study of Scots' attitudes towards Britain. *European Journal of Social Psychology, 39*, 114- 129.
- Skevington, S. (1980). Intergroup relations and social change within a nursing context. *British Journal of Social & Clinical Psychology, 19*, 201- 213.
- Skitka, L. J. (2003). Of different minds: An accessible identity model of justice reasoning. *Personality and Social Psychology Review, 7*, 286- 297.
- Spears, R., Doosje, B., & Ellemers, N. (1997). Self-stereotyping in the face of threats to group status and distinctiveness: The role of group identification. *Personality and Social Psychology Bulletin, 23*, 538- 553.
- Spears, R., Jetten, J., & Doosje, B. (2001). The (il)legitimacy of ingroup bias: From social reality to social resistance. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 332- 362). New York: Cambridge University Press.
- Spears, R., & Manstead, A. S. R. (1989). The social context of stereotyping and differentiation. *European Journal of Social Psychology, 19*, 101- 121.
- Spitze, G. (1988). Women's employment and family relations: A review. *Journal of Marriage and the Family, 50*, 595- 618.
- Stacey, B. G., & Green R. T. (1971). Working-class conservatism: A review and an empirical study. *British Journal of Social and Clinical Psychology, 10*, 10- 26.

- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261- 302). San Diego, CA: Academic Press.
- Steele, C. M., & Liu, T. J. (1983). Dissonance processes as self-affirmation. *Journal of Personality and Social Psychology*, *45*, 5- 19.
- Steele, C. M., Steven, S. J., & Lynch, M. (1993). Self-image resilience and dissonance: The role of affirmational resources. *Journal of Personality and Social Psychology*, *64*, 885- 896.
- Stephan, W. G., & Stephan, C. W. (1996). *Intergroup relations*. Boulder, CO: Westview.
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23- 46). Hillsdale, NJ: Lawrence Erlbaum.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33- 48). Monterey, CA: Brooks/Cole.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (pp. 7- 24). Chicago: Nelson- Hall.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Thompson, L. (1991). Family work: Women's sense of fairness. *Journal of Family Issues*, *12*, 181- 196.

- Törnblom, K. (1992). The social psychology of distributive justice. In K. Scherer (Ed.), *Justice: Interdisciplinary perspectives* (pp. 177- 236). Cambridge: Cambridge University Press.
- Turner, J. C. (1978). Social comparison, similarity and ingroup-favoritism. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Turner, J. C. (1981). The experimental social psychology of intergroup behaviour. In J. C. Turner & H. Giles (Eds.), *Intergroup Behaviour* (pp. 53-78). Oxford, England: Basil Blackwell.
- Turner, J. C. (1982). Towards a cognitive redefinition of the group. In H. Tajfel (Ed.), *Social identity and intergroup relations*. Cambridge: Cambridge University Press.
- Turner, J. C. (1984). Social identification and psychological group formation. In H. Tajfel (Ed.), *The social dimension: European developments in social psychology* (vol. 2). Cambridge: Cambridge University Press; Paris: Editions de la Maison des Sciences de l'Homme.
- Turner, J. C. (1985). Social categorization and the self concept: A social cognitive theory of group behavior. In E. J. Lawler (Ed.), *Advances in group processes: Theory and research* (Vol. 2, pp. 77- 122). Greenwich, CT: JAI Press.
- Turner, J. C. (1987). A self-categorization theory. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 42- 67). Oxford: Blackwell.
- Turner, J. C. (1991). *Social influence*. Milton Keynes: Open University Press.

- Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, and content* (pp. 6- 34). Oxford: Blackwell.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- Turner, J. C., & Reynolds, K. J. (2001). The social identity perspective in intergroup relations: Theories, themes, and controversies. In R. Brown & S. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup processes*. (Vol. 3, 133-152). Oxford: Blackwell.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207-232.
- Ullrich, J., Christ, O., & Schlüter, E. (2006). Merging on Mayday: Subgroup and superordinate identification as joint moderators of threat effects in the context of European Union's expansion. *European Journal of Social Psychology*, 36, 857-876.
- van Knippenberg, A. (1989). Strategies of identity management. In J. P. van Oudenhoven, & T. Willemsen (Eds.), *Ethnic minorities: Social psychological perspectives* (pp. 59- 76). Lisse: Swets & Zeitlinger.
- van Leeuwen, E. van Knippenberg, D., & Ellemers, N. (2003). Continuing and changing group identities: The effects of merging on social identification and ingroup bias. *Personality and Social Psychology Bulletin*, 29, 679- 690.

- van Rijswijk, W., Haslam, S. A., & Ellemers, N. (2006). Who do we think we are? The effect of social context and social identification on ingroup stereotyping. *British Journal of Social Psychology, 45*, 161-174.
- Vallacher, R. R., Nowak, A., Froehlich, M., & Rockloff, M. (2002). The dynamics of self-evaluation. *Personality and Social Psychology Review, 6*, 370- 379.
- Vidmar, N. (2001). Retribution and revenge. In J. Sanders & V. L. Hamilton (Eds.), *Handbook of justice research in law* (pp. 31- 63). New York: Kluwer/Plenum Press.
- Waldzus, S., & Mummendey, A. (2004). Inclusion in a superordinate category, in-group prototypicality, and attitudes towards out-groups. *Journal of Experimental Social Psychology, 40*, 466- 477.
- Waldzus, S., Mummendey, A., & Wenzel, M. (2005). When “different” means “worse”: In-group prototypicality in changing intergroup contexts. *Journal of Experimental Social Psychology, 41*, 76-83.
- Waldzus, S., Mummendey, A., Wenzel, M., & Boettcher, F. (2004). Of bikers, teachers and Germans: Groups’ diverging views about their prototypicality. *British Journal of Social Psychology, 43*, 385-400.
- Waldzus, S., Mummendey A., Wenzel, M., & Weber, U. (2003). Towards tolerance: Representations of superordinate categories and perceived ingroup prototypicality. *Journal of Experimental Social Psychology, 39*, 31-47.
- Walster, E., & Walster, G. W. (1975). Equity and social justice. *Journal of Social Issues, 31*, 21-43.

- Wann, D. L., & Branscombe, N.R. (1990). Die-hard and fair-weather fans: Effects of identification on BIRGing and CORFing tendencies. *Journal of Sport and Social Issues, 14*, 103- 117.
- Weber, U., Mummendey, A., & Waldzus, S. (2002). Perceived legitimacy of intergroup status differences: Its prediction by relative group prototypicality. *European Journal of Social Psychology, 32*, 449- 470.
- Wenzel, M. (2000). Justice and identity: The significance of inclusion for perceptions of entitlement and the justice motive. *Personality and Social Psychology Bulletin, 26*, 157- 176.
- Wenzel, M. (2001). A social categorization approach to distributive justice: Social identity as the link between relevance of inputs and need for justice. *British Journal of Social Psychology, 40*, 315-335.
- Wenzel, M. (2004). A social categorisation approach to distributive justice. *European Review of Social Psychology, 15*, 219-257.
- Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate identities and intergroup conflict: The ingroup projection model. *European Review of Social Psychology, 18*, 331-372.
- Wenzel, M., Mummendey, A., Weber, U., & Waldzus, S. (2003). The ingroup as *Pars Pro Toto*: Projection from the ingroup onto the inclusive category as a precursor to social discrimination. *Personality and Social Psychology Bulletin, 29*, 461-473.
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective action. *Journal of Personality and Social Psychology, 58*, 994- 1003.

Yzerbyt, V., & Rogier, A. (2001). The (il)legitimacy of ingroup bias: From social reality to social resistance. In J. T. Jost & B. Major (Eds.), *The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations* (pp. 103-134). New York: Cambridge University Press.