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Us, Them and We: The Effect of Nested and Cross-cutting Common Ingroup Identities on Outgroup Attitudes

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Abstract

Background: Previous studies on the effect of common ingroup identities (CII) on outgroup attitudes show contrasting results. While the Common Ingroup Identity Model argues that the use of CIIs leads to more positive outgroup attitudes, the Ingroup Projection Model concludes that CIIs result in a decrease. Aksoy (2017) argued that these studies did not differentiate between nested and cross-cutting CIIs.

Objective: Expanding on the conceptual model of Aksoy (2017), this study compared the effects of nested and cross-cutting CIIs on outgroup attitudes by measuring social identity complexity, ingroup projection, distinctiveness and intergroup threat as mediators. Additionally, Subgroup Identification was included as a moderator and the main expectation of the study was that the cross-cutting CII would lead to more positive outgroup attitudes than the nested CII.

Method: Among 141 participants, an online survey was conducted that measured both outgroup attitudes and the above mentioned mediators and moderator.

Results: Analyses showed no significant differences between nested and cross-cutting CIIs and their effect on outgroup attitudes. Nonetheless, against expectation, the nested CII led to less ingroup projection than the cross-cutting CII and type of subgroup significantly interacted with ingroup projection, distinctiveness threat and intergroup threat.

Conclusion: Replicating most of Aksoy's findings, Subgroup Identification among the participants were not adequate. However, future research should test the model among real or existing groups to ensure higher levels of identification and contribute to the research on nested and cross-cutting CIIs and its effect on outgroup attitudes.

Us, Them and We: The effect of nested and cross-cutting common ingroup identities on outgroup attitudes

In many western societies, people of different ethnicities, religions, cultures, and nationalities are living along side each other and while for some this diversity makes society more colourful and interesting, not everybody seems to celebrate this diversity with processes such as racism, intergroup conflict and bias as a result (Gaertner & Dovidio, 2014).

Social psychologists have been trying to improve intergroup relations and a crucial starting point is the recognition that individuals categorize people around them into "us" (ingroup) and "them" (outgroup) and the ingroup tends to be favoured over the outgroup (*ingroup favouritism*; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). Hence, much of the literature on intergroup conflict and bias has focused on developing models that aim to alter the way individuals categorize themselves and others around them, such as the Common Ingoup Identity Model (CIIM; Gaertner & Dovidio, 2012), the Ingroup Projection Model (IPM; Wenzel, Mummendey & Waldzus, 2007), and the Dual Identity Model (Hornsey & Hogg, 2000a). Studies on the CIIM show that creating a Common Ingroup Identity (CII) can lead towards more positive outgroup attitudes by redirecting pro-ingroup biases such as ingroup-favouritism towards former outgroup members (Gaertner & Dovidio, 2012).

However, under certain conditions, a CII can lead to an increase in intergroup biases instead of a decrease (e.g., Hornsey & Hogg, 2000b; Steffens, Reese, Ehrke, & Jonas, 2017; Waldzus, Mummendey, & Wenzel, 2005; Waldzus, Mummendey, Wenzel & Weber, 2003). The Ingroup Projection Model (IPM) posits that a CII can serve as a platform for comparison between groups based on the perceived prototypicality (the ideal representation of a group member) of the ingroup in comparison with the outgroup. In a study, Waldzus and his colleagues (2005) found that German students perceived the characteristics of their ingroup (German nationality) as more prototypical, relative to the outgroup (Polish nationality) for the

common European identity. Ingroup members tend to project ingroup norms and values into the CII with the result that the outgroup automatically deviates from the prototypical CII member and outgroup attitudes decrease.

Studies on the effects of the use of CIIs on outgroup attitudes thus show contrasting results. Where the CIIM holds that a Common Ingroup Identity has beneficial effects on outgroup attitudes, the IPM argues in the opposite direction. However, these studies have been done with different conditions, groups, and CIIs. Previous studies, as Askoy (2017) pointed out, failed to distinguish between types of CII and argued that *"nested"* and *"cross-cutting"* CIIs could have different effects on outgroup attitudes. Both types of CII differ in structure, in that, a nested Common Ingroup Identity covers the identity of both the ingroup and the ougroup. For example, the Dutch and German national identity are fully covered by the Common Ingroup Identity of Europeans. In contrast, a cross-cutting CII overlaps just a part of both subgroups identities. The subgroups are not fully nested in the superordinate identity, the subgroup identities extend beyond the CII (Wenzel et al, 2007).

In order to combat intergroup bias and develop adequate techniques to do so, these contrasting findings must be explained and understood. To do so, it is important to identify the conditions under which the use of a Common Ingroup Identity will lead to an increase rather than a decrease of intergroup bias. The present study will follow the line of thought and expand on the promising work of Aksoy (2017) and focus on the effect of nested vs cross-cutting CIIs on outgroup attitudes.

Common Ingroup Identity model

The Common Ingroup Identity Model suggests that by changing group members' cognitive representations from multiple groups to one group can lead to a decrease of intergroup biases (Gaertner, Dovidio, Anastasio, Bachman & Rust, 1993; Gaertner, Rust, Dovidio, Bachman &

Anastasio, 1994). The concept of group representations is derived from the Self-Categorization Theory (Turner et al., 1987), which claims, that people make use of cognitive representations of social categories to structure the social world around them. By creating social categories, people capture the similarities within their category (the ingroup) and emphasize the differences with other categories (the outgroup; Hogg, 2016).

However, the processes of social categorization are flexible and dynamic, in that people can identify with multiple categories from moment to moment and different categories can be salient depending on the situation (Tajfel & Turner, 1979; Turner et al., 1987). The CIIM emphasizes the flexible and dynamic nature of social categorization and proposes the use of re-categorization as a way of adjusting the way people socially categorize others (Gaertner & Dovidio, 2012). By stimulating people to re-categorize ingroup and outgroup members within a common category, the psychological processes that produce ingroup favouritism, can be redirected towards former outgroup members (e.g., Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990; Gaertner, Mann, Murrell, and Dovidio, 1989).

This process of re-categorization is what the CIIM proposes as a method for improving outgroup attitudes. By stimulating members of subgroups to identify themselves with one overarching identity instead as members of separate groups, former outgroup members will be seen as new ingroup members in the CII and attitudes will improve because of the pro ingroup biases earlier mentioned (ingroup favouritism; Gaertner & Dovidio, 2012).

Nested vs Cross-cutting Common Ingroup Identities

A Common Ingroup Identity can be either nested or cross-cutting. From a Social Identity Theory perspective, "the defining difference between the two types of a Common Ingroup Identity is that in the case of a nested CII, subgroup identities are enveloped entirely by a shared superordinate identity" (Hornsey & Hogg, 2000b p. 249). In other words, every

member of the subgroup is able to identify with the Common Ingroup Identity. An example of two subgroups *nested* in a Common Ingroup Identity is the Dutch and German people (subgroups) in the European Union (Common Ingroup Identity; see below for a graphical representation of a nested CII). The CII completely includes both subgroups and therefore can function as a relevant comparison background for the two subgroups.

In contrast, there is the *cross-cutting* CII, which does not fully include both subgroups but overlaps only a part of each subgroup. The cross-cutting CII is therefore relevant for only a part of the subgroups. An example of a cross-cutting CII is students of psychology and students of communication sciences as subgroups and studying at a certain university as a Common Ingroup Identity (see figure 1). The identity of being a student at this certain university does not fully include all students of psychology or communication sciences on other universities and is therefore a cross-cutting CII. "In this situation, the common identity could not be a reference background to which all ingroup and outgroup members can refer" (Wenzel et al., 2007).

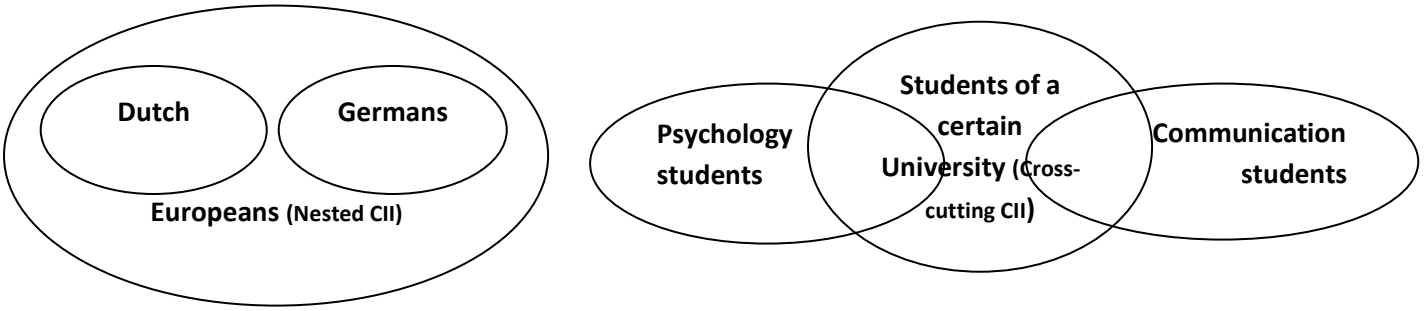

Figure 1. Representation of the two types of Common Ingroup Identity.

As mentioned earlier, research on the CIIM shows that the use of a Common Ingroup Identity can be an effective method to reduce intergroup bias and improve outgroup attitudes. However, contrasting findings show that under certain conditions the use of a Common Ingroup Identity can lead to a decrease in outgroup attitudes. These contrasting findings might be explained by the looking at the two different types of Common Ingroup Identity. Firstly,

multiple studies show that the use of a cross-cutting CII (not fully inclusive) tends to show results that are in line with the CIIM, that is a positive effect on outgroup attitudes (Gaertner et al., 1994). Secondly, studies using inclusive, fully nested common ingroup identities supported the claims of the ingroup projection model (e.g., a bank merger study by Bachman, 1993). Moreover, Hall and Crisp (2005) argue that the structures of the two types of Common Ingroup Identity differ from each other. Therefore, the main hypothesis of this study is that a cross-cutting Common Ingroup Identity will lead to more positive outgroup attitudes in comparison with the nested Common Ingroup Identity (H1). The mediating and moderating variables will be discussed in the next section.

Social Identity Complexity

Brewer and Pierce (2005), argued that people can have multiple group identities and that the relationship between these different ingroup identities has an effect on outgroup attitudes. They introduced the concept of 'Social identity complexity', which refers to the way in which individuals subjectively represent the relationships among their multiple ingroup memberships. People who perceive their different ingroups as highly overlapping and similar, see their social identity as low in complexity, whereas those who perceive their ingroup identities as very distinct and cross-cutting, see their social identity as high in complexity (Brewer & Pierce, 2005). In their study, they found that individuals with high overlap in their ingroup identities (low complexity) would be less tolerant and accepting of outgroups than those with low overlap (high complexity).

Relating back to the two types of common ingroup identities, a nested Common Ingroup Identity can be described as low in complexity (high overlap) because all members of the subgroup are included into the common identity. This means that all the dimensions that make the members of the subgroup similar, must be present in the Common Ingroup Identity

as well. In contrast, the cross-cutting identity has less overlap, and high complexity, because the Common Ingroup Identity only captures a certain part of both identities. Not all dimensions of the ingroup and outgroup identity are included in the Common Ingroup Identity and as a result, not all ingroup or outgroup members will be part of the CII. People who can identify with a cross-cutting CII, can still identify with former ingroup members who are excluded from the CII. This structure is more complex than the nested CII. Therefore, not all dimensions that hold the subgroup together, have to be present in the cross-cutting CII and the argument can be made that cross-cutting CIIs will lead to better outgroup attitudes than nested ones will. Therefore, the second hypothesis of the current study is that a cross-cutting CII will lead to a higher perceived social identity complexity, compared with a nested CII (H2a). Moreover, it is expected that social identity complexity is a mediator in the relation of CIIs and outgroup attitudes, in that cross-cutting CIIs will lead to a higher perceived social identity complexity than a nested CII and therefore lead to more positive outgroup attitudes (H2b).

Ingroup Projection

The Ingroup Projection Model (IPM; Mummendey & Wenzel, 1999) is an elaboration on the CIIM, in that it states that a Common Ingroup Identity will create a platform for the ingroup and the outgroup on which dimensions, norms and values can be compared (Wenzel, Mummendey & Waldzus, 2007). Groups that are perceived to be more prototypical for the common ingroup, will be evaluated more positively and gain more status. Prototypicality can be described as the perfect member of a category that best represents its identity in any given setting and is a frame of reference (Oakes, Haslam, & Turner, 1998).

Firstly, the model argues that people apply the norms and standards of their ingroup onto the common overarching identity if both the ingroup and the overarching identity are psychologically relevant for the self. This projection of ingroup norms and standards

originates from the tendency to value the ingroup over the outgroup. According to the Social Identity Theory (SIT; Tajfel & Turner, 1979) this tendency is used by individuals to create and maintain a positive social identity. Relating back to the IPM, the process of maintaining a positive social identity can be achieved by perceiving the ingroup as more prototypical than the outgroup.

However, the Common Ingroup Identity is subject to the perception of both the in- and outgroup. For example, Bianchi, Mummendey, Steffens, and Yzerbyt (2010) showed in their study, involving Germans and Italians, that both groups projected features of their ingroup onto the overarching identity of being European and therefore saw their own group as more prototypical for an European. Both groups can claim prototypicality of the common ingroup at the same time.

Secondly, by projecting these ingroup norms and standards onto a Common Ingroup Identity, people automatically tend to see their own group (the ingroup) as relatively more prototypical of the overarching identity than the outgroup. As a consequence, the ingroup is evaluated more positively compared to the outgroup because they are closer to their projected prototype of the Common Ingroup Identity (Wenzel, Mummendey, Weber & Waldzus, 2003; Waldzus & Mummendey, 2004). Therefore, the model poses that a higher perceived ingroup prototypicality results in more intergroup bias and less positive evaluations of the outgroup. Ingroup projection serves as a platform for differentiation between the former in- and outgroup (Wenzel et al., 2007). In the example of the Dutch and Germans subgroups, both subgroups will project their norms and standards onto the European identity and base their comparison on these projected norms. Both subgroups will perceive their ingroup as more prototypical for Europeans and positive outgroup attitudes will decrease (Wenzel et al., 2007).

Additionally, people who identify strongly with both groups (common ingroup and their subgroup) tend to show more ingroup projection which results in less positive outgroup

attitudes (Wenzel et al., 2007; Waldzus, Mummendey, Wenzel & Weber, 2003). In other words, having a dual identity could result in less positive outgroup attitudes . For example, when Dutch people identify with the Common Ingroup Identity while also identifying highly with their nationality, they will project their norms and values of the subgroup onto the CII. As a result, the German people will be less prototypical and outgroup attitudes will decrease. This is in contrast with the Common Ingroup Identity Model earlier mentioned, in which is stated that a common ingroup identity is a way to more positive attitudes towards the outgroup.

"Cross-cutting common identities merely provide an alternative identity that is locally shared in a given context and cannot serve as a relevant reference background for the entire subgroups because the identity is irrelevant and unrelated for the subgroups as a whole" (Wenzel et al., 2007, p. 356). A cross-cutting CII therefore seems to give less room for ingroup projection, but does not fully eliminate it. However, a nested common identity that is fully inclusive of both subgroups, is more likely to serve as a relevant comparison background for the two groups and therefore gives more room for ingroup projection. A study of Meiser, Mummendey and Waldzus (2004) gave initial proof for this line of reasoning. In their study among natural science students at the University of Jena, the chemistry students showed strong ingroup projection when a nested CII (students of natural sciences) was made salient, but no significant ingroup projection when a cross-cutting CII (students of the University of Jena) was made salient. These results point towards the assumption that ingroup projection is more easily activated in a nested CII, compared with a cross-cutting CII.

In addition, Aksoy (2017) found a weak indirect effect between CII and outgroup attitudes through ingroup projection. Although this was found with a bootstrap estimation approach with a 90% confidence interval, the effect could be reliable. Moreover, she found that cross-cutting CIIs led to more ingroup projection compared to nested CIIs but indicated

that a vague nested CII that was unclear and not well-defined, could have led to this contrasting finding. Therefore, still in accordance with Aksoy's reasoning, it is expected that a cross-cutting CII will lead to less ingroup projection than a nested CII (H3a). Moreover, ingroup projection is hypothesized to be a mediator of the effects of the different CIIs (nested vs cross-cutting) on outgroup attitudes, in that cross-cutting CIIs will lead to less ingroup projection and therefore lead to more positive outgroup attitudes (H3b).

Distinctiveness threat

The effect of CIIs on outgroup attitudes can be mediated through another important variable, namely "distinctiveness threat". According to Brewer in his Optimal Distinctiveness Model (2003), human beings have two opposing needs. Firstly, they have a need for assimilation and inclusion. That is, every individual has a desire to belong and be a part of a certain social group. Secondly, there is the need for differentiation from others. This means that when people are part of a social group that is getting too inclusive, the need for inclusion is satisfied but the need for differentiation is activated. The model posits that these two opposing needs results in what Brewer (1991) calls "the capacity for social identification with distinctive groups that satisfy both needs simultaneously" (p. 66). In other words, people seek groups to satisfy the need for belonging and in the meanwhile these groups must be distinct from other groups in order to satisfy the need for distinctiveness.

Re-categorization can pose a threat to this need for distinctiveness, especially in the case of a nested Common Ingroup Identity which forces members to forsake their former subgroup (Crisp, Stone & Hall, 2006; Gaertner et al., 1993). By merging two subgroups into an all inclusive nested common identity the need for distinctiveness can be activated and the subgroup identities may tend to reappear over time (Hornsey & Hogg, 1999). Moreover, when two subgroups fully identify (nested) with a Common Ingroup Identity, they have to be

similar on multiple dimensions, otherwise it makes no sense to identify with the Common Ingroup Identity. This makes a nested CII more likely to activate the need for distinctiveness towards the similar outgroup. In contrast, the cross-cutting common identity gives more room for the satisfaction of distinctiveness because of the fact that the subgroups do not have to be forsaken. Both the subgroup and the Common Ingroup Identity can be used to satisfy the needs of inclusion and distinction. Aksoy (2017) argued along these lines, but did not find a mediating effect between CII and distinctiveness threat. However, she concluded that this was due to a lack of identification with the subgroups and the effect of type of Common Ingroup Identity can still be expected.

Therefore, it is hypothesized that cross-cutting CIIs will lead to less distinctiveness threat compared to nested CIIs (H4a). Moreover, it is expected that distinctiveness threat mediates the effect of CIIs on outgroup attitudes, in that cross-cutting CIIs will lead to less distinctiveness threat and therefore to more positive outgroup attitudes (H4b).

Intergroup threat theory

The fourth possible mediator and a important predictor of outgroup attitudes is intergroup threat (Riek, Mania, & Gaertner, 2006). Intergroup threat consists of two types of threat, realistic group threat and symbolic group threat (Stephan & Mealy, 2011). The former relates to threats to a group's power, resources, and general welfare, while the latter refers to threats of a group's religion, values, belief system, philosophy, morality, or worldview. Intergroup threat can lead to negative attitudes, avoidant and even violent behaviour towards outgroups (Hewstone, Rubin, & Willis, 2002).

Evidence across multiple intergroup contexts has been found that intergroup threat predicts negative outgroup attitudes. For example, symbolic and realistic threat had predictive value for attitudes toward racial outgroups in a study among black and white people (Stephan,

Boniecki, Ybarra, Bettencourt, Ervin, Jackson, & Renfro, 2002), gender attitudes (Stephan, Stephan, Demitrakis, Yamada, & Clarkson, 2000), and attitudes towards different groups of immigrants (Stephan, Ybarra, & Bachman, 1999; Stephan, Ybarra, Martinez, Schwarzwald, & Tur-Kaspa, 1998).

Moreover, Riek, Mania, Gaertner, McDonald, and Lamoreaux (2010) showed in their study that intergroup threat acted as a mediating variable in the relationship between CIIs and outgroup attitudes, in that the use of a common identity results in a decrease of intergroup threat and therefore more positive outgroup attitudes. Moreover, in the study they tried to differentiate between two types of common identities but failed to successfully manipulate the cross-cutting common identity.

This means that still little is known about the effect of the different CIIs on intergroup threat. However, because a nested common identity can be described as a truly "one group" representation, the boundaries of the former subgroups are less salient and this could increase cooperation (Brewer, 2000). As a consequence, the increase in perceived cooperation can result in a higher reduction of realistic threat, compared with a cross-cutting common identity.

Furthermore, when two subgroups are brought together in a nested common ingroup, both subgroups will bring and project their norms and values onto the overarching category (ingroup projection). It is possible that these norms and values can differ from each other and can be incompatible. When these different norms and values meet in a common ingroup, this process can bring the focus on differences between the two subgroups and symbolic threat can be activated. This is especially the case in a nested common ingroup, where both subgroups have to live with each other's norms and values. In contrast, subgroups in cross-cutting common ingroups do not necessarily have to live with the norms and values of the other subgroup. Logically, it can be expected that a nested CII would lead to more symbolic threat and therefore to less positive outgroup attitudes. While Aksoy (2017) did not find a mediating

effect of intergroup threat, the research literature point towards a possible mediating role of intergroup threat on the effect of CII on outgroup attitudes.

Therefore, it is hypothesized that intergroup threat will lead to negative outgroup attitudes and that intergroup threat is a mediating factor in the relationship of CIIs and outgroup attitudes (H5), but contrary to Aksoy (2017), it is to be seen which CII will lead to more intergroup threat.

So far, the variables discussed are of a mediating nature and possibly explain the effect of a Common Ingroup Identity on outgroup attitudes. In the next section one important variable will be discussed that is expected to moderate these effects.

Subgroup Identification

Studies show that Subgroup Identification is a key moderator in the effectiveness of CIIs and helps to explain why common ingroup identities under certain conditions increases bias towards outgroups, and sometimes decreases this bias. Crisp, Stone and Hall (2006) found consistent evidence that the re-categorization of subgroups into a superordinate group (CII) decreased outgroup attitudes for people who identified highly with their subgroup. Studies found that people who were highly committed to their subgroup showed greater amounts of ingroup-favouritism and distinctiveness threat and therefore more negative outgroup attitudes. The same tendencies were found for ingroup projection and intergroup threat (Dovidio, Gaertner, & Validzic, 1998; Hornsey, & Hogg, 2000b;Hewstone, Islam, & Judd, 1993; Spears, Jetten, & Scheepers, 2002). Therefore, it is hypothesized that the effect of Common Ingroup Identity on outgroup attitudes is conditional. Precisely, the effect of Common Ingroup Identity is expected to be stronger when Subgroup Identification is high than when Subgroup Identification is low (H6a).

Firstly, multiple studies have shown that a high identification with both the subgroup and the common identity will lead to an increase of ingroup projection (Ullrich, Christ, & Schlüter, 2006; Waldzus, Mummendey, & Wenzel, & Weber, 2003). Waldzus and his colleagues (2003) conducted a study under business administration students and psychology students as subgroups of the Common Ingroup Identity of being a student in general. When students identified with both identities, the perceived ingroup prototypicality was higher, compared to the students who identified with only one identity or identified low on both. Therefore, it is hypothesised that mediation of the influence of Common Ingroup Identity on outgroup attitudes by ingroup projection is conditional. Precisely, mediation by ingroup projection is expected to be stronger when Subgroup Identification is high than when Subgroup Identification is low (H6b).

Secondly, a meta-analyses of intergroup distinctiveness and differentiation concluded that identification moderates the distinctiveness-differentiation relation. In two studies, conducted by Jetten, Spears, and Manstead (2001), they found that low group distinctiveness (distinctiveness threat) resulted in higher degrees of differentiation for high identifiers but not for low identifiers. In other words, people who identified strongly with their subgroup perceived more distinctiveness threat than low identifiers. Logically, it is hypothesised that mediation of the influence of Common Ingroup Identity on outgroup attitudes by distinctiveness threat is conditional. Specifically, mediation by distinctiveness threat is expected to be stronger when Subgroup Identification is high than when Subgroup Identification is low (H6c).

Thirdly, in a study among white and native Americans, Corenblum and Stephan (2001) showed that the level of identification as being native was significantly associated with intergroup threat. For example, respondents who highly identified themselves with being native reported higher levels of symbolic threat than low identifiers. Moreover, in a meta-

analyses conducted by Riek, Mania and Gaertner (2006), they found that high identifiers significantly experienced higher levels of intergroup threat. This leads to the hypothesis that mediation of the influence of Common Ingroup Identity on outgroup attitudes by intergroup threat is conditional. In that, mediation by intergroup threat is expected to stronger when Subgroup Identification is high than when Subgroup Identification is low (H6d).

Within the research literature, social identity complexity is a novel concept and no research was found on the effect of levels of identification. While no prediction can be made based on existing literature, the current study will analyse whether Subgroup Identification has an moderating effect on social identity complexity.

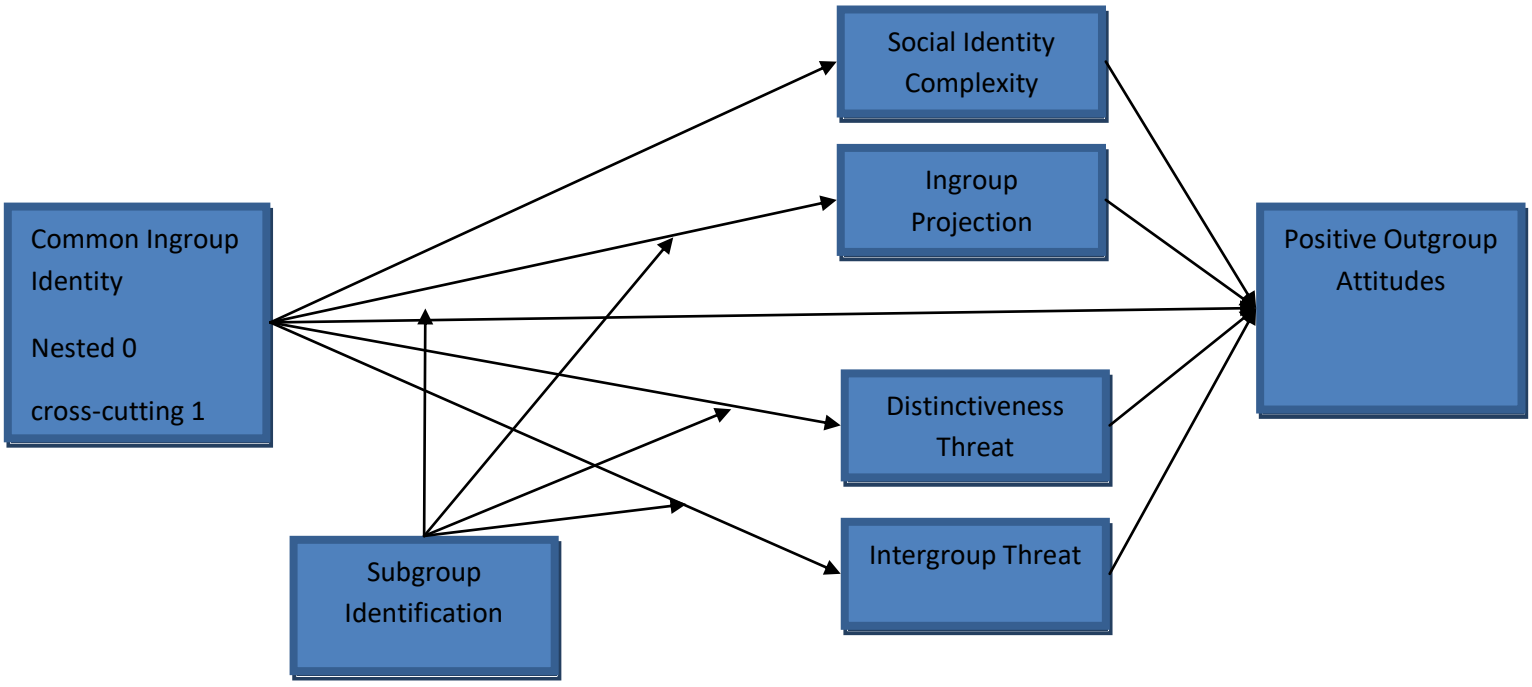

Figure 2. Conceptual model of the two types of common ingroup identities and its relationship with outgroup attitudes.

The current study

In order to test these hypotheses, this study was conducted in an online survey concerning whether participants played a music instrument/made music (categorized as musicians) or just liked listening to music (categorized as music listeners). Subsequently, the participants were divided in one of the two conditions, that is music lovers (nested CII) or the music genre the participants indicated to love (cross-cutting CII; see figure 3 for a representation of the conditions).

While this study is based upon Aksoy's (2017) conceptual model of the two types of Common Ingroup Identity and its relationship with outgroup attitudes, there are a couple of important differences. First off, Aksoy predicted that a cross-cutting CII would lead to less intergroup threat compared to a nested CII, hoewever, this study does not predict a direction. Secondly, the current study expands on the work of Aksoy by including social identity complexity as a fourth mediator. Another addition to Aksoy's original model is the incorporation of Subgroup Identification as a moderator. By building upon Aksoy's earlier work, this study tries to expand the insights into the underlying processes of the two types of common ingroup identities and its effects on outgroup attitudes.

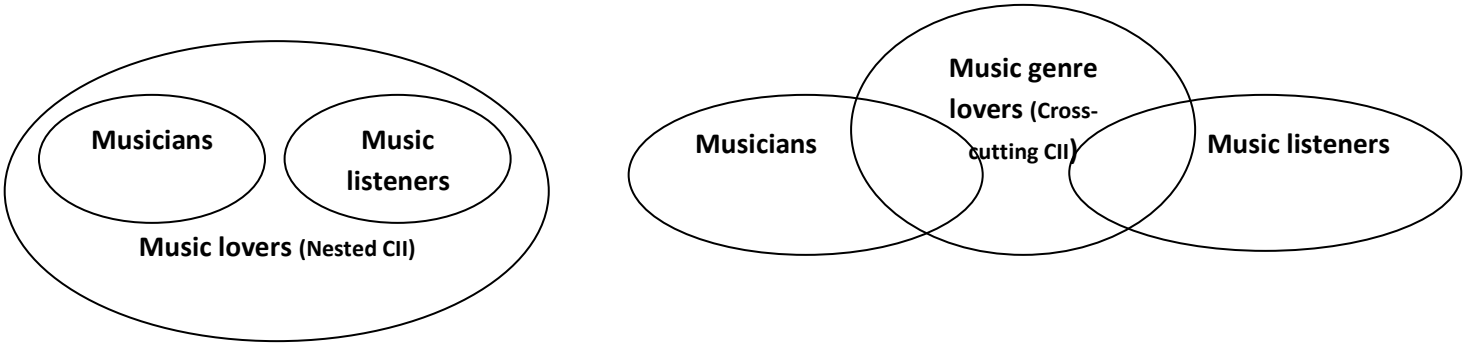

Figure.3. Graphical representation of the two conditions used in the current study. On the left the nested common ingroup condition and on the right the cross-cutting condition.

Method

Design and Participants

The online experiment was designed in a "between groups" design, with two independent variables. Firstly, Common Ingroup Identity was an independent variable with two levels (nested and cross-cutting). The second independent variable was Subgroup Identification. The dependent variable in the experiment was outgroup attitudes.

Initially, a total of 274 respondents filled in the online questionnaire but because of an error in the survey (in one of the conditions not all questions were presented to the participants and resulted in incomplete data), an additional 38 respondents were approached and filled in the survey, which gave a total of 312 respondents. Most of the respondents were approached through an online platform called "Sona system". This is a online platform that makes it possible for psychology students to recruit participants among fellow students. Moreover, additional participants were recruited through multiple organisations, like study organizations and companies and social networks. Firstly ,participants who did not complete the questionnaire (n=16) were excluded from the analysis. Secondly, after completing the questionnaire, four participants indicated that they wished to withdraw their data from the study. Thirdly, the manipulation failed on 70 participants and were excluded from the analysis. This resulted in a total of 222 participants of which 81 were not complete due to the error earlier mentioned. This resulted in a total of 141 participants whose data was used for the analysis of which 92 were randomly put in the cross-cutting CII condition and 49 in the nested CII condition. Of these participants, 31.9% were men and 68.1% were women. The mean age of the participants was 23 years (ranging from 18 to75; SD = 8.35). Table 1 shows what subgroup the participants identified with and additional information on the number of times they made or listen to music.

Table 1.
Participants characteristics

	Musicians	Music listeners
Number of participants	34 (24%)	107 (76%)
Gender		
Female	25 (74%)	71 (66%)
Male	9 (26%)	36 (34%)
Frequency of making/listening to music		
Daily	7 (21%)	85 (79%)
4-6 times a week	5 (15%)	14 (13%)
2-3 times a week	6 (18%)	6 (6%)
Once a week	12 (35%)	2 (2%)
Less than once a month	4 (12%)	0 (0%)

Materials

In order to put the survey online, a program was used named "Qualtrics". The survey consisted of a total of 17 questions with multiple items to measure all variables included in this study. Five of those questions were about demographical information, five on identification with the subgroups and the Common Ingroup Identity and one to check whether the manipulation was successful. The remaining questions measured the variables included in the study: outgroup attitudes, ingroup projection social identity complexity, distinctiveness threat and intergroup threat.

The participants were randomly assigned to one of the conditions, that is, either to the nested common ingroup condition or the cross-cutting common ingroup condition. Apart from one additional question about genre preference, and a small adjustment in the cover story, the participants in the cross-cutting condition were shown the same survey as the participants in the nested condition.

The manipulation consisted of a cover story in which was described that the literature in music psychology pointed to the fact that being a member of the musician category (play an instrument or make music) or the music listener category (just like listening to music) can be seen as a distinct group. Below, a except from the cover story of the nested condition:

"According to the scientific literature of music psychology, people who make music, play an instrument or listen to music frequently can be seen as a distinct group, namely music lovers (Williams, Jones & Moore, 2015). Current research on the psychological effects of music show that music lovers are often times seen as intelligent, creative and good in problem solving. The kind of music that people make, play or listen to does not matter, only the fact that you play an instrument, make music or listen to music makes you fall into the group of music lovers."

The manipulation continued with the statement that both subgroups together achieved far better in multiple tasks while working together and think as a Common Ingroup Identity. The cross-cutting condition contained the same manipulation as just presented, but the label of "music lovers" was replaced with the label that integrated the indicated music genre preference of the participant, for example: "Jazz lovers". Both cover stories were derived from Aksoy (2017) and adapted for current study.

Measures

Identification. Both the common ingroup identification and the Subgroup Identification were measured with the same scale by Verkuyten and Martinovic (2012). The scale consisted of 4 items and using 7-point scales (1=*not at all*, 7=*to a great extent*) and was slightly adjusted for the purpose of the current study. The participants were asked to indicate the extent they identified with their common ingroup and their subgroup. For example: "To what extent do you feel strong ties with music listeners?" and "To what extent is being a music listener important to you?" (common ingroup identification, $\alpha = .80$; $\lambda 2 = .80$; Subgroup Identification. $\alpha = .80$; $\lambda 2 = .81$). The scores on the items were averaged and computed into a new variable.

Outgroup attitudes. To measure outgroup attitudes, the Attitude scale by Stephan et al. (1999) was used. The scale consisted of six different feelings such as "dislike, acceptance, friendliness, resentment, respect and approval". The participants were asked to indicate, on a 5-point scale (1=*none at all*, 7=*a great deal*), the degree they felt those feelings towards the mentioned group. If needed the responses were reverse scored so that a high score indicated positive attitudes towards the outgroup (α = .72; $\lambda 2$ = .74). The scores on the items were averaged and computed into a new variable.

Social identity complexity. Social identity complexity was measured using two items adapted from Roccas and Brewer (2002). The two items were formulated as followed: "You as a musician [ingroup] is very similar to you as a music lover [common ingroup]" and "Being a musician [ingroup] means the same as being a music lover [common ingroup]". A 7-point likert-scale was used (1=*strongly disagree*, 7=*strongly agree*) to indicate how much participants agreed with the statements in which a high score indicated low perceived complexity (α = .68; $\lambda 2$ = .68). The scores on the items were averaged and computed into a new variable.

Ingroup projection. Ingroup projection was measured through the use of scale that measured the perceived relative ingroup prototypicality. A one-item scale was used to measure the prototypicality of both the ingroup and the outgroup, relative to the Common Ingroup Identity (Ufkes, Otten, Van der Zee, Giebels, & Dovidio, 2012). The participants were asked to indicate how they perceived the closeness of their ingroup with the Common Ingroup Identity. They could give their answer with the help of six different Venn diagrams, consisting of two circles that were increasingly overlapping each other, ranging from 1 = clearly no overlap at all, to 6 = completely overlapping each other (IOS scale; Aron, Aron, & Smollan, 1992). Indicating the perceived prototypicality of both their ingroup and the outgroup, relative ingroup projection was derived by subtracting the score on outgroup

prototypicality from the score on ingroup prototypicality. Subsequently, the range of the relative ingroup projection scores can vary from -6 to 6 with 0 indicating that both groups were perceived as equally prototypical, 6 meaning the ingroup as most prototypical and -6 for the outgroup as most prototypical for the Common Ingroup Identity in question. The scores were computed into ingroup and outgroup prototypicality, based on the subgroup they belonged to.

Distinctiveness threat. In order to measure distinctiveness threat, three items were used adapted from Jetten, Spears and Manstead (1997). The three items measured the extent of agreement of the participants with statements such as "To what extent do you feel that musicians [ingroup] are distinguishable from music lovers [common ingroup]?" and "To what extent do you feel that musicians [ingroup] form a well-defined group?". The participants could answer by means of a 5-point likert-scale ranging from 1=*not at all* to 6=*to a large extent*. Reliability analysis showed, item 3 had to be excluded from further analysis for an acceptable internal consistency (α = .44; $\lambda 2$ = .50; item 3 excluded α = .72; $\lambda 2$ = .72). The scores on the items were averaged and computed into a new variable.

Intergroup threat. The participants were asked to indicate how much they agreed with seven different statements on a 7-point likert-scale, ranging from 1=*strongly disagree* to 7=*strongly agree*. The statements were derived from Stephan et al. (2002) and adapted for the current study. Examples of the statements are "Musicians [ingroup] and music listeners [outgroup] have very different values" and "Most music listeners [outgroup] will never understand what musicians [ingroup] are like" (α = .80; $\lambda 2$ = .81). The scores on the items were averaged and computed into a new variable.

Moreover, scale means, standard deviations and intescale correlations can be found in table 2.

Procedure

At the start of the online survey, the participants were introduced to the study as an experiment about the psychological functions of music in people's life's. Moreover, information about the survey itself was given, for example, the duration of the survey, anonymity and confidentiality of the data and voluntary participation and if the participant continued with the survey they would agree with the informed consent. The mail address of the researcher was presented for people who wanted to know more before participating. After the participants agreed with the informed consent, multiple demographic questions were presented (gender, age, nationality, level of education, and fluency of their English).

After answering the demographic questions, the participants were randomly but evenly assigned to one of the two conditions in the study (nested and cross-cutting). In both conditions the participants were asked whether they played an instrument/made music or just liked to listen to music. Based on the participant's answer, they were categorized as either musicians (people who play an instrument/make music) or music listeners. The selected choice was representing their ingroup while the other option automatically represented the outgroup. Subsequently, a couple of questions were presented about the identification with the chosen ingroup and the Common Ingroup Identity. Additionally, the participants in the cross-cutting conditions were asked to indicate, by means of a dropdown list, which music genre best represented their favourite music types.

The survey continued with one of two cover stories that the participants were asked to read carefully. Depending on which condition the participant was assigned to, the cover story was about music lovers as a Common Ingroup Identity (nested) or the indicated music genre lovers as Common Ingroup Identity (cross-cutting). The rest of the survey consisted of questions directed towards the variables in this study (see section Measures). At the end of the survey, through a debriefing, the participants were informed on the true focus of the study and

explained why they were misinformed at the beginning of the study. After this explanation, the participants were able to withdraw their data from being included in the study and given the opportunity to contact the researcher for remarks or questions.

Table 2. *Scale Means, Standard Deviations, and Inter-scale Correlations*

Variable	1	2	3	4	5	6	7	8	9	10
1. Identification Common Ingroup Identity	4.32 (1.31)	.51**	.33**	.09	.21*	.12	-.03	-.04	-.04	-.20*
2. Identification subgroup		4.1 (1.42)	.19*	.09	.18*	.11	-.01	-.14	.13	-.15
3. Social identity complexity			4.15 (1.49)	-.00	-.07	.02	.08	.02	-.02	-.05
4. Ingroup projection				-.33 (1.50)	.01	.09	-.09	.10	.14	-.27**
5. Distinctiveness threat					3.13 (.75)	.45**	-.16	-.04	-.08	-.24**
6. Intergroup threat						3.38 (1.06)	-.43**	-.06	-.03	-.32**
7. Outgroup attitudes							4.28 (.56)	-.06	-.04	.10
8. Age								23.13 (8.35)	-.04	-.14
9. Gender									1.68 (.47)	-.07
10.Type of Subgroup										1.76 (.43)

Note. Scale means and the standard deviations are presented on the diagonal.

**. Correlation is significant at the 0.01 level.

*. Correlation is significant at the 0.05 level.

Results

In order to confirm the hypotheses and test the proposed conceptual model, the procedure for testing moderated mediation suggested by Muller, Judd, and Yzerbyt (2005; also see Preacher, Rucker, and Hayes, 2007) was followed. In addition, the PROCESS macro for SPSS, developed by Andrew F. Hayes, was used for the analysis (2013). Although the participants were randomly divided between the two conditions, the error in the survey resulted in unequal group sizes and could have led to differences between the two groups. Therefore, during all analyses, gender and age have been controlled. Moreover, type of

subgroup chosen by the participants correlates moderately with ingroup projection, distinctiveness threat and intergroup threat and has therefore been included in the analysis as a covariate.

Primarily, it was hypothesized that the cross-cutting Common Ingroup Identity would lead to more positive outgroup attitudes (main effect), a higher social identity complexity (H2a), lower ingroup projection (H3a), and lower distinctiveness threat (H4a) compared with the nested Common Ingroup Identity.

Regression analyses showed that that participants in the cross-cutting condition did not report significantly more positive outgroup attitudes compared to the participants in the nested condition and therefore no main effect was found between the types of Common Ingroup Identity and outgroup attitudes, $b = -0.07$, $t(130) = -0.67$, $p = .50$. In other words, the cross-cutting Common Ingroup Identity did not lead to more positive outgroup attitudes than the nested Common Ingroup Identity and the main hypothesis (H1) was rejected.

In addition, participants in the nested condition did report higher social identity complexity than the participants in the cross-cutting condition, $b = 1.33$, $t(134) = 5.26$, $p < .01$. This is in the opposite direction than was originally hypothesised. Therefore, the cross-cutting Common Ingroup Identity did not lead to a lower social identity complexity and hypothesis H2a had to be rejected.

A significant difference in ingroup projection was found $b = -0.66$, $t(134) = -2.47$, $p < .05$. That is, participants in the nested condition reported lower ingroup projection than the participants in the cross-cutting condition. However, the difference was in the opposite direction than was originally hypothesized. Complementary analysis on perceived ingroup and outgroup prototypicality, with which relative ingroup projection was measured, revealed that in both conditions, participants perceived the outgroup to be more prototypical ($M = 4.48$,

SD = 1.59) than their ingroup (M = 4.16, SD = 1.48), however, the participants in the nested condition reported much higher perceived outgroup prototypicality (M = 5.61, SD = 1.29) compared to the participants in the cross-cutting condition (M = 3.88, SD = 1.41). This explains the difference between the conditions in the opposite direction. In other words, ingroup projection was lower in the nested Common Ingroup Identity condition because the outgroup was perceived as far more prototypical for the Common Ingroup Identity than in the cross-cutting condition. Consequently, hypothesis H3a was rejected.

Regarding distinctiveness threat, the analysis showed that participants in the nested condition did report higher distinctiveness threat but the difference was not significant, b = 0.20, t(134) = 1.47, p = .14. Hypothesis H4a could therefore not be confirmed.

Moderated mediation

The procedure proposed by Muller et al. (2005), consists of a series of regression analyses that can be performed by Hayes' PROCESS macro. In order to conclude that moderated mediation took place, analyses should show four interactions. Firstly, a overall effect of the independent variable (IV) on the dependent variable (DV) should depend on the moderator (MOD). Secondly, the effect of the IV on the mediator (MED) should depend on the moderator. Thirdly, there should be an effect of the mediator on the dependent variable. Finally, the interaction of the IV and MOD on the dependent variable should be reduced when the mediators is included in the regression analyses.

As can been seen in table 3, the regression analyses showed that the interaction between Common Ingroup Identity and Subgroup Identification (IV*MOD) was not significant for any of the mediators. In other words, Subgroup Identification did not have a moderating effect on the relation of Common Ingroup Identity and social identity complexity, ingroup projection, distinctiveness threat and intergroup threat. Hence, no moderation took

place. There was a significant interaction from intergroup threat to outgroup attitudes, but because there was no interaction between CII and intergroup threat not all earlier mentioned steps were confirmed and no mediation was found. Consequently, this means that none of the required interactions for moderated mediation were found and hypothesis H6a, H6b, H6c, and H6d had to be rejected.

Table 3
Regression results for moderated mediation.

Predictors	SIC		Ingr. pr.		Distinc. Thr.		IGT		outgroup attitudes	
	b	*t*	b	*t*	b	*t*	b	*t*	b	*t*
CII	1.33**	1.28	-.66*	-2.47	.20	1.47	.15	.81	-.07	-.67
Sub Ident.	.24	2.71**	.01	.16	.09	1.84	.05	.83	-.01	-.32
IV∗MOD	..07	.43	.07	.42	.02	.28	-.01	-.04	.07	1.03
SIC									.04	1.21
Ingr. pr.									-.02	-.77
Distinc. Thr.									.03	.45
IGT									-.24	-5.05**

**. Correlation is significant at the 0.01 level.

*. Correlation is significant at the 0.05 level.

Moreover, the indirect effects were based on a 5000 bootstrap in PROCESS (Hayes, 2013) but indicated no significant results. As seen in table 4 , for all four mediators, the confidence intervals contain zero and therefore no significant indirect effect. Therefore, it must be concluded that ingroup projection, distinctiveness threat and intergroup threat cannot be seen as mediators of the relationship between Common Ingroup Identity and outgroup attitudes and the mediation hypothesis H2b, H3b, H4b, and H5a had to be rejected.

Table 4

Conditional indirect effects of Common Ingroup Identity on outgroup attitudes

Mediator	b	SE	Bootstrapped 95% confidence intervals	
			Lower	Upper
SIC	.003	.009	-.0131	.0238
Ingr. pr	-.002	.007	-.0160	.0127
Distinc. Thr	.001	.007	-.0125	.0156
IGT	.001	.035	-.0602	.0771

Note: All four confidence intervals contain zero

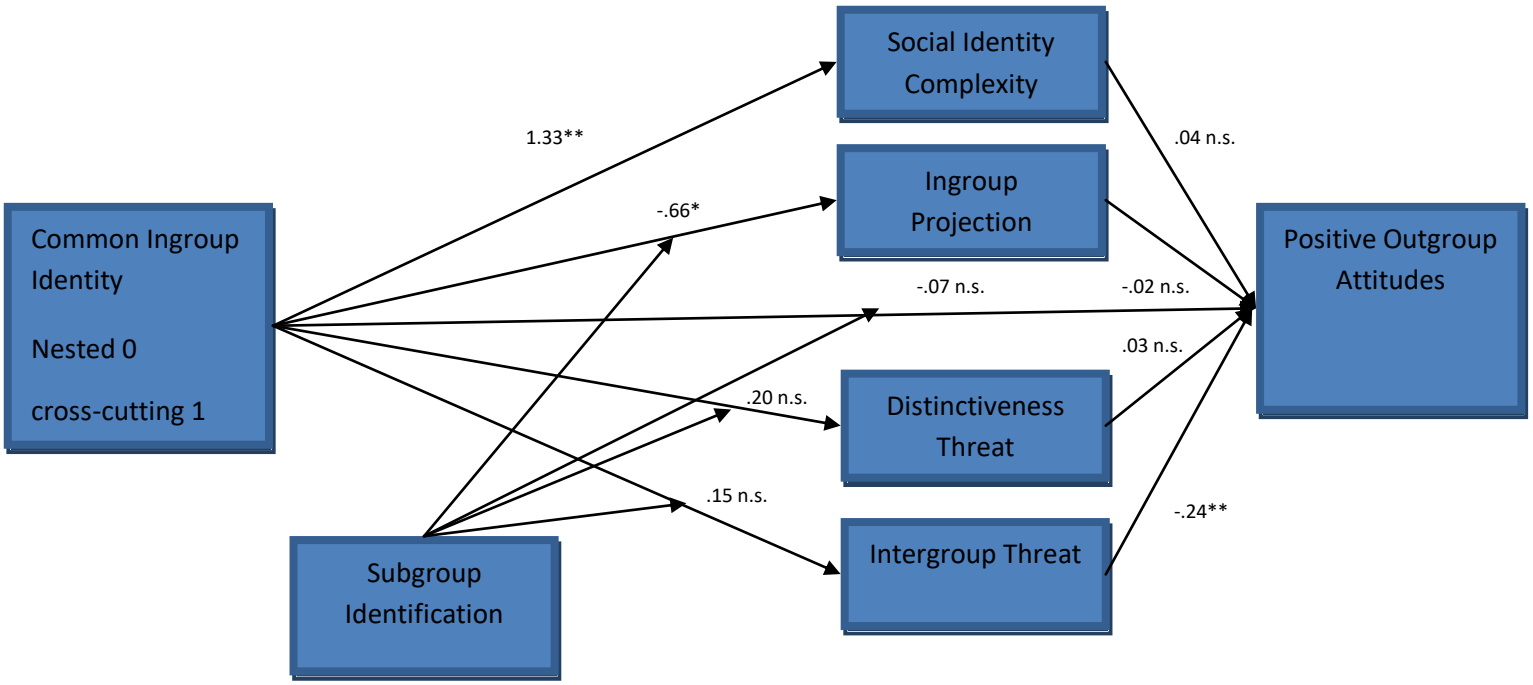

Figure 4. Conceptual model with the regression coefficients.

**. Interaction is significant at the 0.01 level.

*. Interaction is significant at the 0.05 level

n.s. Interaction is not significant.

Additional analysis

The previous analyses showed no significant results. However, the results of the correlation analysis showed that the choice of subgroup (musician vs music listener) had a moderately significant negative relationship with ingroup projection, distinctiveness threat and intergroup threat (see table 2). Specifically, the participants who perceived music listeners as their ingroup, reported lower ingroup projection, perceived lower distinctiveness threat and lower intergroup threat but no causal inferences could be made. Therefore, complementary analyses were conducted by means of a regression analyses.

Firstly, the results showed a significant interaction between type of subgroup (musician vs music listener) and ingroup projection, $b = -1.04$, $t(134) = .-3.42$, $p < .01$. Participants who identified as music listeners perceived their ingroup as less prototypical than the participants that identified as musicians. In other words, identifying as a music listener led to a lower perceived ingroup projection and therefore less ingroup projection.

Secondly, the interaction between type of subgroup and distinctiveness threat was significant, $b = -0.34$, $t(134) = -2.18$, $p < .05$. Resembling the results for ingroup projection, identifying as a music listener led to lower perceived distinctiveness threat compared to identifying with musicians irrespective of the type of their CII.

Thirdly, the interaction between type of subgroup and intergroup threat was significant, $b = -0.74$, $t(134) = .-3.43$, $p < .01$. That is, identifying as a music listener led to less intergroup threat compared to participants who identified as musicians.

Conclusions and Discussion

The main focus of this experiment was to study and compare the effect of nested and cross-cutting common ingroup identities on outgroup attitudes and its underlying processes. Specifically, social identity complexity, ingroup projection, distinctiveness threat and intergroup threat were proposed as potential mediators and Subgroup Identification as a moderator. The main expectation of the study was that a cross-cutting Common Ingroup Identity would lead to a higher increase in positive outgroup attitudes than a nested Common Ingroup Identity would. Additionally, it was hypothesized that this effect on outgroup attitudes could be explained by a reduction or increase of the four proposed mediators and that these effects were moderated by the level of identification with the subgroup.

Inconsistent with the main hypothesis, no difference was found in the effect of the two types of Common Ingroup Identity on outgroup attitudes. However, type of Common Ingroup Identity did have an effect on social identity complexity and ingroup projection but were in the opposite direction than was originally hypothesized. The expectation was that a cross-cutting CII would lead to less ingroup projection but in the experiment it led to more ingroup projection than a nested CII. This finding is similar to that of Aksoy (2017), in that the difference in ingroup projection found was not due to higher perceived ingroup prototypicality, but rather a higher perceived outgroup prototypicality in the nested CII. These findings, as Aksoy discussed, could be explained by a difference in how well defined the common ingroup identities are to the participants. For ingroup projection to occur, a concrete and well-defined prototype of the Common Ingroup Identity is needed (Mummendey & Wenzel, 1999). Ingroup projection decreases when the prototype of the CII is vague. Aksoy (2017) concluded that her cross-cutting CII could have been more clear and concrete in the

eyes of the participants and therefore have led to more ingroup projection. While the current study used different group (music lovers vs preferred music genre lovers), the same explanation could be applicable. Being a "music lover" as identity, might not posses as clear-cut traits and distinctions as the identity of being a "preferred music genre lover" has.

Regarding the conceptual model, against expectations, no moderation or mediation was found. However, additional analyses showed that the type of subgroup (musician vs music listener) significantly predicted ingroup projection, distinctiveness threat and intergroup threat. Specifically, having musicians as subgroup predicted higher scores on the three mediators mentioned above. A possible explanation for the latter findings on type of subgroup, can be, although not purposely intended in this experiment, that musicians as a subgroup were a minority. Dovidio, Gaertner and Saguy (2008) recognized, that for majority and minority groups, the effect of a Common Ingroup Identity can differ. They argue that being a member of a majority or minority group shapes the way that people perceive and experience intergroup relations which can result in different motivations regarding intergroup relations and the status quo between groups. This means that being a member of a majority or minority subgroup can influence ingroup projection, distinctiveness threat and intergroup threat.

Regarding ingroup projection, Waldzus, Mummendey, Wenzel, and Boettcher (2004) argued that group members have an inclination to perceive their own subgroup as more prototypical for a common ingroup but that these perceptions are susceptible to reality. One aspect of this reality is that subgroups can differ in size, status or power and these differences can impact the way the subgroups perceive ingroup and outgroup prototypicality (Ufkes, Otten, Van Der Zee, Giebels & Dovidio, 2012). Hence, it is possible that both musicians and music listeners genuinely agree that these differences represent the reality. Logically, both groups will perceive musicians as more prototypical and ingroup projection will be higher

among musicians. This could explain why being a member of musicians as ingroup, leads to more ingroup projection.

Another finding was that musicians perceived more distinctiveness threat than music listeners did. Existing literature on distinctiveness threat report similar findings. Minority group members often have less positive expectations of merging two group into a common ingroup and are more suspicious that their ingroup will not be as equally represented in this common ingroup as the majority group will be (Fischer, Greitemeyer, Omay, & Frey, 2007; Motolla, 1996). This means that minority group members are more prone to perceive distinctiveness threat. This is in accordance with this study's finding that musicians reported more distinctiveness threat than music listeners did.

Thirdly, it was found that musicians perceived more intergroup threat than music listeners did. This finding is consistent with earlier studies on intergroup threat (Stephan et al, 2002; Riek, Mania, Gaertner, Mcdonald, & Lamoreaux, 2010). In a study among black and white people in America, Riek and his colleagues (2010) found that black people, a minority in America, perceived higher levels of intergroup threat compared to white people. This tendency was also found in a second study among democrats and republicans. At the time, democrats were a minority in congress and there was a republican president in the white house (2006). The democrats reported higher levels of intergroup threat. It is however interesting to know why musicians in this study perceived intergroup threat from music listeners. As discussed in the introduction, intergroup threat can consist of both realistic and symbolic threat. While in the case of black vs white people and democrats vs republicans, threat to resources, group's power, and general welfare (realistic threat) seem to be at stake, this is less so in case of musicians vs music listeners. However, musicians might have experienced symbolic group threat. Aspects of symbolic threat are values, belief systems and the groups philosophy. Part of the groups values and beliefs could be that a real music lover

(nested CII) or genre lover (cross-cutting CII) also plays a instrument. When people who only listen to music join the Common Ingroup Identity, these values and beliefs could have been threatened. The scale used in this study to measure intergroup threat did not make an distinction between realistic and symbolic group threat, but these scales do exist. A study done in the Netherlands (Velasco González, Karina, Verkuyten, Weesie & Poppe, 2008) used a scale which included subscales such as intergroup threat, symbolic threat, and realistic economic threat. Future research should include scales such as these so they can make more in depth conclusion regarding intergroup threat.

Concerning the non-significant findings in this study, there is one important explanation. Participants did not identify as strongly with their subgroup or common ingroup as was initially expected. Identification was measured on a 7-point likert-scale with a seven representing the highest level of identification. The average scores of the participants on both subgroup and common ingroup identification were barely above the midpoint (see table 2). This gives room to the fact that the participants may not have identified as strongly, with their subgroups and the common ingroup, as would be required for the hypothesized relationships to show up. Stone and Crisp (2007) argued along these same lines:

"In order for these reactive processes to occur, perceivers must be highly committed to their ingroup. If one does not regard a particular identity as central to their self-definition, they are unlikely to use it as a source of self-esteem" (p.495).

In other words, the participants in this experiment might not have identified enough with their respective ingroups for processes like social identity complexity, ingroup projection, distinctiveness threat and intergroup threat to be measured. While a number of the participants identified strongly with their respective ingroups, this number was too low to conduct the analyses on.

Limitations, strengths and future research

For future research it will be important that ingroup identification will be of adequate level so these intergroup processes can be measured. A possible solution is for future experiments to make use of "natural" or "real" groups instead of "minimal" groups. Instead of creating groups based on arbitrary distinctions like music preference and whether you play an instrument (minimal groups), future experiments can make use of existing groups. A reason is that Mullin and Hogg (1998) argued that people have a fundamental need to be certain about their social world and their place within it. Minimal groups do not give a clear description of how group members think and behave and therefore do not give much information about the groups place in the social world. Identifying with a real existing group will provide more information and consequently reduce more uncertainty than identifying with a minimal group. This is also a solution for more concrete and well-defined prototypes for the common ingroup identities. Moreover, studies in more naturalistic contexts have found higher degrees of intergroup bias, such as discrimination, than in minimal group experiments (e.g. Doosje, Ellenmers & Spears, 1995; Jetten, 1997; Jetten, Spears & Manstead, 1996). The use of real groups should increase the probability of higher levels of identification in future studies. A second way of addressing this limitation, is to keep using minimal groups and provide the participants with additional information about the way ingroup and outgroup members behave and think. Therefore, reducing this uncertainty, discussed by Mullin and Hogg (1998), by giving the participants enough information of where they themselves fit into the group, can make it easier to identify with the group used in the experiment. This additional information can be presented in the cover stories that are presented to the participants in the survey.

Another limitation is that the participants, in both subgroups (musicians vs music listeners), perceived musicians to be more prototypical for the common ingroup (nested: music lover; cross-cutting: music genre). Musicians are typically seen as more prototypical

music lovers or lovers of a particular genre and will therefore be perceived as more prototypical by everybody. Consequently, this does not give room for ingroup projection to take place as it was argued, by Tajfel and Turner (1979) in their Social Identity Theory, that ingroup projection was used by individuals to maintain a positive social identity. Therefore, future research should make use of groups that can be perceived as evenly prototypical for the common ingroup. This can be done by means of a small pilot test that explores the way people perceive the groups.

Additionally, the majority of the participants did not have English as their native language. While they all indicated to speak English at a sufficient level, this could have led to some flawed data. During the pilot test, in which a couple of people were approached to fill in the survey, some people indicated that they struggled to understand certain English words. These words were adjusted accordingly, however it could be possible that participants did not fully understand specific parts in the survey. The manipulation was a written cover story in which the nested and the cross-cutting common ingroup identities were primed. Therefore, the manipulation was subtle and could have been lost for participant that did not speak English as their native language. The result could have been that the manipulation or the scores on the measurements are flawed. A simple solution to this problem is to translate the survey accordingly to the native language of the participants.

Despite the limitations and the fact that no hypotheses were confirmed, the current study has some strengths and contributions to the research field that are worth mentioning. First of all, the current study made a distinction between nested and cross-cutting common ingroup identities. Aksoy (2017) suggested that these types could have different effects on outgroup attitudes, but beside her study, all other previous research either used nested common ingroup identities or cross-cutting. Consequently, this new paradigm is still very much in its infancy and requires further research. Moreover, the current research was the first

to incorporate two types of Common Ingroup Identity, social identity complexity, ingroup projection, distinctiveness threat, intergroup threat and outgroup attitudes. This is quite unique in this research field, which mostly focuses on either one or two of these aspects. By including all relevant variables found in the existing literature, this study was able to conceptualize a model that depicts all of the processes involved. Instead of looking at the processes in isolation, it is important to look at all these relevant processes at the same time so more accurate and exhaustive conclusions can be made.

To conclude, the present study failed to demonstrate a difference in effect of nested and cross-cutting common ingroup identities on outgroup attitudes and reveal its underlying processes. Regarding social identity complexity, ingroup projection, distinctiveness threat and intergroup threat no mediation could be found and Subgroup Identification did not seem to have a moderating effect on these processes. It is however, another step towards fully understanding intergroup bias and the use of a common ingroup as a possible solution. While people will always categorize their social world around them into "us" and "them", findings from research will help us in finding ways to "we".

References:

Aksoy, M. (2017). A comparison of nested and cross-cutting common ingroup identities and the role of ingroup projection, distinctiveness and intergroup threat on outgroup attitudes (Bachelor's thesis, University of Twente).

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63*, 596-612.

Bachman, B. A. (1993). An intergroup model of organisational mergers. Unpublished Doctoral Thesis, University of Missouri, Columbia.

Bianchi, M., Mummendey, A., Steffens, M. C., & Yzerbyt, V. Y. (2010). What do you mean by "European"? Evidence of spontaneous ingroup projection. *Personality and Social Psychology Bulletin*, *36*(7), 960-974.

Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and social psychology bulletin*, *17*(5), 475-482.

Brewer, M. B. (2000). 8 Reducing Prejudice Through Cross-Categorization: Effects. *Reducing prejudice and discrimination*, 165.

Brewer, M. B. (2003). Optimal distinctiveness, social identity, and the self.

Brewer, M. B., & Pierce, K. P. (2005). Social identity complexity and outgroup tolerance. *Personality and Social Psychology Bulletin*, *31*(3), 428-437.

Corenblum, B., & Stephan, W. G. (2001). White fears and native apprehensions: An integrated threat theory approach to intergroup attitudes. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *33*(4), 251.

Crisp, R. J., Stone, C. H., & Hall, N. R. (2006). Recategorization and subgroup identification: Predicting and preventing threats from common ingroups. *Personality and Social Psychology Bulletin*, *32*(2), 230-243.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of experimental social psychology*, *31*(5), 410-436.

Dovidio, J. F., Gaertner, S. L., & Saguy, T. (2008). Another view of "we": Majority and minority group perspectives on a common ingroup identity. *European review of social psychology*, *18*(1), 296-330.

Dovidio, J. F., Gaertner, S. L., & Validzic, A. (1998). Intergroup bias: Status, differentiation, and a common in-group identity. *Journal of personality and social psychology*, *75*(1), 109.

Fischer, P., Greitemeyer, T., Omay, S. I., & Frey, D. (2007). Mergers and group status: The impact of high, low and equal group status on identification and satisfaction with a company merger, experienced controllability, group identity and group cohesion. *Journal of Community & Applied Social Psychology*, *17*(3), 203-217.

Gaertner, S. L., & Dovidio, J. F. (2012). Common ingroup identity model. *The encyclopedia of peace psychology*.

Gaertner, S. L., & Dovidio, J. F. (2014). *Reducing intergroup bias: The common ingroup identity model*. Psychology Press.

Gaertner, S. L., Mann, J. A., Dovidio, J. F., Murrell, A. J., & Pomare, M. (1990). How does c ooperation reduce intergroup bias?. *Journal of Personality and Social Psychology*, *59*(4), 692.

Gaertner, S. L., Mann, J., Murrell, A., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of personality and social psychology*, *57*(2), 239.

Gaertner, S. L., Dovidio, J. F., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European review of social psychology*, *4*(1), 1-26.

Gaertner, S. L., Rust, M. C., Dovidio, J. F., Bachman, B. A., & Anastasio, P. A. (1994). The contact hypothesis: The role of a common ingroup identity on reducing intergroup bias. *Small group research*, *25*(2), 224-249.

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.

Hayes, Andrew F.(2013). Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach. New York, NY: The Guilford Press. *Journal of Educational Measurement*, *51*(3), 335-337.

Hewstone, M., Islam, M. R., & Judd, C. M. (1993). Models of crossed categorization and intergroup relations. *Journal of Personality and Social Psychology*, *64*(5), 779.

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual review of psychology*, *53*(1), 575-604.

Hogg, M. A. (2016). Social identity theory. In *Understanding Peace and Conflict Through Social Identity Theory* (pp. 3-17). Springer International Publishing.

Hornsey, M. J., & Hogg, M. A. (1999). Subgroup differentiation as a response to an overly-inclusive group: a test of optimal distinctiveness theory. *European Journal of Social Psychology*, *29*(4), 543-550.

Hornsey, M. J., & Hogg, M. A. (2000a). Assimilation and diversity: An integrative model of subgroup relations. *Personality and Social Psychology Review*, *4*(2), 143-156.

Hornsey, M. J., & Hogg, M. A. (2000b). Subgroup relations: A comparison of mutual intergroup differentiation and common ingroup identity models of prejudice reduction. *Personality and Social Psychology Bulletin*, *26*(2), 242-256.

Jetten, J., Spears, R., & Manstead, A. S. (1996). Intergroup norms and intergroup discrimination: Distinctive self-categorization and social identity effects. *Journal of personality and social psychology*, *71*(6), 1222.

Jetten, J., Spears, R., & Manstead, A. S. (1997). Distinctiveness threat and prototypicality: Combined effects on intergroup discrimination and collective self-esteem. *European Journal of Social Psychology*, *27*(6), 635-657.

Jetten, J., Spears, R., & Manstead, A. S. (2001). Similarity as a source of differentiation: The role of group identification. *European Journal of Social Psychology*, *31*(6), 621-640.

Meiser, T., Mummendey, A., & Waldzus, S. (2004). On the blessings and perils of a common ingroup for intergroup relations. Unpublished manuscript, University of Jena, Germany.

Mottola, G. R. (1996). The effects of relative group status on expectations of merger success.

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*(2), 103-122.

Mullin, B. A., & Hogg, M. A. (1998). Dimensions of subjective uncertainty in social identification and minimal intergroup discrimination. *British Journal of Social Psychology*, *37*(3), 345-365.

Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of personality and social psychology*, *89*(6), 852.

Mummendey, A., & Wenzel, M. (1999). Social discrimination and tolerance in intergroup relations: Reactions to intergroup difference. *Personality and social psychology review*, *3*(2), 158-174.

Oskamp, S. (Ed.). (2000). *Reducing prejudice and discrimination*. Psychology Press.

Oakes, P., Haslam, S. A., & Turner, J. C. (1998). The role of prototypicality in group influence and cohesion:Contextual variation in the graded structure of social categories.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research*, *42*(1), 185-227

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*(4), 336-353.

Riek, B. M., Mania, E. W., Gaertner, S. L., McDonald, S. A., & Lamoreaux, M. J. (2010). Does a common ingroup identity reduce intergroup threat?. *Group Processes & Intergroup Relations*, *13*(4), 403-423.

Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review*, *6*(2), 88-106.

Spears, R., Jetten, J., & Scheepers, D. (2002). Distinctiveness and the definition of collective self: A tripartite model. In A. Tesser, J. V. Wood, & D. A. Stapel (Eds.), Self and motivation: Emerging psychological perspectives (pp. 147-171). Lexington, MA: American Psychological Association.

Steffens, M. C., Reese, G., Ehrke, F., & Jonas, K. J. (2017). When does activating diversity alleviate, when does it increase intergroup bias? An ingroup projection perspective. *PloS one*, *12*(6), e0178738.

Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., & Renfro, C. L. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, *28*(9), 1242-1254.

Stephan, W. G., & Marisa, D. Mealy. 2011. Intergroup threat theory. *The encyclopedia of peace psychology*.

Stephan, C. W., Stephan, W. G., Demitrakis, K. M., Yamada, A. M., & Clason, D. L. (2000). Women's attitudes toward men: An integrated threat theory approach. *Psychology of Women Quarterly*, *24*(1), 63-73.

Stephan, W. G., Ybarra, O., & Bachman, G. (1999). Prejudice toward immigrants. *Journal of Applied Social Psychology*, *29*(11), 2221-2237.

Stephan, W. G., Ybarra, O., Martinez, C. M., Schwarzwald, J., & Tur-Kaspa, M. (1998). Prejudice toward immigrants to Spain and Israel: An integrated threat theory analysis. *Journal of Cross-Cultural Psychology*, *29*(4), 559-576.

Stone, C. H., & Crisp, R. J. (2007). Superordinate and subgroup identification as predictors of intergroup evaluation in common ingroup contexts. *Group processes & intergroup relations*, *10*(4), 493-513.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. *The social psychology of intergroup relations*, *33*(47), 74

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.

Ufkes, E. G., Otten, S., Van Der Zee, K. I., Giebels, E., & Dovidio, J. F. (2012). Urban district identity as a common ingroup identity: The different role of ingroup prototypicality for minority and majority groups. *European journal of social psychology*, *42*(6), 706-716.

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*(6), 857-876.

Velasco González, K., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, *47*(4), 667-685.

Verkuyten, M., & Martinovic, B. (2016). Dual identity, in-group projection, and out-group feelings among ethnic minority groups. *European Journal of Social Psychology*, *46*(1), 1-12.

Waldzus, S., & Mummendey, A. (2004). Inclusion in a superordinate category, in-group prototypicality, and attitudes towards out-groups. *Journal of Experimental social psychology*, *40*(4), 466-477.

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*(3), 385-400.

Waldzus, S., Mummendey, A., & Wenzel, M. (2005). When "different" means "worse": In-group prototypicality in changing intergroup contexts. *Journal of Experimental social psychology*, *41*(1), 76-83.

Waldzus, S., Mummendey, A., Wenzel, M., & Weber, U. (2003). Towards tolerance: Representations of superordinate categories and perceived in-group prototypicality. Journal of Experimental Social Psychology, 39, 31 – 47.

Warner, R. M. (2008). *Applied statistics: From bivariate through multivariate techniques*. Sage.

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*(4), 461-473.

Wenzel, M., Mummendey, A., & Waldzus, S. (2007). Superordinate identities and intergroup conflict: The ingroup projection model. *European review of social psychology*, *18*(1), 331-372.