The Inevitability of an Outgroup Leader

by

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Abstract

Intergroup leadership is a frequently occurring and under-researched phenomenon. Across five studies, I examined three key intergroup leadership factors and their relation to assessing the leader and intergroup relations. To understand how these variables interacted in an intergroup leadership context, I conducted a series of quasi-experimental studies. I began by testing two of the variables in a pilot study, a new manipulation of leader affiliation, although only for an out-subgroup leader, in combination with a verified method of leader rhetoric manipulation. Study 1 expanded on the pilot study to fully manipulate leader affiliation, both in- and out-subgroup, combined with leader rhetoric. Study 2 introduced the third intergroup leadership variable, leader prototypicality, with leader affiliation. Study 3 removed the affiliation comparison to focus on the effects of leader prototypicality and rhetoric for an out-subgroup leader. Study 4 brought all of the variables together to test their effects on leader evaluation and intergroup relations. Across these studies, findings were generally inconsistent, although the effect of rhetoric was often aligned with theoretical predictions. In terms of intergroup leadership theory, these results are generally supportive or neutral relative to theoretical predictions, whereas in terms of the ingroup projection model these results provide less clear support. Overall, some issues with the prototypicality manipulation, which may be a result of generally low subgroup identification, make conclusive findings difficult. These results indicate that intergroup leadership requires additional study, and more theories and manipulations need to be generated to better understand these contexts.

Preface

This dissertation is an original work by Christine Kershaw. The research project, of which this dissertation is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Attitude Survey”, No. Pro00103858, 09-14-2022. No part of this dissertation has been previously published.

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Chapter I

Introduction

History is rife with the effects of (in)effective leadership. Overlooking the differences between groups can lead to hostilities or outright conflict. The Yugoslav Wars are, among many things, a recent example of how overlooking the ethnic, religious, and historical differences between groups can lead to disastrous consequences. Yugoslavia was a nation comprised of smaller groups, the major groups being modern day Croatia, Bosnia-Herzegovina, Serbia, Slovenia, Macedonia, and Montenegro. Although these groups advocated for the establishment of Yugoslavia, underlying ethnic and religious differences impeded collaboration. During the reign of Josip Broz, as president of Yugoslavia, the different groups within Yugoslavia were tentatively working together. However, following his death, the country suffered economic and political crises that worsened the already tense ethnic and religious differences within the country. These differences led to outright clashes, which resulted in devastating human casualties with economic and political damage felt in the region decades later. The dissolution of Yugoslavia emphasizes the importance of intergroup relations, differences in subgroup values and beliefs, the effect of a leader, and how strongly people identify with their group membership.

To what extent does leadership, and aspects of the leader, influence intergroup relations? Researchers have investigated the varying influence of within-group factors that change intergroup relations but have only recently included leaders as one of those group factors. Sometimes these intergroup relations occur when subgroups are subsumed within a common group. When a leader needs to account for intergroup relations within a context of a common group with two or more subgroups the phenomena is labeled *intergroup leadership*, (Hogg et al., 2012a, Hogg & Rast, 2022). There is speculation as to whether intergroup leaders can rely on

within-group factors that are effective for intragroup leadership (Dovidio et al., 2009) because most leadership research focuses on a leader of a single group. There is evidence, however, that intergroup leadership involves unique aspects so that within group factors need to be applied cautiously to influence intergroup relations (see Crisp et al., 2006; Hogg et al., 2012a). Therefore, the role of intergroup leadership, and within group factors, may differ in the magnitude of the effect on intergroup relations and further study is required. The studies I propose explore the contributing influences of key within-group factors (leader rhetoric, leader affiliation, and leader prototypicality) on improving intergroup relations in an intergroup leadership context.

Intergroup Leadership

Two aspects of intergroup leadership separate it from previous leadership theories (Hogg et al., 2012a): viewing leadership as a group process and the integral role of positive intergroup relations. Although intergroup leadership is a recent area of research, the frequency of its occurrence necessitates further study to understand its effect on intergroup relations. In the follow sections, the difference between previous leadership theories and a theory stemming from intergroup leadership is explained and support for an intergroup leadership theory is explored.

Leadership as a group process. Many leadership theories do not consider the type of group being led as a factor that influences effective leadership. These theories focus on the leader and hypothesize that if the leader can meet specific leader conditions, success will follow. For example, an effective leader ranges from meeting specific stereotypes (e.g., leader schemas theory; Lord & Hall, 2003), to being charismatic (e.g., Avolio & Yammarino, 2003), to negotiating close relationships with each follower (e.g., Graen & Uhl-Bien, 1995). In this way, followers are expected to be recipients of the leader's actions, without being theorized to

influence the leader in return. Although these theories consider contingencies to leader success, such as accurate assessment of follower needs (e.g., Hersey & Blanchard, 1969), the group, organization, or company itself is not a factor for successful leadership. These theories imply that leaders who meet specific conditions will be successful in any group, organization, or company.

Groups, and their identity, affect leaders. A group's identity is comprised, among other things, of a group's values and beliefs (Abrams & Hogg, 2010; Hogg & van Knippenberg, 2003). A group's prototype is a malleable set of beliefs, attitudes, and behaviors which provides key guidance and information to group members (Abrams & Hogg, 2010; Hogg et al., 2012b). This prototype is affected by the social context so that as that context changes, so does the group's prototype (Hogg & van Knippenberg, 2003). A leader is a group member who holds a hierarchical, influential position within the group. This influence extends, in part, from being perceived as doing what is right for the group (Hogg et al., 2012b), having influence over group members because of their title (Abrams et al., 2008), and affecting group identity (Hogg et al., 2012b). A leader being perceived by other group members as doing what is best for the group and embodying the group's prototype, being prototypical, is beneficial for a leader. This is demonstrated via the phenomena labeled *the prototypicality advantage*, in which a leader who is perceived as prototypical has an advantage among group members compared to the benefits of a leader who is not viewed as prototypical (e.g., Hogg & van Knippenberg, 2003). A prototypical leader, compared to a leader who is not prototypical, is better liked, trusted, and supported (Hogg & van Knippenberg, 2003). Specifically, the leader's effectiveness can hinge on group members, especially group members who strongly identify with the group, perceiving the leader as prototypical of the group's identity (Giessner & van Knippenberg, 2008; Platow & van Knippenberg, 2001). Therefore, group prototype plays a key role in affecting which leader

emerges and whether that leader is effective in their position.

Intergroup relations and leadership. A leader who emphasizes prototypicality of group members can improve intragroup relations and worsen intergroup relations. Referring to the prototypicality of group members can lessen the perception and potential divisiveness of diversity within a group by reminding everyone of their common group membership (Hogg et al., 2012b). This is particularly useful when individual differences may not seem to fit a group's identity. Referring to people in an "us versus them" mindset may improve intragroup relations, but it further establishes that people who do not belong to the group should be met with distrust and bias (e.g., Duck & Fielding, 1999; Richter et al., 2006). Although it makes sense to treat other groups cautiously when a leader is attempting to facilitate collaboration between two groups, how the leader handles intergroup relations plays a role in the effectiveness of their leadership and the outcomes they are trying to achieve (Richter et al., 2006).

Leadership theories should account for the influence of intergroup relations on effective leadership. The leader of a common group comprised of two or more subgroups must cautiously facilitate intergroup relations to improve outcomes for the common group. Given the complex interaction of group identity, intergroup relations, and leader behavior (e.g., Richter et al., 2006), leaders, and by extension leadership theories, need to take all of these variables into account to obtain the best results for their common group. For example, a leader who attempts to erase subgroup boundaries can worsen relations between groups (Hornsey & Hogg, 2000a, 2000b), which can affect intergroup collaboration and productivity (e.g., Richter et al., 2006). Often leaders are expected to address intergroup relations to facilitate effective collaboration, so understanding the interaction of intergroup relations, intergroup collaboration, and effective leadership is important.

Intergroup leadership theory. Identity is an important aspect of intergroup leadership. Groups, including organizational memberships, are part of our social identity. Social identity allows for a cognitive-evaluative representation of a person in terms of the shared attributes of their group membership (Tajfel & Turner, 1979; Turner et al., 1987). Intergroup relations are informed, in part, by social identity (van Knippenberg, 2003), which is also linked to effective leadership (Hogg, 2008; Lord et al., 1999; Hogg et al., 2012a). This effectiveness is heightened when the group is important to how a person defines who they are, when intergroup relations are perceived to be competitive, and when group members feel their social identity is threatened (Hornsey & Hogg, 2000a). Increased identification with their group could lead to worsened intergroup relations when group members feel threatened (e.g., Jetten et al., 1997), which could affect intergroup collaboration (e.g., Ritcher et al., 2006).

Intergroup relational identity can also influence intergroup interactions and therefore intergroup leadership (Hogg et al., 2012a). An intergroup relational identity speaks to a group's relationship with other groups, whether a positive or negative relationship. This concept works in conjunction with a personal identity, a social identity, and an interpersonal relational identity. A personal identity is how a person defines their individual values and beliefs, whereas a social identity is how a person defines their values and beliefs in terms of their group memberships. In addition, an interpersonal relational identity is how a person defines themselves in terms of their relationships, whereas an intergroup relational identity is how a person defines their group in terms of its relationship with other groups. Given that group members can be quick to defend the identity of their group from perceived threats (e.g., Hornsey & Hogg, 2000a, 2000b; Jetten et al., 1997), addressing the intergroup relational identity relationship could sidestep the dismissal of group differences and instead focus on the contribution of all groups involved.

Collective identity influences intergroup interactions, but intergroup leadership should focus on intergroup relational identity to improve collaboration and perceptions of the leader. A collective identity is the identity of a common group (e.g., Dovidio et al., 2009). It makes intuitive sense that a leader can attempt to change the perspective of group members to see themselves as part of one common group (Dovidio et al., 2009). For example, there could have been a leader emphasizing that Serbians and Croatians could see themselves as Yugoslavians. By reframing group member perceptions, a leader could apply group-serving bias in a way to encourage groups to collaborate instead of to compete. However, because group identity is important to people, attempts to dismiss group differences are often met with increased conflict (Crisp et al., 2006; Hornsey & Hogg 2000a, 2000b). A leader who suggests how groups define their collective identity can induce group identity distinctiveness threat (Crisp et al., 2006), thereby worsening intergroup relations (Hornsey & Hogg 2000a, 2000b). Instead, a leader can emphasize the intergroup relational identity between groups (Hogg et al., 2012a), which avoids problems associated with addressing a collective identity.

Intergroup leadership can benefit from intergroup relational identity rhetoric. A leader using intergroup relational identity rhetoric does not change or challenge core values and beliefs of the groups. The leader instead provides verbal and nonverbal information about the collaborative relationship that already exists between the groups (Hogg et al., 2012a). An intergroup relational identity rhetoric does not imply similarity between groups but rather recognizes the unique contribution of all groups. By not attempting to change or challenge core values and beliefs and instead providing clarity to subgroup members it allows intergroup leaders to facilitate intergroup relations and collaboration without worsening them. It sets the stage for a possible future that includes positive and collaborative intergroup relations. This could help

groups overcome clashes both currently and in the future. It also improves group member perceptions of the leader by being transparent about real differences instead of acting like the differences are not important. Furthermore, it could lead to increased trust in the leader by avoiding threatening subgroup identities. Trusting a leader could also contribute to positive intergroup relations by believing the leader will do what is best for all subgroup members. This could lead additionally to reduced competition among subgroup members, which would positive affect intergroup relations. However, intergroup leadership must contend with other challenges in addition to the most effective rhetoric, such as expectations of the leader due to their previous affiliation and perceptions of their prototypicality.

The leader's former affiliation can affect intergroup relations. A leader from the group member's own subgroup, an in-subgroup leader, benefits from their affiliation whereas a leader from another subgroup, an out-subgroup leader, is distrusted (Duck & Fielding, 1999, 2003) and expected to give unequal benefits to members of their former subgroup (Platow & van Knippenberg, 2001). For example, the president of a university presides over numerous faculties which contain several departments. A president with their degrees in Philosophy is an in-subgroup leader to employees within the Arts faculty, and an out-subgroup leader to all other faculty employees. Subgroup members expect a university president with a Philosophy background to be more favorable to the Arts faculty relative to other faculties. Furthermore, a university president with a Philosophy background is not expected to fully understand the values and beliefs of the other faculties because the president was never part of those subgroups. These expectations can negatively influence perceptions of the president and the president's ability to navigate relations between the faculties. These expectations can lead to increased conflict between the subgroups when group members view unequal treatment as unjustified or

discriminatory (Wenzel et al., 2007). To lead subgroups effectively, an intergroup leader needs to consider not only the distinct values and beliefs of each subgroup, but also consider the influence of subgroup members' expectations on intergroup relations and collaboration.

An intergroup leader cannot rely on intragroup prototypicality to effectively lead. Intragroup leadership theories indicate that part of a leader's influence is group members' perception that the leader embodies the group's values and beliefs (Hogg & van Knippenberg, 2003; Hogg et al., 2012b). Typically, leaders who are prototypical of the common group are more trusted, liked, and supported (e.g., Abrams & Hogg, 2010). Embodying the prototype of the common group may backfire in an intergroup context, especially when some subgroup members may not believe the common group accurately reflects their values and beliefs (Wenzel et al., 2007). Furthermore, in an intergroup leadership context, a leader may be viewed by some group members as an in-subgroup leader, but by other group members as an out-subgroup leader and is therefore not prototypical of their in-subgroup, either because the leader originates from another subgroup within the common group or the leader was brought on from outside the common group. Given that out-subgroup leaders are distrusted and expected to be biased (Duck & Fielding, 1999), an intergroup leader cannot rely on prototypicality for subgroup members to support them or perceive them to be effective. Although intergroup leadership theory expects leader rhetoric to overcome the effect of a leader's prototypicality of their former group, the strong, consistent effects of prototypicality in intragroup leadership and intergroup relations research areas necessitates testing its effect.

Current Studies

Intergroup leader affiliation, leader rhetoric, and leader prototypicality influence intergroup relations and perceptions of an intergroup leader. A pilot study and four quasi-experimental

studies investigated whether different aspects of an intergroup leader influenced intergroup relations and leader perceptions and would lead to improved intergroup relations and more favorable leader evaluations:

i. Intergroup leader affiliation (in-subgroup, out-subgroup)
ii. Leader rhetoric (collective identity [CI], intergroup relational identity [IRI])
iii. Leader prototypicality (low prototypicality, high prototypicality)

More specifically, the studies reported here examine whether an out-subgroup leader was perceived differently depending on the use of CI or IRI rhetoric (pilot), whether intergroup leader affiliation (in- or out-subgroup) and leader rhetoric (CI or IRI) influenced leader perceptions and intergroup relations (Study 1), whether leader affiliation and leader prototypicality (low or high prototypicality) would influence leader perceptions and intergroup relations (Study 2), whether leader rhetoric and leader prototypicality would affect leader perceptions and intergroup relations (Study 3), and whether leader affiliation, leader rhetoric, and leader prototypicality would affect leader perceptions and intergroup relations (Study 4).

Each study builds off the previous study and was analyzed with the most recent version of the R statistical package (R Core Team, 2022). All participants were randomly assigned to conditions and people who participated in one study were not eligible to participate in subsequent studies. I conducted statistical power analyses, based on procedures recommended by Cohen (1988, 1992), to inform the sample sizes necessary to detect significant effects. A small effect size (f^2 = .10) will be expected for the pilot and Study 1, whereas for the remaining studies I expect a smaller effect size (f^2 = .08). I estimated a desired sample size for each study: pilot n = 150, Study 1 n = 200, Study 2 n = 200, Study 3 n = 200, Study 4 n = 300. Data will be checked for errors, missing data, scale structure, and scale reliability, and the data will be assessed to

ensure that the assumptions required for parametric statistical analyses are met. The focal analyses will, as appropriate, be ANOVA and MANOVA, with or without covariates, and with examination of simple main effects; or hierarchical linear regression with follow-up simple slopes analyses. Regressions will follow the procedures described by Aiken and West (1991).

The pilot study tested the delivery method of leader affiliation and whether the subgroups in this context were affected by the leader's rhetoric. It was expected that an out-subgroup leader promoting IRI, compared to CI, would be more trusted, be perceived as fairer, and improve willingness to share resources.

Study 1 expanded on the pilot study to investigate whether the out-subgroup leader can improve intergroup relations, resource sharing, and leader perceptions relative to an in-subgroup leader's ability to do so. It was expected that an out-subgroup leader would show a similar pattern of results as the pilot, but that an in-subgroup leader will do so to a greater extent.

Study 2 focused more on aspects of the leader's group membership and how it affected group member perceptions. Specifically, Study 2 removed rhetoric from the manipulation and replaced it with the leader's prototypicality information. High prototypical leaders were expected to show an advantage over low prototypical leaders, and a high prototypical in-subgroup leader was expected to show this to a greater extent than an out-subgroup leader.

Study 3 was the first step in understanding the relationship between leader rhetoric and leader prototypicality. Although theorized to not have an effect (Hogg et al., 2012), I hypothesized leaders would display a prototypicality advantage, and a leader promoting an IRI, compared to a CI, would show this to a greater extent.

Study 4 brought all of the variables together to test their relative influence. A high prototypical leader, compared to low prototypical, was expected to receive more favorable leader

evaluations and positive intergroup relations. This effect was expected to be stronger when the high prototypical leader promoted IRI, compared to CI, and to heighten further when the high prototypical leader promoted IRI and was an in-subgroup leader, compared to an out-subgroup leader.

Chapter II

Pilot study: The effect of leader rhetoric on perceptions of an intergroup leader

The subgroups we belong to are defined and affected by the superordinate group and its leader. Groups affect our identity and our resource options. As a result a leader is often expected to address group identity, inter-subgroup relations, and inter-subgroup collaboration. On the surface, shared superordinate group membership would ensure inter-subgroup relations and collaboration would be smooth. Digging deeper, however, there are major issues of identity, resources, and representation, in which people tend to be biased in favor of their own subgroup. Although bias does not always have to result in extreme outcomes, it is often associated with destructive actions and intense dislike of out-subgroup members (Yzerbyt & Demoulin, 2010).

An intergroup leader is expected by group members to address these potential issues and facilitate the group's goals. The questions investigated in this study are: What is the effect of intergroup leader rhetoric from an out-subgroup leader and what is the effect of the method of delivering that information? Intergroup leadership research has previously focused on in-subgroup leader effects (e.g., Kershaw et al., 2020; Rast et al., 2018), but given the inherent aspect of intergroup leadership involving out-subgroup leaders, it is important to study the effects of leader affiliation on their ability to address the group members' expectations. It was expected that the leader's subgroup affiliation would affect their perceived effectiveness (Hogg et al., 2012). To start exploring this influence I will explore the effect of leader rhetoric on subgroup members' perceptions of an out-subgroup leader's fairness, trustworthiness, and willingness to work with other subgroup members. Subgroup identification may play a role in this perception because strong identifiers, compared to weak identifiers, are more likely to derogate out-subgroup members (e.g., Jetten et al., 1997).

Improving collaboration between subgroups

One approach for improving inter-subgroup collaboration is through improving inter-subgroup relations. Social psychology has long studied how to improve intergroup relations and reduce prejudice (Yzerbyt & Demoulin, 2010) and some researchers theorize that intergroup bias is the answer (e.g., Hogg et al., 2012b; Kershaw et al., 2021; Richter et al., 2006). Intergroup bias includes aspects of evaluation, such as prejudice, behavior, direct or indirect, and valence, either positive (e.g., ingroup favoritism) or negative (e.g., outgroup derogation; Dovidio & Gaertner, 2010). According to this perspective, strong identifiers display this bias most apparently (e.g., Jetten et al., 1997), because group members are inherently biased to favor their in-subgroup over other groups and do so more to the extent that the group is important to their identity.

Although this perspective has some support, it has some important boundary conditions to be successful. Categorizing people into your subgroup or other groups is related to ingroup favoritism and outgroup derogation (e.g., Abrams & Hogg, 2010; Kerr et al., 2018), a result that may occur immediately (Otten & Wentura, 1999). However, how intergroup bias is expressed can be influenced by subgroup history (e.g., Ellemers, 1993), perceptions of competition (e.g., Mummendey & Otten, 1998), and subgroup identity distinctiveness threat (e.g., Rast et al., 2018).

Another approach for improving inter-subgroup collaboration is to downplay inter-subgroup relations and instead focus on how to facilitate getting all subgroup members to work together. According to this perspective, leaders may choose to ignore or even worsen inter-subgroup relations for the purpose of achieving group goals because they will be rewarded for achieving goals and not for improving relationships within the group (Richter et al., 2005).

Therefore, inter-subgroup interactions should focus on how well subgroups and their members work together and focus less on whether they like each other because there is evidence that intergroup relations are built on cooperative actions between groups (e.g., Deutsch, 1973) and that negative actions foster hostile intergroup behavior (e.g., Wildschut et al., 2003).

Intergroup leadership

An intergroup leader should consider both identity and interactions to facilitate intergroup collaboration. Although group-based leadership theories focus more strongly on identity as a foundation of and vehicle for leadership, it does not make the effects incompatible with theories that focus on facilitating collaboration to achieve group goals (e.g., Richter et al., 2005). An effective intergroup leader does not only need to address subgroup identity and values or only loss of resources. Instead that leader can model both improved inter-subgroup relations and inter-subgroup collaboration via leader rhetoric and behavior (e.g., Hogg et al., 2012).

What form of leader rhetoric is most effective, however, is debated. Two of the most common forms of identity rhetoric a leader can promote are a collective identity or an intergroup relational identity. In promoting a collective identity, which recategorizes all subgroup members into the superordinate group, a leader attempts to apply ingroup favoritism to all superordinate group members instead of only to specific subgroup members (Dovidio et al., 2009 Gaertner et al., 1993). In promoting an intergroup relational identity, which emphasizes the unique and important contribution of all subgroups within the superordinate group, a leader attempts to avoid problems associated with group identity distinctiveness threat (e.g., Rast et al., 2018) and instead enhances intergroup communication, resource sharing, and intergroup cooperation (Salem et al., 2019; van der Stoep, 2020).

The current study

There is evidence that an intergroup relational identity can be effective rhetoric for an in-subgroup intergroup leader (e.g., Rast et al., 2018; Kershaw et al., 2020). The effects for an out-subgroup leader are less understood. Given subgroup member expectations that an out-subgroup leader will be biased toward their former subgroup (Duck & Fielding, 1999), overcoming this expectation is important for an intergroup leader to be trusted and effective in their role, whether it is to speak to identity, resources, or collaboration. The first step of understanding the influence of leader attributes and leader rhetoric on intergroup relations, collaboration, and perceptions of the leader is to investigate the effects of leader rhetoric from an out-subgroup leader. Specifically, I expected that an out-subgroup leader promoting an intergroup relational identity, compared to a collective identity, will be rated as fairer and more trustworthy while also improving subgroup member's willingness to share resources with other subgroups.

This pilot test was a quasi-experiment conducted in a relevant intergroup leadership situation. During the time data were collected, the university was going through a series of restructuring ventures that made major change to how the university was run, which departments were in which faculties and colleges within the university, and which courses were offered. These decisions were being made at higher levels of leadership, including directives from the government, and students reported feeling concern about these changes. Class size and availability could affect graduation times, so the use of this context can provide heightened realism for participants.

To test the hypotheses, participants reported department identification and then read a vignette manipulating the leader's rhetoric from a supposed out-subgroup leader. Participants then evaluated the leader and their attitude toward and willingness to work with other subgroups.

Method

Participants and design

Participants were 144 undergraduate Psychology students (66.90% female, *n* = 95; 33.09% male, *n* = 47) at a large Canadian university. They ranged in ages from 17 to 34 (*M* = 19.17, *SD* = 2.11) and were primarily first-year undergraduate students (63.88%, *n* = 92) with some second-year students (19.44%, *n* = 28) and the rest third- and fourth-years (16.66%, *n* = 23). The majority reported being East Asian (30.06%, *n* = 43), with the next largest ethnicity being Euro-North American (25.87%, *n* = 37) and then European (15.38%, *n* = 22). The study was described as an attitude survey. Participants received partial course credit for their participation. There was one manipulated predictor variable, leader rhetoric (collective identity, intergroup relational identity), one measured predictor variable (ingroup identification), and two main dependent measures (leader evaluation, subgroup evaluation).

Procedure and measures

Participants were recruited through the Psychology Department subject pool to complete an 'Attitude Survey'. The overall group scenario was one in which the superordinate group was a student group at the university led by a single undergraduate student representing all undergraduate students. The current situation at the university highlighted a need for students to feel represented in changes that affect them. Participants accessed the study online via Qualtrics, an online study platform.

Participants began by reporting basic demographic information (age, ethnicity, gender, year in school, and their faculty) and the strength of their identification with their faculty via four statements, adapted from previous social identity research (Kershaw et al., 2021). The statements focused on (1) how important to their identity their faculty was, (2) how frequently they thought about themselves as a member of the faculty, (3) to what extent the faculty influenced their life

choices, and (4) to what extent the faculty influenced their daily decisions; 1 = *strongly disagree*, 9 = *strongly agree*, α = .88).

After reporting their demographic information and faculty affiliation, participants received a vignette (modified from Kershaw et al., 2021) from a supposed student leader. Participants were randomly assigned to read about an out-subgroup leader (i.e., a student leader from a different faculty than their own) who endorses collective identity rhetoric to represent their interests or about an out-subgroup leader who endorses intergroup relational identity rhetoric to represent their interests. In the collective identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [participants' university] is full of bright, young students. [participants' university] students are part of one of many faculties. [participants' university] students in different faculties must understand that they are similar to one another and should work together to achieve common goals. Both groups benefit in part by this shared integrative group: [participants' university] students excel because students from all faculties have assimilated into being just [participants' university] students. Rejecting this intergroup divide (among all faculties) while emphasizing that we are all the same is what makes the [participants' university] great. I hope that you will endorse me as a leader who represents unified [participants' university] students.

In the intergroup relational identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [participants' university] is full of bright, young students. [participants' university] students are part of one of many faculties. [participants' university] students must work together while maintaining their distinct and separate group identities to achieve common goals. Both groups benefit in part by their interdependent relationship: [participants' university] students excel because of the distinct and unique contribution each faculty makes. Maintaining this intergroup group collaboration (among all faculties) while emphasizing each group's strengths is what makes the [participants' university] great. I hope that you will endorse me as a leader who represents students from all faculties.

Participants rated the leader (as reported in more detail below) and reported their attitude on

other faculties.

Finally, participants were thanked for their time and debriefed.

Leader Evaluation. Participants first assessed the leader's fairness using a scale adapted from Platow & van Knippenberg (2001). This 4-item scale measured perceived fairness (one item), neutrality (one item), trustworthiness (one item), and politeness (one item), 1 = *strongly disagree*, 9 = *strongly agree* (higher scores indicate more favorable evaluations; α = .73).

Participants then evaluated the leader's trustworthiness. This was a 6-item scale adapted from Kershaw et al. (2020), which measured trust in the leader (three items; e.g., "I trust this leader absolutely") and perceptions of trustworthiness of the leader (three items; e.g., "This leader is very committed to UofA students"), 1 = *strongly disagree*, *9 = strongly agree* (higher scores indicate greater trust and trustworthiness; α = .91).

Subgroup Evaluation. Participants then completed seven items assessing their willingness to share resources and work with people from different subgroups. The first six items focused on resource exchange and was adapted from previous research (Richter et al., 2005), and measured how effectively the students from different subgroups would work together (e.g., "The students from different faculties will work effectively together to respond to tasks or duties that may emerge"; α = .92) while the remaining item assessed students' willingness to work with people from different subgroups, 1 = *strongly disagree*, *9 = strongly agree* (higher scores indicate greater interest in sharing resources and working with members of other subgroups).

The second scale (adapted from Wright et al., 1997) focused on intergroup relations. Participants rated their own faculty and also the members of out-subgroup faculties on six semantic differentials: "[… faculty] students are…" (a) cold/warm, (b) negative/positive, (c) hostile/friendly, (d) suspicious/trusting (e.g., 1 = *cold*, 9 = *warm*) and "[… faculty] students

deserve…" (e) contempt/respect, and (f) disgust/admiration (e.g., 1 = *contempt*, 9 = *respect*).

The six semantic differentials form a reliable scale for both in-subgroup and out-subgroup evaluations (α = .87 for in-subgroup attitude and α = .83 for out-subgroup attitude), with higher scores signifying a more positive attitude toward the specific faculty. Following procedures used by Hornsey and Hogg (2000b) and Rast and colleagues (2018), out-subgroup attitude was subtracted from in-subgroup attitude to create a measure of ingroup bias, a comparative understanding of intergroup relations. Positive scores indicate more positive evaluation of the in-subgroup than the out-subgroup, and negative scores vice versa.

Results

Background variables

Table 1.1 displays alpha reliabilities, means, standard deviations, and inter-correlations of measured variables.

The identification measure ($M = 4.97$, $SD = 1.88$) indicated that participants did not consider their faculty identity to be an important part of their identity.

Because regressions on the demographic measures of age, year in school, ethnicity, and gender did not reveal any significant effects (F's < 2.81, p's > .05), these variables were not included as covariates.

Leader evaluation

A t-test comparing intergroup relational identity and collective identity on perceived fairness indicated a significant difference, $t(136.08) = -2.90$, $p = .004$. An out-subgroup leader promoting intergroup relational identity was rated higher in fairness ($M = 6.98$, $SD = 1.03$) compared to a leader's fairness while promoting a collective identity ($M = 6.42$, $SD = 1.28$), supporting the hypothesis. This difference was not found for perceived trust, $t(140.05) = -1.88$, p

= .061. The perception of trust in an out-subgroup leader promoting intergroup relational identity (M = 6.25, SD = 1.21) was not statistically different than the perception of trust in a leader promoting collective identity (M = 5.85, SD = 1.36).

Subgroup evaluation

A t-test comparing intergroup relational identity and collective identity on perceived exchange of resources between groups did not indicate a statistical difference, $t(141.31) = -0.36$, $p = .71$. An out-subgroup leader promoting intergroup relational identity (M = 6.42, SD = 1.37) was not rated differently than one promoting collective identity (M = 6.34, SD = 1.23). When reporting their interest in working with people from different subgroups, an out-subgroup leader promoting an intergroup relational identity (M = 6.79, SD = 1.97) was not rated differently than a leader promoting a collective identity (M = 6.86, SD = 1.85) $t(141.46) = 0.13$, $p = .896$. Finally, in terms of ingroup bias, a t-test indicated there was no statistical difference between groups, $t(140.19) = 0.13$, $p = .895$. An out-subgroup leader promoting an intergroup relational identity (M = 0.88, SD = 1.11) compared to a collective identity (M = 0.90, SD = 0.99) were not statistically different. These results did not support the hypotheses.

Discussion

This pilot study examined whether an out-subgroup intergroup leader could improve intergroup collaboration and leader evaluations through intergroup relational identity (vs. collective identity) rhetoric. The hypotheses had mixed support. Specifically, there seemed to be some improvement in how subgroup members perceived an out-subgroup leader, but the pattern of results for subgroup evaluation were in the right direction to support the hypotheses yet did not reach statistical significance. In general, an out-subgroup leader emphasizing an intergroup relational identity was associated with improved leader evaluations and overall strong interest in

working with people from other subgroups.

These results occurred despite a relatively lower identification by subgroup members within their groups. Theoretically, these effects would be expected to grow stronger and more distinct as subgroup members increasingly identified with their subgroups (e.g., Abrams & Hogg, 2010; Hogg et al., 2012a). Specifically, people who identify less strongly with their subgroups are theorized to be less affected by leader rhetoric (Hogg et al., 2012a) and less likely to derogate out-subgroup members compared to their strongly identified counterparts (Jetten et al., 1997). Therefore, these results are important because it indicates that leader rhetoric can positively influence a wider variety of subgroup members and provide some support to intergroup leadership theory (Hogg et al., 2012a). Although in the past intergroup leader rhetoric has also successfully affected intergroup relations via positive subgroup evaluations (Kershaw et al., 2021; Rast et al., 2018), it is not completely surprising that an out-subgroup intergroup leader may have more difficulty getting these same effects immediately because of the negative associations out-subgroup leaders have to overcome.

An intergroup leader is often both an in-subgroup and out-subgroup leader depending on which subgroup member is viewing them. Therefore, an important aspect of understanding the effects of an out-subgroup leader is in a comparative context. Therefore, the next study added leader affiliation as a manipulated variable, such that an intergroup leader would be either from a person's in-subgroup or out-subgroup and the leader would promote either an intergroup relational identity or a collective identity. Manipulating leader affiliation in addition to leader rhetoric would give a more complete picture of intergroup leadership and a more informative context for understanding the relative effects of these variables.

Chapter III

Study 1: The effect of leader rhetoric on an intergroup leader in a relative context

The pilot study examined whether an out-subgroup leader's rhetoric affected leader and subgroup evaluations, and the delivery method of leader affiliation information. In this subsequent study I chose to further investigate the effect of leader affiliation by manipulating whether the intergroup leader was an out-subgroup or in-subgroup leader. This would allow a better understanding of the effect of rhetoric in overcoming some of the challenges of being perceived as an out-subgroup leader because the results can be directly compared to the results of an in-subgroup leader.

I chose to compare leader affiliation before other aspects of the leader (e.g., leader prototypicality) because I wanted to fully investigate the effect of leader affiliation prior to adding a new variable into the experiment. Previous research has focused on the effects of rhetoric for in-subgroup leaders (e.g., Rast et al., 2018), and comparing these effects for both in-subgroup and out-subgroup intergroup leaders is important for intergroup leadership theory. Furthermore, given that intergroup leaders can be both in- and out-subgroup leaders, understanding the differences in leader evaluation and subgroup evaluation on leader rhetoric is crucial to understanding how an intergroup leader can gain subgroup member approval and improve intergroup collaboration.

Building off the pilot study, I expected an out-subgroup leader to have more favorable leader evaluations and subgroup evaluations when endorsing an intergroup relational identity compared to a collective identity. I expected these results to be strong for an in-subgroup leader relative to an out-subgroup leader. The same context and realism from the pilot study occurred for this study.

Method

Participants and design

Participants were 545 undergraduate Psychology students (56.51% female, $n = 308$; 42.38% male, $n = 231$) and were primarily first-year undergraduate students (66.05%, $n = 360$) with some second-year students (20.36%, $n = 111$) and the rest third- and fourth-years (13.39%, $n = 73$) at a large Canadian university. They ranged in ages from 17 to 48 ($M = 19.51$, $SD = 2.81$) and the majority reported being Euro-North American (29.17%, $n = 159$), with the next largest ethnicity being East Asian (20.55%, $n = 112$) and then European (16.69%, $n = 91$). Like the pilot study, it was described as an attitude survey, and participants received partial course credit. The two manipulated predictor variables were leader rhetoric (collective identity, intergroup relational identity) and leader affiliation (in-subgroup, out-subgroup). The measured predictor variable was ingroup identification. The two main dependent measures were leader evaluation and subgroup evaluation.

Procedure and measures

Participants were recruited through the Psychology Department subject pool to complete an 'Attitude Survey'. The overall group scenario was the same as the one in the pilot study. Participants began by reporting basic demographic information and the strength of their identification with their faculty from the pilot study ($\alpha = .90$).

Then participants received the same vignette as in the pilot study. They were randomly assigned to read about an in-subgroup or out-subgroup leader who endorsed either collective identity rhetoric or intergroup relational identity rhetoric. In the collective identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give**

> **them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students. [Participants' university] students are part of one of many faculties. [Participants' university] students in different faculties must understand that they are similar to one another and should work together to achieve common goals. Both groups benefit in part by this shared integrative group: [Participants' university] students excel because students from all faculties have assimilated into being just [Participants' university] students. Rejecting this intergroup divide (among all faculties) while emphasizing that we are all the same is what makes the [Participants' university] great. I hope that you will endorse me as a leader who represents unified [Participants' university] students.

In the intergroup relational identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students. [Participants' university] students are part of one of many faculties. [Participants' university] students must work together while maintaining their distinct and separate group identities to achieve common goals. Both groups benefit in part by their interdependent relationship: [Participants' university] students excel because of the distinct and unique contribution each faculty makes. Maintaining this intergroup group collaboration (among all faculties) while emphasizing each group's strengths is what makes the [Participants' university] great. I hope that you will endorse me as a leader who represents students from all faculties.

Participants rated the leader (fairness, $\alpha = .82$; trust, $\alpha = .90$) and reported their attitude toward other faculties (resource exchange, $\alpha = .93$; in-subgroup attitude, $\alpha = .87$; out-subgroup attitude, $\alpha = .87$), as participants had done in the pilot study.

Finally, participants were thanked for their time and debriefed.

Results

Background variables

Table 2.1 displays alpha reliabilities, means, standard deviations, and inter-correlations of measured variables.

The identification measure ($M = 5.00$, $SD = 1.96$) indicated that participants did not consider their faculty identity to be an important part of their identity.

Because regressions on the demographic measures of age, year in school, ethnicity, and gender did not reveal any significant effects (F's < 2.62, p's > .05), these variables were not included as covariates.

Leader evaluation

There was a main effect of leader rhetoric on perceptions of leader's fairness, $F(1, 540) = 6.79$, $p = .009$, but there was no interaction between leader rhetoric and leader affiliation on perceptions of leader's fairness, $p = .950$, as seen in Table 2.2. Participants perceived a leader who endorsed an intergroup relational identity ($M = 6.97$, $SD = 1.22$) as more fair than a leader endorsing a collective identity ($M = 6.69$, $SD = 1.33$). This partially supported the hypotheses.

Table 2.2
Fixed-Effects ANOVA results using leader fairness as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	25230.92	1	25230.92	15427.71	.000		
Rhetoric	11.11	1	11.11	6.79	.009	.01	[.00, .03]
Affiliation	0.24	1	0.24	0.15	.702	.00	[.00, .01]
Rhet. x Affil.	0.01	1	0.01	0.00	.951	.00	[.00, 1.00]
Error	883.13	540	1.64				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There was a main effect of leader rhetoric on trusting the leader, $F(1, 541) = 5.61$, $p = .018$, but there was no interaction between leader rhetoric and leader affiliation on trusting the leader, $p = .722$, as seen in Table 2.3. Participants perceived a leader who endorsed an intergroup relational identity ($M = 6.30$, $SD = 1.15$) as more trustworthy than a leader endorsing a collective identity ($M = 6.05$, $SD = 1.29$). This also partially supported the hypotheses.

Table 2.3
Fixed-Effects ANOVA results using leader trust as the criterion

Predictor	Sum	*df*	Mean	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$

	of Squares		Square				90% CI [LL, UL]
(Intercept)	20676.80	1	20676.80	13754.78	.000		
Rhetoric	8.44	1	8.44	5.61	.018	.01	[.00, .03]
Affiliation	0.02	1	0.02	0.01	.920	.00	[.00, .00]
Rhet. x Affil.	0.19	1	0.19	0.13	.722	.00	[.00, .01]
Error	813.26	541	1.50				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Subgroup evaluation

As reported in Table 2.4, there was a main effect of reported resource exchange, $F(1, 541) = 10.21$, $p = .001$, but there was no interaction between leader rhetoric and leader affiliation on perception of resource exchange between subgroups, $p = .492$. Participants reported a higher perception of resource exchange after reading about a leader who endorsed an intergroup relational identity ($M = 6.69$, $SD = 1.29$) compared to leader who endorsed a collective identity ($M = 6.33$, $SD = 1.38$). This partially supported the hypotheses.

Table 2.4
Fixed-Effects ANOVA results using resource exchange as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	22968.08	1	22968.08	12832.91	.000		
Rhetoric	18.29	1	18.29	10.22	.001	.02	[.00, .04]
Affiliation	0.83	1	0.83	0.46	.496	.00	[.00, .01]
Rhet. x Affil.	0.85	1	0.85	0.47	.492	.00	[.00, .01]
Error	968.27	541	1.79				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There were no main effects or interaction between leader rhetoric and leader affiliation on willingness to work with people from other subgroups, $p = .630$, as reported in Table 2.5. This did not support the hypotheses.

Table 2.5

Fixed-Effects ANOVA results using willingness to work with as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	26648.28	1	26648.28	10349.09	.000		
Rhetoric	1.02	1	1.02	0.39	.530	.00	[.00, .01]
Affiliation	6.39	1	6.39	2.48	.116	.00	[.00, .02]
Rhet. x Affil.	0.60	1	0.60	0.23	.630	.00	[.00, .01]
Error	1393.04	541	2.57				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 2.6, there were neither main effects nor interaction between leader rhetoric and leader affiliation on ingroup bias, $p = .192$. This also did not support the hypotheses.

Table 2.6
Fixed-Effects ANOVA results using ingroup bias as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	611.28	1	611.28	547.21	.000		
Rhetoric	0.05	1	0.05	0.05	.826	.00	[.00, .00]
Affiliation	0.67	1	0.67	0.60	.441	.00	[.00, .01]
Rhet. x Affil.	1.90	1	1.90	1.70	.193	.00	[.00, .02]
Error	603.22	540	1.12				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Exploratory analyses

Are more strongly identified participants affected by leader affiliation and leader rhetoric differently than weakly identified participants? It is theorized that intergroup relational identity rhetoric is more effective in conflict-ridden contexts and among more strongly identified subgroup members (Hogg et al., 2012a), which would result in participants who strongly identified with their subgroup to be more supportive of an intergroup leader promoting an intergroup relational identity and for that effect to be stronger for an in-subgroup leader relative to an out-subgroup leader. Given subgroup identification was a continuous predictor, the

exploratory analyses were conducted using hierarchical multiple regression. Following Aiken and West (1991), predictor variables were centered, interaction terms calculated, and simple slopes analyses conducted for significant interactions.

Leader Evaluation. At Step 1 of the hierarchical linear regressions, with only the main effects entered into the model, leader fairness ($R^2 = 0.03$, $F(7, 536) = 2.01$, $p = .05$) was not statistically significant as reported in Table 2.7, but leader trust ($R^2 = 0.04$, $F(7, 537) = 3.44$, $p = .001$) was statistically significant as reported in Table 2.8. For leader fairness, there was a main effect of leader rhetoric (B = 0.13, t(537) = 2.37, p = .01) and subgroup identification (B = 0.11, t(537) = 2.08, $p = .03$). For leader trust, there was a main effect of subgroup identification (B = .21, t(541) = 4.11, $p < .001$. At Step 3, inclusion of the interaction between leader affiliation and leader rhetoric did not account for significantly more variance in the models: leader fairness ($\Delta R^2 = .01$, $F(4, 536) = 0.68$, $p = .60$), and leader trust ($\Delta R^2 = .03$, $F(4, 537) = 0.32$, $p = .86$). For leader fairness, there was only a main effect of leader rhetoric (B = .13, t(536) = 2.47, p = .01). For leader trust, there was only a main effect of subgroup identification (B = .21, t(537) = 4.14, p < .001).

Table 2.7
Regression results using leader fairness as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit	Difference
(Intercept)	6.83**	[6.72, 6.93]				
Rhetoric	0.13*	[0.02, 0.24]	.01	[-.01, .03]		
Affiliation	0.02	[-0.08, 0.13]	.00	[-.00, .00]		
Identify	0.14*	[0.03, 0.25]	.01	[-.01, .03]		
					R^2 = .025** 95% CI[.00,.05]	
(Intercept)	6.83**	[6.72, 6.93]				
Rhetoric	0.14*	[0.03, 0.24]	.01	[-.01, .03]		
Affiliation	0.02	[-0.08, 0.13]	.00	[-.00, .00]		

Identify	0.14*	[0.03, 0.25]	.01	[-.01, .03]		
Rhet.:Affil.	0.00	[-0.11, 0.11]	.00	[-.00, .00]		
Rhet.:Id.	0.01	[-0.10, 0.12]	.00	[-.00, .00]		
Affil.:Id.	-0.08	[-0.19, 0.02]	.00	[-.01, .01]		
					R^2 = .029* 95% CI[.00,.05]	ΔR^2 = .004 95% CI[-.01, .02]
(Intercept)	6.83**	[6.72, 6.93]				
Rhetoric	0.14*	[0.03, 0.24]	.01	[-.01, .03]		
Affiliation	0.02	[-0.09, 0.13]	.00	[-.00, .00]		
Identify	0.14*	[0.03, 0.25]	.01	[-.01, .03]		
Rhet.:Affil.	0.00	[-0.11, 0.11]	.00	[-.00, .00]		
Rhet.:Id.	0.01	[-0.10, 0.12]	.00	[-.00, .00]		
Affil.:Id.	-0.08	[-0.19, 0.02]	.00	[-.01, .01]		
Rhet.:Affil.:Id.	-0.00	[-0.11, 0.11]	.00	[-.00, .00]		
					R^2 = .029* 95% CI[.00,.05]	ΔR^2 = .000 95% CI[-.00, .00]

Note. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Table 2.8

Regression results using leader trust as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit	Difference
(Intercept)	6.17**	[6.07, 6.27]				
Rhetoric	0.10*	[0.00, 0.20]	.01	[-.01, .02]		
Affiliation	0.01	[-0.09, 0.11]	.00	[-.00, .00]		
Identify	0.23**	[0.13, 0.33]	.03	[.00, .06]		
					R^2 = .045** 95% CI[.01,.08]	
(Intercept)	6.17**	[6.07, 6.27]				
Rhetoric	0.10	[-0.00, 0.20]	.01	[-.01, .02]		
Affiliation	0.01	[-0.10, 0.11]	.00	[-.00, .00]		
Identify	0.23**	[0.13, 0.34]	.04	[.01, .07]		
Rhet.:Affil.	0.00	[-0.10, 0.10]	.00	[-.00, .00]		
Rhet.:Id.	0.05	[-0.05, 0.16]	.00	[-.01, .01]		

Affil.:Id.	0.02	[-0.09, 0.12]	.00	[-.00, .00]		
					R^2 = .047** 95% CI[.01,.08]	ΔR^2 = .002 95% CI[-.01, .01]
(Intercept)	6.17**	[6.06, 6.27]				
Rhetoric	0.10	[-0.00, 0.20]	.01	[-.01, .02]		
Affiliation	0.00	[-0.10, 0.11]	.00	[-.00, .00]		
Identify	0.23**	[0.13, 0.34]	.04	[.01, .07]		
Rhet.:Affil.	0.00	[-0.10, 0.10]	.00	[-.00, .00]		
Rhet.:Id.	0.05	[-0.05, 0.16]	.00	[-.01, .01]		
Affil.:Id.	0.02	[-0.09, 0.12]	.00	[-.00, .00]		
Rhet.:Affil. :Id.	0.01	[-0.09, 0.11]	.00	[-.00, .00]		
					R^2 = .047** 95% CI[.01,.07]	ΔR^2 = .000 95% CI[-.00, .00]

Note. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Subgroup Evaluation. At Step 1 of the hierarchical linear regressions, with only the main effects entered into the model, resource exchange was significant ($R^2 = 0.03$, $F(3, 541) = 7.89$, $p = .001$) as reported in Table 2.9, but neither willingness to work with ($R^2 = -0.00$, $F(3, 541) = 0.97$, $p = .40$) nor ingroup bias ($R^2 = -0.00$, $F(3, 540) = 0.25$, $p = .85$) were significant, as per Table 2.10 and Table 2.11 respectively. There were no significant main effects for willingness to work with or ingroup bias, but resource exchange had a significant main effect of leader rhetoric (B = .15, t(541) = 2.76, $p = .005$) and subgroup identification (B = .20, t(541) = 3.61, $p < .001$). At Step 2, inclusion of the interaction between leader affiliation and leader rhetoric did not account for significantly more variance in the models: resource exchange ($\Delta R^2 = .02$, $F(4, 537) = 0.38$, $p = .82$), willingness to work with ($\Delta R^2 = .01$, $F(4, 537) = 0.81$, $p = .51$), and ingroup bias($\Delta R^2 = .01$, $F(4, 536) = 0.83$, $p = .50$). There were only main effects of leader rhetoric (B =

.16, t(537) = 2.73, p = .01) and subgroup identification (B = .21, t(537) = 3.69, p < .001) for resource exchange, but no main effects or interactions for willingness to work with or ingroup bias.

Table 2.9
Regression results using resource exchange as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit	Difference
(Intercept)	6.51**	[6.40, 6.62]				
Rhetoric	0.16**	[0.05, 0.27]	.01	[-.01, .03]		
Affiliation	0.04	[-0.07, 0.15]	.00	[-.00, .01]		
Identify	0.23**	[0.11, 0.34]	.03	[.00, .05]		
					R^2 = .047** 95% CI[.02,.08]	
(Intercept)	6.50**	[6.39, 6.61]				
Rhetoric	0.16**	[0.05, 0.27]	.01	[-.01, .03]		
Affiliation	0.04	[-0.07, 0.15]	.00	[-.00, .01]		
Identify	0.23**	[0.12, 0.34]	.03	[.00, .06]		
Rhet.:Affil.	-0.06	[-0.17, 0.06]	.00	[-.00, .01]		
Rhet.:Id.	0.05	[-0.06, 0.16]	.00	[-.00, .01]		
Affil.:Id.	-0.01	[-0.12, 0.10]	.00	[-.00, .00]		
					R^2 = .050** 95% CI[.01,.08]	ΔR^2 = .003 95% CI[-.01, .01]
(Intercept)	6.50**	[6.39, 6.62]				
Rhetoric	0.16**	[0.05, 0.27]	.01	[-.01, .03]		
Affiliation	0.04	[-0.07, 0.15]	.00	[-.00, .01]		
Identify	0.23**	[0.12, 0.35]	.03	[.00, .06]		
Rhet.:Affil.	-0.06	[-0.17, 0.06]	.00	[-.00, .01]		
Rhet.:Id.	0.05	[-0.06, 0.16]	.00	[-.00, .01]		
Affil.:Id.	-0.01	[-0.12, 0.10]	.00	[-.00, .00]		
Rhet.:Affil.:Id.	-0.02	[-0.13, 0.09]	.00	[-.00, .00]		
					R^2 = .050** 95% CI[.01,.08]	ΔR^2 = .000 95% CI[-.00, .00]

Note. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. *r* represents the zero-order

correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Table 2.10
Regression results using willingness to work with as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit	Difference
(Intercept)	7.02**	[6.88, 7.15]				
Rhetoric	0.04	[-0.09, 0.18]	.00	[-.00, .01]		
Affiliation	0.11	[-0.03, 0.24]	.00	[-.01, .02]		
Identify	-0.01	[-0.15, 0.12]	.00	[-.00, .00]		
					R^2 = .005 95% CI[.00,.02]	
(Intercept)	7.01**	[6.87, 7.14]				
Rhetoric	0.04	[-0.10, 0.17]	.00	[-.00, .00]		
Affiliation	0.10	[-0.03, 0.24]	.00	[-.01, .01]		
Identify	-0.00	[-0.14, 0.13]	.00	[-.00, .00]		
Rhet.:Affil.	-0.04	[-0.17, 0.10]	.00	[-.00, .00]		
Rhet.:Id.	0.09	[-0.05, 0.23]	.00	[-.01, .01]		
Affil.:Id.	0.07	[-0.06, 0.21]	.00	[-.01, .01]		
					R^2 = .011 95% CI[.00,.02]	ΔR^2 = .006 95% CI[-.01, .02]
(Intercept)	7.00**	[6.87, 7.14]				
Rhetoric	0.04	[-0.10, 0.17]	.00	[-.00, .00]		
Affiliation	0.10	[-0.04, 0.23]	.00	[-.01, .01]		
Identify	-0.00	[-0.14, 0.13]	.00	[-.00, .00]		
Rhet.:Affil.	-0.04	[-0.18, 0.10]	.00	[-.00, .00]		
Rhet.:Id.	0.09	[-0.04, 0.23]	.00	[-.01, .01]		
Affil.:Id.	0.08	[-0.06, 0.21]	.00	[-.01, .01]		
Rhet.:Affil.:Id.	0.06	[-0.08, 0.20]	.00	[-.00, .01]		
					R^2 = .012 95% CI[.00,.02]	ΔR^2 = .001 95% CI[-.00, .01]

Note. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Table 2.11
Regression results using ingroup bias as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit	Difference
(Intercept)	1.06**	[0.97, 1.15]				
Rhetoric	-0.01	[-0.10, 0.08]	.00	[-.00, .00]		
Affiliation	-0.03	[-0.12, 0.05]	.00	[-.00, .01]		
Identify	0.03	[-0.06, 0.12]	.00	[-.00, .01]		
					R^2 = .002 95% CI[.00,.01]	
(Intercept)	1.06**	[0.97, 1.15]				
Rhetoric	-0.01	[-0.10, 0.08]	.00	[-.00, .00]		
Affiliation	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
Identify	0.02	[-0.07, 0.11]	.00	[-.00, .00]		
Rhet.:Affil.	0.06	[-0.03, 0.15]	.00	[-.01, .01]		
Rhet.:Id.	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
Affil.:Id.	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
					R^2 = .007 95% CI[.00,.01]	ΔR^2 = .005 95% CI[-.01, .02]
(Intercept)	1.06**	[0.97, 1.15]				
Rhetoric	-0.01	[-0.10, 0.08]	.00	[-.00, .00]		
Affiliation	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
Identify	0.02	[-0.07, 0.11]	.00	[-.00, .00]		
Rhet.:Affil.	0.06	[-0.03, 0.15]	.00	[-.01, .01]		
Rhet.:Id.	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
Affil.:Id.	-0.03	[-0.12, 0.06]	.00	[-.00, .01]		
Rhet.:Affil.:Id.	0.03	[-0.06, 0.12]	.00	[-.00, .00]		
					R^2 = .008 95% CI[.00,.01]	ΔR^2 = .001 95% CI[-.00, .00]

Note. A significant *b*-weight indicates the beta-weight and semi-partial correlation are also significant. *b* represents unstandardized regression weights. *beta* indicates the standardized regression weights. sr^2 represents the semi-partial correlation squared. *r* represents the zero-order correlation. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Regression analyses did not provide clear support of subgroup identification influencing the interaction of leader affiliation and leader rhetoric on leader and subgroup evaluations.

Discussion

This study examined whether leader affiliation (in-subgroup and out-subgroup) and leader rhetoric (collective identity and intergroup relational identity) could improve intergroup collaboration and leader evaluations. The hypotheses had mixed support. Specifically, there seemed to be some improvement in how subgroup members perceived an intergroup leader, but the pattern of results for a comparative leader affiliation context and subgroup evaluations did not reach statistical significance. In general, an intergroup leader emphasizing an intergroup relational identity was associated with improved leader evaluations and overall positive evaluations of people from other subgroups.

Although these results did not fully support the hypotheses, they do not necessarily contradict the underlying theory. Intergroup leadership theory predicted that people in an intergroup context are more favorable toward a leader who promotes intergroup relational identity compared to a collective identity in specific contexts (Hogg et al., 2012). These contexts include heightened perceptions of conflict between groups and reactions from strongly identified subgroup members. On the one hand, leader rhetoric had a consistent pattern that is aligned with the theorizing of intergroup leadership theory (Hogg et al., 2012). On the other hand, the leader affiliation and leader rhetoric interaction results were contrary to intergroup leadership theory and previous intergroup leadership research (Rast et al., 2018; Kershaw et al., 2021) because there was no difference between different leader affiliation memberships. Therefore, the results do not provide similar evidence of what would be expected from issues of trust and bias from out-subgroup leaders (e.g., Duck & Fielding, 1999; Platow & van Knippenberg, 2001). Analysis of the results did not provide evidence that participants, regardless of manipulated leader affiliation, differed in terms of leader and subgroup evaluation. Those results support the

intergroup leadership theory in regard to the effectiveness of leader rhetoric in leader evaluation.

These results have implications regarding intergroup leadership theories, as the effectiveness of these theories may be more strongly context dependent. In general, participants responded well to intergroup relational identity rhetoric, compared to collective identity rhetoric, despite relatively lower identification by subgroup members within their groups. Theoretically, these effects would be expected to grow stronger and more distinct the more subgroup members identified with their subgroups (e.g., Abrams & Hogg, 2010; Hogg et al., 2012). However, exploratory analyses only found partial support for those claims. Although participants who were more strongly identified with the group were more supportive of an intergroup leader, and intergroup relational identity rhetoric resulted in more favorable ratings than the ratings from a collective identity rhetoric, the expected interaction between leader affiliation and leader rhetoric for strongly identified participants did not occur. This could have occurred because, although the story and context presented to participants was actively occurring and meaningful, these data were collected during the COVID-19 pandemic. Students were not allowed on campus and may not have been fully up to date on campus events affecting them. Restructuring faculties and changing course sizes may not be as impactful for remote learning as it could be during in-person learning. This could be a potential factor in why identification with their faculty was lower in this sample than previous samples (e.g., Kershaw et al., 2020; Kershaw et al., 2021; Rast et al., 2018). Furthermore, intergroup leadership theory is expected to be most effective in tense and conflict-ridden contexts (Hogg et al., 2012). Perhaps the cover story could have elaborated on how these changes would more strongly affect students and their values to make the tension more apparent.

Success in an intergroup leadership context involves a complex interaction of leader

aspects, leader actions, and subgroup member perceptions (Hogg et al., 2012). Given an intergroup leader is assessed on multiple group membership aspects (e.g., Duck & Fielding, 1999; Hogg et al., 2012; Platow & van Knippenberg, 2001), in addition to what they say (e.g., Hogg et al., 2012; Platow & van Knippenberg, 2001), it was important to start assessing these group membership aspects outside of the effects of leader rhetoric. Specifically, understanding the effect of leader prototypicality and leader affiliation should be better understood to determine whether these factors influence intergroup leader and subgroup evaluations before the effects of leader rhetoric. Although intergroup leader prototypicality is theorized to not have an effect in addition to the effect of intergroup leadership rhetoric (Hogg et al., 2012), there has yet to be any research published to support those claims. Therefore, the next study added leader prototypicality as a manipulated variable with the leader affiliation manipulated variable, such that an intergroup leader would be either from a person's in-subgroup or out-subgroup and the leader be either high prototypical or low prototypical of their former subgroup, while removing leader rhetoric from the study for now.

Chapter IV

Study 2: The effects of leader prototypicality in an intergroup leadership context

Groups, and their identity, are important to people. A group's values and beliefs not only provide key information to group members about how to act and how to do what is right for the group (e.g., Abrams & Hogg, 2010; Wildschut et al., 2003), but also provides expectations for interacting with other groups. Some researchers theorize these expectations include competition and dislike (e.g., Abrams & Hogg, 2010; Tajfel & Turner, 1979), whereas other researchers theorize these expectations can range from positive to neutral to negative (e.g., Pittinsky, 2005; Pittinsky et al., 2011; Wildschut et al., 2003). These theories agree, however, that people immediately categorize other people into their group memberships. They disagree on how people respond after that categorization.

Categorizing own group members can be more specific than categorizing out-subgroup members. Categorizing own group members involves categorizing them based on how well they are perceived to adhere to group norms, such that the more a group member is perceived to adhere to group norms the better or higher ranked that group member becomes (e.g., Abrams & Hogg, 2010; Wildschut et al., 2003). Researchers have labeled the phenomena *prototypicality* to reflect the assessment of group members, including oneself, in terms of adhering to the norms of a group (e.g., Abrams & Hogg, 2010). According to these researchers, being considered a highly prototypical group member is viewed positively by other group members, whereas being considered a lowly prototypical group member is viewed negatively by other group members.

Perceptions of prototypicality could be particularly challenging for an intergroup leader. In a single group context, intragroup leadership, a prototypical leader has a consistent advantage (Hogg & van Knippenberg, 2003; Hogg et al., 2012b). However, does the same advantage apply

for an intergroup leader? The dilemma becomes clearer when reviewing research and results regarding the use of collective identity in an intergroup context. On the one hand, a leader who attempts to be prototypical of the superordinate group may run into issues with the superordinate group identity not encompassing or reflecting the values and beliefs of all subgroups, and instead be a projection of a single, majority or high-status subgroup (Wenzel et al., 2007). Furthermore, intergroup leaders are expected to give unequal benefits to members of their former subgroup (Platow & van Knippenberg, 2001). On the other hand, an intergroup leader could be prototypical of an identity that involves recognizing the unique contributions of all subgroups (e.g., Hogg et al., 2012). In that way, being prototypical of the superordinate group may enhance the effects of later leader rhetoric.

Perceptions of the superordinate group

Emphasizing a leader's prototypicality of the superordinate group could lead to several obstacles on the path of effective intergroup leadership. A collective identity is the identity of a superordinate group (e.g., Dovidio et al., 2009). It is theorized that a leader who emphasizes the group's collective identity can reduce conflict and improve intragroup collaboration in some circumstances (e.g., Dovidio et al., 2009; Rast et al., 2018). However, emphasizing a collective identity might also make some group members feel their subgroup identity is being dismissed (e.g., Crisp et al., 2006) or make group members less supportive of a leader because they feel the superordinate identity does not represent their values and beliefs and instead justifies unequal treatment or discrimination (Wenzel et al., 2007). Therefore, an intergroup leader who attempts to claim being prototypical of the superordinate group may inadvertently exclude or even incense subgroup members for the lack of care given to their subgroup values and beliefs.

Perceptions and effectiveness of an intergroup leader

Emphasizing a leader's prototypicality could lead to unfavorable perceptions by subgroups members. Part of a leader's influence includes the perception that the leader embodies the group's values and beliefs (Hogg & van Knippenberg, 2003; Hogg et al., 2012b) and is therefore more liked, trusted and supported (e.g., Abrams & Hogg, 2010). An intergroup leader being prototypical of their former group could lead their former in-subgroup members to trust them, but out-subgroup members to distrust them because they are expected to be biased (Duck & Fielding, 1999). It might even give additional benefits to their former subgroup (Platow & van Knippenberg, 2001). However, an out-subgroup leader who treats subgroups fairly is perceived more favorably than an in-subgroup leader who acts the same way because an in-subgroup leader is expected by in-subgroup members to be biased toward former in-subgroup members, especially among strong identifiers (Platow & van Knippenberg, 2001).

It is unclear what role prototypicality plays in intergroup leadership. An intergroup leader may be more successful being perceived as prototypical of the intergroup relational identity (Hogg et al., 2012a). Being prototypical of that identity would allow an intergroup leader to sidestep issues of representation, justified treatment, and group identity distinctiveness and instead allow them to address the problem at hand—intergroup relations and collaboration. According to intergroup leadership theorists, a leader's rhetoric and behavior will have a stronger impact on important leader variables, in the short- and long-term, than their prototypicality (Hogg et al., 2012a). However, categorizing people into their group memberships is something that occurs automatically, in addition to group members being assessed on their level of prototypicality to their group. Although other factors may come into play in the long term, such as trust from consistent and reliable interactions, in the short-term assessments of prototypicality from subgroup members may affect perceptions of the leader and their ability to effectively

address intergroup relations and collaboration. The consistently strong effects of prototypicality in intragroup leadership and intergroup relations research in addition to the complex expectations of intergroup leadership and leader affiliation, necessitate testing the effects of prototypicality in an intergroup context.

The current study

There is evidence prototypicality can influence intragroup leadership (e.g., Abrams & Hogg, 2010), and affiliation can affect intergroup leadership (e.g., Platow & van Knippenberg, 2001). Categorizing group members and assessing their prototypicality is a process that occurs automatically (Turner et al., 1982), and therefore could have a role in intergroup leadership. Although theorized by some researchers that prototypicality of the leader will not have an effect over and above the effect of leader rhetoric (e.g., Hogg et al., 2012a), there is no evidence to support these claims. Given the importance of subgroup member expectations in affecting leader evaluation (e.g., Duck & Fielding, 1999; Platow & van Knippenberg, 2001) and intergroup relations (e.g., Jetten et al., 1997), understanding the contexts in which leader prototypicality plays a role is crucial for intergroup leadership research and application of leadership theories. The first step in understanding a leader's prototypicality is to examine its role in leader and subgroup evaluation. Specifically, I expected that a highly prototypical out-subgroup leader, compared to a lowly prototypical out-subgroup leader, will be rated as fairer and more trustworthy while also improving subgroup member's willingness to share resources with other subgroups. This effect will be stronger for a highly prototypical in-subgroup leader.

This study was a quasi-experiment conducted in relevant intergroup leadership situation. During the time data were collected, the university was continuing to go through restructuring changes that would affect students, staff, and faculty. Students had expressed concern about

these changes, and how they would affect their ability to obtain an education and graduate. Students were constantly being sent e-mails about the changes and often were directly affected by the consequences (e.g., increased course size). This was the same context of change used in previous studies.

To test these hypotheses, participants reported faculty identification and then read a vignette manipulating the leader's affiliation and prototypicality. Participants then evaluated the leader and other subgroups.

Method

Participants and design

Participants were 339 undergraduate students (66.27% female, n = 224; 31.06% male, n = 105) and ranged in ages from 16 to 38 (M = 19.07, SD = 2.48) at a large Canadian university. The majority reported being Euro-North American (21.53%, n = 73), with the next largest ethnicity being East Asian (21.23%, n = 72) and then European (18.58%, n = 63) and were primarily first-year undergraduate students (61.72%, n = 208) with some second-year students (23.14%, n = 78) and the rest third- and fourth-years (15.04%, n = 51). Like the previous study, it was described as an attitude survey and participants received partial course credit. There were two manipulated predictor variables, leader affiliation (in-subgroup, out-subgroup) and leader prototypicality (low prototypicality, high prototypicality). The single measured predictor variable was ingroup identification. The two main dependent measures were leader evaluation and subgroup evaluation.

Procedure and measures

Participants were recruited through the Psychology Department subject pool to complete an 'Attitude Survey'. The overall group scenario was the same as the one used in the previous

study. Participants began by reporting basic demographic information and the strength of their identification with their faculty from the pilot study (α = .87).

Then participants received the same vignette as the first study. They were randomly assigned to read about an in-subgroup or out-subgroup leader who reported being either low prototypicality of the superordinate group, or high prototypicality of the superordinate group. In the high prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**
> "As a typical undergraduate student at this University, I feel as though I represent the interests, values, and opinions of the undergraduate students very well. I fit in with the culture and climate of the [participant's] Faculty because I also share the same interests, values, and opinions of the [participant's] Faculty. I have deep ties in the campus community so I want the University to make decisions that are the best for the students."

In the low prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**
> "As an untypical undergraduate student at this University, I will do my best to represent the interests, values, and opinions of undergraduate students. While I do not share the same interests, values, and opinions of the [participant's] Faculty, I will do my best to fit in with the culture and climate of the [participant's] Faculty. Though I do not have deep ties in the campus community I do want the University to make decisions that are the best for the students."

Participants then rated the leader on their perception of the leader's prototypicality. Participants rated the leader (fairness, α = .80; trust, α = .90) and reported their attitude toward other faculties (resource exchange, α = .92; in-subgroup attitude, α = .88; out-subgroup attitude, α = .88), as participants had done in the previous study.

Finally, participants were thanked for their time and debriefed.

Results

Background variables

Table 3.1 displays alpha reliabilities, means, standard deviations, and inter-correlations of measured variables.

The identification measure (M = 5.04, SD = 1.94) indicated that participants did not consider their faculty identity to be an important part of their identity.

Because regressions on the demographic measures of age, year in school, ethnicity, and gender did not reveal any significant effects (F's < 2.41, p's > .05), these variables were not included as covariates.

Manipulation check

Although prototypicality has been successfully manipulated previously (e.g., Gaffney et al., 2018; Rast et al., 2012; van Knippenberg, 2011), its use in intergroup leadership research is new. Therefore, there was a prototypicality check to make sure participants were aware of this information about their intergroup leader. A t-test revealed that the intergroup leaders were statistically significantly different in terms of assessing their prototypicality after reading about a high prototypical intergroup leader (M = 5.50, SD = 1.15) compared to a low prototypical intergroup leader (M = 4.72, SD = 1.41), t(328.77) = -5.56, p < .001. In addition, a t-test reveal that intergroup leaders were statistically significantly different in terms of assessing their prototypicality after reading about an out-subgroup intergroup leader (M = 4.83, SD = 1.34) compared to an in-subgroup intergroup leader (M = 5.38, SD = 1.31), t(336.99) = 3.80, p < .001.

Leader evaluation

There were neither main effects of leader prototypicality or leader affiliation nor any interaction between the two variables on perceptions of a leader's fairness, p = .290, as reported in Table 3.2. Participants perceived an out-subgroup leader (M = 6.34, SD = 1.26) as no

difference in fairness compared to an in-subgroup leader's fairness (M = 6.60, SD = 1.30). This did not support the hypotheses.

Table 3.2
Fixed-Effects ANOVA results using leader fairness as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	14143.38	1	14143.38	8608.95	.000		
Affiliation	5.86	1	5.86	3.57	.060	.01	[.00, .04]
Prototyp.	0.02	1	0.02	0.01	.905	.00	[.00, .00]
Affil. x Proto.	1.84	1	1.84	1.12	.291	.00	[.00, .02]
Error	548.72	334	1.64				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 3.3, there were neither main effects nor interaction between leader affiliation and leader prototypicality on ratings of trust in the leader, p = .770. Participants perceived an out-subgroup leader (M = 5.81, SD = 1.26) as no difference in trust compared to trust in an in-subgroup leader (M = 6.07, SD = 1.35). This did not support the hypotheses.

Table 3.3
Fixed-Effects ANOVA results using leader trust as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	11946.51	1	11946.51	7016.88	.000		
Affiliation	5.48	1	5.48	3.22	.074	.01	[.00, .03]
Prototyp.	4.51	1	4.51	2.65	.105	.01	[.00, .03]
Affil. x Proto.	0.15	1	0.15	0.09	.770	.00	[.00, .01]
Error	570.35	335	1.70				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Subgroup evaluation

There were neither main effects of leader prototypicality or affiliation nor interaction between them on perception of resource exchange, p = .539, as reported in Table 3.4.

Participants perceived resources being exchanged no differently after reading about an out-subgroup leader (M = 6.51, SD = 1.16) compared to an in-subgroup leader (M = 6.67, SD = 1.26). This did not support the hypotheses.

Table 3.4
Fixed-Effects ANOVA results using resource exchange as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	14718.55	1	14718.55	9980.49	.000		
Affiliation	1.98	1	1.98	1.34	.247	.00	[.00, .02]
Prototyp.	0.04	1	0.04	0.03	.870	.00	[.00, .01]
Affil. x Proto.	0.56	1	0.56	0.38	.539	.00	[.00, .01]
Error	494.04	335	1.47				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 3.5, there were neither main effects of leader affiliation or prototypicality nor interaction between the two variables on willingness to work with people from other subgroups, p = .458. Participants were no less willing to work with people from other subgroups after reading about an out-subgroup leader (M = 6.51, SD = 1.16) compared to an in-subgroup leader (M = 6.67, SD = 1.26). This did not support the hypotheses.

Table 3.5
Fixed-Effects ANOVA results using willingness to work with as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	16697.16	1	16697.16	6930.28	.000		
Affiliation	3.64	1	3.64	1.51	.220	.00	[.00, .02]
Prototyp.	1.59	1	1.59	0.66	.417	.00	[.00, .02]
Affil. x Proto.	1.33	1	1.33	0.55	.459	.00	[.00, .02]
Error	807.12	335	2.41				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 3.6, there were neither main effects of nor interaction between leader prototypicality or affiliation the two variables on ingroup bias, $p = .090$. Participants were not statistically significantly biased after reading about an out-subgroup leader ($M = 0.16$, $SD = 1.18$) compared to an in-subgroup leader ($M = 0.04$, $SD = 1.11$). This also did not support the hypotheses.

Table 3.6
Fixed-Effects ANOVA results using ingroup bias as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\,\eta^2$	$_{\text{partial}}\,\eta^2$ 90% CI [LL, UL]
(Intercept)	3.26	1	3.26	2.50	.115		
Affiliation	1.20	1	1.20	0.92	.339	.00	[.00, .02]
Prototyp.	1.59	1	1.59	1.22	.270	.00	[.00, .02]
Affil. x Proto.	3.75	1	3.75	2.88	.091	.01	[.00, .03]
Error	437.09	335	1.30				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Exploratory analyses

Is prototypicality of an intergroup leader more important when the leader is perceived as an in-subgroup leader compared to an out-subgroup leader? There is evidence that leader prototypicality is important for intragroup leadership (e.g., Gaffney et al., 2018; Rast et al., 2012; van Knippenberg, 2011), but it is theorized to not have an effect in intergroup leadership (Hogg et al., 2012a). In this way, perhaps an intergroup leader's prototypicality is only important when perceived by former in-subgroup members, but less important to the perception of out-subgroup members. Although the interaction between leader affiliation and leader prototypicality was not statistically significant, follow-up simple effects testing was conducted to test if there was an effect of prototypicality for an in-subgroup leader, but not an out-subgroup leader.

Leader Evaluation. Across levels of prototypicality, an in-subgroup leader was not perceived differently in terms of fairness, $F(1, 334) = 0.43$, $p = .50$, or trust, $F(1, 335) = 1.82$, $p = .17$. The pattern of results for trust, however, was in the hypothesized direction such that an in-subgroup leader who was low prototypical ($M = 5.93$, $SD = 1.47$) compared to high prototypical ($M = 6.20$, $SD = 1.22$), was less trusted. In comparison, an out-subgroup leader who was low prototypical ($M = 5.72$, $SD = 1.25$) compared to high prototypical ($M = 5.91$, $SD = 1.27$) was similar levels of trusted as a low prototypical in-subgroup leader.

Subgroup Evaluation. Across levels of prototypicality, an in-subgroup leader did not influence the perception of resource exchange, $F(1, 335) = 0.10$, $p = .75$, willingness to work with, $F(1, 335) = 0.002$, $p = .96$, or ingroup bias, $F(1, 335) = 0.17$, $p = .67$. However, across levels of prototypicality an out-subgroup leader did influence the perception of ingroup bias, $F(1, 335) = 3.95$, $p = .047$. An in-subgroup leader with low prototypicality ($M = 0.00$, $SD = 1.17$) compared to high prototypicality ($M = 0.08$, $SD = 1.06$) was not statistically significant for changing ingroup bias. An out-subgroup leader with low prototypicality ($M = 0.33$, $SD = 1.1$) compared to high prototypicality ($M = -0.02$, $SD = 1.24$) was statistically significantly different. Additional follow-up analysis indicated these differences were seemingly driven by changes in attitude toward the in-subgroup and out-subgroup. An out-subgroup leader who was low prototypical ($M = 7.04$, $SD = 1.26$) compared to high prototypical ($M = 6.86$, $SD = 1.40$) resulted in more positive attitudes toward the in-subgroup, although the results were not statistically different $F(1, 335) = 0.77$, $p = .37$. An out-subgroup leader who was low prototypical ($M = 6.71$, $SD = 1.15$) compared to high prototypical ($M = 6.87$, $SD = 1.13$) resulted in more positive attitudes toward the out-subgroup, although the results were not statistically different $F(1, 335) = 0.85$, $p = .35$.

Discussion

This study examined the hypotheses that leader affiliation (in-subgroup and out-subgroup) and leader prototypicality (low prototypicality, high prototypicality) could influence intergroup collaboration and leader evaluation. These hypotheses had little support. Specifically, there seemed to be no difference between leader affiliation and leader prototypicality on the major leader and subgroup evaluation measures. In general, an intergroup leader was supported and relations between subgroups were positive. Subgroup members were willing to work with and share resources between other subgroups. These results do not support the hypotheses, but there are interesting conclusions to draw from some of these results. Although there were no interactions among the manipulated variables and the specific outcome variables, evidence from intragroup leadership research strongly supports the effect of intragroup prototypicality (Gaffney et al., 2018; Rast et al., 2012; van Knippenberg, 2011). Follow-up analyses were conducted to test whether intragroup prototypicality was present. The pattern of results indicated for leader evaluation the prototypicality of the in-subgroup intergroup leader was important. Furthermore, and against research involving the outgroup homogeneity effect (e.g., Ostrom & Sedikides, 1992), the prototypicality of an out-subgroup leader was important for the subgroup evaluations.

Leader prototypicality research tends to focus on how a leader's prototypicality will affect their ability to obtain the leadership role, not how their prototypicality will affect intergroup relations. A highly prototypical leader is trusted to act in the group's best interests and further their values because they are perceived by group members as embodying the group's identity (Abrams & Hogg, 2010; van Knippenberg, 2011; Gaffney et al., 2018). The positive perception of a highly prototypical leader therefore often gives them an advantage over a leader who is not perceived as prototypical of the group. Specifically, being prototypical of the group

affords the leader positive evaluations from group members whereas a leader who is not perceived as prototypical does not receive positive evaluations and may receive negative evaluations. This is important for understanding how a leader can obtain a leadership role, but these expectations do not disappear once in the leadership role. If group members expect a leader to be biased toward their former group (e.g., Duck & Fielding, 1999; Platow & van Knippenberg, 2001), this will eventually affect intergroup relations. However, leader prototypicality researchers often test these concepts in an intragroup context in which group-serving behavior is often considered as behavior that favors the ingroup and does not favor the outgroup (e.g., van Knippenberg, 2011). According to social identity theory (e.g., Abrams & Hogg, 2010), acting in a group-benefitting way also inherently means acting in a way that does not serve outgroups. This is a problematic situation in an intergroup leadership context because different subgroups must interact and work together for the success of the superordinate group. If one subgroup gets all the resources, the superordinate group would have difficulty functioning. Therefore, a prototypical leader might be more likely to obtain a leadership position, but also be more likely to potentially worsen intergroup relations due to their biased behavior. From this perspective, the results of this study are interesting because there is evidence of an in-subgroup leader's prototypicality affecting leader evaluations, which supports previous prototypicality advantage research, but there is also evidence of an out-subgroup leader's prototypicality affecting subgroup evaluations, which is not often studied in leader prototypicality research.

One thing to keep in mind is that these effects occurred among subgroup members who were not strongly identified with their subgroup. This matters because the effects of prototypicality are more important and stronger for subgroup members who strongly identify with their subgroup, which would lead to stronger and more consistent results (e.g., Abrams &

Hogg, 2010; Gaffney et al., 2018).

The results are intriguing in an intergroup context because the high prototypical in-subgroup leader obtained the best leader evaluations, and the high prototypical out-subgroup leader obtained the best subgroup evaluations, but an intergroup leader is often both an in- and out-subgroup leader depending on the subgroup member being asked. Therefore, it is possible that being highly prototypical is beneficial in general because it has the possibility to garner the support of in-subgroup members while making out-subgroup members more inclined to have positive evaluations of all subgroup members.

The out-subgroup leader's prototypicality may have influenced subgroup evaluations because of ingroup projection. According to ingroup projection, common group identity is the basis of comparison among subgroups and affects subgroup relations and resource distribution (Wenzel et al., 2007). The more a subgroup fits the common group identity via the group prototype, the more subgroup members expect positivity and additional resources within the common group. Although this has the opportunity to treat all subgroups in a positive way, often it leads to justifying fewer resources and discrimination because other subgroup members are inherently less prototypical of the common group based on the values and beliefs of the in-subgroup. All subgroup members can attempt to project their subgroup's identity onto the identity of the common group to increase their relative prototypicality of the common group, but the higher status a subgroup has, the more success they have in projecting their subgroup's identity. Lack of prototypicality is used to explain why subgroup members are treated differently. Ingroup projection might have come into play for these results, despite lower identification with a person's subgroup, because of the measurement and manipulation of prototypicality. This study manipulated prototypicality of the leader by reporting whether they

were strongly or weakly prototypical of the superordinate group. Participants reported a difference in prototypicality with the manipulated prototypicality variable, but also with the leader affiliation variable. Specifically, an out-subgroup leader was viewed as less prototypical than an in-subgroup leader. This is aligned with ingroup projection, such that out-subgroups are viewed as less prototypical of the superordinate group because the in-subgroup projects their values and beliefs onto the superordinate group and evaluates all subgroups based on their projected in-subgroup values. This projection clarifies why a high prototypical out-subgroup leader can affect intergroup relations. According to this theory, an out-subgroup leader who has high prototypicality of the superordinate group, with in-subgroup values projected onto it, makes the out-subgroup leader more positive in the eyes of in-subgroup members because that person is meeting their standards and values. Given prototypicality's link with liking (e.g., Abrams & Hogg, 2010; Wenzel et al., 2007), we can see this reflected in the pattern of results: there was a similar evaluation of in-subgroup and out-subgroup when the out-subgroup leader was considered high prototypical, but there was a stronger positive assessment of in-subgroup members relative to out-subgroup members when the out-subgroup leader was considered low prototypical. Although ingroup projection predicted a complex or less defined superordinate group may moderate the likelihood of subgroup members projecting, it seems to be in effect for this study. The superordinate group in this study might be less defined because, overall, subgroup members were willing to share resources with and had positive evaluations of out-subgroup members. If the superordinate group is harder to define, or have a clear prototype for, it is less justifiable for subgroup members to treat each other differently. This effect could change, however, if subgroup members were more strongly identified with their subgroup, as strong identification has been linked to worsening intergroup relations (e.g., Hornsey & Hogg, 2000a;

Jetten et al., 1997).

The results of this study do not necessarily contradict the predictions of intergroup leadership theory. Intergroup leadership theory (Hogg et al., 2012a) predicts that an intergroup leader will face many challenges and that the rhetoric they employ and the behaviors they use will improve their support and intergroup relations. This study focused more on understanding the effects an intergroup leader has on leader evaluations and subgroup evaluations before action or rhetoric are applied. For this reason, although the results did not support the hypotheses they also do not necessarily contradict the predictions of intergroup leadership theory. Interestingly, leader affiliation and leader prototypicality affected perceived prototypicality of the intergroup leader. An out-subgroup leader was perceived as less prototypical than the prototypicality of an in-subgroup leader, and there was the expected difference between low and high prototypical leaders on perceptions of prototypicality. Looking at the reported means, there was little difference in prototypicality ratings of a low and high prototypical out-subgroup leader, and these means were close to the mean of the low prototypical in-subgroup leader. The high prototypical in-subgroup leader had the highest rating of prototypicality of the four groups. Intergroup leadership theory predicts the leader's prototypicality will not have an affect above and beyond the effect of the rhetoric they employ. However, leader prototypicality seems to have some base effect, even among low identifiers. Therefore, does leader rhetoric overcome and surpass the problems of leader prototypicality and leader affiliation, or does it improve, but not surpass, these effects?

Intergroup leadership theory predicts an intergroup leader will be successful based on how they act and what they say, but previous research indicated aspects of the leader, including their affiliation and prototypicality, also have an effect. To fully understand the effect of these

three variables (rhetoric, affiliation, and prototypicality), it is important to understand the effect of leader rhetoric on leader prototypicality. Manipulated leader affiliation was removed from the model for two reasons: 1) there was an overlap between affiliation and prototypicality on prototypicality ratings, and I wanted to better test an out-subgroup leader's prototypicality, and 2) an intergroup leader will always be an out-subgroup leader, and sometimes also an in-subgroup leader, so understanding these effects is crucial to the study of intergroup leadership. It is important because intergroup leadership research is relatively new in the leadership research area and much of intergroup leadership published research is focused on the in-subgroup leader (e.g., Kershaw et al., 2020; Rast et al., 2018), whereas the effect for an out-subgroup leader is less explored. Therefore, the next study manipulated leader prototypicality (low, high) and leader rhetoric (collective identity, intergroup relational identity), but presented all intergroup leaders as an out-subgroup leader.

Chapter V

Study 3: The effects of prototypicality and leader rhetoric for an out-subgroup leader

Group member expectations can influence intergroup relations and intergroup leader evaluations. These expectations are based, in part, on categorizing people into different social groups and their expectations of those group members once categorized. For example, people can be categorized into groups based on their political beliefs, their race, what they eat, how they dress, or their desired careers. After people are categorized, expectations of their behavior can vary from very positive to very negative, depending on the perspective of the person making the assessment. A vegan may assess another vegan positively, a vegetarian neutrally, and an omnivore negatively. Some researchers believe only ingroup members are assessed in depth, whereas outgroup members are assessed broadly (e.g., Tajfel & Turner, 1979), whereas other researchers believe group members are primarily assessed based on superordinate group membership, although the standard of that membership may be a projection from the person's ingroup (e.g., Wenzel et al., 2007). Whether in-subgroup members critically assess out-subgroup members is important for intergroup leadership because an intergroup leader must be an out-subgroup member to at least most of the subgroups involved. It is important to know whether perceptions of the leader's attributes, such as prototypicality, are an important factor for the success of a leader and the group being led.

To some researchers, a leader's prototypicality is a crucial piece of information. According to the ingroup projection model, perceived prototypicality justifies status, resource distribution, and intergroup relations among subgroups within an intergroup context (Wenzel et al., 2007). This perception of prototypicality, however, is based on superordinate group membership. Subgroups can only be assessed when they share superordinate group membership.

If two or more subgroups share superordinate group membership, prototypicality of that superordinate group comes from the projection of subgroup member's in-subgroup values onto the superordinate group. In other words, some people assess prototypicality of all subgroup members based on the extension of a single subgroup's projected values and beliefs onto the superordinate group. When subgroup members agree this assessment is valid, there is little discord about distribution of resources and status according to the perception of prototypicality. The more prototypical a subgroup member or subgroup is perceived to be, the more resources and status they receive. When subgroup members disagree about the assessment, the distribution of resources and status is highly contested. Regardless, whether subgroup members agree on the standard of assessment, subgroup members are all assessed on their superordinate group prototypicality. Their perception of that prototypicality influences how they are treated. Therefore, in an intergroup leader context, an intergroup leader's prototypicality is an important aspect of evaluation of the leader and future treatment of them and their former subgroup.

To some researchers, a leader's prototypicality is less important than the rhetoric they employ. According to intergroup leadership theory, which draws on social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987), people, including oneself, can be immediately categorized into and assessed based on their superordinate and subgroup membership. When people share subgroup membership, they are often viewed positively based on how closely they match the shared attributes of the subgroup. When people do not share subgroup membership, they are often viewed negatively based only on the lack of shared subgroup membership and not on the degree they match the shared attributes of their own subgroup. In other words, according to social identity theory in-subgroup members are assessed in a nuanced manner whereas out-subgroup members are assessed broadly. This is a potential

factor in an intergroup leadership context when an intergroup leader is an out-subgroup member to at least some of the subgroup members they lead. There is evidence that the leader's group affiliation has an effect on expectations (e.g., Platow & van Knippenberg, 2001). Out-subgroup leaders are expected to be biased toward their former subgroup. However, theoretically once a group member has been categorized as out-subgroup then no further evaluation takes place and all out-subgroup members are treated similarly. Therefore, according to intergroup leadership theory, only an intergroup leader's affiliation is a factor that influences leader evaluation and the leader's prototypicality as an out-subgroup member is not considered (Hogg et al., 2012a). In fact, according to this theory the intergroup leader would find it very challenging to be prototypical of the superordinate group because it would require all subgroups to agree on what the identity of the superordinate group entails—agreement that would be more challenging when the subgroup members are in conflict because it could be difficult to allow an identity to include values of disliked people. A leader attempting to embody the superordinate identity would then be trying to embody something that may not be clearly defined or agreed upon by all subgroup members. The theory instead proposed an intergroup leader would succeed by attempting to be prototypical of the intergroup relational identity rhetoric they endorse because it is a clearer identity and avoids some problems associated with the superordinate group identity.

The rhetoric an intergroup leader endorses has been proposed as one way to overcome leader affiliation. Intergroup leaders are expected to be biased toward their former subgroup (Duck & Fielding, 1997; Platow & van Knippenberg, 2001), and are therefore distrusted by subgroup members who do not share the leader's former subgroup affiliation (e.g., Duck & Fielding, 1997). Intergroup leader theory predicts an intergroup leader can overcome these negative expectations via focusing subgroup members through subgroup identity rhetoric.

Intergroup relational identity rhetoric draws subgroup members' attention to the distinctive subgroup identities that are crucial to the collaborative process (Hogg et al., 2012a). Collective identity rhetoric draws subgroup members' attention to the shared values and beliefs via their superordinate group membership (Dovidio et al., 2009). According to intergroup leadership theory, intergroup relational identity rhetoric is more effective during inter-subgroup conflict or tense situations because it avoids many problems associated with endorsing a collective identity. These problems include dismissing subgroup boundaries (Hornsey & Hogg, 2000a) and subgroup members not believing the superordinate identity reflects their values and beliefs (Wenzel et al., 2007). An out-subgroup leader might find intergroup relational identity rhetoric effective for leader evaluation and subgroup collaboration because it can facilitate their goals and receive less pushback from subgroup members. Indeed, subgroup members evaluate an out-subgroup leader more positively when the leader acts against expectations (i.e., does not immediately bias their former subgroup; Platow & van Knippenberg, 2001). Whether intergroup relational identity rhetoric can overcome leader prototypicality, or whether prototypicality is a factor in intergroup leadership, has yet to be tested.

The current study

There is evidence that prototypicality can influence intragroup leadership (e.g., Abrams & Hogg, 2010) and that leader rhetoric can affect intergroup leadership (e.g., Kershaw et al., 2020; Kershaw et al., 2021; Rast et al., 2018). Ingroup projection researchers theorize that all subgroup members are assessed on prototypicality (e.g., Wenzel et al. 2007), whereas social identity researchers theorize that only in-subgroup members are assessed on prototypicality (e.g., Turner et al., 1982). Prototypicality's role in intergroup leadership, and whether leader rhetoric influences it, has yet to be tested. Leaders need the support of group members to remain in their

role long-term, and it is important to understand whether prototypicality is a factor that subgroup members consider among the complex assessment of intergroup leadership. Therefore, the next step in understanding an intergroup leader's prototypicality is to examine its interaction with leader rhetoric in leader and subgroup evaluations. Specifically, I expected that a highly prototypical out-subgroup leader, compared to a less prototypical out-subgroup leader, will be rated as fairer and more trustworthy while also improving subgroup member's willingness to share resources with other subgroups. This effect will be stronger when the leader endorses intergroup relational identity rhetoric compared to using collective identity rhetoric.

This quasi-experimental study used a relevant intergroup leadership situation for participants. During the time data were collected, the university was continuing to go through restructuring changes that would affect students, staff, and faculty. Students had expressed concern about these changes, and how they would affect their ability to obtain an education and graduate. The use of the context was something students were constantly being sent e-mails about, and often were affected by the consequences (e.g., increased course size). This was the same context used in previous studies.

To test these hypotheses, participants reported faculty identification and then read a vignette manipulating the leader's prototypicality and rhetoric. Participants then evaluated the leader and other subgroups.

Method

Participants and design

Participants were 193 undergraduate students (73.05% female, n = 141; 24.35% male, n = 47) and the majority reported being South Asian (25.38%, n = 49), with the next largest ethnicity being East Asian (22.27%, n = 43) and then European (12.95%, n = 25) at a large Canadian

university. They were primarily first-year undergraduate students (60.62%, $n = 117$) with some second-year students (23.83%, $n = 46$) and the rest third- and fourth-years (15.54%, $n = 30$) and ranged in ages from 17 to 50 ($M = 19.71$, $SD = 3.95$). Like the previous study, it was described as an attitude survey, and participants received partial course credit. There were two manipulated predictor variables, leader rhetoric (collective identity, intergroup relational identity) and leader prototypicality (low prototypicality, high prototypicality), and two main dependent measures (leader evaluation, subgroup evaluation).

Procedure and measures

Participants were recruited through the Psychology Department subject pool to complete an 'Attitude Survey'. The overall group scenario was the same as the one in the pilot study. Participants began by reporting basic demographic information and the strength of their identification with their faculty from the pilot study ($\alpha = .89$).

Participants then received the same vignette as the first study. They were randomly assigned to read about an out-subgroup leader (from a faculty other than the participant's reported faculty) who reported being either low prototypicality of the superordinate group, or high prototypicality of the superordinate group. In the high prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**
> "As a typical undergraduate student at this University, I feel as though I represent the interests, values, and opinions of the undergraduate students very well. I fit in with the culture and climate of the [participant's] Faculty because I also share the same interests, values, and opinions of the [participant's] Faculty. I have deep ties in the campus community so I want the University to make decisions that are the best for the students."

In the low prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**

> "As an untypical undergraduate student at this University, I will do my best to represent the interests, values, and opinions of undergraduate students. While I do not share the same interests, values, and opinions of the [participant's] Faculty, I will do my best to fit in with the culture and climate of the [participant's] Faculty. Though I do not have deep ties in the campus community I do want the University to make decisions that are the best for the students."

Then participants were randomly assigned to read the leader's rhetoric, either endorsing a collective identity or intergroup relational identity (the same manipulation from the first study).

In the collective identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students. [Participants' university] students are part of one of many faculties. [Participants' university] students in different faculties must understand that they are similar to one another and should work together to achieve common goals. Both groups benefit in part by this shared integrative group: [Participants' university] students excel because students from all faculties have assimilated into being just [Participants' university] students. Rejecting this intergroup divide (among all faculties) while emphasizing that we are all the same is what makes the University of Alberta great. I hope that you will endorse me as a leader who represents unified [Participants' university] students.

In the intergroup relational identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students. [Participants' university] students are part of one of many faculties. [Participants' university] students must work together while maintaining their distinct and separate group identities to achieve common goals. Both groups benefit in part by their interdependent relationship: [Participants' university] students excel because of the distinct and unique contribution each faculty makes. Maintaining this intergroup group collaboration (among all faculties) while emphasizing each group's strengths is what makes the [Participants' university] great. I hope that you will endorse me as a leader who represents students from all faculties.

Participants rated the leader on their perception of the leader's prototypicality. Participants rated the leader (fairness, $\alpha = .80$; trust, $\alpha = .91$) and reported their attitude toward other faculties

(resource exchange, α = .94; in-subgroup attitude, α = .86; out-subgroup attitude, α = .88), as participants had done in the previous study.

Finally, participants were thanked for their time and debriefed.

Results

Background variables

Table 4.1 displays alpha reliabilities, means, standard deviations, and inter-correlations of measured variables.

The identification measure (M = 5.07, SD = 1.93) indicated that participants did not consider their faculty identity to be an important part of their identity.

Because regressions on the demographic measures of age, year in school, ethnicity, and gender did not reveal any significant effects (F's < 2.31, p's > .05), these variables were not included as covariates.

Manipulation check

Similar to the previous study, prototypicality was checked to make sure participants were aware of this information and to continue monitoring the successful manipulation of prototypicality in a new context. A t-test reveal that intergroup leaders were statistically significantly different in terms of assessing their prototypicality after reading about an high prototypicality intergroup leader (M = 5.04, SD = 1.17) compared to a low prototypicality intergroup leader (M = 5.46, SD = 1.21), $t(190.91) = 2.41$, $p = .016$.

Leader evaluation

There were no main effects reported in Table 4.2, but there was an interaction between leader prototypicality and leader rhetoric on perceptions of a leader's fairness, $F(1, 189) = 4.34$, $p = .039$. Across leader prototypicality, high prototypical leader using collective identity rhetoric

(M = 6.16, SD = 1.48) was statistically different from a low prototypical leader using collective identity rhetoric (M = 6.81, SD = 1.17), $F(1, 189) = 6.28$, $p = .023$, in terms of assessed fairness. This pattern of results supported the hypothesis.

Table 4.2
Fixed-Effects ANOVA results using leader fairness as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	8226.63	1	8226.63	4939.67	.000		
Rhetoric	0.78	1	0.78	0.47	.493	.00	[.00, .03]
Prototyp.	3.24	1	3.24	1.95	.164	.01	[.00, .05]
Rhet. x Proto.	7.22	1	7.22	4.34	.039	.02	[.00, .07]
Error	314.76	189	1.67				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There were neither main effects of nor interaction between leader prototypicality and leader rhetoric on ratings of trust in the leader, $p = .217$, as reported in Table 4.3. Participants perceived a low prototypical leader using collective identity rhetoric (M = 6.37, SD = 1.23) as no difference in trust compared to trust in a high prototypical leader using collective identity rhetoric (M = 5.87, SD = 1.30) or a leader using intergroup relational identity rhetoric and being low prototypical (M = 6.18, SD = 1.24) or high prototypical (M = 6.15, SD = 1.39). This partially supported the hypotheses.

Table 4.3
Fixed-Effects ANOVA results using leader trust as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	7199.10	1	7199.10	4337.50	.000		
Rhetoric	0.09	1	0.09	0.06	.814	.00	[.00, .01]
Prototyp.	3.27	1	3.27	1.97	.162	.01	[.00, .05]
Rhet. x Proto.	2.55	1	2.55	1.53	.217	.01	[.00, .04]
Error	312.03	188	1.66				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval,

respectively.

Subgroup evaluation

As reported in Table 4.4, there were neither main effects of leader prototypicality and leader rhetoric nor interaction between them on perception of resource exchange, $p = .233$. Participants perceived resources being exchanged no differently after reading about a leader using intergroup relational identity rhetoric and being low prototypical ($M = 6.57$, $SD = 1.31$) compared to high prototypical ($M = 6.80$, $SD = 1.52$). This did not support the hypotheses.

Table 4.4
Fixed-Effects ANOVA results using resource exchange as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	8645.40	1	8645.40	4996.11	.000		
Rhetoric	0.16	1	0.16	0.09	.762	.00	[.00, .02]
Prototyp.	0.00	1	0.00	0.00	.994	.00	[.00, 1.00]
Rhet. x Proto.	2.47	1	2.47	1.43	.233	.01	[.00, .04]
Error	327.05	189	1.73				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There were neither main effects with nor interaction between leader prototypicality and leader rhetoric on willingness to work with people from other subgroups, $p = .344$, as reported in Table 4.5. Participants were no less willing to work with people from other subgroups after reading about a leader using intergroup relational identity rhetoric and being low prototypical ($M = 7.24$, $SD = 1.35$) compared to high prototypical ($M = 7.02$, $SD = 1.97$). This did not support the hypotheses.

Table 4.5
Fixed-Effects ANOVA results using willingness to work with as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	9891.56	1	9891.56	3992.60	.000		

Rhetoric	0.46	1	0.46	0.19	.667	.00	[.00, .02]
Prototyp.	8.96	1	8.96	3.62	.059	.02	[.00, .06]
Rhet. x Proto.	2.23	1	2.23	0.90	.344	.00	[.00, .03]
Error	468.24	189	2.48				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 4.6, there were neither main effects with leader prototypicality and leader rhetoric nor interaction between them on ingroup bias, $p = .598$. Participants were not statistically significantly biased after reading about a leader using intergroup relational identity rhetoric and being low prototypical ($M = 0.11$, $SD = 1.28$) compared to high prototypical ($M = 0.08$, $SD = 1.19$). This also did not support the hypotheses.

Table 4.6
Fixed-Effects ANOVA results using ingroup bias as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2	partial η^2 90% CI [LL, UL]
(Intercept)	0.87	1	0.87	0.56	.455		
Rhetoric	0.16	1	0.16	0.11	.746	.00	[.00, .02]
Prototyp.	0.76	1	0.76	0.49	.486	.00	[.00, .03]
Rhet. x Proto.	0.43	1	0.43	0.28	.599	.00	[.00, .02]
Error	292.53	188	1.56				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Discussion

This study examined whether leader prototypicality (low prototypicality, high prototypicality) and leader rhetoric (collective identity rhetoric, intergroup relational identity rhetoric) could influence intergroup collaboration and leader evaluation. These hypotheses had mixed support. Although there were statistically significant differences in some aspects of leader evaluations, there were no differences between leader prototypicality and leader rhetoric on subgroup evaluation measures. These results did not fully support the hypotheses, but there are

interesting patterns to consider from these results. Although not supporting the hypotheses, the results do provide some support for intergroup leadership theory (Hogg et al., 2012a). However, despite the prototypicality manipulation being used successfully in the previous study, and in other research (e.g., Gaffney et al., 2018), the results of the prototypicality measure were counter to expectation because the low prototypical leader was rated as being statistically more prototypical than the high prototypical leader.

Intergroup leadership theory proposed an intergroup leader would be more effective if they were prototypical of their intergroup relational identity rhetoric, the relationship between subgroups, relative to being prototypical of collective identity rhetoric, the superordinate group identity. It was proposed as more effective than the superordinate group identity for two reasons. The first reason is the superordinate group identity can be contested. The second is the identity can be associated with many negative outcomes in an intergroup context. When a majority of subgroup members can agree on what it means to be part of the superordinate group, then the identity of the common group is clear. Frequently, however, subgroup members disagree on what the values and beliefs of the common group are, which makes the identity of the superordinate group unclear. If the identity is unclear, it can be challenging for an intergroup leader to embody the values and beliefs of the common group if group members cannot agree on which values and beliefs the superordinate group identity encompasses. If an intergroup leader attempts to adhere to one set of values and beliefs, they run the risk of not being perceived as prototypical to some or maybe all subgroup members. Potentially more problematic, however, is embodying an identity that might worsen intergroup relations. Although some researchers theorize reframing hostile inter-subgroup relations into harmonious intragroup relations via a common group identity (e.g., Gaertner et al., 2009). An intergroup leader who endorsed a common group

identity has been associated with worsen intergroup relations because people treasure their distinct social identities and do not want them changed (e.g., Hornsey & Hogg, 2000a) and will resort to conflict to maintain their identity (e.g., Bilali, 2014; Verkuyen & Martinovic, 2016), especially from people who are strong identifiers (Jetten & Spears, 2003). Intergroup leaders can successfully endorse collective identity rhetoric if meeting specific conditions, such as low perceived intergroup threat (e.g., Kershaw et al., 2020), or among people who are less identified with their subgroup (e.g., Kershaw et al., 2021).

These results indicate an intergroup leader's prototypicality may not be influential when a leader uses intergroup relational identity rhetoric, but it may be influential when using collective identity rhetoric. This outcome provides partial support to both intergroup leadership theory and the ingroup projection model. According to intergroup leadership theory, an intergroup leader will be more effective while employing intergroup relational identity rhetoric and potential intragroup factors, like prototypicality, are less influential on leader evaluation. Indeed, even with the prototypicality manipulation occurring first, and having a significant difference with the manipulation, when participants were focused on the relationship between groups within the common group the leader's stated prototypicality did not interact with leader rhetoric on the outcome variables. This result is supportive of intergroup leadership theory. However, there was an interaction between collective identity rhetoric and leader prototypicality for some outcomes measures. According to the ingroup projection model, subgroup members project their identity onto the superordinate identity and use that as a measure of prototypicality for any subgroup member. Therefore, when the leader focused participant attention toward the collective identity of the group, prior information about the leader's prototypicality did interact with leader rhetoric on the outcome variables. This result is supportive of the ingroup projection model. Ultimately,

both perspectives consider the effect of leader affiliation in an intergroup context, and not only for leaders from out-subgroups as was the case in this study. Will this pattern of results be different when comparing a leader's affiliation with their prototypicality and rhetoric?

Intergroup leadership is a relatively new area of research. Researchers are just beginning to investigate the effect of intragroup leadership theories in these complex situations. Some of these factors include a leader's prototypicality and rhetoric, while new variables like a leader's affiliation are less theorized. It is the comparative nature of a leader's affiliation, though, that is crucial for the success of an intergroup leader and important for the understanding of leader actions, such as rhetoric, and leader features, such as their prototypicality. To begin understanding the influence of these variables, the subsequent study manipulation leader affiliation, leader prototypicality, and leader rhetoric. Given that Study 2's results had a difference in measured prototypicality for the leader affiliation and leader prototypicality manipulations, but in Study 3's results the prototypicality measured manipulation were the opposite of Study 2's results, it will be important to see whether the affiliation and prototypicality manipulations in the fourth study reflect Study 2 or Study 3. Of theoretical importance, it is important to see whether an in-subgroup and out-subgroup leader can improve their evaluations and subgroup evaluations in similar ways (i.e., rhetoric and prototypicality) or if they can only succeed in different ways.

Chapter VI

Study 4: The interaction of leader prototypicality and rhetoric in an intergroup leader context

A leader's former affiliation is an important feature of intergroup leadership. Their prior affiliation can affect expectations of the leader's effectiveness, actions, and intergroup relations within the common group. When the intergroup leader originates from a subgroup different from the perceiver, an out-subgroup leader, they are distrusted (e.g., Duck & Fielding, 1999, 2003) and are expected to give benefits that favor their former subgroup members (Platow & van Knippenberg, 2001). If subgroup members perceive these biases or favor as unjustified, they may respond with increased conflict between the subgroups (Wenzel et al., 2007). An out-subgroup leader who acts counter to these expectations, however, could improve their evaluations and potential avoid increasing conflict among the subgroup members (e.g., Platow & van Knippenberg, 2001). Whether an intergroup leader can overcome these expectations from subgroup members, and avoid worsening intergroup relations, is important for intergroup leadership research. Given that all intergroup leaders are at least out-subgroup leaders and that some leaders can also be in-subgroup leaders, it is important to know if the actions and leader aspects of an in-subgroup leader can have a similar or stronger impact for an out-subgroup leader.

Resources and identity are inherently involved in intergroup leadership. Many groups are naturally structured in a way comprised of subgroups within the common group. These group members are often concerned about the distribution of resources because it affects many aspects of their lives. Some group members are also concerned about how a leader can affect how they define themselves and their work (e.g., Rios et al., 2018). Often resources are perceived to be

zero-sum, such that when one subgroup gets more, another subgroup gets less. Therefore, subgroup members assess a leader for their biases and how the leader is expected to act with those resources. Leaders who originate from outside the perceiver's subgroup are expected to be biased toward their former group and are met with distrust (Duck & Fielding, 1999). The anticipation of bias can influence perceptions of subgroup members and the intergroup leader. In a series of studies, leader affiliation, subgroup identity, and subgroup evaluation were investigated in an intergroup context with the leader being an in-subgroup leader, out-subgroup leader, or unaffiliated leader (although the authors defined this as being not from one of the two major subgroups in the superordinate group; Duck & Fielding, 1999). Specifically regarding in-subgroup to out-subgroup leaders: all leaders were expected to be biased toward their former subgroup and out-subgroup leaders were expected to do this more than in-subgroup leaders, out-subgroup leaders were expected to be less concerned with the interests of the in-subgroup, and subgroup members with an out-subgroup leader were more biased toward their group relative to having an in-subgroup leader. Ultimately, their research indicated subgroup members not only have more negative expectations of out-subgroup leaders, but also act on these expectations before the intergroup leader has a chance to affect the superordinate group and, more importantly, the subgroup.

Intergroup leaders need to carefully navigate subgroup member expectations. Subgroup member expectations affect leader evaluation and subgroup relations before the leader acts, and after the leader acts. Indeed, despite fairness being a clear and important aspect of intragroup leadership, fairness in an intergroup context is more nuanced. An in-subgroup leader being fair to all subgroup members is evaluated negatively whereas an out-subgroup leader being fair to all subgroup members is evaluated positively (Platow & van Knippenberg, 2001). Interestingly,

Platow and van Knippenberg (2001) found an intergroup leader who was perceived to be fair was also evaluated as more in-subgroup prototypical. Although Duck and Fielding (1999) had a nested subgroup context, whereas Platow and van Knippenberg (2001) did not, their results suggest when an leader is in charge of an in-subgroup, but is not from that subgroup, group members begin acting in a way that reflects their expectations: they distrust the leader, they are primed for conflict with out-subgroup members, and they begin to make more in-group biased choices. In other words, an out-subgroup leader may contribute to a context of intergroup conflict merely via their appointment. Therefore, an intergroup leader's actions should reflect and possibly anticipate this potentially growing conflict.

Before resources are distributed, an intergroup leader can provide information about their intentions. The rhetoric a leader endorses can provide subgroup members with reassurance as to how they will be treated. According to intergroup leadership theory, an intergroup leader should use intergroup relational identity rhetoric when subgroups are in conflict to avoid worsening inter-subgroup relations (Hogg et al., 2012a). Given that subgroup members respond with more favorable evaluations when an out-subgroup leader acts counter to their expectations, compared to aligned with expectations (Platow & van Knippenberg, 2001), an intergroup leader who recognizes the important contribution of all subgroups could go toward acting against subgroup member expectations. This type of rhetoric sets the stage not only to avoid worsening intergroup relations, but also to allow the intergroup leader to develop behavior and actions that reflect and support the rhetoric over time (Hogg et al., 2012a), which would further contribute to acting against subgroup member expectations.

The current study

A key aspect of effective intergroup leadership is to understand aspects of leadership that

are effective for both in-subgroup and out-subgroup intergroup leaders. Affiliation, and by extension prototypicality, are effective for in-subgroup leaders (e.g., Abrams & Hogg, 2010), whereas intergroup-focused rhetoric seems more effective for intergroup and out-subgroup leaders (e.g., Kershaw et al., 2020, 2021; Rast et al., 2018). Given the unique situation in which intergroup leaders are always out-subgroup leaders and occasionally in-subgroup leaders, it is important to investigate which factors could be beneficial for any intergroup leader and which are more challenging to overcome. Therefore, the next step in understanding intergroup leadership is to examine all three variables (leader affiliation, leader prototypicality, and leader rhetoric) and their effect on specific outcomes (leader evaluations and subgroup evaluations). Specifically, I expected that an out-subgroup leader who was highly prototypical and using intergroup relational identity rhetoric would be more positively evaluated and more positively affecting subgroup evaluations relative to the same leader using collective identity rhetoric. I also hypothesized this effect would be stronger for an in-subgroup highly prototypical leader and using intergroup relational identity rhetoric compared to collective identity rhetoric.

This quasi-experimental study employed a relevant intergroup leadership context for participants. During the time data were collected, the university was continuing to go through restructuring changes that would affect students, staff, and faculty. Students were still concerned about these changes. Students were frequently reminded of this context (via e-mail), and often were affected by the consequences (e.g., increased course size). This was the same context used in previous studies.

Method

Participants and design

Participants were 286 undergraduate students (65.38% female, n = 187; 32.51% male, n =

93) and were primarily first-year undergraduate students (75.52%, $n = 216$) with some second-year students (13.98%, $n = 40$) and the rest third- and fourth-years (10.48%, $n = 30$) at a large Canadian university. They ranged in ages from 17 to 41 ($M = 18.96$, $SD = 2.95$). The majority reported being South Asian (25.38%, $n = 49$), with the next largest ethnicity being East Asian (25.61%, $n = 73$) and then European (18.94%, $n = 54$). Like the previous study, it was described as an attitude survey, and participants received partial course credit after participation. There were three manipulated predictor variables, leader rhetoric (collective identity, intergroup relational identity), leader prototypicality (low prototypicality, high prototypicality) and leader affiliation (in-subgroup, out-subgroup), and two main dependent measures (leader evaluation, subgroup evaluation).

Procedure and measures

Participants were recruited through the Psychology Department subject pool to complete an 'Attitude Survey'. The overall group scenario was the same as the one used in the previous studies. Participants began by reporting basic demographic information and the strength of their identification with their faculty from the previous study ($\alpha = .86$).

Then participants received the same vignette as the first study. They were randomly assigned to read about either an out-subgroup leader (from a faculty other than the participant's reported faculty) or in-subgroup leader (from the participants faculty) who reported being either low prototypicality of the superordinate group, or high prototypicality of the superordinate group. In the high prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**
> "As a typical undergraduate student at this University, I feel as though I represent the interests, values, and opinions of the undergraduate students very well. I fit in with the culture and climate of the [participant's] Faculty because I also share the same interests, values, and opinions of the [participant's] Faculty. I have deep ties in the campus

community so I want the University to make decisions that are the best for the students."

In the low prototypicality condition, participants read:

> **The passage below are some words from the leader you were told about. The leader thought it was important to tell you about themselves.**
> "As an untypical undergraduate student at this University, I will do my best to represent the interests, values, and opinions of undergraduate students. While I do not share the same interests, values, and opinions of the [participant's] Faculty, I will do my best to fit in with the culture and climate of the [participant's] Faculty. Though I do not have deep ties in the campus community I do want the University to make decisions that are the best for the students."

Then participants were then randomly assigned to read the leader's rhetoric, either endorsing a collective identity or intergroup relational identity (the same manipulation from the first study). In the collective identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students. [Participants' university] students are part of one of many faculties. [Participants' university] students in different faculties must understand that they are similar to one another and should work together to achieve common goals. Both groups benefit in part by this shared integrative group: [Participants' university] students excel because students from all faculties have assimilated into being just [Participants' university] students. Rejecting this intergroup divide (among all faculties) while emphasizing that we are all the same is what makes the [Participants' university] great. I hope that you will endorse me as a leader who represents unified [Participants' university] students.

In the intergroup relational identity condition, participants read:

> **Due to the influential nature of the leader's position for all students at the [participants' university], the leader wrote a brief statement for students to give them a piece of the perspective the leader is taking in these talks.**
> [Participants' university] is full of bright, young students[Participants' university] students are part of one of many faculties. [Participants' university] students must work together while maintaining their distinct and separate group identities to achieve common goals. Both groups benefit in part by their interdependent relationship: [Participants' university] students excel because of the distinct and unique contribution each faculty makes. Maintaining this intergroup group collaboration (among all faculties) while emphasizing each group's strengths is what makes the [Participants' university] great. I

hope that you will endorse me as a leader who represents students from all faculties.

Participants rated the leader on their perception of the leader's prototypicality. Participants rated the leader (fairness, α = .80; trust, α = .90) and reported their attitude toward other faculties (resource exchange, α = .91; in-subgroup attitude, α = .81; out-subgroup attitude, α = .81), as participants had done in the previous study.

Finally, participants were thanked for their time and debriefed.

Results

Background variables

Table 5.1 displays alpha reliabilities, means, standard deviations, and inter-correlations of measured variables.

The identification measure (M = 5.25, SD = 1.82) indicated that participants did not consider their faculty identity to be an important part of their identity.

Because regressions on the demographic measures of age, year in school, ethnicity, and gender did not reveal any significant effects (F's < 2.10, p's > .05), these variables were not included as covariates.

Manipulation check

Similar to the previous study, prototypicality was checked to make sure participants were aware of this information and to continue monitoring the successful manipulation of prototypicality in a new context. A t-test revealed that intergroup leaders were not statistically significantly different in terms of assessing their prototypicality after reading about an high prototypicality intergroup leader (M = 4.99, SD = 1.18) compared to a low prototypicality intergroup leader (M = 4.93, SD = 1.15), t(283.58) = -0.40, p = .681. However, similar to Study 3, a t-test revealed that intergroup leaders were almost statistically significantly different in terms

of assessed prototypicality after reading about an in-subgroup leader (M = 4.83, SD = 1.25) compared to an out-subgroup leader (M = 5.09, SD = 1.06), t(278.38) =1.92, p = .055.

Leader evaluation

As reported in Table 5.2, there were no main effects, two-way or three-way interactions between leader prototypicality, leader rhetoric, and leader affiliation on perceptions of a leader's fairness, p = .120. Participants perceived no difference among a highly prototypical out-subgroup leader endorsing intergroup relational identity (M = 6.62, SD = 1.54) relative to a collective identity (M = 6.44, SD = 1.45) or a highly prototypical in-subgroup leader endorsing intergroup relational identity (M = 6.89, SD = 1.30) relative to collective identity (M = 6.32, SD = 1.54) in terms of assessed fairness. This pattern of results provided partial support of the hypothesis.

Table 5.2
Fixed-Effects ANOVA results using leader fairness as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\eta^2$	$_{\text{partial}}\eta^2$ 90% CI [LL, UL]
(Intercept)	12382.05	1	12382.05	6836.97	.000		
Rhetoric	4.95	1	4.95	2.73	.100	.01	[.00, .04]
Affiliation	1.28	1	1.28	0.71	.401	.00	[.00, .02]
Prototyp.	0.21	1	0.21	0.12	.732	.00	[.00, .01]
Rhet. x Affil.	0.22	1	0.22	0.12	.728	.00	[.00, .01]
Rhet. x Proto.	0.77	1	0.77	0.42	.515	.00	[.00, .02]
Affil. x Proto.	3.13	1	3.13	1.73	.190	.01	[.00, .03]
Rhet. x Affil. x Proto.	4.40	1	4.40	2.43	.120	.01	[.00, .04]
Error	503.47	278	1.81				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There were neither main effects of leader prototypicality, leader rhetoric, and leader affiliation on ratings of trust in the leader, nor two-way or three-way interactions between the

variables, $p = .322$, as reported in Table 5.3. Participants perceived no difference among a highly prototypical out-subgroup leader endorsing intergroup relational identity ($M = 5.76$, $SD = 1.35$) relative to a collective identity ($M = 5.92$, $SD = 1.48$) or a highly prototypical in-subgroup leader endorsing intergroup relational identity ($M = 6.18$, $SD = 1.27$) relative to collective identity ($M = 5.73$, $SD = 1.40$) in terms of assessed trust. This did not support the hypotheses.

Table 5.3
Fixed-Effects ANOVA results using leader trust as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\,\eta^2$	$_{\text{partial}}\,\eta^2$ 90% CI [LL, UL]
(Intercept)	10243.65	1	10243.65	5525.20	.000		
Rhetoric	3.94	1	3.94	2.13	.146	.01	[.00, .03]
Affiliation	0.01	1	0.01	0.00	.950	.00	[.00, 1.00]
Prototyp.	3.02	1	3.02	1.63	.203	.01	[.00, .03]
Rhet. x Affil.	1.54	1	1.54	0.83	.363	.00	[.00, .02]
Rhet. x Proto.	0.64	1	0.64	0.35	.556	.00	[.00, .02]
Affil. x Proto.	0.77	1	0.77	0.41	.520	.00	[.00, .02]
Rhet. x Affil. x Proto.	1.82	1	1.82	0.98	.323	.00	[.00, .02]
Error	515.41	278	1.85				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Subgroup evaluation

As reported in Table 5.4, there were neither main effects of nor two-way or three-way interactions between leader prototypicality, leader rhetoric, and leader affiliation on perceptions of resource exchange between subgroups, $p = .423$. Participants perceived no difference among a highly prototypical out-subgroup leader endorsing intergroup relational identity ($M = 6.42$, $SD = 1.12$) relative to a collective identity ($M = 6.31$, $SD = 1.49$) or a highly prototypical in-subgroup leader endorsing intergroup relational identity ($M = 6.70$, $SD = 1.14$) relative to collective

identity (M = 6.48, SD = 1.29) in terms of assessed resource exchange between subgroups. This did not support the hypotheses.

Table 5.4
Fixed-Effects ANOVA results using resource exchange as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	partial η^2	partial η^2 90% CI [LL, UL]
(Intercept)	12420.83	1	12420.83	8171.34	.000		
Rhetoric	5.16	1	5.16	3.40	.066	.01	[.00, .04]
Affiliation	0.07	1	0.07	0.05	.825	.00	[.00, .01]
Prototyp.	4.58	1	4.58	3.01	.084	.01	[.00, .04]
Rhet. x Affil.	0.27	1	0.27	0.18	.673	.00	[.00, .01]
Rhet. x Proto.	0.74	1	0.74	0.48	.487	.00	[.00, .02]
Affil. x Proto.	2.66	1	2.66	1.75	.187	.01	[.00, .03]
Rhet. x Affil. x Proto.	0.97	1	0.97	0.64	.424	.00	[.00, .02]
Error	422.57	278	1.52				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

There were neither main effects of nor two-way or three-way interactions between leader prototypicality, leader rhetoric, and leader affiliation on willingness to work with members of other subgroups, p = .426, as reported in Table 5.5. Participants perceived no difference among a highly prototypical out-subgroup leader endorsing intergroup relational identity (M = 7.00, SD = 1.63) relative to a collective identity (M = 7.09, SD = 1.27) or a highly prototypical in-subgroup leader endorsing intergroup relational identity (M = 7.51, SD = 1.36) relative to collective identity (M = 6.75, SD = 1.88) in terms of willingness to work with members of other subgroups. This did not support the hypotheses.

Table 5.5
Fixed-Effects ANOVA results using willingness to work with as the criterion

Predictor	Sum of	*df*	Mean Square	*F*	*p*	partial η^2	partial η^2 90% CI

	Squares						[LL, UL]
(Intercept)	14951.99	1	14951.99	6556.58	.000		
Rhetoric	9.39	1	9.39	4.12	.043	.01	[.00, .05]
Affiliation	0.04	1	0.04	0.02	.900	.00	[.00, .01]
Prototyp.	7.27	1	7.27	3.19	.075	.01	[.00, .04]
Rhet. x Affil.	5.68	1	5.68	2.49	.116	.01	[.00, .04]
Rhet. x Proto.	0.04	1	0.04	0.02	.894	.00	[.00, .01]
Affil. x Proto.	0.32	1	0.32	0.14	.710	.00	[.00, .01]
Rhet. x Affil. x Proto.	1.44	1	1.44	0.63	.427	.00	[.00, .02]
Error	633.97	278	2.28				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

As reported in Table 5.6, there were neither main effects of nor two-way or three-way interactions between leader prototypicality, leader rhetoric, and leader affiliation on ingroup bias, $p = .654$. Participants perceived no difference among a highly prototypical out-subgroup leader endorsing intergroup relational identity ($M = -0.15$, $SD = 1.01$) relative to a collective identity ($M = 0.13$, $SD = 1.11$) or a highly prototypical in-subgroup leader endorsing intergroup relational identity ($M = 0.04$, $SD = 1.04$) relative to collective identity ($M = 0.08$, $SD = 0.84$) in terms of ingroup bias. This pattern of results partially supported the hypotheses.

Table 5.6
Fixed-Effects ANOVA results using ingroup bias as the criterion

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	$_{\text{partial}}\,\eta^2$	$_{\text{partial}}\,\eta^2$ 90% CI [LL, UL]
(Intercept)	0.03	1	0.03	0.04	.851		
Rhetoric	2.92	1	2.92	3.22	.074	.01	[.00, .04]
Affiliation	0.00	1	0.00	0.00	.982	.00	[.00, 1.00]
Prototyp.	0.40	1	0.40	0.44	.505	.00	[.00, .02]
Rhet. x Affil.	0.07	1	0.07	0.07	.789	.00	[.00, .01]
Rhet. x Proto.	0.12	1	0.12	0.13	.720	.00	[.00, .01]
Affil. x	0.34	1	0.34	0.38	.541	.00	[.00, .02]

Proto. Rhet. x Affil. x Proto.	0.60	1	0.60	0.65	.419	.00	[.00, .02]
Error	251.82	277	0.91				

Note. LL and UL represent the lower-limit and upper-limit of the partial η^2 confidence interval, respectively.

Discussion

This study examined the interaction of leader affiliation (in-subgroup, out-subgroup), leader prototypicality (low prototypicality, high prototypicality), and leader rhetoric (collective identity rhetoric, intergroup relational identity rhetoric) on leader evaluation and intergroup collaboration. The pattern of results lent partial support to the hypotheses. The pattern indicated that an intergroup leader who used intergroup relational identity rhetoric, relative to collective identity rhetoric, was more favorably evaluated and led to more positive intergroup attitudes. That pattern provided some support to intergroup leadership theory (Hogg et al., 2012a), which proposed intergroup relational identity rhetoric would be effective for intergroup leadership. There was less support for the ingroup projection model (Wenzel et al., 2007), because the results for a high prototypical intergroup leader were inconsistent. This could be due to, in part, the prototypicality manipulation or leader affiliation manipulation not resulting in significant differences between the groups as it did in Study 2 or 3.

Effective intergroup leadership theories need to consider and account for the nested intergroup structure of the superordinate group. Subgroup members negatively evaluate out-subgroup members for a variety of reasons, including perception of changes to their subgroup identity to availability of resources (e.g., Rios et al., 2018). According to intergroup leadership theory, an intergroup leader can overcome negative evaluations from their former subgroup affiliation through several methods, including the use of intergroup relational identity rhetoric

(Hogg et al., 2012a). This theory proposed an intergroup leader, regardless of previous affiliation, would be successful in using this rhetoric to improve subgroup member evaluations of the leader and inter-subgroup relations. Considering other research, these proposals make sense. Intergroup relational identity rhetoric does not dismiss real subgroup differences (e.g., Hornsey & Hogg, 2000a), and it indicates the efforts of all subgroups are recognized and important, which goes against the expectation that the intergroup leader will be biased toward their former group (e.g., Platow & van Knippenberg, 2001). This could slow or even stop subgroup members from preemptively acting defensively based on their expectations of how an intergroup leader will act (e.g., Duck & Fielding, 1999). Furthermore, there is some preliminary support of the proposals of this theory demonstrating exactly that: an intergroup leader improves both leader evaluation (Kershaw et al., 2020; Rast et al., 2018) and intergroup relations (Kershaw et al., 2021) when endorsing an intergroup relational identity.

What this research does not focus on, however, is the inherent nature of an intergroup leader being both an out-subgroup leader and often an in-subgroup leader. Therefore, it is not a case of what is successful for an in-subgroup leader and, separately, for an out-subgroup leader, but how can an intergroup leader succeed while being both. Early intergroup leadership research focused primarily on the in-subgroup leader (e.g., Kershaw et al., 2020; Rast et al., 2018), whereas more recent empirical research has begun to compare the difference in affiliation and rhetoric (e.g., Kershaw et al., 2021) and its effect on subgroup relations. Unlike that previous research, however, participants in this study were less strongly identified with their subgroup and it makes direct comparison more challenging.

That being said, the pattern of results in this study are similar to the previous study: participants, despite their lower identification with their subgroup, reported improved intergroup

relations when an out-subgroup intergroup leader endorsed intergroup relational identity relative to collective identity, whereas the type of rhetoric used by an in-subgroup intergroup leader was no different across conditions and resulted in a general positive bias toward the in-subgroup. If this continues to remain the case, it could be the foundation of demonstrating an intergroup leader would succeed in improving intergroup relations through the use of intergroup relational identity rhetoric because it seems to avoid worsening intergroup relations regardless of whether the intergroup leader is perceived as an out-subgroup leader or in-subgroup leader.

These results are inconclusive on predictions made by the ingroup projection model. According to this model, an intergroup leader can succeed if they are perceived as being prototypical of the superordinate group because an assessment of the superordinate group is often via a projection of a subgroup's values and beliefs (Wenzel et al., 2007). Specifically, the high-power subgroup projects their subgroup's values and beliefs onto the superordinate group and uses that to assess all subgroup members. This assessment is used to justify actions like the distribution of resources within the superordinate group. The more prototypical a subgroup member is evaluated to be, the greater distribution of resources go their way and the more positively they are evaluated by subgroup members. However, the results of the prototypicality manipulation for this study were inconsistent. Not only did the direct manipulation of prototypicality result in no difference between the groups, but the pattern of results for leader affiliation were the opposite of expected (and the opposite of previous results) in that the out-subgroup leader was rated as more prototypical than the in-subgroup leader. This makes interpretation of the results based on prototypicality challenging because it is unclear whether the inconsistency can be attributed to a lack of support for the theory, or a problem inherent in the study via its manipulation, study design, or population.

Although intergroup leadership is a common situation for many people, research in understanding this situation is relatively new. The degree to which some variables influence the success of an intergroup leader, and whether there are any limiting factors, is unclear. Testing the approach of multiple theories gives a broader and more comprehensive understanding of how an intergroup leader can succeed. Although this study design allows for a comparison of in-subgroup and out-subgroup leaders, future studies should consider a within-group design to test both the dual-perspective of the intergroup leader and to test whether an intergroup leader can be prototypical of the superordinate group, their subgroup, or the intergroup relation, and which combination is more successful for both the leader, the subgroup members, and the superordinate group overall.

Chapter VII

General Discussion and Conclusion

General Discussion

These studies explored the relation between leader prototypicality, leader rhetoric, and leader affiliation within an intergroup context.

Across all the studies, the most consistent pattern of results indicated that when leader rhetoric was in the model an intergroup leader was more favorably evaluated and improved intergroup relations. Specifically, an intergroup leader tended to be evaluated more positively in terms of trust and fairness and improve willingness to work with subgroup members and have a positive attitude toward them when the intergroup leader endorsed an intergroup relational identity rhetoric relative to a collective identity rhetoric.

The results regarding leader affiliation and leader prototypicality, however, were inconsistent. In Study 2 the leader prototypicality manipulation and leader affiliation manipulation worked as expected, but the same manipulations in Study 3 and 4 were either opposite (Study 3) or not different (Study 4). This makes assessing the outcomes complex because it is unclear whether it is an issue with the manipulations themselves or a third variable, such as subgroup identification, affecting these manipulations.

These results partially support intergroup leadership theory and the ingroup projection model. Intergroup leadership theory predicted that an intergroup leader would succeed in a tense and conflict-ridden environment through the endorsement of an intergroup relational identity rhetoric as a start to deescalate tension and improve assessment of the leader (Hogg et al., 2012a). Specifically, an intergroup leader who begins by endorsing intergroup relational identity rhetoric, compared to collective identity rhetoric, is expected to gain the support of and trust

from subgroup members while also beginning to improve relations between subgroup members from different subgroups. On the one hand, the pattern of results regarding leader rhetoric improving leader and subgroup evaluation is consistent with other intergroup leadership theory research (e.g., Kershaw et al., 2020; Kershaw et al., 2021; Rast et al., 2018). Furthermore, these results importantly demonstrate the effectiveness of intergroup relational identity rhetoric even among low identifiers, which are not theorized to be as affected as strong identifiers by this rhetoric. This is important for intergroup leadership because if rhetoric has a positive effect on all subgroup members then its subsequent effects for the leader and the common group become more prevalent and enduring. On the other hand, contrary to intergroup leadership theory (Hogg et al., 2012a), there were less consistent results for leader affiliation such that there was not a consistent difference between in-subgroup and an out-subgroup intergroup leader on the measured outcomes. Therefore, the results do not provide similar evidence of what would be expected from reactions to an intergroup leader who shares a subgroup member's affiliation or who does not share the affiliation. The ingroup projection model proposed when subgroups are nested within a common group, the high-status in-subgroup projects their subgroup identity onto the superordinate group identity and uses that projection as a prototypicality measurement for all subgroups (Wenzel et al., 2007). This assessment is important because higher prototypicality within the common group is associated with increased resources and positive assessment from other subgroup members, whereas lower prototypicality within the common group is associated with and justifies decreased resources and negative assessment from other subgroup members. Analysis of the results provided some support that subgroup members, when taking the perspective of the leader's affiliation or the use of rhetoric which focused on the common group, were influenced by the intergroup leader's prototypicality. Specifically, some results indicated

that an intergroup leader's high prototypicality, even paired with out-subgroup affiliation, was associated with more favorable evaluations of both the leader and other subgroup members. However, the inconsistent outcomes of the manipulation checks for both affiliation and prototypicality make it unclear whether the studies provide clear support for the ingroup projection model, a lack of support, or a different problem with testing the variables.

These results have implications regarding leadership theories, as another consistent outcome across these studies was a low identification among subgroup members toward their subgroups. Typically, group-based leadership theories tend to address and propose outcomes regarding group members who strongly identify with their subgroup because these people tend to be the most reactive (e.g., strong identifiers are more likely to derogate out-subgroup members when perceiving threat to their subgroup, Jetten et al., 1997), and most likely to seek group information (e.g., Turner et al., 1987) so as to maintain their group membership. These theories, therefore, do not have strong or consistent predictions when it comes to low identifiers within groups. Despite these circumstances, participants across these studies were influenced by intergroup leader rhetoric and provided some support for intergroup leadership theory. Furthermore, intergroup leadership theory specifically states the proposals are expected to be most effective long-term, and not that developing trust and encouraging positive subgroup interactions would occur immediately. Leadership theories, and group-based leadership theories in particular, should more thoroughly consider identification with the subgroup as an influential and inconsistent factor that affects leader and subgroup evaluation in addition to measuring both within-design and longitudinal research to test the effects of these factors.

Research regarding intergroup leadership could benefit from more sensitive methods and measures. These measures and methods could be more reflective of the different theoretical

approaches, such as the difference between intergroup leadership theory (Hogg et al., 2012a), the common ingroup identity model (CIIM; Dovidio et al., 2009), and ingroup projection model (e.g., Wenzel et al., 2007). Although all theories note the importance of group identity, representation, and intergroup relations, they all have different perspectives. Intergroup leadership theory and CIIM seek to provide solutions for addressing issues regarding leadership, group identity, and intergroup relations. Ingroup projection model does not provide solutions, but it provides key questions and framework for understanding intergroup relations specifically around the concept of defining the superordinate group and its subsequent effects on intergroup relations and resource distribution. Intergroup leadership and CIIM are specifically focused on effective leadership, which includes addressing intergroup relations, whereas Ingroup projection model focuses on intergroup relations and discusses the potential effects of leadership on those outcomes. The materials used in these studies were from research testing the leadership models, and therefore may not be as concise or reflective of ingroup projection model because of their different focus. Some materials have also been primarily studied and applied in specific non-intergroup leadership situations. For example, the current manipulation of leader prototypicality has only previously been used in the context of intragroup leadership and may not be clear or as appropriate in an intergroup setting because of the complexity of identity between the superordinate and subgroups. The prototypicality manipulation was less than successful (as compared to previous findings, e.g., Gaffney et al., 2018; Rast et al., 2012; van Knippenberg, 2011) influencing leader and subgroup evaluations. This could have resulted from the manipulation itself, or from the overall lower identification of participants with their subgroups. The manipulation itself mentions the leader's prototypicality of both the superordinate and subgroup, instead of only the superordinate group, which may have had an unintended effect on

the clarity and effectiveness of this manipulation. I expected participants to rate the high prototypical intergroup leader as more prototypical than the low prototypical intergroup leader, but two out of three studies using this manipulation did not result in that outcome. Participants not responding in this manner could be less likely to put effort into the study overall, or they find this information less important to them given the circumstances. Although this population has been used successfully and demonstrated high identification previously (e.g., Kershaw et al., 2020; Kershaw et al., 2021; Rast et al., 2018), the context in which the data were collected could have affected these outcomes. Although the university was going through major changes that affected students and made them concerned, these changes were also taking place during a major pandemic that resulted in participants spending significantly less time with their subgroups than they would have otherwise. These participants, physically and socially distant from in-subgroup members, may not have gained the same opportunities for identification as previous participants, and instead of measuring identification participants should have had their identification manipulated. In addition to that context affecting results, the status context among faculties within the university could be affecting results. For example, the Science faculty might be perceived as higher status than Arts, but lower status than Engineering. The specific faculty of the out-subgroup leader was not specific, so whether students envisioned a higher-status or lower-status out-subgroup leader could have affected the results. An example of how the status of the groups affects the results, in this instance, is similar to data measuring the reactions of high- and low-status subgroups reaction to multiculturalism or colorblindness. The status of the subgroup to which a participant belonged affected their response to language highlighting or erasing the differences between groups (Rios, 2022). Therefore, the inconsistent and not statistically significant results may be due to imprecise measures and not enough specific

information that factored in subgroup perceptions. Future intergroup leadership research would benefit from having manipulations and measures more strongly tailored to these contexts instead of manipulations and measures more widely used in different superordinate group contexts.

Conclusion

Leadership, especially intergroup leadership, is a complex topic with far-reaching implications. Leaders of a singular group face different challenges that require different solutions compared to the challenges and solutions for leaders of a superordinate group comprised of two or more subgroups. Intergroup leadership is influenced by many factors including aspects of the leader like their rhetoric and prior affiliation, and aspects of the group members, such as their values and beliefs and the strength of their affiliation. Understanding how variables such as these can influence the success of an intergroup leader and the valence of intergroup relations is important for the continued success and functioning of the group.

These results are important for the development and support of intergroup leadership theory, in addition to understanding the challenges of intergroup leadership. In an intergroup leadership context, the leader is an out-subgroup member to at least one subgroup. The leader has to contend with perceptions of bias and distrust while maintaining or improving intergroup relations and achieving group goals. According to intergroup leadership theory, an intergroup leader, regardless of previous affiliation, would be best served by using intergroup relational identity rhetoric to avoid worsening intergroup relations and to gain the support of subgroup members. Although there is evidence to support these claims for in-subgroup intergroup leaders (e.g., Rast et al., 2018), out-subgroup intergroup leaders are in a more precarious situation and understanding how they can succeed is important. Given that all intergroup leaders are an out-subgroup leader to some degree, a fuller understanding of the effects of an intergroup leader on

subgroup interactions and leader evaluation, and how to overcome the subgroup members' distrust to effectively lead, is crucial.

Despite social psychology research into methods for reducing bias, discrimination, and conflict between groups (see Dovidio & Gaertner, 2010; Yzerbyt & Demoluin, 2010) and industrial-organizational research into improving intergroup collaboration (e.g., Richter et al., 2006), investigations have rarely included the role of a leader on intergroup relations. The importance and effect an intergroup leader can have on intergroup relations cannot be overstated. It is important to investigate and understand how an intergroup leader can successfully navigate social identity processes and improve intergroup relations and cooperation. Traditional leadership and intergroup relations theories do not account for the inter-subgroup conflict that often occurs within a common group—it is the hallmark of a need for effective intergroup leadership. An intergroup leadership context contains escalating features such as dismissing real subgroup differences and the perceptions of the leader's loyalty toward former ingroup members.

Intergroup leadership occurs at large and small scales. The creation and ultimate demise of Yugoslavia is a large-scale example of the importance of real group differences, group identity, intergroup conflict, and ineffective intergroup leadership can result in the dissolution of a common group. On a smaller scale, effective intergroup leadership is crucial to large and small businesses, given how frequently various departments need to work with each other (e.g., van der Stoep et al., 2020) or with other businesses (Hambrick, et al., 2001). Understanding the role an of intergroup leader, especially out-subgroup leader, on intergroup relations and collaboration will contribute to our understanding of intergroup bias, conflict, and discrimination in large- and small-scale groups.

Table 1.1 Reliabilities, means, SDs, and intercorrelations of all key variables.

Variable	α	M	SD	2	3	4	5
1. Leader fairness (4 items)	.73	6.72	1.20	.56**	.37**	.18*	.35**
2. Leader trust (6 items)	.96	6.02	1.30	—	.52**	.16	.39*
3. Resource exchange (6 items)	.89	6.41	1.30		—	.02	.52**
4. Ingroup bias (9 items)	.76	0.90	1.05			—	
5. Willingness to work with (1 item)	—	7.02	1.60				—

Note. Means (N = 144) can take values between 1 and 9, with 9 indicating more of the property described. ** indicates Pearson correlation coefficients associated with $p < .001$, while * indicates Pearson correlation coefficients associated with $p < .05$.

Table 2.1 Reliabilities, means, SDs, and intercorrelations of all key variables.

Variable	α	M	SD	2	3	4	5
1. Leader fairness (4 items)	.82	6.83	1.28	.57**	.58**	.02	.23**
2. Leader trust (6 items)	.90	6.17	1.23	—	.68**	.07	.32*
3. Resource exchange (6 items)	.93	6.51	1.35		—	.001	.47**
4. Ingroup bias (9 items)	.87	1.06	1.06			—	-.01
5. Willingness to work with (1 item)	—	6.83	1.90				—

Note. Means (N = 545) can take values between 1 and 9, with 9 indicating more of the property described. ** indicates Pearson correlation coefficients associated with $p < .001$, while * indicates Pearson correlation coefficients associated with $p < .05$.

Table 3.1 Reliabilities, means, SDs, and intercorrelations of all key variables.

Variable	α	M	SD	2	3	4	5
1. Leader fairness (4 items)	.80	6.47	1.29	.61**	.49**	.03	.19**
2. Leader trust (6 items)	.90	5.94	1.31	—	.59**	.05	.30*
3. Resource exchange (6 items)	.92	6.59	1.35		—	-.02	.39**
4. Ingroup bias (9 items)	.88	0.10	1.15			—	-.02
5. Willingness to work with (1 item)	—	7.02	1.55				—

Note. Means (N = 339) can take values between 1 and 9, with 9 indicating more of the property described. ** indicates Pearson correlation coefficients associated with $p < .001$, while * indicates Pearson correlation coefficients associated with $p < .05$.

Table 4.1 Reliabilities, means, SDs, and intercorrelations of all key variables.

Variable	α	M	SD	2	3	4	5
1. Leader fairness (4 items)	.80	6.53	1.30	.54**	.46**	.001	.30**
2. Leader trust (6 items)	.91	6.13	1.29	—	.62**	.03	.42**
3. Resource exchange (6 items)	.94	6.67	1.31		—	-.02	.55**
4. Ingroup bias (9 items)	.86	0.06	1.24			—	-.04
5. Willingness to work with (1 item)	—	7.18	1.58				—

Note. Means (N = 193) can take values between 1 and 9, with 9 indicating more of the property described. ** indicates Pearson correlation coefficients associated with $p < .001$, while * indicates Pearson correlation coefficients associated with $p < .05$.

Table 5.1 Reliabilities, means, SDs, and intercorrelations of all key variables.

Variable	α	M	SD	2	3	4	5
1. Leader fairness (4 items)	.80	6.47	1.29	.62**	.49**	-.01	.28**
2. Leader trust (6 items)	.90	5.94	1.31	—	.57**	.05	.44**
3. Resource exchange (6 items)	.91	6.59	1.35		—	.04	.53**
4. Ingroup bias (9 items)	.81	0.10	1.15			—	.05
5. Willingness to work with (1 item)	—	7.02	1.55				—

Note. Means ($N = 286$) can take values between 1 and 9, with 9 indicating more of the property described. ** indicates Pearson correlation coefficients associated with $p < .001$, while * indicates Pearson correlation coefficients associated with $p < .05$.

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APPENDIX A: Pre-Identification Scale (Grant et al., 2015)

Please answer some basic questions about how you feel about yourself **IN YOUR FACULTY**

	Strongly Disagree	Disagree	Mostly Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Mostly Agree	Agree	Strongly Agree
Being in the […] Faculty is important to my identity.									
I often think about myself in the […] Faculty.									
My identity in the […] Faculty influences my life choices a lot.									
My identity in the […] Faculty influences my daily decisions a lot.									

APPENDIX B: Leader Fairness Scale (Platow & van Knippenberg, 2001)

The student leader is likely to show …

	Strongly Disagree	Disagree	Mostly Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Mostly Agree	Agree	Strongly Agree
Fairness									
Neutrality									
Trustworthiness									
Politeness									

APPENDIX C: Resource Exchange/System Responsiveness (Ritcher et al., 2005)

The next set of questions is about how a leader not from […] will make you feel about working with students from different faculties in the future.

	Strongly Disagree	Disagree	Mostly Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Mostly Agree	Agree	Strongly Agree
The students from different faculties will work effectively together to respond to tasks or duties that may emerge.									
The relationship among the students from different faculties will be productive.									
The students from different faculties will work effectively together to provide better services to all students.									
Students from different faculties will effectively help each other out if resources (e.g., time to invest, people, support, etc.) were needed?									
Students from different faculties make effective use of each other's									

resources (e.g., time to invest, people, support, etc.) to provide better for all students.									
Students from different faculties will work together to respond to problems or flaws that emerge.									

And one more statement about how a leader not from […] will make you feel about working with students from different faculties in the future.

	Strongly Disagree	Disagree	Mostly Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Mostly Agree	Agree	Strongly Agree
I would choose to work with students from outside my faculty.									

APPENDIX D: Leader trust (Rast et al., 2018)
To what extent do you disagree or agree with the following statements about this leader?

	Strongly Disagree	Disagree	Mostly Disagree	Somewhat Disagree	Neither disagree nor agree	Somewhat Agree	Mostly Agree	Agree	Strongly Agree
I trust this leader absolutely.									
I think this leader does the right things.									
I think this leader is trustworthy.									
This leader is very committed to UofA students.									
This leader wants the best for UofA students.									
This leader aims to gain benefits for all UofA students.									

APPENDIX E: Bias Scales (Wright et al., 1997)

Next, you will be shown a series of trait pairs. Please indicate which trait is indicative of students who are (not) from […].

Students who are (not) from […] are…

Cold ooooooooo Warm
Negative ooooooooo Positive
Hostile ooooooooo Friendly
Suspicious ooooooooo Trusting

Students (not) from […] deserve…

Contempt ooooooooo Respect
Disgust ooooooooo Admiration

APPENDIX F: Demographic Information

Hold old are you? Please type the numeric value (e.g., 34) _____

What is your ethnic background?

- Indigenous/First Nations
- African (including Caribbean of African descent)
- East Asian (e.g., Chinese, Vietnamese, Filipino)
- South Asian (e.g., Pakistani, East Indian, Bangladesh)
- European (e.g., French, German, Italian)
- Hispanic/Latin-American (e.g., Chilean, Brazilian, Mexican)
- Middle Eastern (e.g., Iraqi, Iranian, Egyptian)
- Euro-North American (including Euro-Canadian)
- Pacific Islander
- Other, please specify: _____

How do you identify your gender?

- Male
- Female
- Other: _____

What year in school are you?

- First year
- Second year
- Third year
- Fourth (or beyond, but not graduate student)
- Graduate student

In which faculty are you registered?

- Agricultural, Life and Environmental Sciences
- Business
- Arts

- Augustana
- Saint-Jean
- Education
- Engineering
- Extension
- Graduate Studies and Research
- Kinesiology, Sport, and Recreation
- Law
- Medicine & Dentistry
- Native Studies
- Nursing
- Pharmacy and Pharmaceutical Sciences
- Public Health
- Rehabilitation Medicine
- Science
- Open Studies