Abstract

Bias in favor of the ingroup is a key determinant of discrimination, and is thought to be largely independent of, and qualitatively distinct from, outgroup hostility. One key difference, according to Realistic Conflict Theory, is that ingroup preferences become more closely associated with discrimination when intergroup threat is salient. The current study presents a direct comparison of the level of association of ingroup favoritism and outgroup hostility with opposition to multiculturalism policies in New Zealand. With both predictors operationalized as affect ratings of warmth and anger across separate models, ingroup favoritism and outgroup hostility were independently associated with European New Zealanders' ($N = 10,869$) opposition to both resource-specific and symbolic policies. Furthermore, ingroup favoritism was more strongly associated with opposition to resource-specific policies which represent high realistic threat (compared with symbolic policies). In contrast, outgroup hostility was more consistently associated with both policy domains.

Keywords: ingroup favoritism, discrimination, multiculturalism, realistic conflict theory

Barriers to Multiculturalism: Ingroup Favoritism and Outgroup Hostility are
Independently Associated with Policy Opposition

Ingroup favoritism – positive attitudes and emotions “reserved for the ingroup and withheld from the outgroup” (Brewer, 1999, p. 438) – has been proposed as a subtle, yet potentially more powerful determinant of discrimination relative to hostility (Greenwald & Pettigrew, 2014; Hewstone, Rubin & Willis, 2002). Much of the evidence for the prominence of ingroup favoritism, however, is indirectly implied from its primacy (Allport, 1954), as well as the prevalence and insidiousness of differential favoring behaviors such as workplace hiring practises (DiTomaso 2015), racial profiling by police and the justice system (e.g., Hurwitz & Peffley, 2005) or heightened ingroup preferences in minimal group settings (Brewer, 1986). The present study offers a caveat that ingroup favoritism may not be more powerful than outgroup hostility in terms of the magnitude of their association with discrimination. In the present study we will examine whether ingroup favoritism – measured as ingroup affect ratings – and outgroup hostility – measured as outgroup affect ratings – are independently associated with opposition to multiculturalism policy.¹ These independent variable affect ratings are modelled as both (a) warmth and (b) anger to examine whether the expected associations with policy opposition replicate across different operationalizations of favoritism and hostility.

We will also test a prediction derived from Realistic Conflict Theory (RCT; LeVine & Campbell, 1972; Sherif & Sherif, 1953) that ingroup favoritism (but not

¹ We operationalized policy opposition as discrimination, which is distinct from more generalized and indirect prejudice. Prejudice is typically defined as negative evaluations (e.g., Stephan & Stephan, 1993) or affect (e.g., Brewer & Crano, 1994) directed at an outgroup. Discrimination, in contrast, refers to unequal behaviors that negatively and directly impact the outgroup. In the present case, discrimination is measured as a behavioral intention to oppose multicultural policies that would benefit the minority group in question by making intergroup relations more equal.

outgroup hostility) will be more strongly associated with policy opposition in domains where groups are in competition over resources or power, relative to domains where competition and threat is low (Brewer, 1999). In New Zealand, resource-specific political issues, such as restoring indigenous ownership of traditional lands, are hotly contested and threatening to the economic interests of the dominant ethnic majority (Sibley & Osborne, 2016). Ingroup favoritism should thus be more strongly associated with opposition to *resource-specific* policies relative to *symbolic* policies. The latter address the inclusion of Māori cultural symbols in the New Zealand national identity, which is generally embraced by New Zealanders (Sibley & Osborne, 2016; Sibley & Ward, 2013) and thus relatively non-threatening. In contrast, associations between outgroup hostility and policy opposition should be more consistent across these high- and low-threat policy conditions; sensitivity to threat is one key feature that should qualitatively distinguish ingroup favoritism from outgroup hostility (Brewer, 1999; 2001) and illustrates why these components of prejudice are not always reciprocal.

Ingroup Favoritism and Outgroup Hostility Independence

Greenwald and Pettigrew (2014) noted that, although it is well established that negative attitudes are more likely expressed toward outgroup than ingroup members, far less empirical evidence exists to demonstrate disparities in positive feelings. They identify some notable exceptions including that low levels of sympathy and admiration can predict discriminatory beliefs (Meertens & Pettigrew, 1997; Pettigrew & Meertens, 1995). Greenwald and Pettigrew (2014; see also Brewer, 1999) suggest these determinants represent the withholding of positive emotions rather than expressions of overt hostility. In addition, *differential favoring* has been associated with discrimination across a number of domains including helping behavior (e.g.,

Ayers, Vars & Zakariya, 2005; Gaertner & Bickman, 1971) and housing (Ross & Turner, 2005). For example, public opinion surveys in the USA indicate that most White Americans endorse equal opportunity (i.e., the absence of overt *outgroup hate*), yet oppose policies that benefit outgroups (i.e., evidence of *ingroup love*; Greenwald & Pettigrew, 2014).

Although empirical evidence of ingroup favoritism's independence from outgroup hostility is lacking, there is much to suggest these variables are qualitatively distinct. Distinct characteristics of ingroup favoritism, in contrast to outgroup hostility, have been revealed in a number of previous studies including in the use of economic games (De Dreu, 2010; Halevy, Bornstein & Sagiv, 2008; Weisel & Böhm, 2015; Yamagishi & Mifune, 2009). Halevy et al. (2008), for example, reported that pre-game communication with ingroup members increased intragroup cooperation but did not affect intergroup competition, suggesting participants were motivated to help the ingroup rather than harm the outgroup. de Dreu (2010) similarly found that individual differences in pro-social (compared with pro-self) orientation determined self-sacrificing for the benefit of the ingroup, but not penalizing of outgroup members. In other areas, adversarial groups in political or ethno-religious conflict tend to attribute their own group's aggression to ingroup favoritism more so than outgroup hostility, whereas aggression from outgroup members is attributed more to outgroup hostility toward the perceivers' group (Kaiser, Eccleston & Hagiwara, 2008; Waytz, Young & Ginges, 2014). And finally, genetic (Lewis & Bates, 2014), neurological (Baumgartner, Schiller, Rieskamp, Gianotti & Knoch, 2014) and developmental (Buttelman & Böhm, 2014) markers of ingroup favoritism, as distinct from outgroup hostility, have also recently been documented.

Allport (1954) originally suggested that ingroups are psychologically primary, which suggests that ingroup favoritism is a default motivation and does not necessitate outgroup hostility (Brewer, 1999). Lending support for the primacy of ingroup favoritism, preschool aged children show ingroup bias but don't display outgroup hate until they are around six years old (Buttleman & Böhm, 2014). Ingroup favoritism is also highly heritable (Lewis & Bates, 2010; Orey & Park, 2012) and shares genetic links with authoritarian concerns for the maintenance of social norms (Lewis & Bates, 2014). The independence and predominance of ingroup favoritism has, to date, generally been implied through observations of differential favoring behaviors and ad-hoc or minimal intergroup settings that may underrepresent the role of outgroup hostility (Schaller, Park & Faulkner, 2003). The present study will examine whether affect ratings of the ingroup and of an outgroup are associated independently with opposition to multiculturalism policies in a real-world intergroup setting.

Ingroup Favoritism Depends on Realistic Threat

According to Brewer (1999, 2007), ingroup favoritism is not inherently linked to intergroup hostility, but there are characteristics of intergroup relationships that can polarize group interests, bringing ingroup identity into sharp relief and thereby increasing the association between ingroup favoritism and discrimination. Importantly, existing evidence suggests that ingroup favoritism is distinct from a more inherent or dispositional component of prejudice that we argue is consistent with outgroup hostility as defined in the present study. Studies utilising archival data, for example, have noted that a wide range of indicators of authoritarianism increase during historic periods of high economic threat and competition, including racial prejudice and anti-Semitic incidents (Sales, 1973). Later research extended this

evidence, distinguishing between *dispositional* and *situational* authoritarians where the former are intrinsically inclined toward authoritarian behavior and the latter vary in their endorsement of authoritarianism according to the present “climate of threat” (Doty, Peterson & Winter, 1991, p. 639). Furthermore, situationally primed threats to the ingroup including physical danger (Schaller et al., 2003) or threat from crime (Navarrete, Kurzban, Fessler & Kirkpatrick, 2004) has been shown to increase prejudice. A major situational characteristic increasing the association between ingroup favoritism and discrimination is thus intergroup threat (see Stephan & Stephan, 2000; Stephan et al., 2002). According to RCT, ingroup favoritism should be more closely associated with discrimination against an outgroup when those groups are engaged in competition for resources or power (Brewer, 1999; Hewstone et al., 2002).

We draw on these arguments and findings in the present paper to suggest that affect ratings of the ingroup (i.e., ingroup favoritism) should be more strongly associated with discrimination in the form of support for the unequal distribution of resources, relative to discrimination in form of denying cultural recognition and acceptance. This is because the former is protecting the dominant ingroup from threats to their intergroup status, and those higher in ingroup favoritism should be particularly likely to discriminate when the ingroup is threatened. In contrast, those high in outgroup hostility should be more likely to discriminate against that outgroup to the same extent regardless of threat salience. We suggest that outgroup hostility motivates discrimination in and of itself, reflecting general antipathy toward the target outgroup rather than more specific and contextually varying characteristics of that group such as the level of realistic threat they pose in a given context. Brewer (1999) goes as far as to suggest that hostility is not an intergroup phenomenon, but rather

reflects individual prejudicial attitudes that are as applicable to objects as to social groups (Brewer, 1999).

The Present Study

As a post-colonial nation, New Zealand's intergroup relationships include descendants of European colonizers living side-by-side with former-colonized peoples who are indigenous to the country. New Zealand has a small, ethnically diverse population of about 4.5 million, of which the indigenous peoples of New Zealand (Māori) comprise about 15%. Around 74% of the population identify with at least one European ethnic category, many of whom are the descendants of European colonizers (Statistics New Zealand, 2013). Compared to Europeans, Māori endure higher rates of unemployment, incarceration, and mortality and morbidity outcomes including obesity and chronic disease: problems that are linked to experiences of racism (Paradies, Harris & Anderson, 2008).

The current research presents a unique opportunity to assess the simultaneous associations of ingroup favoritism and outgroup hostility with opposition to real or proposed political policies that address injustices characterising post-colonial societies. Examining real-world intergroup settings may be critical for accurately assessing the role of outgroup hostility in particular; relatively abstract or ad-hoc intergroup settings (such as minimal group designs) may preference ingroup favoritism responses and thereby under-represent hostility (Schaller et al., 2003). Furthermore, we examined these relationships across two different operationalizations of ingroup favoritism and outgroup hostility. First, policy opposition was regressed on affect ratings of warmth toward European New Zealanders, Māori New Zealanders, and other social groups in New Zealand in general. This research design conforms to methodological criteria recommended by Greenwald and Pettigrew (2014) for

comparing ingroup favoritism and outgroup hostility; utilising a within-subjects comparison of affect thermometer (i.e., warmth) ratings of attitudes toward both an ingroup and outgroup. Second, we extended this design by attempting to replicate the observed effects when ingroup favoritism and outgroup hostility are operationalized as ratings of anger (compared with warmth). This will allow us to examine whether the independent effects are robust to discrepancies in response scale labelling, as well as the overall valence of the affect ratings (i.e., warmth is subjectively positive and anger subjectively negative). Affect ratings are operationally more distinct from behavioral intentions compared with, say, social attitudes. Furthermore, affect ratings are inelaborate to the extent we could consistently measure prejudice toward the outgroup, ingroup and toward other outgroups in general.

Finally, ingroup favoritism should be more strongly associated with opposition to resource-specific policies relative to symbolic policies. Outgroup hostility, in contrast, should be more consistently associated with opposition to both policy domains. A series of studies have demonstrated that, unlike in other post-colonial nations (Devos & Banaji, 2005; Sibley & Barlow, 2009), European New Zealanders implicitly (and explicitly; Sibley & Liu, 2007) associate both their own group and indigenous Māori with cognitive representations of national identity (Harding, Sibley & Robertson, 2011; Sibley, Liu & Khan, 2009). Liu and Sibley (2009) argued that this is due to high levels of institutional support for and widespread usage of Māori cultural symbols (including, for example, common use of Māori-language greetings, and national sports team performances of Māori *haka*). Covariates will also be included to adjust for sex, age, education levels and income. We will also adjust for dispositional warmth/anger to partial out ingroup favoritism and outgroup hostility from more generalized levels of prejudice toward other groups.

Method

Participants and Sampling Procedure

The Time 5 (2013) New Zealand Attitudes and Values Survey (NZAVS) wave contained responses from 18,264 participants, with 10,502 retained from one or more previous waves. Participants were randomly sampled from the New Zealand electoral roll with booster samples ensuring proportional representation of the New Zealand population. Analyses were limited to the 10,869 participants who identified their ethnic group as New Zealand European and were born in New Zealand (6,949 females, 4,098 males). The mean age of this sub-sample was 48.23 ($SD = 14.20$).

Measures

Ingroup favoritism and *outgroup hostility* were assessed via affect ratings of warmth and anger. Participants rated their feelings of warmth/anger toward “Māori” and “New Zealand Europeans” on scales ranging from 1 (least warm/no anger) through 4 (neutral) to 7 (most warm/feel anger). *Dispositional warmth/anger* was assessed as the average rating of all the remaining social groups toward which both warmth and anger were rated in the NZAVS. These included: Asians, Pacific Islanders, Arabs, Overweight people, Immigrants in general, Chinese, Indians, and Muslims.

Resource-specific policy opposition and *symbolic policy opposition* were assessed using eight items (four per domain) referring to actual and proposed political policies in New Zealand (Liu & Sibley, 2006). Higher scores indicated (a) opposition to the redistribution of resources to Māori on the basis of ethnic group membership (resource-specific policy: for example “Māori ownership of the foreshore and seabed” and “Reserving places for Māori students to study medicine”), or (b) opposition to the incorporation of symbolic aspects of Māori culture into the New Zealand national

identity (symbolic policy: for example “Singing the national anthem in Māori and English” and “Waitangi Day as a national celebration of biculturalism”). Participants rated their level of support for each policy on a scale ranging from 1 (strongly support) to 7 (strongly oppose). Internal reliabilities for the policy opposition (and dispositional warmth/anger) scales were acceptable (α s ranged from .78 to .96).

Results

Bivariate correlations and descriptive statistics are presented in Table 1. Higher ingroup warmth and lower outgroup warmth were significantly associated with resource-specific policy opposition at the bivariate level. Dispositional warmth was associated with less resource-specific policy opposition. Outgroup warmth and dispositional warmth were similarly associated with less symbolic policy opposition. However, ingroup warmth was unrelated to this policy domain. Effects of outgroup anger and dispositional anger were consistent with those for warmth ratings, and ingroup anger was negligibly associated with both resource and symbolic policy opposition. Overall, outgroup hostility was a more powerful predictor of anti-multiculturalism than ingroup favoritism. Outgroup hostility also appears to be highly consistent with more generalized feelings about other outgroups.

Bias corrected standard errors and confidence intervals (CI) for regression analyses were estimated using a 5,000 iteration bootstrap re-sampling procedure. Consistent with Cumming (2009), CIs that overlap by less than half of the length of one CI arm (i.e., overlap by less than 50%) indicate significantly different standardized beta weights. As shown in the upper half of Table 2, ingroup warmth was more strongly associated with resource-specific policy opposition relative to symbolic policy opposition. Outgroup warmth, in contrast, was more strongly related to symbolic, relative to resource-specific, policy opposition. These effects remained

consistent when dispositional warmth and other demographic covariates were included in the models. These findings suggest that ingroup favoritism is associated with discrimination independently from outgroup hostility. Also, as predicted, ingroup favoritism is more strongly associated with discrimination when realistic threat is high rather than low.

We replicated the above findings, this time using affect ratings of anger rather than warmth for the independent affect variables. As shown in the lower half of Table 2, ingroup favoritism was more strongly associated with resource-specific policy opposition than with symbolic policy opposition, and this significant difference held in the full model including dispositional anger and demographics. In contrast, the effects of outgroup anger on resource-specific policy opposition and symbolic policy opposition were comparable in magnitude (i.e., their CIs overlapped greater than 50%). This difference was also non-significant in the full model. Consistent with models using affect ratings of warmth, ingroup favoritism was both independent from outgroup hostility and more strongly related to discrimination when threat is salient.

Of the demographic variables, education was most consistently associated with discrimination, with higher education levels associated with lower resource policy opposition and lower symbolic policy opposition in the models presented in Table 2. Sex and age were positively associated with symbolic policy opposition, but had negligible levels of association with resource policy opposition. The association of income with policy opposition was also negligible in all models.

Discussion

It has been proposed that ingroup favoritism is distinctly associated with discrimination, independently of outgroup hostility (Brewer, 1999; Greenwald & Pettigrew, 2014), however to date this has not been demonstrated empirically.

Research has tended to highlight the primacy of favoritism via differences in behavior – for example showing implicit associations between positive adjectives and ingroup pronouns (Gaertner & Dovidio, 1986), or that minimal group categorization enhances ingroup ratings (Brewer, 1979). Modelling ingroup favoritism and outgroup hostility as individual differences in prejudice, our study demonstrated that ingroup favoritism is not necessarily the “prime mechanism of discrimination” (Greenward & Pettigrew, 2014, p. 2). For majority European New Zealanders, ratings of both warmth and anger toward their own group (ingroup favoritism) and toward the indigenous minority group, Māori, (outgroup hostility) were both independently associated with opposition to policies promoting multiculturalism. This is consistent with Schaller et al. (2003), who suggested that real-world intergroup settings with established conflicts and prejudices would better represent outgroup hostility as a component of prejudice alongside ingroup favoritism.

The present study also found support for a hypothesis derived from Realistic Conflict Theory (RCT): ingroup favoritism (but not outgroup hostility) should be more strongly associated with resource-specific policy opposition because in this policy domain threat to the ingroup is highly salient. In contrast, outgroup hostility was associated with resource-specific and symbolic policies to a similar extent (when hostility is operationalized as affect ratings of warmth) or was even more strongly associated with symbolic policy opposition (when operationalized as anger). These components of prejudice are thus qualitatively distinct, and this distinction is, in part, driven by their differential sensitivity to threat to the ingroup. This distinction is consistent with perspectives of outgroup hostility as inherently, and ingroup favoritism as situationally, linked to discrimination (Brewer, 1999).

To adjust for overlap between hostility toward a specific outgroup and more generalized prejudice toward outgroups in general, we included a dispositional variable assessing general warmth or anger in the full multivariate models. Cottrell, Richards and Nichols (2016, p. 248) recently argued that social policies represent “specific behavioral intentions toward particular social groups thought to pose certain threats” and demonstrated that specific emotions toward policy-relevant groups predicted policy attitudes, whereas generalized prejudice did not. Moreover, in the present study, ingroup warmth, outgroup warmth and dispositional warmth were positively correlated (as was also the case for anger), suggesting a substantial dispositional tendency to like or dislike groups, including one’s own (a similar pattern of results was reported by Whitehead, Ainsworth, Wittig & Gadino, 2009). Consistent with Cottrell et al. (2016), dispositional warmth and anger were not associated with opposition toward group-specific policies when adjusting for affect ratings of Māori in the present study. Importantly, the inclusion of dispositional affect (as well as the other demographic covariates) did not alter our finding that ingroup favoritism is more strongly associated with policy opposition when intergroup threat is salient.

In New Zealand, reallocation of economic resources (including ownership of traditional lands) to Māori is a hotly contested issue and a well-documented source of realistic threat to European New Zealanders (for a recent discussion see Sibley & Osborne, 2016). Ingroup favoritism had a weaker association with symbolic policy opposition, probably because the symbolic assimilation of Māori culture is well tolerated in New Zealand and is thus non-threatening. This difference across policy domains is consistent with Brewer’s (1999) observation that “when intergroup attitudes are not conflict-based, attitudes toward the ingroup and prejudice toward the outgroup are essentially independent” (p. 436). RCT implies that ingroup favoritism

will be relied on more heavily when threat or competition is salient because “the perception that an outgroup constitutes a threat to ingroup interests or survival creates a circumstance in which identification and interdependence with the ingroup is directly associated with fear and hostility toward the threatening outgroup” (Brewer, 1999, pp. 435-6).

It is less clear why outgroup hostility (when operationalized as affective warmth) was more strongly associated with symbolic policy opposition than resource-specific policy opposition². This difference may be driven by those low in outgroup hostility being particularly supportive of policies that promote symbolic multiculturalism. As noted earlier, European New Zealanders are generally amenable to the inclusion of Māori culture in the national identity (see recent reviews by Sibley & Osborne, 2016; and Sibley & Ward, 2013), and if this is particularly true of those low in outgroup hostility then we would expect to see more polarized opposition to symbolic policies as a function of this hostility. This unexpected outcome emphasizes that realistic threat is a concern that is very specific to those high in ingroup identity and favoritism (Brewer, 1999), but not to those high in outgroup hostility or generalized prejudice.

From a Social Identity Theory (Tajfel & Turner, 1979) perspective, ingroup positivity and enhancement is a default position, in that individuals seek a positive ingroup identity to satisfy their basic need for positive self-esteem. RCT earlier suggested that this default ingroup favoritism only gives way to hostility when an outgroup violates ingroup norms or is seen as receiving undeserved benefits (Brewer, 2001; Hewstone et al., 2002). Thus a weak emotional response to an outgroup requires only avoidance of that group to maintain a positive social identity, so only

² However, the stronger association with symbolic policy opposition did not hold in the model operationalizing outgroup hostility as anger.

ingroup favoritism prevails when intergroup threat is relatively low. However, groups that violate dominant group norms and threaten their resources elicit a more deliberate response, and more overt hostilities are increasingly justified and applied in response to threat.

The present findings, in contrast, show that outgroup hostility was more strongly associated with discrimination in a low-conflict policy domain, and that ingroup favoritism increased its association with discrimination in a high-conflict domain. At least according to these findings, that were largely consistent across different operationalizations of intergroup affect, outgroup hostility appears to be the more stable response that is consistently associated with discrimination whether or not a strong or weak response is elicited by intergroup threat. We suggest that hostility itself may be motivation enough to lead to discrimination, irrespective of intergroup circumstances. In contrast, ingroup favoritism appears to be more highly associated with discrimination as a function of higher intergroup conflict. Even though this motive is more psychologically primary, ingroup favoritism is not inherently linked with discrimination (Brewer, 1999). Rather, an outgroup needs to pose an explicit threat to the ingroup before those with high ingroup favoritism will discriminate. Furthermore, outgroup hostility was, if anything, more weakly associated with threatening – and presumably more emotional – resource-specific policy opposition than with symbolic policy opposition.

These findings emphasise Brewer's (1999) interpretation of RCT, that intergroup threat is specifically a threat to the ingroup, so we should expect the association between ingroup favoritism and prejudice to be stronger when threat is salient. The re-allocation of resources to the outgroup in the present setting is threatening to what Brewer (1996, 2001) suggests is a fundamental motivation to

maintain positive group distinctiveness for the dominant group. Economic resources are, in essence, zero-sum, meaning if the outgroup gets more, the ingroup gets less. The association between ingroup favoritism and policy opposition is therefore increased because those who are highest in ingroup favoritism are more affected by threat, and consequently more likely to oppose resource-redistribution policies. Our findings suggest that, rather than ingroup favoritism “giv[ing] way to” hostility when the ingroup is threatened (Hewstone et al., 2002), these constructs are enduring individual differences that are both independently associated with discrimination. Instead, ingroup favoritism becomes more highly associated with discrimination under threat whereas outgroup hostility does not seem to be affected in the same way. As noted earlier, ingroup attitudes and behaviors tend to be more dynamically affected by changes in intergroup circumstances in general, relative to outgroup attitudes (e.g., Halevy et al., 2008; de Dreu, 2010).

Limitations

A notable inconsistency in our findings was the lack of ingroup favoritism effects at the bivariate level, with only a modest association in one out of four conditions. The pattern of results indicates a suppression effect (MacKinnon, Krull & Lockwood, 2000) of outgroup hostility where the inclusion of this variable increases the predictive ability of ingroup favoritism. Those high in ingroup favoritism also tended to be higher in outgroup hostility (see Table 1), so we suspect that the negative association of outgroup ratings with policy opposition counteracted the positive association of ingroup ratings particularly for such individuals. But when included in a multivariate analysis we can observe the unique effects of outgroup and ingroup affect. Therefore, another implication of our findings is that, to the extent ingroup favoritism and outgroup hostility are correlated, they must be modelled

simultaneously to reveal the unique effects of ingroup favoritism which are otherwise suppressed by prevailing outgroup hostility.

Affect rating norms would presumably be more amenable to expressing positive attitudes about one's own group (or other groups), whereas expressing overtly negative attitudes about other groups is generally discouraged. Therefore, the effects of ingroup favoritism in the present study may be potentially inflated due to response biases. Any such bias however, would only be likely to affect mean levels of warmth and anger rather than their associations with policy opposition and mean ratings of ingroup and outgroup warmth (μ s = 5.79 and 4.89) and anger (μ s = 2.19 and 2.67) were not dramatically different. It also remains unclear how well our findings would generalize to other countries, or even to other specific intergroup relationships. Māori, as a minority group, have a fairly unique relationship with the dominant ethnic majority group in New Zealand given the specific colonial history in this country (Sengupta, Milojev, Barlow & Sibley, 2015; Sibley et al., 2011).

However, social differentiation into ingroups and outgroups is a universal phenomenon (Brewer, 1986; Levine & Campbell, 1972), and the primacy of ingroup identity (Allport, 1954) suggests that so too is the effect of threat on the association between ingroup favoritism and prejudice (see Brewer, 2007). Thus studies that are carefully designed to assess specific areas of high and low intergroup competition and threat in other social settings are therefore likely to also observe corresponding variation in ingroup favoritism.

Finally, the correlational nature of the data means that we cannot make inferences regarding the direction of effects between affect ratings and policy opposition. Indeed, Brewer (2017) recently noted that prejudice and discrimination are likely reciprocally related so here we aimed to assess differences in the magnitude

of these associations without necessarily presuming a direction of effects. More importantly, we were unable to explicitly test the hypothesized process via which different levels of threat moderate the association between ingroup favoritism and discrimination, and it remains possible that content differences in the policy opposition measures other than threat were driving the varying effects of ingroup favoritism. Perry & Sibley (2013) provide an appropriate design for manipulating social-threat and competition using modified frequency-estimation measures of worldviews that subtly anchor participants' perceived levels of social-threat and competition as either high or low. We propose that this design can be incorporated to test whether anchored threat and competition moderates the association between ingroup favoritism (but not outgroup hostility) and discrimination.

Conclusion

There is increasing evidence that, at least in the United States, ingroup favoritism is the predominant driver of discrimination, distinct from more overt outgroup hostility (Greenwald & Pettigrew, 2014). The present study provided an empirical demonstration of this independence, but also offers a caveat that affect ratings of the ingroup were not more highly associated with discrimination relative to outgroup ratings. Utilizing a unique intergroup relationship in post-colonial New Zealand, discrimination was operationalized as opposition to policies addressing (a) resource redistribution and (b) symbolic recognition of multiculturalism. To date, the distinct role of ingroup favoritism has generally been evidenced by examples of differential favoring that increase inequality by benefiting dominant groups, rather than directly punishing members of subordinate groups. In the present research we took a different approach, examining simultaneous associations of ingroup favoritism and outgroup hostility with discrimination.

The present findings are consistent with the perspective that ingroup favoritism is uniquely associated with discrimination, independently from outgroup hostility. Moreover, our study suggests that outgroup hostility may be better represented in study designs that utilize existing real-world intergroup settings. We also demonstrated that ingroup favoritism, but not outgroup hostility, was more strongly associated with discrimination in a policy domain where realistic threat was high compared with a low threat domain. This is consistent with Brewer's (1999; 2001) interpretation of RCT that in circumstances where the ingroup is specifically threatened, love for the ingroup becomes directly associated with antipathy toward that outgroup. This apparent malleability of ingroup favoritism is highly relevant to strategies aimed at reducing discrimination. By limiting perceptions of realistic threat posed by outgroups, those most loyal to the ingroup should be less likely to retaliate.

References

- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Ayers, I., Vars, F. E., & Zakariya, N. (2005). To insure prejudice: Racial disparities in taxicab tipping. *Yale Law Journal*, 114, 1613-1674. doi: 10.2139/ssrn.401201
- Baumgartner, T., Schiller, B., Rieskamp, J., Gianotti, L. R., & Knoch, D. (2014). Diminishing parochialism in intergroup conflict by disrupting the right temporo-parietal junction. *Social Cognitive and Affective Neuroscience*, 9, 653-660. doi: 10.1093/scan/nst023
- Brewer, M. B. (1986). The role of ethnocentrism in intergroup conflict. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 82–102). Chicago: Nelson-Hall.
- Brewer, M. B. (1999). The psychology of prejudice: Ingroup love and outgroup hate? *Journal of Social Issues*, 55, 429-444. doi: 10.1111/0022-4537.00126
- Brewer, M. B. (2001). Ingroup identification and intergroup conflict: When does ingroup love become outgroup hate? In R. Ashmore, L. Jussim, D. Wilder (Eds.), *Social identity, intergroup conflict, and conflict reduction* (pp. 17-41). New York, NY: Oxford University Press.
- Brewer, M. B. (2007). The importance of being we: Human nature and intergroup relations. *American Psychologist*, 62, 728-738. doi: 10.1037/0003-066x.62.8.728
- Brewer, M. B. (2017). Intergroup discrimination: Ingroup love or outgroup hate? In C. G. Sibley, F. K. Barlow (Eds.), *The Cambridge handbook of the psychology of prejudice* (pp. 90-110). Cambridge, England: Cambridge University Press.
- Brewer, M. B., & Crano, W. D. (1994). *Social Psychology*. Minneapolis, MN: West Group.

- Buttelmann, D., & Böhm, R. (2014). The ontogeny of the motivation that underlies in-group bias. *Psychological Science*, 25, 921-927. doi: 10.1177/0956797613516802
- Cottrell, C. A., Richards, D. A., & Nichols, A. L. (2010). Predicting policy attitudes from general prejudice versus specific intergroup emotions. *Journal of Experimental Social Psychology*, 46, 247-254. doi:10.1016/j.jesp.2009.10.008
- Cumming, G. (2009). Inference by eye: Reading the overlap of independent confidence intervals. *Statistics in Medicine*, 28, 205-220. doi: 10.1002/sim.3471
- de Dreu, C. K. (2010). Social value orientation moderates ingroup love but not outgroup hate in competitive intergroup conflict. *Group Processes & Intergroup Relations*, 13, 701-713. doi: 10.1177/1368430210377332
- Devos, T., & Banaji, M. R. (2005). American= white?. *Journal of Personality and Social Psychology*, 88, 447-466. doi: 10.1037/0022-3514.88.3.447
- DiTomaso, N. (2015). Racism and discrimination versus advantage and favoritism: Bias for versus bias against. *Research in Organizational Behavior* 35, 57-77. doi: 10.1016/j.riob.2015.10.001
- Doty, R. M., Peterson, B. E., & Winter, D. G. (1991). Threat and authoritarianism in the United States, 1978-1987. *Journal of Personality and Social Psychology*, 61, 629-640. doi: 10.1037/0022-3514.61.4.629
- Feld, J., Salamanca, N., Hamermesh, D.S. (in press). Endophilia or exophobia: Beyond discrimination. *The Economic Journal*. doi: 10.1111/eoj.12289

- Gaertner, S. L., & Bickman, L. (1971). Effects of race on the elicitation of helping behavior: The wrong number technique. *Journal of Personality and Social Psychology, 20*, 218-222. doi: 10.1037/h0031681
- Gaertner, S. L., Dovidio, J. F., Banker, B. S., Rust, M. C., Nier, J. A., Mottola, G. R., & Ward, C. M. (1997). Does racism necessarily mean anti-Blackness? Aversive racism and pro-Whiteness. In M. Fine, L. Powell, L. Weis, & M. Wong (Eds.), *Off white: Readings on race, power, and society* (pp. 167–178). London, England: Routledge.
- Greenwald, A. G., & Pettigrew, T. F. (2014). With malice toward none and charity for some: Ingroup favoritism enables discrimination. *American Psychologist, 69*, 669-684. doi: 10.1037/a0036056
- Halevy, N., Bornstein, G., & Sagiv, L. (2008). “In-group love” and “out-group hate” as motives for individual participation in intergroup conflict: A new game paradigm. *Psychological Science, 19*, 405-411. doi: 10.1111/j.1467-9280.2008.02100.x
- Harding, J. F., Sibley, C. G., & Robertson, A. (2011). New Zealand = Māori, New Zealand = bicultural: Ethnic group differences in a national sample of Māori and Europeans. *Social Indicators Research, 100*, 137-148. doi: 10.1007/s11205-010-9608-5
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology, 53*, 575-604. doi: 10.1146/annurev.psych.53.100901.135109
- Hurwitz, J., & Peffley, M. (2005). Explaining the great racial divide: Perceptions of fairness in the US criminal justice system. *Journal of Politics, 67*, 762-783. doi: 10.1111/j.1468-2508.2005.00338.x

- Jetten, J., Mols, F., & Postmes, T. (2015). Relative Deprivation and Relative Wealth Enhances Anti-Immigrant Sentiments: The V-Curve Re-Examined. *PLOS ONE*, *10*(10): e0139156. doi: 10.1371/journal.pone.0139156
- Jetten, J., Spears, R., & Manstead, A. S. (1996). Intergroup norms and intergroup discrimination: distinctive self-categorization and social identity effects. *Journal of Personality and Social Psychology*, *71*, 1222-1233. doi: 10.1037/0022-3514.71.6.1222
- Jetten, J., Spears, R., & Manstead, A. S. (1998). Defining dimensions of distinctiveness: Group variability makes a difference to differentiation. *Journal of Personality and Social Psychology*, *74*, 1481-1492. doi: 10.1037/0022-3514.74.6.1481
- Kaiser, C. R., Eccleston, C. P., & Hagiwara, N. (2008). Post-Hurricane Katrina racialized explanations as a system threat: Implications for Whites' and Blacks' racial attitudes. *Social Justice Research*, *21*, 192-203. doi: 10.1007/s11211-008-0065-0
- LeVine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes and group behavior*. New York: Wiley.
- Lewis, G. J., & Bates, T. C. (2010). Genetic evidence for multiple biological mechanisms underlying ingroup favoritism. *Psychological Science*, *21*, 1623-1628. doi: 10.1177/0956797610387439
- Lewis, G. J., & Bates, T. C. (2014). Common heritable effects underpin concerns over norm maintenance and ingroup favoritism: Evidence from genetic analyses of right-wing authoritarianism and traditionalism. *Journal of Personality*, *82*, 297-309. doi: 10.1111/jopy.12055

- Liu, J. H., & Sibley, C. G. (2006). Differential effects of societal anchoring and attitude certainty in determining support or opposition to (bi)cultural diversity in New Zealand. *Papers on Social Representations, 15*, 1-15.
- MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention science, 1*, 173-181. doi: 10.1023/A:1026595011371
- Meertens, R. W., & Pettigrew, T. F. (1997). Is subtle prejudice really prejudice? *Public Opinion Quarterly, 61*, 54-71. doi: 10.1086/297786
- Navarrete, C. D., Kurzban, R., Fessler, D. M., & Kirkpatrick, L. A. (2004). Anxiety and intergroup bias: Terror management or coalitional psychology? *Group Processes & Intergroup Relations, 7*, 370-397. doi: 10.1177/1368430204046144
- Orey, B. D., & Park, H. (2012). Nature, nurture, and ethnocentrism in the Minnesota Twin Study. *Twin Research and Human Genetics, 15*, 71-73. doi: 10.1375/twin.15.1.71
- Paradies, Y., Harris, R., & Anderson, I. (2008). *The impact of racism on Indigenous health in Australia and Aotearoa: Towards a research agenda*. Darwin, Australia: Cooperative Research Centre for Aboriginal Health.
- Perry, R., & Sibley, C. G. (2013). Seize and freeze: Openness to experience shapes judgments of societal threat. *Journal of Research in Personality, 47*, 677-686. doi: 10.1016/j.jrp.2013.06.006
- Pettigrew, T. F., & Meertens, R. W. (1995). Subtle and blatant prejudice in Western Europe. *European Journal of Social Psychology, 25*, 57-75. doi: 10.1002/ejsp.2420250106

- Ross, S. L., & Turner, M. A. (2005). Housing discrimination in metropolitan America: Explaining changes between 1989 and 2000. *Social Problems*, 52, 152-180. doi: 10.1525/sp.2005.52.2.152
- Sales, S. M. (1973). Threat as a factor in authoritarianism: an analysis of archival data. *Journal of Personality and Social Psychology*, 28, 44-57. doi: 10.1037/h0035588
- Sengupta, N. K., Milojev, P., Barlow, F. K., & Sibley, C. G. (2015). Ingroup friendship and political mobilization among the disadvantaged. *Cultural Diversity and Ethnic Minority Psychology*, 21, 358-368. doi: 10.1037/a0038007
- Sherif, M., & Sherif, C. W. (1953). *Groups in harmony and tension: An integration of studies on intergroup relations*. New York: Harper.
- Sibley, C. G., & Barlow, F. K. (2009). Ubiquity of whiteness in majority group national imagination: Australian = White, but New Zealander does not. *Australian Journal of Psychology*, 61, 119-127. doi: 10.1080/00049530802239300
- Sibley, C. G., & Liu, J. H. (2007). New Zealand= bicultural? Implicit and explicit associations between ethnicity and nationhood in the New Zealand context. *European Journal of Social Psychology*, 37, 1222-1243. doi: 10.1002/ejsp.459
- Sibley, C. G., Liu, J. H., & Khan, S. S. (2010). Implicit Representations of Ethnicity and Nationhood in New Zealand: A Function of Symbolic or Resource-Specific Policy Attitudes?. *Analyses of Social Issues and Public Policy*, 10, 23-46. Doi: 10.1111/j.1530-2415.2009.01197.x
- Sibley, C. G., & Osborne, D. (2016). Ideology and post-colonial society. *Political Psychology*, 37, 115-161. doi: 10.1111/pops.12323

- Sibley, C. G., Stewart, K., Houkamau, C., Manuela, S., Perry, R., Wootton, L. W., ... & Hoverd, W. J. (2011). Ethnic group stereotypes in New Zealand. *New Zealand Journal of Psychology*, 40, 25-36.
- Sibley, C. G., & Ward, C. (2013). Measuring the preconditions for a successful multicultural society: A barometer test of New Zealand. *International Journal of Intercultural Relations*, 37, 700-713. doi: 10.1016/j.ijintrel.2013.09.008
- Statistics New Zealand. (2013). *Census of population and dwellings*. Wellington, NZ.
- Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., ... & Renfro, C. L. (2002). The role of threats in the racial attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, 28, 1242-1254. doi: 10.1177/01461672022812009
- Stephan, W. G., & Stephan, C. W. (1993). *Improving intergroup relations*. Thousand Oaks, CA: Sage.
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23-46). Hillsdale, NJ: Lawrence Erlbaum.
- Tajfel, H., & Turner, J. C. (1979). The social identity theory of intergroup behaviour. In S. Worchel & W. Austin (Eds.), *Psychology of intergroup relations* (pp. 33-48). Chicago, IL: Nelson-Hall.
- Turner J. C. (1999). Some current themes in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 6-34). Oxford, UK: Blackwell.
- Waytz, A., Young, L. L., & Ginges, J. (2014). Motive attribution asymmetry for love vs. hate drives intractable conflict. *Proceedings of the National Academy of Sciences*, 111, 15687-15692. doi: 10.1073/pnas.1414146111

- Weisel, O., & Böhm, R. (2015). "Ingroup love" and "outgroup hate" in intergroup conflict between natural groups. *Journal of Experimental Social Psychology*, 60, 110-120. doi: 10.1016/j.jesp.2015.04.008
- Yamagishi, T., & Mifune, N. (2009). Social exchange and solidarity: In-group love or out-group hate? *Evolution and Human Behavior*, 30, 229-237. doi: 10.1016/j.evolhumbehav.2009.02.004