Running head: Extended contact and ingroup attitudes

I (dis)like the way you (dis)like them: The role of extended contact on social distance

and attitudes towards the ingroup

Word count: 7968 (excluding the abstract, references, tables)

Abstract

While extended intergroup contact has been commonly studied in the context of prejudice reduction, less is known about its implications for processes related to the ingroup. Through three correlational and one experimental studies (total $N = 897$) conducted in two different intergroup contexts (Turkey and United Kingdom), we investigated whether extended intergroup contact relates to social distance and attitudes towards ingroup members as a function of outgroup attitudes. We also investigated ingroup identification and perceived ingroup morality as potential mediators in these associations. Correlational studies demonstrated that especially when outgroup attitudes were more negative, participants' positive (but not negative) extended contact was related to a more negative evaluation of the ingroup; whereas when outgroup attitudes were more positive, extended contact was associated with positive attitudes towards the ingroup. We found experimental evidence for the suggested relationships in relation to ingroup social distance. Findings are discussed in the light of vicarious dissonance theory and deprovincialization hypothesis.

Keywords: Extended contact; outgroup attitudes; ingroup attitudes; social distance; ingroup identification; morality

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Contact between different group members is likely to reduce prejudice and improve

intergroup relationships (e.g., Pettigrew & Tropp, 2006). Current research trends in the contact

literature have shown that indirect contact strategies such as extended contact (Wright, Aron,

McLaughlin-Volpe, & Rope, 1997) also provide many of the previously established direct

contact outcomes, including more positive outgroup attitudes and behavioral tendencies (see

Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014 for a review, and Zhou, Page-Gould,

Aron, Moyer, & Hewstone, 2019 for a meta-analysis). Although compelling evidence suggests

that extended contact, defined as knowing ingroup members to have contact with outgroup

members (Dovidio, Eller, & Hewstone, 2011; Vezzali et al., 2014)[1], is associated with outgroup

attitudes and behaviors, less is known about whether extended contact is also related to processes

regarding the ingroup. Scarce evidence derives from few studies exploring the role of extended

contact on ingroup norms (e.g., Turner, Hewstone, Voci, & Vonofakou, 2008; Wright et al.,

1997) and ingroup attitudes (e.g., Cameron, Rutland, & Brown, 2007; Cameron, Rutland, Brown,

& Douch, 2006)[2], which is surprising, given that extended contact is by definition dependent on

a social network where the ingroup has a central role. Across four studies (three correlational and

one experimental), we aimed to provide an understanding of the role of (positive and negative)

extended intergroup contact on ingroup dynamics by testing whether extended contact was

[1]More recent research has broadened the traditional forms of extended contact by involving 'depersonalized extended contact' where ingroup members with outgroup friends come from the larger ingroup and are unknown to the participants (Gómez, Tropp, Vázquez, Voci, & Hewstone 2018).
[2]Note that the procedure in Cameron and colleagues' studies were originally suggested to involve 'extended contact'. While more recent research has highlighted the distinction between extended and vicarious contact and indicated that these forms of contact where one is exposed to a story of ingroup and outgroup friendship constitute 'vicarious contact' (Dovidio et al., 2011; Vezzali et al., 2014), these studies are also still considered under the general term of extended contact (Zhou et al., 2019).

associated with social distance and attitudes towards the *ingroup* as a function of attitudes towards the *outgroup*, and whether ingroup identification and perceptions of ingroup morality mediated these relationships.

Extended Contact Theory

Extended intergroup contact has been an influential strategy suggesting that mere knowledge about ingroup members' positive intergroup contact experiences can improve intergroup attitudes (Wright et al., 1997). Extended contact is effective on improving outgroup attitudes because it makes group membership salient, while reducing the experience of intergroup anxiety (Vezzali & Stathi, 2017; Vezzali et al., 2014). Studies have provided empirical support for the effectiveness of extended contact on a varied range of intergroup processes such as increased outgroup variability (Paolini, Hewstone, Cairns, & Voci, 2004), reduced desire for outgroup social distance (Vezzali, Hewstone, Capozza, Trifiletti, & Bernardo, 2017), as well as improved explicit attitudes (Turner, Hewstone, & Voci, 2007). Reviews and meta-analytic studies have confirmed that extended contact has comparable effects to direct contact and is useful in both conflictual and non-conflictual intergroup settings, among both majority and minority group members, and across a wide range of intergroup contexts (Vezzali et al., 2014; Zhou et al., 2019). Moreover, the effects of extended contact often remain intact, even after controlling for the role of direct contact (Gómez, Tropp, & Fernández, 2011; Zhou et al., 2019).

Extended Contact and Processes Regarding the Ingroup

While extended contact has been found to influence outgroup attitudes through creating a more positive perception of ingroup norms about the outgroup (Turner et al., 2008; Wright et al., 1997), there are few studies examining the effect of indirect contact strategies on ingroup

attitudes. However, in these studies ingroup attitudes were not focal variables and strategies involved indirect intergroup contact through story reading. Moreover, these studies demonstrated mixed findings; while Cameron et al. (2006) found that reading a story of friendship between a native and refugee child in England did not have a significant effect on children's attitudes towards English people, other research indicated that children who were exposed to a story of intercultural friendship indicated reduced ingroup identification, as well as increased attribution of negative stereotypes to the ingroup (Vezzali, Stathi, & Giovannini, 2012).

Since extended contact is an indirect experience of contact which mainly operates through ingroup members, we suggest that it may also have significant implications on attitudes towards the ingroup. In fact, research on extended contact theory states that learning about or observing positive intergroup contact among ingroup members should lead to perceiving more positive ingroup norms about the outgroup, which in turn relates to more positive outgroup attitudes (e.g., Turner et al., 2008; Wright et al., 1997). Hence, while extended contact can reveal what other ingroup members think about the outgroup and thereby change attitudes towards the outgroup, at the same time it can provide indications with respect to the values, traits, and qualities of the ingroup. In other words, knowing about how ingroup members relate to the outgroup behaviorally (e.g., positively or negatively) may provide evidence about the stance and qualities of the ingroup. This information can be used and evaluated by individuals, a process that can subsequently impact on whether individuals like the ingroup (or not) and want to remain close to it (or not). Importantly, as we will explain later, this process may critically depend on the attitudes one has towards the target outgroup.

We argue there are some key theoretical accounts that can explain why extended contact can influence ingroup processes. Vezzali et al. (2014) proposed that one reason why extended

contact is influential on outgroup attitudes derives from the vicarious dissonance theory (Cooper & Hogg, 2007), which suggests that when individuals perceive someone from their own group behaving in a manner inconsistent with personal attitudes (assuming initial outgroup attitudes are relatively negative), this situation creates dissonance and discomfort, thereby leading individuals to regulate their existing attitudes (see also Vezzali & Stathi, 2017). According to this theory, extended contact is likely to lead individuals to adjust their outgroup attitudes so that they fit other ingroup members' attitudes and behaviors. Following the same rationale, one could expect that while people may change attitudes to align with the ingroup's attitudes and behaviors, they can also reduce such dissonance by adjusting their relationship with the ingroup, for example by socially distancing themselves from the ingroup (and/or from friends as *members of the ingroup*). In a similar vein, structural balance theory (Heider, 1958) indicates that individuals seek to maintain balance in their relationships so that personal attitudes and interpersonal relationships are consistent with each other. Therefore, in order to reconstruct a balanced relationship, individuals may change their attitudes and/or their relationships (Munniksma, Stark, Verkuyten, Flache, & Veenstra, 2013). Structural imbalance in the case of extended contact could manifest when knowing that the ingroup has positive contact with a disliked outgroup, or when knowing that the ingroup has negative contact with a liked outgroup.

Based on the above theoretical arguments and the need to adjust attitudes and/or social relationships on the basis of information provided by extended contact, the level of outgroup attitudes becomes critical. We suggest that the association between extended contact and attitudes towards the ingroup would primarily depend on how positive or negative the individual is towards the outgroup. Because extended contact functions through maintaining a balanced relationship between attitudes and behaviors towards the ingroup and the outgroup, it may lead

to more or less positive ingroup attitudes depending on the extent to which the outgroup is liked or disliked. For example, Katie is a member of group X and her ingroup friends have positive contact with someone from group Y; if she also likes group Y Katie may like the ingroup more. On the other hand, if Katie's ingroup friends have positive contact with someone from group Z and she does not like group Z and its members, Katie may identify with the ingroup less and distance herself from it. In line with this approach, Eller, Gómez, Vázquez, and Fernández (2017) found that the ingroup member having intergroup contact was evaluated more negatively when such contact was counter-normative (negative contact with a liked outgroup or positive contact with a disliked outgroup), but when contact was normative, the ingroup member was rated more positively. Extending this research (and rather than focusing on whether the ingroup 'protagonist' likes or dislikes the outgroup), we suggested that the role of extended contact on ingroup attitudes would primarily depend on whether the observer displays favorable or unfavorable attitudes towards the outgroup.

Mediating Mechanisms

We suggested that one process through which extended contact may relate to social distance and attitudes towards the ingroup is *ingroup identification*. Based on vicarious dissonance theory, knowing about ingroup members' positive contact with an outgroup member may create a cognitively dissonant situation, which may be balanced by reducing ingroup identification. Other theoretical accounts such as the deprovincialization hypothesis also suggest that positive contact with outgroup members may lead group members to ingroup (re)appraisal (Pettigrew, 1997; Pettigrew, 2009; Verkuyten, Thijs, & Bekhuis, 2010). Such ingroup (re)appraisal should be dependent on how the group member evaluates the outgroup. In other words, we argue that when individuals evaluate the outgroup more negatively, they should

identify with the ingroup less when they see that the ingroup acts in contrast to their own attitudes. Hence, we proposed that the association between extended contact and ingroup attitudes and social distance would be mediated by ingroup identification, since ingroup members' positive contact experiences would provide important cues about one's own group membership and lead to the reappraisal of the ingroup, especially as a function of outgroup attitudes.

A second mediating mechanism we proposed was *perceived ingroup morality*. People evaluate groups more positively if they fit ingroup moral norms (Brambilla & Leach, 2014; Brambilla, Sacchi, Rusconi, Cherubini, & Yzebyt, 2012). Previous research has shown that direct intergroup contact experiences predict more positive perceptions of outgroup morality, since intergroup contact is likely to reduce social distance and increase likeability and trust between group members (Brambilla, Hewstone, & Colucci, 2013). However, there is also evidence that extended contact is related to a change in ingroup norms (Wright et al., 1997), which -although not tested directly- are closely related to what ingroup members consider as moral (Pagliaro, Ellemers, & Barreto, 2011). Therefore, we argue that, extended contact is likely to be related to ingroup attitudes and social distance through the appraisal of the ingroup in terms of moral norms, dependent on whether outgroup attitudes are positive or negative.

In summary, we predicted that extended contact would relate to ingroup attitudes and social distance through ingroup identification and perceptions of ingroup morality, and suggested these mediational routes to be moderated by outgroup attitudes. We specifically expected that (a) when outgroup attitudes are favorable, extended contact with an outgroup that is liked would be related to greater ingroup identification and a more positive perception of ingroup morality, which would in turn relate to more positive ingroup attitudes and less distance from the ingroup;

and (b) when outgroup attitudes are unfavorable, extended contact with a disliked outgroup member would relate to a more negative perception of ingroup morality and to lower ingroup identification, which will be related to distancing oneself from the ingroup (see Cottrell & Neuberg, 2005).

Overview of Studies

Study 1 tested initially whether extended contact was associated with ingroup attitudes as a function of outgroup attitudes among Turkish participants in the context of Turkish-Kurdish relationships. Study 2 examined the same research question in the same intergroup context by extending our dependent variables and examining the role of ingroup identification and perceived ingroup morality as potential mediators. Study 3 replicated Study 2 among British people using Eastern Europeans as the target outgroup and distinguished the role of positive and negative extended contact (for which we expected opposite relationships to those of positive extended contact). Study 4, in the same intergroup context as Study 3, experimentally manipulated extended contact and examined the effects of positive and negative extended contact on ingroup attitudes and social distance, moderated by initial outgroup attitudes and mediated by ingroup identification and morality. In all studies, we controlled for the effect of direct intergroup contact.

Study 1

In Study 1, we explored Turkish majority group members' extended contact with Kurdish minority group members. Despite constituting the dominant ethnic minority group (approximately 15% of the total population, Konda, 2011), Kurds have been historically considered an oppressed minority group (Bagci & Çelebi, 2017; Baysu, Coşkan, & Duman, 2018). Recent research in this setting demonstrates that both Turks and Kurds generally display

low levels of intergroup trust and hold negative attitudes towards each other (Bilali, Çelik, & Ok, 2014; Çelebi, Verkuyten, Köse, & Maliepaard, 2014). While previous research demonstrated Turks' direct and indirect intergroup contact experiences with Kurds to play a role on social distance and attitudes towards Kurds (Bagci & Turnuklu, 2019; Bagci, Stathi, & Piyale, 2019a; Bilali, Iqbal, & Çelik, 2018), the role of extended contact on ingroup processes in this setting remains unknown.

Method

Participants

Data for this study were extracted from a larger study assessing Turkish-Kurdish relationships[3]. A total of 384 Turkish university students (M_{age} = 20.09, SD = 2.19, 262 Female and 122 Male) completed pen and paper questionnaires in a campus setting during Fall 2017 with the help of research assistants through convenience and snowball sampling. A post-hoc power analysis indicated that with an alpha level of .05 and four predictors, and the effect size detected (f^2 = .19), power was > .99 (Faul, Erdfelder, Buchner, & Lang, 2009).

Measures

Extended Contact. Extended contact was measured by a single item asking participants to indicate the number of friendships participants' ingroup friends had, i.e., "Think about your Turkish friends. How many Kurdish friends do you think they have?" (e.g., Christ et al., 2010). The response scale ranged from 1 (*none*) to 7 (*30 plus*) and higher scores indicated greater extended contact.

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[3]Part of the data has been used in another study investigating the role of positive and negative direct contact on outgroup attitudes, collective action tendencies, and psychological well-being and was published as: Bagci, S. C. & Turnuklu, A. (2019). Intended, unintended, and unknown consequences of contact: The role of positive-negative contact on outgroup attitudes, collective action tendencies, and psychological well-being. *Social Psychology, 50*, 7-23. DOI: 10.1027/1864-9335/a000355.

Ingroup/Outgroup attitudes. Attitudes towards the ingroup and the outgroup were each measured by a single item feeling thermometer (Esses, Haddock, & Zanna, 1993). Participants were asked to report their feelings towards the Turkish and the Kurdish group using a scale from 0 degree (*extremely unfavorable attitudes*) to 100 degrees (*extremely favorable attitudes*), with higher scores indicating more positive attitudes towards the target group.

Direct contact. Direct intergroup contact was controlled for in the main analyses, and was measured by the quantity of direct cross-group friendships participants had (Bagci, Rutland, Kumashiro, Smith, & Blumberg, 2014). Participants were asked to indicate how many friends from the Kurdish group they had, ranging from 1 (*none*) to 7 (*30 plus*).

Results

Descriptive statistics are reported in Table 1.

-----------------------------------Insert Table 1----------------------------------

We used PROCESS Macros (Hayes, 2013, Model 1) to examine whether outgroup attitudes moderated the associations between extended contact and ingroup attitudes, controlling for direct contact (see Table 2). In line with predictions, the interaction between extended contact and outgroup attitudes was significant and showed that when outgroup attitudes were more positive (+1 *SD*), extended contact was not significantly associated with ingroup attitudes ($b = 1.00$, $p = .38$) whereas, when outgroup attitudes were more negative (-1 *SD*), extended contact was associated with more negative ingroup attitudes ($b = -3.83$, $p < .001$).

-----------------------------------Insert Table 2----------------------------------

Study 2

In Study 2, we extended our dependent measures by assessing social distance (the desire not to affiliate with others or stay away from others), which is a commonly studied intergroup

process in the contact literature and a critical indicator of attitudes towards others (Aiken, 2002).

Social distance provides a more behavioral index of attitudes and both social distance and

attitudes may be independent constructs such that social distance may arise even when overt

negative attitudes do not exist (Ata, Bastian, & Lusher, 2009). Second, we used a more elaborate

multi-item extended contact measure which assessed various forms of extended contact,

including different ingroup members such as families, peers, and the larger ingroup network as

sources of extended contact (Turner et al., 2008). Third, we incorporated mediating mechanisms

– ingroup identification and perception of ingroup morality - that could potentially explain how

extended contact is associated with ingroup distance and attitudes.

Method

Participants and Procedure

We recruited 217 Turkish university students (M_{age} = 21.64, SD = 2.69, 149 Female and

68 Males)[4]. Participants completed pen and paper questionnaires in a university campus setting

during lecture hours with the help of research assistants. A post-hoc power analysis showed that

based on the smallest effect size detected (f^2 = .35), with six predictors and an alpha level of .05,

achieved power was > .99.

Measures

Extended contact. Extended contact was assessed using a more nuanced measure which

included the number of extended cross-group friendships of Turkish a) people, b) neighbors, c)

friends, d) best friends, e) family members (Turner et al., 2008). A seven-point response scale

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[4]Part of this dataset has been used in another manuscript assessing the associations between outgroup attitudes and behavioral tendencies as a function of positive and negative direct contact experiences: Bagci, S. C., Turnuklu, A., & Tercan, M. (2020). Intergroup contact prevents negative attitudes to transform into avoidant behavioral tendencies. *European Journal of Social Psychology*. DOI: 10.1002/ejsp.2646.

was used, ranging from 1 (*none*) to 7 (*six or more*). Higher scores indicated greater extended contact (Cronbach's alpha = .86).

Ingroup/Outgroup attitudes. Attitudes towards the ingroup and the outgroup were each measured by single-item feeling thermometers (Esses et al., 1993, see Study 1).

Ingroup identification. We used a four-item scale to measure ingroup identification (Jetten, Spears, & Manstead, 2001; Turner & Crisp, 2010) which assessed the extent to which participants identified with their Turkish ethnic group (e.g., "I identify strongly with other ethnic Turks"). The response scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*, Cronbach's alpha = .96).

Perceived ingroup morality. This construct was measured with seven items (Brambilla et al., 2013) which assessed the extent to which participants evaluated the ingroup on a number of morality-related adjectives (e.g., "To what extent do you find Turks honest/pure/sincere/fair/altruist/respectful/spiritual?"). The response scale ranged from 1 (*not at all*) to 7 (*all the time*, Cronbach's alpha = .91).

Ingroup social distance. We used a social distance scale with four items to assess participants' desire to have Turkish people as their a) fellow student/colleague, b) teacher, c) best friend, and d) partner (Eller & Abrams, 2003). The response scale ranged from 1 (*not at all*) to 7 (*very much*). All responses were reverse-coded so that higher scores indicated greater social distance towards the ingroup (Cronbach's alpha = .96).

Direct contact. Direct contact was measured with one item assessing the frequency of direct intergroup contact participants had with Kurds (i.e., "How frequently do you have contact with Kurds?"). The response scale ranged from 1 (*very rarely*) to 7 (*very frequently*).[5]

Results

Descriptive statistics can be found in Table 3. To examine whether extended contact was related to attitudes and social distance towards the ingroup via ingroup identification and perceived ingroup morality and whether outgroup attitudes moderated these associations, we used Model 8 on PROCESS Macros (Hayes, 2013). We treated extended contact as the independent variable, ingroup identification and morality as simultaneous mediators, and ingroup attitudes as well as social distance as the dependent variables.

-------------------------------------Insert Table 3--------------------------------

The association between extended contact and ingroup attitudes was not significant ($b = -1.31$, $p = .14$), but was significantly moderated by outgroup attitudes ($b = .14$, $p < .001$), such that extended contact was negatively associated with ingroup attitudes when outgroup attitudes were more negative, whereas the same association was positive, but non-significant, among those who displayed more positive outgroup attitudes. The conditional indirect effects demonstrated that moderated mediations were significant as regards both ingroup identification ($b = .05$, $SE_{boot} = .02$, 95% CI [.02, .08]) and ingroup morality ($b = .02$, $SE_{boot} = .01$, 95% CI [.0003, .05]). Ingroup identification mediated the effect of extended contact on ingroup attitudes when outgroup attitudes were negative ($b = -.94$, $SE_{boot} = .54$, 95% CI [-2.13, -.02]), but not when they were positive ($b = .97$, $SE_{boot} = .53$, 95% CI [-.02, 2.07]), while the opposite was true for

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[5]We also had a measure of ingroup social norms in Study 2 and checked whether this variable may also function as a mediator in these associations. However, social norms did not relate to ingroup attitudes, therefore this variable was not further included in the analyses.

ingroup morality (b = -.09, SE_{boot} = .24, 95% CI [-.57, .42] and b = .78, SE_{boot} = .44, 95% CI [.04, 1.76], respectively) (see Figure 1).

A second model showed that the direct effect of extended contact on ingroup social distance was marginally significant (b = -.12, p = .05) and was not significantly moderated by outgroup attitudes (b = .0002, p = .92). Conditional indirect effects, however, indicated that outgroup attitudes moderated the mediational path from extended contact to ingroup social distance via ingroup identification (b = -.002, SE_{boot} = .001, 95% CI [-.0038, -.0007]); ingroup identification mediated the effects of extended contact when outgroup attitudes were more negative (b = .05, SE_{boot} = .03, 95% CI [.009, .11]), but not when outgroup attitudes were more positive (b = -.03, SE_{boot} = .02, 95% CI [-.08, .01]). The moderated mediation via ingroup morality was also significant (b = -.002, SE_{boot} = .001, 95% CI [-.0042, -0002]), indicating ingroup morality as a mediator when outgroup attitudes were more positive (b = -.07, SE_{boot} = .03, 95% CI [-.15, -.02]), but not when outgroup attitudes were negative (b = .01, SE_{boot} = .03, 95% CI [-.04, .06]) (see Figure 2).

--Insert Figure 1--

--Insert Figure 2--

In summary, Study 2 demonstrated that extended contact with Kurds was related to more negative ingroup attitudes and greater social distance towards the ingroup through reduced ingroup identification when outgroup attitudes were negative and through enhanced morality when outgroup attitudes were positive.

Study 3

In Study 3, we aimed to examine our research questions in a different intergroup context to increase the generalizability of our findings. We focused on British people's contact with

Eastern European immigrants. As of data from the latest Census, 13% of the population in England and Wales was born abroad (Census, 2011). In 2004, the expansion of the European Union facilitated the movement of European immigrants, predominantly those from Eastern European countries such as Poland, Hungary and Slovakia, to the United Kingdom. Currently, Polish born people and Eastern Europeans in general are among the most prevalent immigrant groups in the country (Wadsworth, Dhingra, Ottaviano, & Van Reenen, 2016). While previous research on indirect contact strategies targeting Eastern Europeans has been conducted (e.g., imagined contact, Bagci, Stathi, & Piyale, 2019b; Stathi, Guerra, Di Bernardo, & Vezzali, 2019), the outcomes of extended contact with this group as regards ingroup dynamics remain unknown.

We further distinguished between positive and negative extended contact (PEC and NEC respectively), as recent research has suggested the deleterious effects of negative contact on intergroup relationships to be more prominent than the benefits of positive contact (Barlow et al., 2012; Paolini, Harwood, & Rubin, 2010), since negative contact makes intergroup membership more salient (Brown & Hewstone, 2005). Previous research exploring the valence of extended contact is scarce (Mazziotta, Rohmann, Wright, De Tezanos-Pinto, & Lutterbach, 2015; Wölfer, Jaspers, Blaylock, Wigoder, Hughes, & Hewstone, 2017), but showed both positive and negative extended contact to be associated with intergroup attitudes and behaviors or positive extended contact effects to be stronger (Wang, Huang, & Vezzali, 2019).

The valence of extended contact may be particularly important as regards ingroup dynamics, since depending on outgroup attitudes, PEC and NEC may have differential relationships with ingroup outcomes. For example, when outgroup attitudes are positive, while PEC is likely to be related to lower ingroup distance, NEC may be associated with higher ingroup distance. Reversely, when outgroup attitudes are negative, it is possible that NEC relates

to more closeness to the ingroup and PEC relates to more ingroup distance (see Table 4). Following our findings in Studies 1 and 2, we expected moderated mediation effects such that the associations between PEC and NEC and ingroup attitudes and social distance would be mediated by ingroup identification and perceived ingroup morality, and moderated by outgroup attitudes. We also controlled for direct contact and used different scales to assess ingroup and outgroup attitudes to account for shared method variance.

----------------------------------Insert Table 4-------------------------------

Method

Participants and Procedure

A total of 228 adults who self-identified as British participated in the study (M_{age} = 34.54, SD = 11.20, 159 females and 67 males, 2 unknown). Participants were recruited online primarily through Prolific Academic (an online participant pool) and were offered a small monetary amount in return for their participation. Upon completion, participants were debriefed and thanked for their contribution. A post-hoc power analysis indicated that for an alpha level of .05, seven predictors, and the smallest effect size detected (f^2 = .32), power was > .99.

Measures

Extended contact. We measured PEC and NEC each with a single item asking participants to report the number of their British friends who have positive/negative contact with the outgroup (i.e., "How many of your British friends have positive/negative contact with Eastern European immigrants?", Mazziotta et al., 2015). The response scale ranged from 1 (*none*) to 7 (*six or more*), with higher scores indicating greater PEC and NEC. Observation of the measures demonstrated that these two items were significantly, but weakly correlated with each

other ($r = .23$, $p < .001$), suggesting that they form unique aspects of extended contact

experiences.[6]

Ingroup/Outgroup attitudes. Ingroup attitudes were measured with the feeling

thermometer (Esses et al., 1993, see Study 1). We used a more elaborate scale to assess outgroup

attitudes. Specifically, attitudes towards the outgroup were measured by an evaluation scale

(Wright et al., 1997), in which participants were asked to rate their feelings towards the outgroup

on six bipolar items (e.g., positive/negative, cold/warm, suspicious/trusting) ranging from 1

(*none*) to 7 (*a lot*). Higher scores indicated more positive evaluation of the target group

(Cronbach's alpha = .93).

Ingroup identification. We used the same ingroup identification scale as in Study 2

(Jetten et al., 2001; Turner & Crisp, 2010), which assessed the extent to which participants

identified with British people (Cronbach's alpha = .93).

Perceived ingroup morality. This construct was measured with seven items (Brambilla et

al., 2013) as in Study 2 (Cronbach's alpha = .89).

Ingroup social distance. We used the same social distance scale with four items as in

Study 2 (Eller & Abrams, 2003, Cronbach's alpha = .94).

Direct contact. Direct contact was measured with one item ("How much contact do you

have with Eastern European immigrants?") with a response scale ranging from 1 (*none*) to 7 (*a

lot*).

Results

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[6]We also measured General Extended Contact (a neutral measure of extended contact, see Study 2) and results were almost identical with the results of PEC as the independent variable. Therefore, here we only report findings regarding PEC and NEC. Supplementary Materials provide additional results regarding this measure.

Descriptive statistics can be found in Table 5. Similar to Study 2, we used Model 8 (Hayes, 2013) to conduct moderated mediation analysis for each dependent variable. Therefore, we treated PEC and NEC as respective independent variables (i.e., PEC was controlled for when assessing the associations of NEC, and NEC was controlled for when assessing the associations of PEC, together with direct contact), ingroup identification and morality as simultaneous mediators, outgroup attitudes as the moderator, and attitudes and social distance as the dependent variables.

--Insert Table 5-------------------------------------

PEC, Ingroup Attitudes and Social Distance

PEC had a non-significant association with ingroup attitudes and social distance (b = -.74, p = .18 and b = .05, p = .31). The association between PEC and ingroup attitudes was moderated by outgroup attitudes (b = .84, p < .001), such that PEC was negatively related to ingroup attitudes only when outgroup attitudes were negative. Indices of moderated mediations for both mediators were significant (b = .50, SE_{boot} = .22, 95% CI [.11, .97] and b = .46, SE_{boot} = .20, 95% CI [.11, .88], respectively); PEC was related to more negative ingroup attitudes via lower ingroup identification and perceived ingroup morality, when outgroup attitudes were negative (b = -.97, SE_{boot} = .40, 95% CI [-1.85, -.30] and b = -.86, SE_{boot} = .33, 95% CI [-1.58, -.31], respectively). These mediational paths were non-significant when outgroup attitudes were more favorable (b = .10, SE_{boot} = .26, 95% CI [-.38, .64] and b = .14, SE_{boot} = .30, 95% CI [-.44, .77], respectively).

Similarly, the association between PEC and ingroup social distance was moderated by outgroup attitudes (b = -.14, p < .001), such that when outgroup attitudes were favorable, PEC was not significantly related to ingroup social distance, whereas PEC was positively related to

ingroup social distance when outgroup attitudes were unfavorable. Outgroup attitudes

significantly moderated the association between PEC and ingroup distance via ingroup

identification ($b = -.04$, $SE_{boot} = .02$, 95% CI [-.08, -.01]). PEC was related to higher ingroup

social distance through lower ingroup identification among individuals with more negative

outgroup attitudes ($b = .07$, $SE_{boot} = .03$, 95% CI [.02, .14]), but not among those with favorable

outgroup attitudes ($b = -.01$, $SE_{boot} = .02$, 95% CI [-.05, .03]). The indirect effects through

ingroup morality were not significant ($b = -.003$, $SE_{boot} = .01$, 95% CI [-.02, .01]). Figures 3 and

4 display the moderated mediation models.

---Insert Figure 3---------------------------------------

---Insert Figure 4---------------------------------------

NEC, Ingroup Attitudes and Social Distance

We tested two further models with NEC as the independent variable. NEC was not

associated with ingroup attitudes ($b = .25$, $p = .70$). Conditional direct and indirect effects

showed that outgroup attitudes did not moderate these associations. A second model with

ingroup social distance showed that the direct effect of NEC on social distance was significant (b

$= -.12$, $p = .04$), but the interaction between NEC and outgroup attitudes was not significant.

Mediational paths from NEC to ingroup social distance via ingroup identification and perceived

ingroup morality were not significantly moderated by outgroup attitudes (see Table 6 for the

moderated mediation models).

---Insert Table 6---------------------------------------

In summary, Study 3 showed that only when outgroup attitudes were more negative, PEC

(but not NEC) was related to more negative outgroup attitudes through lower ingroup

identification and morality, as well as to greater social distance through lower ingroup identification.

Study 4

With Studies 1-3, we provided correlational evidence for the role of extended contact on ingroup attitudes and social distance, hence, offering limited implications for the causal relationships between variables. That is, whereas extended contact may lead to changes in ingroup attitudes, ingroup attitudes may also reflect on people we choose as friends and shape contact behaviors. While previous research in extended contact has been mostly correlational and focused on outgroup attitudes and social distance (e.g., Turner et al., 2007, 2008; Vezzali et al., 2017), less is known about whether extended contact may exert causal effects on attitudes towards the ingroup (e.g., Cameron et al., 2006), particularly as a function of outgroup attitudes. Therefore, in Study 4, we aimed to test the role of PEC and NEC using a between-subjects experimental design. Extended contact has traditionally referred to a *close relationship* between ingroup and outgroup members, and the literature on extended contact has also overwhelmingly defined it as a friendship or a relationship with a similar level of closeness (e.g., Munniksma et al., 2013). However, recent research has introduced the idea of 'depersonalized extended contact' where ingroup members with outgroup friends come from the larger national ingroup and are unknown to the participants (Gómez, Tropp, Vázquez, Voci, & Hewstone 2018). This is in line with the main premise of extended contact, that people are aware that the ingroup and outgroup have positive (or negative) contact (Dovidio et al., 2011; Vezzali et al., 2014; Wright et al., 1997; Zhou et al., 2019). We also extended our list of outcome measures by adding a new scale designed for this study – *intergroup position* – asking participants to place the self in a position between the ingroup and the outgroup. This new measure does not consider ingroup distance as

an absolute concept, but accounts for the comparative nature of intergroup relations, an aspect well described in self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987); ingroup processes may be understood only when considering the relevant outgroup, and vice versa.

Participants

Initially a total of 84 British participants [an a priori G*Power analysis based on the smallest effect size detected in Study 3 ($f^2 = .32$) showed that we needed 65 participants to attain a power of .90 with an alpha level of .05 and seven predictors] were recruited from a university in London. After the exclusion of participants who did not correctly answer or did not respond to the manipulation check (9 participants from NEC condition and 7 participants from PEC condition), the final sample size included 68 participants ($M_{age} = 23.84$, $SD = 8.29$, 59 Females, 7 Males, 1 Other, 1 Unknown).

Procedure and Materials

Data were collected online from the university participant pool and participants were randomly allocated to three different conditions (26 Control, 22 PEC, and 20 NEC). Participants were invited to participate in a study assessing attitudes and identities of British people and initially completed demographic questions including items regarding age, gender, and nationality. Next, they rated the degree of *direct contact* with various groups ("Please think about your daily life. How much contact do you have with Eastern Europeans?", 1=*None*, 7=*A lot*) and indicated their *attitudes* towards Eastern Europeans using a single-item feeling thermometer (Esses et al., 1993; see Studies 1, 2, and 3, ranging from 0 to 10 degrees).[7]

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[7]We also included other outgroups in the direct contact and thermometer measures in order not to prime participants with the specific target outgroup. Contact with and attitudes towards other groups were therefore included as filler items.

Participants in extended contact conditions were then instructed to read an excerpt from a fictional online news article entitled 'Are British and Eastern European people friends?' (adapted from Gómez et al., 2018). Participants in the PEC condition received an article stating:

"...a recent international survey conducted in 36 countries in Europe and Asia in March 2018 investigated cross-ethnic contact and friendships between majority and minority ethnic groups in various countries, including United Kingdom. According to the results of the survey, the majority of British people have positive contact with Eastern Europeans in the UK. 'Positive contact' was measured with behavioral items such as intimacy, helping each other, and having good time together. Findings indicated that a large proportion of British people in fact had positive contact experiences with Eastern Europeans and that such contact takes place in schools, neighbourhoods, workplace, and online environments."

Participants in the NEC condition received the exact same article with the exception that it showed British people to have negative contact and stated that negative contact was measured with behavioral items such as avoidance, anxiety, and conflicts/fights. The control condition included a news article about British people's favorite sports activities. To ensure participants read the articles, all conditions were followed by a question regarding the description of the news article they read; extended contact conditions included one manipulation check item after the description of the news ("According to the article, a large proportion of British people have what type of contact with Eastern Europeans in the UK? 1=*Positive*, 2=*Negative*).

Ingroup attitudes were assessed by the single item feeling thermometer (Esses et al., 1993, see Studies 1, 2 and 3), anchored by 0 and 10. *Ingroup social distance* was measured by a four-item scale (Eller & Abrams, 2003, Cronbach's alpha = .90, see Studies 2 and 3). *Intergroup*

position measured participants' position of the self between the ingroup and the outgroup (i.e., 'If you were asked to think about your position between British and Eastern European people, where would you position yourself?') was assessed on a scale ranging between -5 (maximum closeness to British people) and +5 (maximum closeness to Eastern Europeans), with 0 indicating a neutral position (see Online Supplementary Materials for the scale). Original scores on this scale ranged from -5 to +5, therefore we added to each score the value of 5, so that scores ranged between 0 and 10, with higher scores indicating greater distance. *Ingroup identification* and *ingroup morality* were assessed with the same scales used in Studies 2 and 3 (Cronbach's alphas = .90 and .88, respectively).

Results

Means and standard deviations across conditions can be found in Table 7.

---Insert Table 7---------------------------------------

An initial one-way ANOVA indicated that condition did not have any main effects on the outcome variables. To test our hypotheses, we then performed a moderated mediation analysis using PROCESS Macros (Model 8) considering initial outgroup attitudes as the moderator, and ingroup identification and morality as the mediators, and initial direct contact as a covariate. We considered condition as a multicategorical independent variable and dummy coded it accordingly with the control group as the reference group (X1=PEC vs. NEC and control, X2=NEC vs. PEC and control).

A first model considering ingroup attitudes as the outcome variable showed that PEC did not have a main effect ($b = .60$, $p = .18$), however NEC was related to more positive ingroup attitudes ($b = .89$, $p = .046$). The associations between PEC (vs. NEC and control) or NEC (vs. PEC and control) and ingroup attitudes were not moderated by outgroup attitudes. The

moderated mediations were also non-significant. A second model considering ingroup social distance as the dependent variable demonstrated that NEC did not have a main effect ($b = -.55$, $p = .09$), but PEC decreased ingroup social distance ($b = -1.00$, $p = .003$). There was also a moderated effect of PEC; PEC significantly reduced social distance towards the ingroup when initial outgroup attitudes were more positive ($b = -1.92$, $p < .001$), but not when initial outgroup attitudes were more negative ($b = -.07$, $p = .87$). In a final model predicting intergroup position, there was no main effect of PEC or NEC ($b = -.10$, $p = .89$ and $b = .18$, $p = .79$, respectively), but there was a significant moderation by initial outgroup attitudes ($b = -.94$, $p = .008$). Among individuals who initially held unfavorable outgroup attitudes, PEC marginally created social distance with the ingroup ($b = 1.80$, $p = .067$), whereas PEC decreased social distance with the ingroup when initial outgroup attitudes were more favorable ($b = -2.00$, $p = .049$). Table 8 displays the moderated mediation models.

---Insert Table 8---------------------------------------

Study 4 extended previous findings with an experimental procedure and demonstrated that participants in the PEC condition positioned themselves closer to the ingroup if their initial outgroup attitudes were more positive, but they displayed greater ingroup distance if they were initially unfavorable about the outgroup.

General discussion

We proposed that since extended contact is an indirect form of intergroup contact that mainly functions via ingroup members and provides critical behavioral information about ingroup members, it is likely to have significant associations with ingroup processes. Study 1 demonstrated that extended contact with Kurds was related to more negative ingroup attitudes among Turks who reported more unfavorable attitudes towards Kurds. Study 2 demonstrated that

when attitudes towards Kurds were positive, extended contact enhanced perceived ingroup morality and thereby related to more positive ingroup attitudes among Turks, whereas when outgroup attitudes were negative, extended contact was associated with more positive ingroup attitudes and greater social distance towards the ingroup by weakening ingroup identification. We also distinguished between PEC and NEC in Studies 3 and 4 based on recent literature indicating the importance of contact valence on intergroup processes (e.g., Paolini et al., 2010). Study 3 showed that in line with Studies 1 and 2, PEC with Eastern Europeans (but not NEC) was related to more negative ingroup attitudes and greater ingroup social distance among British participants, mainly through reduced ingroup identification and when outgroup attitudes were more negative. Furthermore, when outgroup attitudes were favorable, PEC was negatively related to ingroup social distance, whereas when outgroup attitudes were unfavorable, PEC was positively related to ingroup social distance. Study 4 partly replicated the latter finding with an experimental procedure and showed that after being exposed to a PEC condition, participants positioned themselves closer to the ingroup if they initially held more positive outgroup attitudes, but reported greater ingroup distance if they were initially unfavorable about the target outgroup.

We proposed that, in line with the vicarious dissonance theory (Cooper & Hogg, 2007), it is possible that extended contact experiences create a dissonant cognition especially when own outgroup attitudes are not in line with ingroup members' positive contact behaviors. Our studies demonstrated that extended contact is related to ingroup dynamics, particularly when outgroup attitudes are negative (mainly in the first three studies). This suggests that observing ingroup members' intergroup behaviors may relate to the perception of the ingroup, especially among individuals who have prejudicial outgroup attitudes. Previous research has shown extended contact to be more influential on outgroup attitudes among individuals who hold more negative

initial outgroup attitudes (Munniksma et al., 2013). Although there is no research directly testing whether direct or indirect contact is more influential on ingroup-related processes among highly prejudiced individuals, previous research has suggested ingroup distancing to occur more among the more ideologically intolerant individuals (Kauff, Schmid, Lolliot, Al Ramiah, & Hewstone, 2016). In line with this, we found that individuals who held unfavorable attitudes towards the outgroup were more prone to change their ingroup attitudes.

Extended contact was relatively less likely to be related to ingroup processes when outgroup attitudes were more positive. However, we found evidence that extended contact can be associated with ingroup distance and attitudes, if the outgroup is liked. Specifically, Study 2 demonstrated that extended contact was associated with more favorable ingroup attitudes and lower ingroup social distance through enhanced ingroup morality, when outgroup attitudes were positive. Study 3 further showed that PEC was (marginally) negatively related to ingroup social distance when outgroup attitudes were favorable. Study 4 confirmed this in an experimental procedure and demonstrated PEC to reduce social distance from the ingroup among individuals who initially held positive outgroup attitudes. This suggests that PEC is likely to lead to a more positive evaluation of the ingroup among individuals with positive outgroup attitudes. Therefore, when the outgroup is liked, having ingroup members who have positive contact with the outgroup may lead to a more positive appraisal of the ingroup itself.

Our findings are in line with Eller et al.'s (2017) research which demonstrated that when the ingroup member's contact with the outgroup was perceived to be normative, the ingroup member was evaluated more positively. Extending this finding, we found that consistency between the observer's outgroup evaluation and ingroup contact behavior tends to bring individuals closer to the ingroup. Interestingly, the association between NEC and ingroup

processes was not moderated by outgroup attitudes. NEC could be seen as non-normative in certain intergroup contexts characterized by general support for tolerance, so individuals may have subtyped ingroup members who engaged in negative contact, perceiving them as non-representative of the ingroup (in the case of our research, British people). Thus, they may have refrained from reevaluating their own ingroup stance as a function of outgroup attitudes.

In Study 4, we obtained significant moderations by outgroup attitudes on social distance and intergroup position measures, but not on attitudes or the suggested mediators. These distance measurements arguably denote a more behavioral index of intergroup processes than attitudes. While previous research in extended contact literature has shown extended contact to have similar effects on behavioral aspects of intergroup relationships such as the formation of cross-group friendships or behavioral tendencies (Schofield, Hausmann, Ye, & Woods, 2010; Vezzali, Stathi, Giovannini, Capozza, & Visintin, 2015), other research on imagined contact, though, showed imagined contact to impact behavioral processes more strongly than attitudinal outcomes (Miles & Crisp, 2014), so disentangling these in extended contact is also important. Our experimental findings showed that PEC's moderated effects occurred only in relation to social distance measures, which may also highlight differences across the operationalization of extended contact; while in the correlational studies we relied on participants' existing extended contact experiences, in the experimental study we manipulated extended contact employing 'depersonalized extended contact' (Gómez et al., 2018). Perhaps the way extended contact was manipulated explains the lack of effect on attitudes in the experimental study as it may be less relevant to the self. Moreover, (pre-manipulation) outgroup attitudes in Study 4 were as positive as ingroup attitudes, offering an alternative explanation for the inconsistent findings. Since

attitudes were already positive towards both the ingroup and the outgroup, there may have been no vicarious dissonance and hence attitudes towards the ingroup did not need to be regulated.

Our results were fairly consistent across two different socio-cultural contexts. While the Turkish-Kurdish intergroup context provides a unique setting where status differences between the ethnic groups are often visible, intergroup status differences in the United Kingdom are often more subtle. Nevertheless, in both studies, we found (positive) extended contact to be related to more negative evaluation of the ingroup and greater social distance mainly via reduced ingroup identification, especially when outgroup attitudes were negative. This shows that despite contextual differences, PEC experiences are likely to shape ingroup attitudes as a function of outgroup attitudes.

Limitations include our cross-sectional design in the first three studies, where we could not assess the temporality of the ingroup and outgroup processes. Unlike traditional contact studies which treat outgroup attitudes as the dependent variable and ingroup identification as a moderator, we proposed that extended contact experiences are also likely to relate to ingroup attitudes as a function of outgroup attitudes. Although these limitations were partly eliminated in our experimental study, longitudinal designs are needed to better understand the long-term effects of extended contact experiences on ingroup processes. Moreover, extended contact may have simultaneous effects on attitudes towards both the ingroup and the outgroup, which do not necessarily have to be in the opposite direction. For example, when initial outgroup attitudes are positive, PEC may lead to a more positive evaluation of both the ingroup and the outgroup. Hence, further experimental research should also evaluate pre- and post-measures of outgroup attitudes. Longitudinal designs may also allow for the investigation of other extraneous variables that may lead people to modify attitudes either towards the ingroup, the outgroup, or both. For

example, group-based ideologies such as SDO have been found to play a role on the deprovincializing role of contact (Kauff et al., 2016). Future research may explore the role of other individual and situational factors that may explain how extended contact is related to various outgroup and ingroup processes.

It is also worth noting that our findings regarding ingroup identification and morality explained part of the picture, but were inconsistent across different studies and functioned differentially when outgroup attitudes were more or less negative. It is possible that other mechanisms better explain how extended contact relates to ingroup processes as a function of outgroup attitudes. For example, it may be that individuals with negative outgroup attitudes perceive extended contact as a form of deviation from ingroup norms and a form of ingroup contamination, and thereby distance themselves from the ingroup. Future research may delve into deeper intergroup processes as explanatory mechanisms.

Note that we explained ingroup distancing in terms of vicarious dissonance processes and deprovincialization processes. However, although the two processes may lead to the same outcome, they may also be driven by different motivations. The first process may include ingroup distancing because of the inconsistency between ingroup behavior and own outgroup attitudes, the second process indicates distancing from the ingroup due to embracing a larger categorization that considers the ingroup as just one of the multiple groups granting equal dignity. In other words, the two processes may entail different motivations. Indirect support for these considerations comes from our findings, showing that individuals who evaluated the outgroup more positively reduced their distance from the ingroup. In this case, presumably, individuals liked the ingroup more because they believed it embraced positive values of

intercultural openness, thereby indicating deprovincialization. Future research might explore these processes more systematically.

Further research may investigate what kind of extended contact behaviors are more likely to affect ingroup dynamics. Although we used a variety of extended contact measures across the studies, the extent to which extended contact includes close others or more distal ingroup members may be tested as a further moderator (Tausch, Hewstone, Schmid, Hughes, & Cairns, 2011). Moreover, if extended contact influences ingroup processes, it may also relate to other critical mechanisms such as collective self-esteem, collective efficacy, and collective action. For example, the indirect contact literature has shown imagined contact to have significant implications for ingroup identification and collective action tendencies (Bagci et al., 2019b). Further research may investigate whether extended contact has a (de)mobilizing effect as a function of outgroup attitudes.

In summary, this research contributes to the understanding of complex ingroup-outgroup mechanisms involved in extended contact by examining for the first time whether extended contact relates to ingroup attitudes and social distance as a function of outgroup attitudes. Having established initial effects that point to the importance of outgroup attitudes as a moderator of the effects of extended intergroup contact on ingroup processes, we suggest that future research should delve deeper into this field. Examining the dynamic interplay between ingroup and outgroup processes can contribute to a more accurate understanding of complex intergroup relationships in multicultural societies.

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Table 1. Means, Standard Deviations and Bivariate Correlations for the Main Variables in Study 1

	Means (SD)	Range	2	3	4
1.Direct contact	3.27 (1.48)	1-7	.61***	-.11*	.31***
2.Extended contact	3.65 (1.54)	1-7	-	-.09†	.27***
3.Ingroup attitudes	77.22 (21.85)	0-100		-	.25***
4.Outgroup attitudes	54.09 (23.48)	0-100			-

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

Table 2. Process Model Predicting Ingroup Attitudes in Study 1

Predictors	Ingroup attitudes	
	Unstandardized beta	*SE*
Constant	83.88***	3.39
Direct contact	-2.40*	.97
Extended contact	-1.42	.92
Outgroup attitudes	.35***	.05
Extended contact × Outgroup attitudes	.10***	.03
F	$F(4,327) = 15.60$***	
R²	.16	

*p < .05, ***p < .001.

Table 3. Means, Standard Deviations and Correlations among Main Study Variables in Study 2

	Range	Means (SD)	2	3	4	5	6	7
1.Direct contact	1-7	4.13 (1.64)	.35***	-.08	-.04	-.11	.34***	-.08
2.Extended contact	1-7	4.50 (1.46)	-	-.06	.08	-.08	.29***	-.16*
3.Ingroup identification	1-7	4.48 (1.93)		-	.55***	.50***	-.06	-.41***
4.Ingroup morality	1-7	4.63 (1.12)			-	.41***	-.02	-.45***
5.Ingroup attitudes	0-100	74.74 (21.69)				-	.17*	-.33***
6.Outgroup attitudes	0-100	52.06 (20.45)					-	-.08
7.Ingroup social distance	1-7	2.01 (1.25)						-

p < .05, ***p* < .001.

Table 4. Expected PEC and NEC Associations with Ingroup Attitudes and Social Distance as a Function of Outgroup Attitudes

	Ingroup processes	
Outgroup attitudes	PEC	NEC
Favorable (outgroup is liked)	Favorable attitudes / lower distance	Unfavorable attitudes / greater distance
Unfavorable (outgroup is disliked)	Unfavorable attitudes / greater distance	Favorable attitudes / lower distance

Table 5. Means, Standard Deviations and Correlations among Main Study Variables in Study 3

	Range	Means (SD)	2	3	4	5	6	7	8
1.Direct contact	1-7	2.74 (1.44)	.44***	.29***	-.08	-.15*	-.16*	.11	.07
2.PEC	1-7	2.62 (2.08)	-	.23***	-.10	-.03	-.09	.40***	.02
3.NEC	1-7	.92 (1.55)		-	.13*	.04	.05	-.08	-.16*
4.Ingroup identification	1-7	4.90 (1.47)			-	.51***	.56***	-.03	-.42***
5.Ingroup morality	1-7	4.18 (.86)				-	.57***	.10	-.27***
6.Ingroup attitudes	0-100	71.02 (17.80)					-	.09	-.41***
7.Outgroup attitudes	1-7	4.24 (1.08)						-	-.08
8.Ingroup social distance	1-7	2.83 (1.38)							-

*p < .05, ***p < .001.

Table 6. Process Models Predicting Ingroup Attitudes and Social Distance in Study 3 (negative extended contact as the Independent Variable)

Predictors	Ingroup attitudes		Ingroup social distance	
	B	SE	b	SE
Constant	21.96***	5.43	4.65***	.50
Direct contact	-.73	.73	.07	.07
PEC	-.50	.54	.01	.05
NEC	.25	.65	-.12*	.06
Outgroup attitudes	1.61	.95	-.15	.09
NEC × Outgroup attitudes	-.26	.45	.02	.04
Ingroup identification	4.27***	.72	-.35***	.07
Ingroup morality	7.18***	1.25	-.08	.12
F	$F(7,220)=23.94^{***}$		$F(7,220)=8.32^{***}$	
R^2	.43		.21	

***$p < .001$. *Note*. PEC = positive extended contact; NEC = negative extended contact.

Table 7. Means and Standard Deviations for Each Condition in Study 4

	Range	Control	PEC	NEC	Total
1. Direct contact	1-7	4.31 (1.93)	3.67 (1.74)	3.80 (1.61)	3.96 (1.78)
2. Outgroup attitudes	0-10	6.85 (2.22)	5.81 (2.04)	6.60 (1.98)	6.45 (2.11)
3. Ingroup identification	1-7	5.01 (1.34)	4.75 (1.02)	4.46 (1.60)	4.76 (1.33)
4. Ingroup morality	1-7	4.35 (1.43)	4.35 (.82)	4.17 (.88)	4.29 (1.08)
5. Ingroup attitudes	1-10	6.33 (2.63)	6.86 (1.39)	6.85 (1.90)	6.66 (2.06)
6. Ingroup social distance	1-7	3.23 (1.23)	2.77 (1.41)	2.94 (1.38)	3.00 (1.31)
7. Intergroup position	0-10	3.48 (2.37)	3.71 (2.80)	3.80 (1.64)	3.65 (2.30)

Note. PEC = Positive extended contact, NEC = Negative extended contact.

Table 8. Process Models Predicting Ingroup Attitudes, Social Distance and Intergroup Position in Study 4

Predictors	Ingroup attitudes		Ingroup social distance		Intergroup position	
	b	*SE*	*b*	*SE*	*b*	*SE*
Direct contact	-.11	.11	.14	.08	.08	.17
X1	.60	.44	-1.00**	.33	-.10	.69
X2	.89*	.44	-.55	.32	.18	.68
Outgroup attitudes	.22	.18	-.12	.13	.44	.27
X1 × Outgroup attitudes	-.26	.22	-.46**	.16	-.94**	.34
X2 × Outgroup attitudes	.03	.23	.02	.17	-.22	.36
Ingroup identification	.34	.16	-.43***	.12	-.45	.25
Ingroup morality	1.06***	.23	.19	.17	.44	.27
F	$F(8,56)=10.56$***		$F(8,56)=5.83$***		$F(8,56)=1.83$	
R^2	.60		.45		.12	

*$p < .05$, **$p < .01$, ***$p < .001$. *Note*. PEC = positive extended contact; NEC = negative extended contact. X1: dummy-coded condition, contrasting PEC against NEC and control; X2: dummy-coded condition, contrasting NEC against PEC and control.
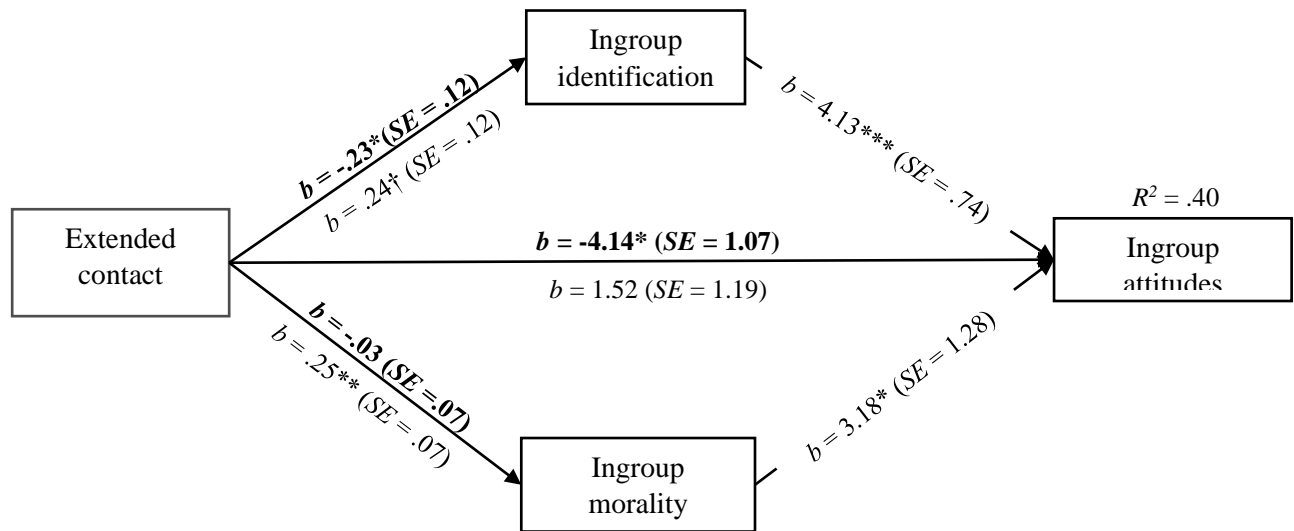
Figure 1. Moderated mediations on ingroup attitudes through ingroup identification and morality in Study 2. Effects reported above the arrows (in **bold**) represent coefficients when outgroup attitudes were negative, whereas effects reported below the arrows represent coefficients when outgroup attitudes were positive.
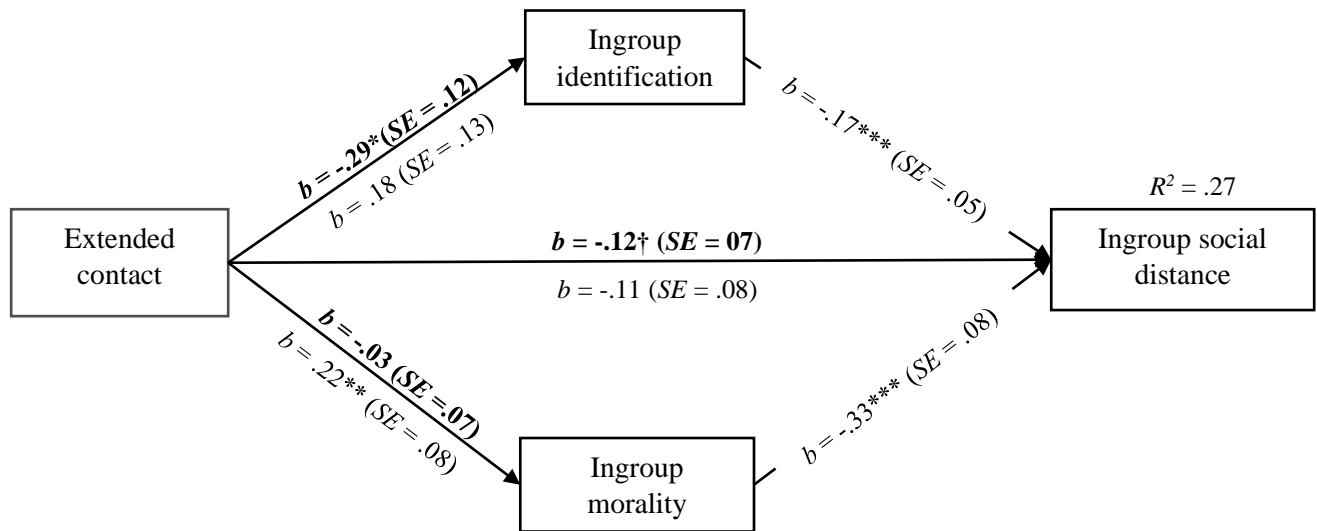
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

Figure 2. Moderated mediations on ingroup social distance through ingroup identification and morality in Study 2. Effects reported above the arrows (in **bold)** represent coefficients when outgroup attitudes were negative, whereas effects reported below the arrows represent coefficients when outgroup attitudes were positive.

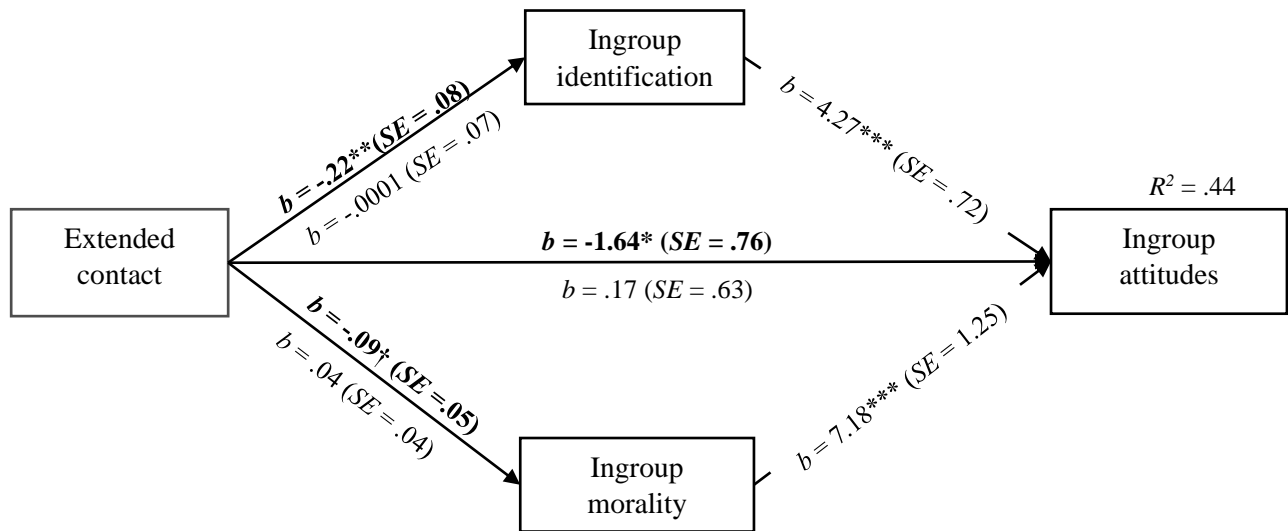†*p* < .10, *p < .05, **p < .01, ***p < .001.

Figure 3. Moderated mediations on ingroup attitudes through ingroup identification and morality in Study 3. Effects reported above the arrows (in **bold**) represent coefficients when outgroup attitudes were negative, whereas effects reported below the arrows represent coefficients when outgroup attitudes were positive.
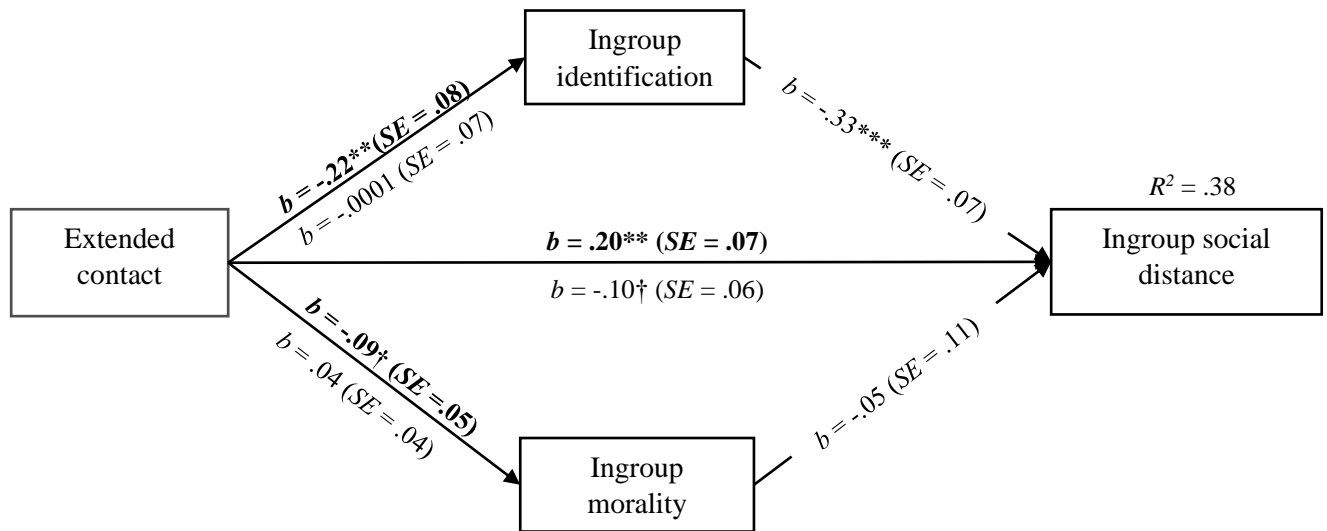
†*p* < .10, ***p* < .01, ****p* < .001.

Figure 4. Moderated mediations on ingroup social distance through ingroup identification and morality in Study 3. Effects reported above the arrows (in **bold)** represent coefficients when outgroup attitudes were negative, whereas effects reported below the arrows represent coefficients when outgroup attitudes were positive.

†*p* < .10, **p < .01, ***p < .001.