



Families as ingroups that provide social resources: Implications for well-being

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ABSTRACT

In six studies, we examined how properties of families as ingroups (i.e., group value, entitativity, and identification) enhance well-being, leveraging the Model of Ingroups as Social Resources (MISR). In correlational studies involving college students (Study 1) and older adults (Study 2), people experienced greater well-being when they reported that their families were greater in group value, entitativity, and identification. Studies 3–5 manipulated each of these three family ingroup properties, respectively, and we observed causal evidence that each one improves well-being. Study 6 replicated Study 3, and it ruled out a mood-based alternative account. These studies contribute to our understanding of how families affect people's mental and physical health, and they provide an initial empirical test of these three ingroup constructs concurrently and in a manipulated fashion.

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The value of collective living is undeniable, and social groups play a critical role in human functioning and survival (Brewer, 2003; Caporael, 1997). In particular, the groups to which the self belongs are important in enhancing well-being, with ingroup memberships promoting self-esteem (Tajfel & Turner, 1986) and staving off depression (Cruwys, Haslam, Dingle, Haslam, & Jetten, 2014). Overall, there is considerable evidence that ingroups serve people's needs by providing social resources for their members (Correll & Park, 2005).

Although the diversity of ingroups from which one might draw support is considerable (e.g., friends, faith, occupations, sports teams), arguably the most important ingroup for people is “family.” For example, we asked people to list their three most meaningful ingroups in order of importance in a pilot study. In a sample of 190 undergraduates, 65% listed family as their most important ingroup and 79% listed family among their three most important ingroups. Similarly, in a sample of 76 mTurk participants, 58% listed family as their most important ingroup and 78% listed family among their three most important ingroups. Further, it is clear that family is not a catch-all category that captures all meaningful people. For example, in another pilot study involving 216 undergraduates, 64% listed family as their most important ingroup with 68% of these individuals listing friends as their second most important ingroup, along with other ingroups such as sorority sisters, religious community

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members, and sports teammates. Thus, people have social groups of very meaningful people in their lives who they do not view as family, suggesting that family is a distinct collection of individuals in their minds.

Even when people do not consider family to be an important group, they typically report having one. In another pilot study, we asked 224 undergraduates and 98 mTurk participants to provide their own definition of family and then to report whether they have one based on their definition – 99% and 96% said “yes,” respectively. Moreover, mTurk participants who reported having a family also completed an inclusion of other in self measure (IOS; Aron, Aron, & Smollan, 1992) to indicate the amount of overlap between self (one circle) and family (a second circle), using a scale ranging from 1 (no overlap between the circles) to 7 (almost complete overlap). They reported that family was strongly included in self ($M = 5.32$; $SD = 1.49$), with mean family IOS above the midpoint of 4 where each circle’s perimeter crosses the other circle’s center, $t(93) = 8.54$, $p < .001$.

Despite family being ubiquitous, distinct, and strongly included in self, it is surprising that the study of families as a social resource has received little attention in the social psychology literature. Some research has examined how family disruptions such as divorce tend to harm children’s well-being, although the effects are modest in size (Amato & Keith, 1991). Interestingly, most research examining social connections with family examines specific family relationships, such as mother-daughter dyads (e.g., Fingerman, 1996), spousal relationships (e.g., Robles & Kiecolt-Glaser, 2003), relationships with one’s closest family member (e.g., Denissen, Penke, Schmitt, & van Aken, 2008), or friendships with similar aged family members such as cousins (e.g., Wrzus, Wagner, & Neyer, 2012) rather than studying family as a social group.

These approaches are important for understanding structural issues in families (e.g., divorce) or specific social relationships within family, yet they do not explore the psychological properties of this key ingroup. There is some research that explores how perceptions of families predict well-being. For example, people who identify with families to a greater degree report greater life satisfaction and less depression (e.g., Sani, Herrera, Wakefield, Boroch, & Gulyas, 2012; Wakefield et al., 2017). Further, research by Buchanan and McConnell (2017) examined the diversity of entities included in one’s lay definition of family. That is, some people limit family membership to consanguinity (i.e., marriage and blood relatives) whereas others exhibit greater breadth in family inclusion, bestowing family membership to entities such as friends, neighbors, and even pets.¹ Presumably, having a more diverse collection of entities in one’s family should provide more sources of social support, which in turn should promote well-being. Accordingly, people who included a broader array of entities in their definition of family to a greater degree revealed better well-being (e.g., greater self-esteem, less depressed affect, fewer stress-related illnesses), especially in the face of stress (Buchanan & McConnell, 2017).

Although broader construals of family promote well-being, other questions remain regarding the link between families and mental and physical health. For example, what *group properties* of families produce better well-being outcomes? The current work examined three ingroup properties identified by Correll and Park (2005) in their Model of the Ingroup as a Social Resource (MISR): ingroup entitativity, identification, and group value. In the current work, we report six studies, two examining these three family ingroup properties simultaneously in a correlational design with varied subject populations and measures of well-being (Studies 1–2), three studies that experimentally manipulated each of the three properties

separately to explore causal relations between these ingroup properties and well-being benefits (Studies 3–5), and a final replication study that also ruled out an alternative explanation for the observed findings (Study 6). Thus, the current work explored the well-being benefits associated with the psychological group properties of families in particular, and it provided a novel test of the MISR model (cf., Sim, Goyle, McKedy, Eidelman, & Correll, 2014).

Three ingroup properties and their implications for families as social resources

One ingroup property identified in the MISR is *entitativity*, or the degree to which a group is perceived as a coherent, meaningful entity (Campbell, 1958; Hamilton & Sherman, 1996). Groups can range from having little entitativity (e.g., people waiting at a bus stop) to considerable entitativity (e.g., athletes playing on a sports team). Research has identified several components of entitativity associated with particular types of social groups (Lickel et al., 2000). For example, when examining intimacy groups such as family and friends who frequently provide people with their greatest social support, Lickel et al. found these groups are greater in entitativity when they are perceived to be more group like, when group members interact more with each other, when group membership is important to members, when group members share similar goals and common outcomes, when groups are composed of more similar members, and when group members have a longer history together.

Most research on entitativity has explored its implications for general social information processing, such as determining how different social entity types (e.g., individuals, groups) vary in entitativity and thus reveal different judgment outcomes (e.g., McConnell, Rydell, & Leibold, 2002), how entitativity affects stereotype formation (e.g., Yzerbyt, Corneille, & Estrada, 2001), or how entitativity influences assessments of collective responsibility (e.g., Denson, Lickel, Curtis, Stenstrom, & Ames, 2006). Thus, much past entitativity research has used the construct to classify social entities (e.g., Lickel et al., 2000; McConnell et al., 2002) or to predict social information processing outcomes (e.g., McConnell, Sherman, & Hamilton, 1997; Yzerbyt et al., 2001). However, more recent research has considered entitativity and the functionality of particular types of social groups. For example, Johnson et al. (2006) found that intimacy groups such as families, friends, and romantic partners were associated with social affiliation needs (e.g., connectedness, acceptance, emotional attachment, support). Relatedly, Crawford and Salaman (2012) found that intimacy groups (e.g., immediate family, roommates, close friends) served affiliative needs, especially when those intimacy groups were greater in entitativity. Thus, intimacy groups seem well situated to serve affiliation needs, and thus more entitative families should be especially effective in providing social resources for family members.

A second group property highlighted by the MISR is *identification* with the ingroup, or the importance of the group to the self. Ingroup identification has been implicated in many important psychological processes, ranging from enhancing self-worth (Abrams & Hogg, 1988) to reducing uncertainty (Hogg & Mullin, 1999) to bolstering self-esteem (Luhtanen & Crocker, 1992). In short, greater identification with an ingroup means it has greater importance for the self, magnifying the implications of the group's features, good or bad, for its members.

Recent work by social identity scholars has shown that social groups have the capacity to affect the mental and physical health of group members to the extent such individuals

identify with positive social groups to a greater degree (Jetten, Haslam, Haslam, Dingle, & Jones, 2014). For example, people with greater group identification exhibit less depressive symptoms such as social isolation and social disconnection, presumably because the group provides greater social resources to its individual members (Cruwys et al., 2014). Further, when people experience identity gain (i.e., increased sense of psychological meaning derived from their group memberships), they report greater social needs fulfillment and less depression (Greenaway, Cruwys, Haslam, & Jetten, 2016). Finally, as noted above, people with greater family identification also reported greater well-being (Sani et al., 2012) and these results have been replicated with cross-cultural samples (Wakefield et al., 2017). Consistent with these findings, we would anticipate that greater identification with one's family should enhance well-being, and the current work builds on this past work by experimentally manipulating perceptions of family identification to provide causal evidence for its role on promoting well-being.

A final group property identified in the MISR is *group value*. Correll and Park (2005) suggested that groups have greater group value as they are viewed to have greater merit (i.e., more positive characteristics), to wield more power (i.e., control their own and others' fates), to possess good reputations (i.e., viewed by others positively), to be more distinctive (i.e., group is relatively unique compared to other groups), and to foster greater belongingness. Because of the centrality of belongingness in everyday life (Baumeister & Leary, 1995) and the benefits of positive and supportive others for outcomes ranging from self-esteem (Ertel, Glymour, & Berkman, 2009) to life enjoyment (Rook, 1987), it is reasonable that as an ingroup possesses more group value, it can provide more social resources for members. Yet, Correll and Park's group value property, unlike entitativity and identification, is a newly proposed facet of ingroups without empirical work to study its consequences. However, there is some work showing that the valence associated with group identities might predict health outcomes. For example, Tarrant & Butler (2011) had college students in the United Kingdom reflect on a social identity associated with positive health outcomes (being British) or associated with negative health outcomes (being a college student) before reporting on behavioral intentions involving salt intake and alcohol consumption. They found that participants encouraged to self-categorize as college students showed less healthy behavioral intentions than those who self-categorized as British citizens. Although not a direct test of the MISR group value property, the Tarrant and Butler study shows that health outcomes can vary based on the qualities associated with an ingroup.

In addition to considering the roles of ingroup entitativity, identification, and group value, the MISR views ingroups as possessing greater *psychological utility* when they are greater in all three of these ingroup properties. Thus, although there could be direct relations between the three ingroup properties and resource-related outcomes, the MISR anticipates that interactions might exist (e.g., the greatest psychological utility would be realized for very entitative groups with greater group value and identification). Although the MISR offers an appealing framework for thinking about ingroups as social resources, there is little published work examining it. One exception is a study that explored how traits associated with one's ingroups greater in psychological utility were more likely to be included in group members' working self-concepts (Sim et al., 2014).² Thus, the current work offers a new empirical effort to leverage the MISR framework while focusing on a different outcome that is aligned with the value of ingroups as social resources—personal well-being.

The MISR asserts that ingroups are important because they provide social resources for members. Accordingly, we focused on one of the most important implications of having social resources, personal well-being. Indeed, many literatures have shown that social connection and social support have many positive consequences, including greater life enjoyment (Rook, 1987), more confidants with whom people can share their successes and problems (Pennebaker, 1997), and better health including reduced cardiovascular disease, lowered blood pressure, reduced cancer rates, and lower mortality (Ertel et al., 2009; Everson-Rose & Lewis, 2005; House, Landis, & Umberson, 1988). On the other hand, experiencing greater loneliness predicts many negative health outcomes, including hypertension (Hawkley, Masi, Berry, & Cacioppo, 2006), diminished immune functioning (Cacioppo et al., 2002), depression (Russell, Cutrona, Rose, & Yurko, 1984), and suicide (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). Because high quality social connection provides benefits ranging from better physiological functioning to supporting one of people's most important social motives (i.e., belongingness), we predicted that families exhibiting these three key properties (i.e., entitativity, identification, value) to a greater degree would improve people's well-being.

The current work

We conducted six studies exploring whether psychological properties of families (i.e., group value, entitativity, and identification) predict personal well-being. The first two studies used correlational methods with college student (Study 1) and older adult (Study 2) samples, examining a range of well-being outcomes such as psychological needs fulfillment (Study 1) as well as subjective happiness, flourishing, depressed affect, self-esteem, and stress-related illnesses (Study 2). In addition to examining whether the three ingroup properties predicted well-being, we also explored whether they might interact to predict well-being. In their review paper, Correll and Park (2005) proposed an ingroup value by entitativity by identification three-way interaction in predicting social resources (with greater resources available when all three properties are at their zenith), however no published work has tested this interaction. Although we were primarily interested in whether *any* of the three ingroup properties for families could predict well-being, Studies 1 and 2 allowed us to explore the possibility of interactions among these ingroup properties. Studies 3–5 explored the causal role of the three ingroup properties (one property per study) in affecting well-being by experimentally manipulating people's perceptions of family group value, entitativity, and identification (respectively). Finally, Study 6 replicated Study 3 and collected mood measures to examine whether observed differences in well-being remained after partialling out any impact of general positive affect. Because families are often extremely meaningful yet complicated, ambivalent entities (Fingerman, Hay, & Birditt, 2004), we expected that any well-being benefits observed should reflect more than a mood by-product.

This work offers a number of new insights. First, it examines the psychological properties of family *as a social group* to determine the extent to which families promote well-being. Second, it provides a novel test of the MISR, both in exploring well-being as an outcome and in considering possible relations among these constructs. Third, the current research adds to existing work that has explored group entitativity (e.g., Crawford & Salaman, 2012) and social identity (e.g., Jetten et al., 2014) by exploring a wide range of mental and physical well-being outcomes (e.g., compared to how perceptions of group entitativity affects

people's perceptions of how *that particular group* affects social needs fulfillment). Fourth, the current work explores the well-being impact of these three ingroup constructs (i.e., entitativity, identification, and group value) simultaneously (Studies 1–2) as well as with direct experimental manipulations (Studies 3–6), adding to the existent correlational work in these literatures.

One final point to note is that most past work has only considered families based on blood relations and not people's idiosyncratic views of family (Baxter et al., 2009; Melton & Wilcox, 1989). For some people, family represents the classic nuclear family, but for others, it is viewed more broadly and includes members who are not blood relatives, and as noted earlier, broader construals of family composition predict better well-being (Buchanan & McConnell, 2017). In addition, the nature of family is changing, with more households featuring childless unions, multigenerational families, and same-sex couples (Pew Research Center, 2015; Popenoe, 2008; Segrin & Flora, 2005). Further, family structures are increasingly varied because of divorce, estrangement, and nontraditional caregiving (Blake, 2017; Silverstein & Giarrusso, 2010). Because of the variability in people's construal of family, we adopted the approach of Buchanan and McConnell (2017) in using people's personal, idiosyncratic definitions of family.

Study 1: Relations between family ingroup properties and psychological needs fulfillment

We first conducted a correlational study involving undergraduates. Although college students exhibit relative homogeneity in life experiences and outcomes, we anticipated that any observed effects, even if modest, would be worthy of replication in follow-up work with a more diverse sample. This study represents the first effort to examine how ingroup value, entitativity, and identification *predict* group members' well-being outcomes, focusing on family as the ingroup of interest because of its pervasiveness and importance.

Method

Participants

At Miami University, 246 undergraduates completed an online mass survey at the beginning of the semester composed of instruments from several laboratories for course credit. We included a reading check item in our measures (Oppenheimer, Meyvis, & Davidenko, 2009), and the 26 participants who failed it were omitted from analyses, resulting in a final sample of 220 students ($M_{\text{age}} = 19.17$, $SD = 2.33$; 134 female, 81 male, 5 other).³

Measures

Well-being

To measure well-being, participants completed the 17-item psychological needs scale (Zadro, Williams, & Richardson, 2004), which assessed their sense of self-esteem, belonging, control, and meaningful existence. Participants rated their agreement with a series of statements (e.g., "I feel good about myself," "I feel invisible") using a scale ranging from 1 (*not at all true*)

to 9 (*completely true*) based on how they felt at the moment. Consistent with past work (e.g., Bernstein, Sacco, Young, Hugenberg, & Cook, 2010; McConnell, Brown, Shoda, Stayton, & Martin, 2011), we computed the mean response (seven reverse scored) to produce a single index of psychological needs fulfillment, with larger scores reflecting greater well-being ($M = 6.54$; $SD = 1.52$; $\alpha = .95$).

Family perceptions

In an open-ended fashion, participants described who they included in their personal definition of family. They were asked, based on their own definition, to describe their family and who is in it, identifying people in terms of their roles or types of members and not with actual names (Buchanan & McConnell, 2017). Next, participants responded to 28 items (see Table 1) in a randomly determined order to assess their family's entitativity, group value, and identification by focusing on the *entire collection* of individuals in their definition of family rather than on an individual or a subset of family members, using a scale ranging from 1 (*not at all*) to 9 (*tremendously*). These 28 items included 15 items used by Sim et al. (2014) and other items that were developed in pretesting to capture MISR ingroup properties based on concepts borrowed from other published work, including seven entitativity items adapted from Lickel et al. (2000)'s work on the components that characterize intimacy groups and five group value items derived by Correll and Park's (2005) definition of group value.⁴

Table 1. Entitativity, Group Value, and Identification Items Used in Studies 1 and 2 (R = Reverse scored).

Entitativity
To what extent does my family qualify as a group?
To what extent do the people in my family interact with each other?
How important is being a member of my family to its members?
How much do members of my family share the same outcomes?
To what extent do members of my family have common goals?
To what extent are people in my family similar to each other?
To what extent do you consider my family to be a long-term group?
Within my family, the outcome for one member is not generally related to the outcome of others. (R)
There are important differences between my family and other groups.
There are clear boundaries that separate my family from other groups.
All groups are collections of people, but collections of people vary in terms of how much they qualify as a group. To what extent is your family really a group?
Group Value
To what extent does my family have positive characteristics?
To what extent does my family control its own and others' fates?
To what extent do others have positive regard for my family?
To what extent is my family distinct from other social groups?
To what extent does my family foster a sense of acceptance?
The typical member of my family has a lot of positive attributes.
Overall, I feel that my family is not worthwhile. (R)
In general, my family has value
Outsiders often look down on my family. (R)
Overall, my family is considered good by others
I think my family has more good qualities than bad qualities
Identification
To what extent is your family important to you?
In general, belonging to my family is an important part of my self-image.
Overall, my membership in my family has little effect on how I feel about myself, one way or another. (R)
My family is an important reflection of who I am
My own personal beliefs are not in line with the beliefs of my family. (R)
Being a member of my family is an important reflection of who I am

Results

Family properties predict well-being.

The primary focus of the current study was to examine whether any of the family ingroup properties would predict well-being, which was assessed by the psychological needs measure. We found that people's well-being was greater when they reported that their families were greater in group value ($r = .27, p < .001$), were more entitative ($r = .17, p = .014$), and were greater in identification ($r = .22, p = .001$).

Multiple regression analyses

Although we found significant relations between the ingroup properties and well-being, we wanted to examine whether the three properties made unique contributions to predicting well-being and whether these factors might interact with each other.⁵ Thus, we conducted a hierarchical multiple regression analysis where overall well-being scores were regressed on the three ingroup property measures (centered) in Step 1 (i.e., family group value, entitativity, identification), the three two-way interactions (product terms) in Step 2, and the three-way interaction in Step 3. In Step 1 ($F(3, 216) = 6.04, p = .001, R_{\text{adj}}^2 = .09$), greater group value ($\beta = .27, t = 2.50, p = .013, 95\% \text{ CI } [.09, .73]$) uniquely predicted greater psychological needs fulfillment, whereas entitativity and identification did not ($t_s < 1$). Neither Step 2 nor Step 3 produced a significant increase in variance accounted for ($\Delta F_s < 2.1, p_s > .10$), and group value continued to make a unique prediction in Step 2 ($\beta = .30, t = 2.62, p = .009, 95\% \text{ CI } [.11, .79]$) and in Step 3 ($\beta = .30, t = 2.61, p = .010, 95\% \text{ CI } [.11, .79]$). Thus, there were no reliable interactions (two-way or three-way) observed, and family group value uniquely predicted well-being above and beyond family entitativity and identification.

Discussion

Study 1 examined how psychological properties of one's family predicted well-being, leveraging the MISR (Correll & Park, 2005) framework. We observed that people reported better well-being when their families were greater in group value, greater in entitativity, and greater in identification. The current work is in line with past work showing that more entitative intimacy groups predict better social needs fulfillment (Crawford & Salaman, 2012), though in the current study we assessed people's *overall* social needs fulfillment rather than focusing participants on considering how their intimacy group in particular fulfills their social needs. Similarly, the current study is consistent with work showing that people experience better well-being when they are more identified with ingroups (e.g., Cruwys et al., 2014; Jetten et al., 2014) and more identified families (e.g., Sani et al., 2012; Wakefield et al., 2017). The findings of group value, a new construct (Correll & Park, 2005), are novel. In addition to these direct relations, multiple regression analyses showed that group value uniquely predicted well-being whereas entitativity and identification did not offer unique predictive utility, and thus the current study is the first work to compare these three constructs (i.e., entitativity, identification, and group value) simultaneously. In addition, we considered whether these properties might reveal meaningful interactions, as proposed by Correll and Park (2005). In contrast to those expectations, no such interactions were observed.

Despite the interesting initial findings of Study 1, several limitations exist. First, we relied on a single index of well-being, and it is possible that a more comprehensive suite of well-being measures (e.g., stress-related illnesses, depressed affect, flourishing) might provide greater sensitivity to detect relations with family properties. Second, we constrained all participants to focus on family, but it is possible that family may not represent a social resource for all people, and thus it would be desirable to study people who freely identify that family is an important group *to them*. Third, Study 1 relied on undergraduate participants, and it is possible that their family experiences and well-being outcomes are relatively homogenous, reducing the likelihood that meaningful relations can be detected. Thus, we conducted a follow-up study to replicate Study 1 and to address these limitations.

Study 2: Family ingroup properties and well-being in a more diverse sample

Although psychological needs is a reasonable measure of well-being because it relates to social support and has been used in numerous studies (Tay & Diener, 2011; Williams, 2007), it is possible that a broader collection of well-being measures could provide greater sensitivity in detecting the consequences of family ingroup properties. Indeed, well-being is a multifaceted construct and can include outcomes such as depressed affect, subjective happiness, flourishing, self-esteem, and stress-related illnesses (e.g., Diener et al., 2009; Linville, 1987; McConnell, Strain, Brown, & Rydell, 2009). Thus, Study 2 measured a wide variety of well-being outcomes. Also, Study 2 asked participants to identify their most important ingroups, allowing us to focus on people who reported that family was their most important group. Finally, Study 2 collected data from an older adult sample whose life experiences might be more heterogeneous (both with respect to family and well-being) than the undergraduate participants examined in Study 1.

Method

Participants

We recruited participants using mTurk to obtain a more diverse sample and collected data from 198 participants who were residents of the United States. After completing well-being measures (to be described), participants identified the three most important social groups in their lives, listing them in order from most important (Group 1) to least important (Group 3). Next, they indicated whether their most important group was composed of family ($n = 113$), friends ($n = 44$), people who were neither family nor friends (e.g., “fellow artists,” “members of my religion,” $n = 18$), or mixtures of these groups ($n = 23$). Following the procedure of Study 1, participants rated their Group 1 using the 28 items (Table 1) to assess ingroup entitativity, group value, and identification (wording for those questions was modified to note their judgments pertained to their chosen Group 1). Because of our focus on family in the current work, we concentrated exclusively on those participants who identified family as their most important group in the analyses reported below. In addition, one participant failed a reading check item, resulting in a final sample of 112 participants ($M_{\text{age}} = 38.95$, $SD = 14.04$; 75 female, 37 male).⁶

Measures

Subjective happiness

Participants first completed the subjective happiness scale (Lyubomirsky & Lepper, 1999), responding to four items (e.g., "In general, I consider myself a very happy person") on 7-point scales. The mean of the responses was computed (one item was reverse scored) such that larger scores indicated greater happiness ($M = 4.96$; $SD = 1.28$; $\alpha = .91$).

Self-esteem

Next, participants completed the Rosenberg (1965) self-esteem scale, where participants rated their agreement with 10 statements (e.g., "At times, I think I am no good at all") on a scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The mean of the responses (half reverse scored) was computed, with larger scores indicating greater self-esteem ($M = 3.22$; $SD = .57$; $\alpha = .92$).

Flourishing

Participants then completed the Diener et al. (2009) flourishing scale to capture their success in relationships, self-esteem, optimism, and purpose. They indicated their endorsement of 8 statements (e.g., "I lead a purposeful and meaningful life") on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The mean response was computed, with larger scores indicating greater flourishing ($M = 5.44$; $SD = 1.18$; $\alpha = .93$).

Depressed affect

Afterward, participants completed the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) to assess depressed affect. Specifically, they rated their endorsement of 20 statements referring to their experiences during the previous two weeks (e.g., "I felt that everything I did was an effort") on a scale ranging from 1 (*rarely or none of the time*) to 4 (*most or all of the time*). The mean response was computed (three items were reverse scored), with larger scores indicating more depressed affect ($M = 1.70$; $SD = .51$; $\alpha = .92$).

Psychological needs

After the CES-D, participants completed the same 17-item psychological needs scale (Zadro et al., 2004) used in Study 1. We again computed their mean response, with larger scores reflecting greater belongingness, self-esteem, control, and meaningful existence ($M = 6.68$, $SD = 1.73$; $\alpha = .94$).

Stress-related illnesses

Next, we assessed stress-related physical illnesses and symptoms (Cohen & Hoberman, 1983) by asking participants to indicate, using a dichotomous yes or no response, whether they had been bothered by 33 stress-related symptoms in the past two weeks (e.g., dizziness, muscle tension). The sum of the physical symptoms experienced was computed ($M = 5.24$; $SD = 5.47$; $\alpha = .89$).

Demographic measures

Before being debriefed and receiving payment information, participants provided demographic information.

Results

Overall well-being

To produce an overall well-being index, we factor analyzed the indices of subjective happiness, self-esteem, flourishing, depressed affect, psychological needs, and physical symptoms in a principal components factor analysis, revealing a one-factor solution ($\lambda_1 = 4.22$, all other $\lambda_s < .9$). Thus, a single factor score was computed for each participant, *overall well-being*, with larger scores indicating greater well-being (i.e., more happiness, greater self-esteem, more flourishing, less depressed affect, greater social needs fulfillment, and fewer stress-related illnesses). This overall well-being index was our key criterion variable.

Family properties predict well-being

Once again, we focused on examining whether family ingroup properties predicted the overall well-being score. Specifically, we found that people's well-being was greater when they reported that their family was more entitative ($r = .36, p < .001$), greater in group value ($r = .34, p < .001$), and greater in identification ($r = .38, p < .001$). Thus, these findings replicated those observed in Study 1 using a more multifaceted measure of well-being.

Multiple regression analyses

As in Study 1, we followed-up on these zero-order correlations with hierarchical multiple regression analyses to examine whether these ingroup properties made unique contributions to predicting well-being and whether they might interact. The overall well-being score was regressed on the centered three family property measures (i.e., family group value, entitativity, and identification) in Step 1, the three two-way interactions in Step 2, and the three-way interaction in Step 3. As in Study 1, Step 1 was significant ($F(3, 108) = 6.74, p < .001, R_{\text{adj}}^2 = .13$), however unlike Study 1, none of the three property measures made a significant unique contribution in predicting well-being, ($t_s < 1.6, p_s > .11$). Neither Step 2 nor Step 3 produced a significant increase in variance accounted for ($\Delta F_s < 1.9, p_s > .14$).

Discussion

Study 2 explored the same questions as Study 1, using a more diverse subject population and assessing well-being with a broad array of measures (i.e., subjective happiness, self-esteem, flourishing, depressed affect, and stress-related illnesses in addition to psychological needs). Replicating Study 1, Study 2 again observed better well-being among participants whose families were greater in entitativity, group value, and identification. Although the inclusion of these three ingroup property measures did produce a meaningful increase in variance accounted for in the multiple regression analyses (also replicating Study 1), none of the three measures demonstrated unique predictive utility. In Study 1, on the other hand, group value made a unique prediction in well-being above and beyond the other two ingroup properties. There are differences between the two studies (e.g., an older and more diverse subject population in Study 2, a more comprehensive suite of well-being measures in Study 2), and it is unclear if any of them can account for why group value made a unique contribution in predicting well-being in Study 1 but not in Study 2. Although we sought

participants who self identified family as their most important ingroup, it is possible that this sample possessed ceiling effects in their family relationships. That being said, it is also the case that the significant correlations observed between the three family properties and well-being in this study ($r_s \geq .34, p_s < .001$) indicates that there was indeed meaningful variability in family group value, entitativity, and identification. Finally, replicating Study 1, there was no evidence of higher-order MISR interactions being observed (cf., Correll & Park, 2005). But overall, we observed better mental and physical health outcomes for people whose families were greater in group value, entitativity, and identification, and this was revealed on a broad variety of well-being measures.

Study 3: Manipulating family group value and its impact on well-being

Although there were some differences between Studies 1 and 2 in the findings involving the multiple regression analyses, the zero-order correlation findings were consistent across both studies, suggesting that greater family group value, entitativity, and identification predict better well-being. That being said, the correlational nature of Studies 1 and 2 preclude any causal assertions. Thus, we conducted additional studies to manipulate perceptions of family group value (Study 3), family entitativity (Study 4), and family identification (Study 5), using a paradigm to produce temporary but reliable shifts in family perceptions. We relied on undergraduate samples collected in a laboratory setting to have greater experimental control over the conditions. In each study, we collected a baseline measure of well-being (using the subjective happiness scale) prior to the experimental manipulation to control for individual differences in initial well-being, and we measured well-being post-manipulation using the same psychological needs measure that proved effective in Study 1.⁷

For these experimental studies, we adapted a paradigm developed by Buchanan and McConnell (2017) to manipulate family group value (Study 3), entitativity (Study 4), and identification (Study 5). First, participants were asked to describe their own family to increase its accessibility before introducing our manipulation. Next, participants were asked to write statements about family *in the first person* in response to prompts provided by the experimenter, presumably to help researchers develop new stimulus materials for future studies. For example, participants in Study 3 (based on random assignment) wrote detailed first-person passages that either described families relatively greater in group value or lower in group value. Having participants activate their family and then write first-person passages about families that vary in group value should temporarily alter their views of family group value without triggering reactance, similar to other subtle induction techniques (e.g., Fazio, Sherman, & Herr, 1982; Salancik & Conway, 1975) and consistent with how family breadth of inclusion was manipulated by Buchanan and McConnell (2017). Studies 4 and 5 used a similar paradigm to manipulate entitativity and identification, respectively.

Method

Participants

We collected data from 129 Miami University undergraduates who participated for course credit on computers located in individual laboratory rooms. Based on a priori exclusion criteria, we excluded 12 participants who reported that English was not their first language

(several of them wrote nothing in the “help researchers develop new materials” task) and 9 others who failed a reading check item, resulting in a final sample of 108 participants ($M_{\text{age}} = 19.00$; $SD = 1.12$; 54 female, 54 male).

Procedure

Baseline well-being

First, participants completed the subjective happiness scale (Lyubomirsky & Lepper, 1999) to provide a baseline measure of well-being. The measure had good reliability ($\alpha = .89$), and larger mean scores indicated greater happiness ($M = 5.34$, $SD = 1.08$).

Manipulation of group value

Participants provided open-ended descriptions of their own family based on their own personal definition to increase its accessibility. Next, they were asked to “describe some specific episodes that illustrate particular qualities about a family,” presumably to help researchers generate stimuli for future research. They were asked to write their descriptions “in the first person (e.g., My family, I believe) in order to make their writing as compelling and realistic as possible for future studies” even if they did “not personally agree with or have a firsthand experiences with family like those requested.” Each participant wrote five different passages, with one corresponding to each of the five components of group value (i.e., positive characteristics, being in control, regarded highly by others, distinctiveness, fostering acceptance) outlined by Correll and Park (2005). Thus, based on random assignment, participants either wrote passages about families exhibiting greater group value or lower group value. For example, they responded to requests to write passages such as “A time when family exhibited positive [negative] characteristics or qualities” or “A time when family fostered [did not foster] a sense of acceptance.” Participants wrote the passages at their own pace.

Final well-being

Immediately following the manipulation, participants completed the psychological needs scale (Zadro et al., 2004) to provide a measure of final well-being. The mean response to the 17 items was computed with larger scores reflecting greater well-being ($M = 7.34$, $SD = 1.22$; $\alpha = .94$).

Results and discussion

A one-way analysis of covariance (ANCOVA) was conducted on final well-being scores (psychological needs), with experimental condition as the between-subjects factor and initial well-being (subjective happiness) as the covariate. As Figure 1 shows (left panel), final well-being was greater in the high group value condition ($M = 7.61$, $SD = 1.13$, 95% CI [7.27, 7.94]) than in the low group value condition ($M = 7.11$, $SD = 1.25$, 95% CI [6.79, 7.43]), $F(1, 105) = 4.56$, $p = .035$, $\eta_p^2 = .04$. Confirming effective random assignment to conditions, there was no effect of experimental condition on the covariate, $F(1, 106) < 1$.

Study 3 found that inducing participants to conceptualize families as being relatively greater in group value produced measurable increases in well-being compared to those who were asked to conceptualize low group value families. Thus, it appears that our “help researchers develop new materials” by writing first-person passages methodology was an

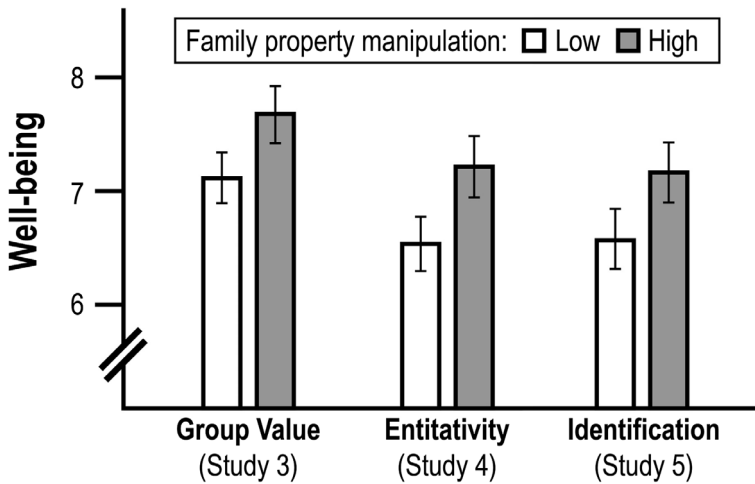


Figure 1. Summary of effects on well-being in Studies 3–5 as a function of whether participants wrote about less (white bars) or more (gray bars) of the relevant family property in each study (error bars are standard errors).

effective manipulation in ways similar to other subtle self-perception approaches. Thus, we found causal evidence that inducing people to perceive families as being relatively greater in group value produced increases in well-being, consistent with the correlational findings of Studies 1 and 2.

Study 4: Manipulating family entitativity and its impact on well-Being

In Study 4, we adopted a similar approach to manipulate perceptions of family entitativity. Participants first activated their family before writing first-person descriptions of families that were either greater or lower in group entitativity. Subjective happiness was assessed before the manipulation (covariate) and psychological needs fulfillment was assessed after the manipulation (final well-being).

Method

Participants

We collected data from 118 Miami University undergraduates who completed the study in our laboratory for course credit, excluding 18 who reported that English was not their first language and six others who failed a reading check item, resulting in a final sample of 94 participants ($M_{\text{age}} = 18.79$; $SD = .92$; 50 female, 44 male).

Procedure

Baseline well-being

Participants first completed the subjective happiness scale to provide a baseline measure of well-being. The mean response was computed such that larger scores indicated greater happiness ($M = 5.10$, $SD = 1.27$; $\alpha = .86$).

Manipulation of group entitativity

Participants began by describing the members of their family to increase its accessibility. Next, they were asked to help the researchers generate stimuli for a future study by writing a detailed paragraph to describe a family regardless of whether it matched their own family experiences using first person passages. Based on random assignment to condition, participants wrote a paragraph at their own pace about either a highly entitative family or a family lower in entitativity, using the seven components of entitativity for intimacy groups identified by Lickel et al. (2000): family [does not] qualifies as a group, family members interact a lot [little] with each other, family is [not] important to its members, family members [do not] share same outcomes and common goals, family members are [not] similar to each other, family is [not] a long-term group.

Final well-being

After the experimental manipulation, participants completed the psychological needs scale to provide a measure of final well-being, with the mean response reflecting greater well-being ($M = 6.79$, $SD = 1.44$; $\alpha = .95$).

Results and discussion

A one-way ANCOVA was conducted on the final well-being scores (psychological needs), with experimental condition as the between-subjects factor and subjective happiness as the covariate. As Figure 1 (middle panel) illustrates, final well-being was greater in the high entitativity condition ($M = 7.11$, $SD = 1.16$, 95% CI [6.69 7.54]) than in the low entitativity condition ($M = 6.51$, $SD = 1.61$, 95% CI [6.11, 6.91]), $F(1, 91) = 4.16$, $p = .044$, $\eta_p^2 = .05$. Consistent with successful random assignment, there was no effect of condition on the covariate, $F(1, 92) = 1.12$. Thus, replicating the positive correlations between family entitativity and well-being in Studies 1 and 2, the current study established that increasing perceptions of family entitativity improved well-being.

Study 5: Manipulating family identification and its impact on well-being

In Study 5, we used the same approach of Studies 3–4 to manipulate perceptions of family ingroup identification by having participants write either about families that are lower or greater in group identification.

Method

Participants

We collected data from 88 Miami University undergraduates who participated for course credit (data collection stopped because the school year ended). We excluded 6 participants who reported that English was not their first language and 5 others who failed a reading check item, resulting in a final sample of 77 participants ($M_{\text{age}} = 19.01$; $SD = .75$; 38 female, 39 male).

Procedure

Baseline well-being

Participants first completed the subjective happiness scale to provide a baseline measure of well-being, with greater means responses indicating greater happiness ($M = 4.96$, $SD = 1.11$; $\alpha = .84$).

Manipulation of group identification

After describing the members of their family based on their own definition, participants wrote a detailed paragraph in the first person to characterize a family that was, or was not, highly identified (random assignment to conditions). Participants wrote their paragraph to convey: being a family member is [not] an important part of my self-image, my family has an [no] effect on how I feel about myself, my family is [not] an important reflection of who I am, my own personal beliefs are [not] in line with my family members.

Final well-being

Finally, participants completed the psychological needs scale to provide a measure of final well-being ($M = 6.83$, $SD = 1.55$; $\alpha = .95$).

Results and discussion

A one-way ANCOVA was conducted on the final well-being scores, with experimental condition as the between-subjects factor and subjective happiness as the covariate. As shown in Figure 1 (right panel), final well-being was greater in the high identification condition ($M = 7.07$, $SD = 1.50$, 95% CI [6.73, 7.58]) than in the low identification condition ($M = 6.58$, $SD = 1.57$, 95% CI [6.07, 6.93]), $F(1, 74) = 4.62$, $p = .035$, $\eta_p^2 = .06$. Consistent with successful random assignment, there was no effect of condition on the covariate, $F(1, 75) < 1$.

Thus, Study 5 found that when people conceived of families with greater identification, they showed better well-being. These findings are consistent with the positive correlations observed in Studies 1 and 2 between family identification and well-being, and it provided a causal demonstration that stronger family identification improves well-being.

Study 6: Evaluating an alternative explanation

Studies 3–5 provided clear evidence that manipulations of family properties produce shifts in well-being. However, it is possible that these outcomes reflect a more general mood effect. That is, it might be that writing about families as being greater in group value, entitativity, or identification simply increases positive affect, which then might be the reason for increases in participants' sense of belongingness, meaningful existence, self-worth, and control. Although meaningful social inclusion or exclusion experiences do not necessarily produce mood effects (Baumeister, Twenge, & Nuss, 2002; Twenge, 2005; Williams, 2007), it is an open question as to whether the current family effects are a mood by-product rather than a meaningful shift in well-being. In one study examining psychological needs as an outcome (similar to the current work), Buchanan and McConnell (2017) found that breadth of family inclusion manipulations (i.e., viewing one's family as including more, compared to fewer, types of family members) improved well-being without producing any mood differences. Nonetheless, we conducted a final study that replicated Study 3 and included a mood measure to observe whether the effect of manipulating perceptions of family group value would persist when accounting for mood as a covariate. Although we could conduct similar replications for Studies 4 and 5, we reasoned that evaluating group value (compared to entitativity or identification) would provide the strongest test of a mood alternative account for two reasons. First, Study 1 found that family group value made a unique contribution to well-being when considering all three group family properties simultaneously. Second, the features of group

value (e.g., positive characteristics, fostering acceptance) seem most closely aligned with general positivity, compared to features of group coherence or identification.

Method

Participants

At Miami University, 172 undergraduates participated for course credit. With one exception (i.e., the addition of a mood measure), the procedure followed Study 3. Based on the same a priori exclusion criteria, we excluded 8 participants who reported that English was not their first language and 12 others who failed a reading check item, resulting in a final sample of 152 participants ($M_{\text{age}} = 18.60$; $SD = .80$; 94 female, 58 male).

Procedure

Baseline well-being

As in Study 3, participants completed the subjective happiness scale to provide a baseline well-being measure. The scale had good reliability ($\alpha = .87$), and larger mean scores indicated greater happiness ($M = 5.07$, $SD = 1.14$).

Manipulation of group value

Next, participants provided an open-ended description of their own family before writing five passages, one for each of the five components of group value, using the same cover story of helping experimenters generate stimuli for future research. Participants were randomly assigned to conditions (i.e., greater vs. lower group value).

Final well-being and mood measures

Following the experimental manipulation, participants were randomly assigned to one of two counterbalancing conditions. In one condition, they first completed the psychological needs scale (Zadro et al., 2004) to provide a measure of final well-being and immediately afterwards completed the positive and negative affective scale (PANAS; Watson, Clark, & Tellegen, 1988) to assess mood. Participants in the other counterbalancing condition completed the PANAS first, followed by the psychological needs scale. The PANAS asks participants to consider 10 positive traits (e.g., inspired, proud) and 10 negative traits (e.g., upset, distressed), rating each one on the extent to which participants feel it on a scale ranging from 1 (very slightly or not at all) to 5 (extremely). Following past work with the PANAS (e.g., Buchanan & McConnell, 2017), we reverse scored the negative items and computed the mean overall scores, with larger scores reflecting greater positive affect ($M = 1.48$, $SD = 1.07$; $\alpha = .85$). The mean response to the psychological needs scale items was computed, with larger scores reflecting greater final well-being ($M = 6.83$, $SD = 1.47$; $\alpha = .95$).

Results and discussion

A one-way ANCOVA was conducted on final well-being scores (psychological needs), with experimental condition as the between-subjects factor and initial well-being (subjective happiness) as the covariate. Replicating Study 3, final well-being was greater in the high group value condition ($M = 7.08$, $SD = 1.27$, 95% CI [6.78, 7.28]) than in the low group value

condition ($M = 6.55$, $SD = 1.61$, 95% CI [6.36, 6.87]), $F(1, 149) = 5.36$, $p = .022$, $\eta_p^2 = .04$. Confirming effective random assignment to conditions, there was no effect of experimental condition on subjective happiness, $F(1, 150) < 1$.

Finally, to test whether the effect of experimental condition on well-being change was merely a mood by-product, we conducted an ANCOVA on final well-being scores with experimental condition as the between-subjects factor and two covariates: subjective happiness and PANAS mood scores. The effect of condition persisted in this ANCOVA, with final well-being reliably greater in the high group value condition ($M = 7.08$, $SD = 1.27$, 95% CI [6.77, 7.24]) than in the low group value condition ($M = 6.55$, $SD = 1.61$, 95% CI [6.40, 6.88]), $F(1, 148) = 4.51$, $p = .035$, $\eta_p^2 = .03$. Thus, the inclusion of mood did not attenuate the effect of experimental condition on shifts in well-being, indicating that general affect does not provide an alternative account for the observed findings.

General discussion

In the current work, we examined how the psychological properties of families might both predict, and enhance, well-being. Families are ubiquitous, central ingroups in people's lives, and borrowing from the MISR (Correll & Park, 2005), we examined how family group value, entitativity, and identification relate to well-being. In Studies 1–2, participants demonstrated consistent evidence that greater family group value, entitativity, and identification predicted better well-being as assessed by a diverse collection of mental and physical health measures. In Studies 3–5, we manipulated participants' perceptions of family group value, entitativity, and identification, finding causal evidence that these properties improve well-being. Study 6 replicated Study 3, and it ruled out an alternative mood account.

This work contributes to our understanding of the functions of ingroups, and of families in particular. In our pilot studies, we observed that the vast majority of people report having a family, that families are highly integrated into the self, and that they are one of the most important ingroups in people's lives. Yet despite their centrality in people's lives, it is surprising that the study of families has not received more attention in the social psychology literature. We have conducted research showing that including a greater diversity of entity types in one's family improves well-being (Buchanan & McConnell, 2017), and more recent work (McConnell, Lloyd, & Humphrey, 2018) has shown that extending "family member" status to pets enhances owner well-being because viewing pets as family members increases the extent to which people extend socially-supportive attributes to their pets (i.e., anthropomorphism). Thus, the current work adds to this research by finding that people whose families are greater in key ingroup properties (i.e., group value, entitativity, and identification) show enhanced well-being.

These findings also contribute to existing work showing benefits for people who are more identified with their families (e.g., Sani et al., 2012; Wakefield et al., 2017) by not only observing similar correlation evidence with different measures (Studies 1–2) but by providing an experimental manipulation to more directly establish the role of family identification in well-being (Study 5). Further, the current work explored families at the group level rather than examining dyads within a family (e.g., Denissen et al., 2008; Fingerman, 1996), allowing us to examine how core ingroup properties might identify which types of families are better in supporting well-being.

Although these data at first blush might suggest that families are always positive, supportive forces in people's lives, we believe that such a conclusion would be too sweeping. First, not all family experiences and relationships are positive, and events such as divorce (e.g., Amato & Keith, 1991) or family ostracism and shunning (e.g., Kobasa, 1979; Williams, 2007) can have deleterious consequences for family members. Further, even in relatively supportive families, relationships among family members are often characterized by ambivalence rather than wholesale positivity (Fingerman et al., 2004), and metaphors generated to describe one's family experiences typically contain a blend of optimistic and pessimistic themes (McConnell, Bill, Dember, & Grasha, 1993). Thus, although families probably serve as social resources for most people, there will certainly be some striking exceptions, and future work should explore these cases in greater detail. For example, it seems likely that dysfunctional families that are more entitative or where identification is greater might have especially harmful, rather than beneficial, implications. Further, it seems likely that people may be more inclined to disidentify from stigmatizing families (Eidelman & Biernat, 2003; Major & O'Brien, 2005), though doing so might be more difficult for families than for other ingroups because of prevailing social norms and social obligations tied to them (Berg, Janoff-Bulman, & Cotter, 2001). Indeed, phenomena such as a divorce and estrangement reflect behaviors where people deliberately sever their connections with family members (Blake, 2017; Silverstein & Giarrusso, 2010).

The current work also adds to the literature by examining perceptions of families as groups defined in personal, idiosyncratic ways (compared to studying specific family dyadic relationships or viewing family in purely legal terms; see also, Buchanan & McConnell, 2017), and it identifies three group-level properties that influence personal well-being (Correll & Park, 2005). Although families have received a good degree of attention in other literatures (e.g., medicine, gerontology, close relationships), we believe that more social psychology research on this important ingroup is warranted. Further, we contend that thinking about families "at the group level" can encourage researchers in other fields to consider new levels of analysis and social psychological processes that impact human behavior in positive and negative ways.

Yet, these study-specific features also identify some limitations and new directions for future work. For example, focusing on people's idiosyncratic definitions of family leads to new questions, such as what makes family qualitatively different from other social ingroups or why some people include nonconsanguine others in construals of family. Our pilot data suggest that people see a distinction between family and other important groups such as close friends and that nearly everyone reports having a family even when it is not perceived to be one of their most important groups. There are probably many factors that lead people to define family in nontraditional ways, such as when sexual minorities face adversity from consanguine family members and respond by redefining family (e.g., Oswald, 2002) or when women have children through artificial insemination (e.g., Kritchevsky, 1981). Also, people who eschew traditional definitions of family may differ in other consequential ways, such as being more open to experience (e.g., McCrae & Costa, 1999) or more secure in interpersonal attachment (e.g., Shaver & Mikulincer, 2009). Thus, there may be important differences in family construal, and this is an area for future research to examine.

In addition to adding to our understanding of families, the current work also speaks to the functionality of ingroups and their psychological properties. For example, past work has focused on attributes such as entitativity to classify types of social targets (e.g., Lickel et al.,

2000; McConnell et al., 2002) or to anticipate social information processing outcomes for social targets (e.g., Denson et al., 2006; Yzerbyt et al., 2001). The current work, in contrast, shows how greater ingroup entitativity produces meaningful outcomes for group members. Although this functional perspective on entitativity is not new (e.g., Crawford & Salaman, 2012; Johnson et al., 2006), we believe future work studying entitativity will benefit from thinking about how entitativity moderates a variety of social psychological processes. Similarly, the current work also provides further evidence for the important role of group identification in health and well-being outcomes (e.g., Cruwys et al., 2014; Greenaway et al., 2016; Jetten et al., 2014; Sani et al., 2012). This body of research has established that ingroup identification supports health and well-being (e.g., less depression, greater needs satisfaction), though not all social identities provide benefits (e.g., Tarrant & Butler, 2011) or will be experienced identically in all contexts (McConnell, 2011).

The current work showed implications of family properties for well-being, and Study 6 indicated that these outcomes were not merely mood by-products. However, it is possible that the manipulations used in Studies 3–6 shifted well-being by other means, such as by focusing people on positive self-aspects (e.g., McConnell, Rydell, & Brown, 2009), by activating positive goal identities (e.g., McConnell, Shoda, & Skulborstad, 2012), by inhibiting competing self-identities (e.g., Hugenberg & Bodenhausen, 2004), or by activating goal states associated with positive emotions instead of diffuse moods (e.g., Higgins, 2001). Thus, although the current work produced reliable shifts in well-being, we acknowledge that other unidentified processes might account for how our manipulations affected well-being.

Although the current work speaks to the importance of entitativity and identification in well-being, it also underscores the importance of examining multiple group properties concurrently rather than in a piecemeal fashion. For example, although we observed evidence that greater group entitativity and identification predicted better well-being, in no case did these two factors show unique predictive utility in the current work. However, rather than being viewed as a limitation or confound, we view these interrelated concepts as reflecting important psychological realities. In short, people are more likely to identify more strongly with groups that have coherence (i.e., entitativity) and that are positive in nature (i.e., group value), and thus, the three properties examined in the current work are probably naturally correlated in most cases. Indeed, Studies 3–6 showed that each ingroup property affects people's well-being, underscoring the importance of each one. However, we would encourage future researchers who focus on just one of these constructs to consider a broader spectrum of group qualities to more fully capture the psychological processes involved with group memberships.

Finally, the current work examined Correll and Park's (2005) ingroup value, entitativity, and identification properties for a critical outcome that presumably results from social resources, personal well-being. Further, we also considered whether these factors might interact, an outcome that has been suggested but not directly tested. In Studies 1–2, we found no evidence of interactions among the MISR properties. Admittedly, we explored MISR properties for the very important ingroup of family, so it is possible that ceiling effects exist. Yet, each of the three ingroup properties was significantly related to well-being in these studies, and thus there was meaningful variability along these dimensions. We believe it would be premature to dismiss the interaction hypothesis forwarded in the MISR, but at present, our work only finds direct effects involving the three ingroup properties for predicting positive outcomes. Relatedly, we believe there is room for improvement in measuring

these three group properties. Past conceptualizations and operationalizations (Correll & Park, 2005; Sim et al., 2014), including the current study, would benefit from additional systematic work that more clearly establishes correspondences between existing literatures (e.g., Cruwys et al., 2014; Lickel et al., 2000), current measures (i.e., Table 1), and the psychological processes presumed to underlie the MISR.

In sum, the current work represents an initial exploration into how group-level processes involving family relate to well-being, and more broadly, to the functionality of ingroups as social resources. We found that greater family group value, entitativity, and identification predicted, and produced, enhanced well-being. This work adds to a growing literature showing that how people perceive families has important mental and physical implications (e.g., Buchanan & McConnell, 2017; McConnell, Lloyd, & Buchanan, 2017), and it provides the most comprehensive test of the MISR (Correll & Park, 2005) to date. Because social ingroups, and families in particular, are critical for survival, understanding their psychological properties and the implications for people's mental and physical health is extremely important.

Notes

1. Indeed, most dog and cat owners in the United States (77%) view their pet "as a family member, just like anyone else" (McConnell, Lloyd, & Buchanan, 2017), and people report the same level of IOS for their pets as they do for their siblings (McConnell, Brown, Shoda, Stayton, & Martin, 2011).
2. Although the MISR literature is nascent, there have been differences in the operationalization of psychological utility. Correll and Park (2005) proposed that psychological utility should be conceived of as a multiplicative function (i.e. the *product* of entitativity, identification, and group value). However, Sim et al. (2014) presented psychological utility as the *mean* overall amount of these three group properties. In the current work, we focus on direct and unique roles of family ingroup value, entitativity, and identification in predicting group well-being. We examined possible interactions among these three ingroup properties as well, but our primary goal was to assess the degree to which *any* of these three group properties could predict, and potentially improve, group member well-being. Because of the nascent MISR literature, we had no a priori predictions about the nature of such relations (e.g. direct, interactive).
3. Analyses retaining all participants produced identical results to those to be reported. Because omitting reading check failure participants was an a priori exclusion rule (and was used in subsequent studies as well), the findings reported excluded them from the analyses.
4. The correlations between our original pretest items and the Sim et al. items were significant for ingroup value ($r = .63, p < .001$), entitativity ($r = .38, p < .001$), and identification ($r = .62, p < .001$). Analyses using only our pretest items or only the Sim et al. items do not change any of the findings reported, and thus, we used all 28 items to derive ratings of entitativity ($\alpha = .81$), group value ($\alpha = .81$), and identification ($\alpha = .82$). One item adapted from Correll and Park's (2005) definition of group value (i.e. "Is my family distinct from other social groups?") appears to conflate entitativity with group value. Omitting this item from analyses does not change the findings reported.
5. The three group property indices were significantly correlated (r s from .70 to .78), but analyses of variance inflation factors found no evidence of problematic multicollinearity (VIFs <10; see Neter, Kutner, Nachtsheim, & Wasserman, 1996). Similar findings were observed in Study 2. Because this is the first known study to explore the three MISR properties separately, we had no a priori expectations about the degree to which these indices might be related. In Studies 3–5, experimental manipulations of the three ingroup properties were used to explore their causal role in affecting well-being, allowing us to more directly study one property of a group to explore its effect. In our general discussion, we return to this issue of interrelations

among ingroup property types and speak to its implications for the MISR and for ingroups more broadly.

6. Small and unequal cell sizes prevented comparisons among Group 1 types (e.g. family vs. friends vs. mixed groups). Because of our focus on families in the current work, we only report findings for the 112 family participants. However, the findings to be reported were the same as additional analyses that included all 198 participants.
7. Study 2 demonstrated that subjective happiness and psychological needs predicted the other well-being measures reliably. Specifically, subjective happiness was strongly related to self-esteem ($r = .75, p < .001$), flourishing ($r = .85, p < .001$), depressed affect ($r = -.91, p < .001$), psychological needs ($r = .95, p < .001$), and stress-related illnesses ($r = -.52, p < .001$). Similarly, psychological needs was strongly related to the other well-being measures too, including self-esteem ($r = .79, p < .001$), flourishing ($r = .83, p < .001$), depressed affect ($r = -.84, p < .001$), and stress-related illnesses ($r = -.42, p < .001$). We used subjective happiness and psychological needs in Studies 3–6 because they seemed likely candidates to reflect relatively transient influences on well-being that we hoped to produce with our experimental manipulations (compared to depressed affect or stress-related illnesses, which reflect more long-term consequences). Also, pilot testing suggested that we should anticipate observing a medium effect size, and power analyses ($f = .28$; power = .8; $\alpha = .05$) indicated that a sample size of 103 would be sufficient (Faul, Erdfelder, Buchner, & Lang, 2009) based on the ANCOVA designs used in the last three studies. We attempted to recruit a sufficient number of participants to meet this goal, assuming that some would be dropped for a priori reasons (i.e., non-native language and reading check issues).

Disclosure statement

No potential conflict of interest was reported by the authors.

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