Social Psychological and Personality Science

Aggressive Acts Increase Commitment to New Groups: Zombie Attacks and Blocked Shots

Negin R. Toosi, E. J. Masicampo and Nalini Ambady

The online version of this article can be found at:

Additional services and information for *Social Psychological and Personality Science* can be found at:

Email Alerts: http://spp.sagepub.com/cgi/alerts

Subscriptions: http://spp.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

What is This?

Aggressive Acts Increase Commitment to New Groups: Zombie Attacks and Blocked Shots

Negin R. Toosi[1], E. J. Masicampo[2], and Nalini Ambady[3]

Abstract

How do individuals who switch between opposing sides develop a sense of commitment to their new groups? Study 1 examined these dynamics in a live-action tag game known as Humans versus Zombies, in which players transitioned from being Human to being Zombie, thus turning against their former fellow Humans. Study 2 examined data from professional basketball players in the National Basketball Association who moved to a new team and had to play against their former team. Aggressive acts against former group members in these competitive settings determined commitment to the new group above and beyond other factors. Aggressive acts against former teammates, such as simulated killing (Study 1) and blocked shots (Study 2), promoted more positive self-reported attitudes toward the new group (Study 1) and more collaboration with new group members in the form of assists (Study 2).

Keywords

group dynamics, identity formation, aggression, intergroup relations

Groups provide individuals with a sense of identity and self-esteem (Tajfel, Billig, Bundy, & Flament, 1971; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). But many group allegiances—from teams in schoolyard games to workplace task forces—are short-lived. Group boundaries can be malleable, and people often switch from one group to another. These shifting allegiances introduce unique challenges, as individuals must find ways to cope with the departure from former groups and learn to adjust to new ones. This may be particularly challenging when the groups are in direct conflict. Not much is known about what happens to individuals who move between antagonistic groups.

The present work examines the factors that enable a person to develop a sense of commitment to a new group when that group is in direct opposition to one's former group. For instance, professional athletes often move or are traded to a competing team, students transfer between rival schools, and politicians switch political parties. These individuals cannot simply merge the old group identity with the new one, because the identities are incompatible. Old ties must be severed to make way for new ones. What determines whether a person will make a successful transition psychologically from one group to another? We hypothesized that aggressive acts toward former group members would facilitate this process.

In a competitive context, just being assigned to a group—even in an arbitrary manner—is enough to result in attitudes and behavior that favor that group (Hartstone & Augoustinos, 1995; Tajfel & Turner, 2001; Tajfel et al., 1971; Turner

et al., 1987). Competition highlights both shared goals with the in-group and conflicting goals with the out-group (Campbell, 1965; Rabbie, 1991; Sherif, Harvey, White, Hood, & Sherif, 1961; Vinacke, 1969). This aids in strengthening a sense of commitment to the in-group, described by Moreland and Levine (2002) as an individual's positive attitude toward the group, acceptance of the group goals, and desire to be a member and work for those goals.

The situation is more complicated, however, when an individual leaves one group for an opposing one. When switching between competing sides, individuals must overcome the tension that results when a conflicting group's goals become one's own, presumably by severing ties to the former group and its goals. Both the individual and the new group must engage in processes of newcomer assimilation and accommodation, respectively, in order to integrate the transferring member and build commitment (Moreland & Levine, 1988, 2002). The new group and its members must overcome resistance and mistrust to accept the newcomer (Hornsey, Grice, Jetten, Paulsen, &

[1] Columbia University, New York, NY, USA
[2] Wake Forest University, Winston–Salem, NC, USA
[3] Stanford University, Stanford, CA, USA

Corresponding Author:
Negin R. Toosi, Columbia University, Uris Hall 7-O, 3022 Broadway, New York, NY 10027, USA.
Email: Negin.toosi@gmail.com

Callan, 2007; Hornsey & Imani, 2004; Rink, Kane, Ellemers, & van der Vegt, 2013). The receptivity of the team to the new member may depend on actions or strategies used by the newcomer to signal commitment to the new group (Kane & Rink, 2011), including distancing from or derogation toward former groups (Hornsey et al., 2007; Noel, Wann, & Branscombe, 1995). Individuals trying to gain acceptance to a group will adapt their behavior to meet perceived norms of that group. When competition or out-group aggression is the norm, then peripheral members or newcomers may engage in that behavior more to enhance their status (Steinel et al., 2010; van Kleef, Steinel, & Homan, 2013; van Kleef, Steinel, van Knippenberg, Hogg, & Svensson, 2007).

As a new member to a group, the process of becoming a full member requires changing one's own attitudes toward the former and new groups as well as gaining acceptance into the new group. In this article, we are primarily interested in the ways that newcomer's actions affect their own sense of commitment to the new group. In a situation where the relationship between the two sides is competitive and aggressive, newcomers may have to engage in aggressive acts toward the former group. We suggest that committing aggressive acts may in itself increase commitment to the new group.

Given that old allegiances may linger, we hypothesize that the act of competitive aggression could hasten the transition between groups. Aggression toward former group members may especially enhance a sense of commitment to the new group.[1] Due partly to norms against aggression, aggressive acts create a state of dissonance that must be resolved, whether by engaging in derogation and victim-blaming or by inducing desensitization to one's aggression through further aggression (Davis & Jones, 1960; Geen, Stonner, & Shope, 1975; Glass, 1964; Martens, Kosloff, Greenberg, Landau, & Schmader, 2007; Verona & Sullivan, 2008). Thus, aggression can be a psychologically transformative act. Aggression toward former group members may evoke justification of the aggressive acts through greater endorsement of one's new group identity and distancing from the former identity. The latter is consistent with research on empathy and aggression. Lowered empathy for others has been shown repeatedly to increase aggressive responding (Miller & Eisenberg, 1988). The reverse relationship may also be true—aggression toward others may decrease empathy for them (Martens et al., 2007). When switching groups, aggression toward former in-group members may sever old empathic ties, thereby allowing new bonds to be formed with new companions. In two field studies, we examined the effects of competitive aggression on commitment to new groups.

Study 1

Study 1 was a field study of a live-action, moderated tag game called Humans versus Zombies (HVZ). The game lasts up to several weeks and is frequently played on college campuses. All players start as Humans, except for one player who begins as a Zombie. All players wear bandanas to signal their role and involvement in the game. The rules are as follows: Zombies can turn Humans into Zombies by killing and feeding on (i.e., tagging) them. Zombies cannot become Humans again. Humans can defend themselves by stunning (i.e., tagging) Zombies with designated items; doing so removes the Zombie from play temporarily. Zombies who go more than 48 hr without Feeding starve and are out of the game, becoming Deceased. A Zombie can share a Feeding with two other Zombies, thereby allowing them to survive an additional 48 hr. Certain areas, like dorm rooms and libraries, are considered safe zones, so most gameplay occurs in public areas; however, players from the same team can meet privately to strategize. The game ends under one of two conditions: Either all Humans become Zombies (Zombies win); or all Zombies starve and only Humans remain (Humans win; see humansvszombies.org for more information). Each individual's survival depends on engaging in steps that promote the in-group's continued existence at a cost to the other group. The two groups compete against each other, and, crucially, the boundary between the groups is malleable, albeit in only one direction. This provides a unique opportunity to examine group identification during transitions between antagonistic groups.

We assessed participants' attitudes toward both Humans and Zombies to measure commitment to their groups. We also gathered information on players' actions during the game: how long participants spent as Humans and as Zombies, whether, as Humans, players had stunned Zombies, to what extent Zombies shared in other players' kills, and—most relevant to our hypothesis of competitive aggression—whether Zombies had personally killed Humans.

Method

Participants

Participants were 30 students ($M_{age}=18.57$, $SD_{age}=0.63$; 43% female) from a private liberal arts university who were involved with the 2010 fall semester game of HVZ. Gender did not moderate any of the findings. The sample consisted of 3 Humans (who belonged only to the Human group), 1 Zombie (who had transitioned from Human to being an active Zombie), and 26 Deceased (who had transitioned from Human to Zombie and then ultimately became Deceased due to insufficient Feedings). Responses were gathered about a week and a half into the game; a few days later, the game ended, with Humans victorious.

Procedure

Participants were recruited via e-mail for an online survey. Participants answered questions based on their self-reported status in the game (Human, Zombie, or Deceased). All participants indicated how many Zombies they had stunned as Humans. Zombies and Deceased participants reported the number of Humans they killed and the number of other Zombies' kills that were shared with them. The modal response to these three game-related actions was zero, with about half of the respondents not having taken the action during the game. Thus, we created dichotomous variables indicating whether individuals

had or had not stunned Zombies, killed Humans, or had a Human kill shared with them. Participants also indicated how long they had been a Human and/or Zombie; these responses were converted into hours.

After these questions about their game-related actions, all participants answered 2 items measuring preference for Humans: "How much do you like Humans in general?" and "How highly do you identify with Humans?" $r(28) = .81$, $p < .001$. Two similar items measured preference for Zombies: "How much do you like Zombies in general?" and "How highly do you identify with Zombies?" $r(28) = .62$, $p < .001$. These questions were answered on a 7-point scale ($1 = not$ at all, $7 = very$ $much$). Finally, participants answered demographic questions and were thanked.

Results

In the course of the game, respondents had spent an average of 65.56 hr as a Human ($SD = 50.90$) and 78.92 hr as a Zombie ($SD = 46.29$). Participants generally preferred Humans ($M = 4.92$, $SD = 1.73$) to Zombies ($M = 3.47$, $SD = 1.38$), $t(29) = 3.19$, $p = .003$.

We calculated relative Zombie-to-Human preference by dividing the scores for Zombie preference by the scores for Human preference and subtracting 1 to center the values on zero; thus, negative scores indicated more preference for Humans and positive scores indicated a preference for Zombies. The percentage of total game time that players had spent as Zombies was calculated by dividing the time spent as Zombies by the total amount of time spent playing, with resulting scores ranging from 0 to 93%. We then ran a series of regressions on relative Zombie-to-Human preference to explore effects of percentage of game time spent as a Zombie and the effects of actions such as killing a Human, stunning a Zombie, or sharing a Human kill. When entered alone into the regression, each of the following predicted relative preference for Zombies over Humans: time spent as a Zombie, $\beta = .65$, $t(28) = 4.58$, $p < .001$, sharing a Human kill, $\beta = .70$, $t(28) = 5.16$, $p < .001$, and killing a Human, $\beta = .72$, $t(28) = 5.43$, $p < .001$; stunning a Zombie was not a significant negative predictor, $\beta = -.17$, $t(28) = 0.89$, $p = .38$. However, when all significant terms were entered simultaneously into the regression, only one variable predicted relative preference for Zombies—whether or not the player had killed Humans, $\beta = .44$, $t(26) = 2.32$, $p = .028$. In comparison, neither percentage of time spent as a Zombie, $\beta = .27$, $t(26) = 1.34$, $p = .19$, nor sharing in others' kills significantly influenced relative preference for Zombies, $\beta = .15$, $t(26) = 0.60$, $p = .56$. (See Table 1.) Thus, aggressive acts were most predictive of participant's relative preference for their new in-group after switching sides in an antagonistic scenario.

Discussion

This first study found that the most powerful predictor overall of relative Zombie-to-Human preference was killing Humans.

Table 1. Relative Zombie Preference as a Function of HVZ Behaviors.

Variables	β	$t(26)$
Killing Humans	0.44	2.32*
Time as Zombie	0.27	1.34
Sharing kills	0.15	0.60

Note. HVZ = Humans versus Zombies.
*$p < .05$.

This suggests that carrying out an aggressive act against one's former in-group members, more so than other actions, increases commitment to one's new group following a transition between the two antagonistic groups. However, one major limitation of this study is that we gathered data only once from players. Hence, any causal links between variables remain ambiguous. Rather than aggressive actions increasing in-group preference, in-group preference may have increased aggressiveness toward the former group. In other words, some newly initiated Zombies may have been immediately thrilled to be Zombies and had set out to aggressively hunt Humans. Others may have begun with low Zombie preference; this would provide them very little inclination to do well as Zombies, and so they would not be willing to feed on Humans to prolong their Zombie lives. In this case, Zombie preference would predict aggression, rather than aggression predicting Zombie preference. To sort out the causal direction of these factors, in the next study, we used data from the National Basketball Association (NBA), which allowed us to track behavior over time.

Study 2

As professional athletes, NBA players are expected to work as a team to perform well in competition. However, players frequently switch teams, precipitating a need to forge new identities as members of new groups. We looked at player transactions over three seasons to assess whether aggressive actions against former team members would predict commitment to new teams.

We used the number of assists, or how often the player passed the ball to a fellow teammate who then quickly scored a point, as our main outcome measure of commitment to the current team. Number of blocked shots, or how frequently the player physically blocked or deflected a shot made by an opponent, served as our measure of aggression. A pilot study tested whether these statistics, among other major statistics for on-court productivity, were the most appropriate for our needs. Ten participants ($M_{age} = 34.3$, $SD_{age} = 12.7$; three females) who indicated in a survey that they were very familiar with basketball made two sets of ratings. First, they rated to what extent ($1 = not$ at all; $7 = very$ $much$) each of the following statistics represents how well a player is getting along with his or her teammates: points, assists, rebounds, blocks, and steals per game. Second, they rated to what extent ($1 = not$ at all; $7 = very$ $much$) each of the following actions represented an aggressive, hostile, or insulting act against another player:

Table 2. Study 2 Pilot Study.

Act or Statistic	Representativeness of Team Commitment	Representativeness of Aggression
Assists	6.20 (0.92)[a]	3.50 (1.58)[c]
Blocks	3.50 (0.85)[c, d]	6.50 (0.53)[a]
Points	4.50 (1.65)[b, c]	5.20 (1.32)[b]
Rebounds	4.50 (1.08)[b]	4.50 (1.18)[c]
Steals	3.30 (0.82)[d]	5.80 (0.79)[b]

Note. Mean ratings are displayed with standard deviations in parentheses. Means within a column that do not share a superscript differ significantly, $p < .05$.

scoring points, making an assist, blocking a shot, rebounding the ball, or stealing the ball. As demonstrated in Table 2, assists were rated as most indicative of getting along with teammates, while blocked shots were rated as most representative of aggressing competitively against other players. Therefore, assists served as our measure of group commitment and blocked shots served as our measure of aggression toward the opposing team. The other measures of on-court productivity (points, rebounds, and steals) were assessed as measures of nonaggressive competition.

We examined player transactions over three seasons. For each player who switched teams, we assessed whether competing aggressively against former teammates promoted commitment to the new team. We thus examined performance during the first game in which each player's new team played against his former team, and we assessed performance in the games before and after that game as comparisons. We also measured the amount of time that each player had spent with his new team. This allowed us to test for converging evidence of aggressive actions against former teams as having effects over and above those contributed by mere experience with the new team and other forms of competition against the former team.

Method

We gathered data from three NBA seasons: the 2007–2008 season, the 2008–2009 season, and the 2009–2010 season. Data on every player transaction were gathered. We gathered statistics from the first game in which each player's new team played against his old team (Game 2). We also gathered data for the games preceding (Game 1) and following (Game 3) that game. Assessment of performance over these three games allowed for an analysis of how a player's performance against his former team affected commitment to his new team over time. Data gathered from each game consisted of assists, blocks, points, rebounds, and steals for the target player. In addition, players' career averages for assists and blocks per game served as individual difference measures of performance, which were covariates in some of the analyses.

There were 424 player transactions across the three seasons, including 265 trades and 161 free agency moves. Controlling for the type of transaction (trade vs. free agency) did not significantly alter any of the analyses. If a player switched teams multiple times throughout the three seasons or even within a season, we assessed each transaction separately. Thus, some individuals were observed more than once in the analyses reported. However, assessing only players' initial trades across the three seasons (thus excluding all subsequent trades) did not change the outcomes of the analyses below.

Not all 424 transactions were included below. Some players never played against their former teams. In these cases, players switched teams late in the season (after their new teams had already played against their old teams) or transitioned in or out of the NBA entirely. In addition, some players remained on the bench (either due to injury or to coaches' decisions) during one or more of the games under consideration. If a player was inactive for only Game 1 or only Game 3, his data were still included in analyses that did not incorporate the inactive game. Therefore, some analyses included more players than others.

Results

We first tested whether aggressive actions toward one's former group would predict increases in commitment to one's new group. More specifically, we examined whether blocks in Game 2 (i.e., hostile actions toward former teammates) predicted assists in Game 3 (i.e., later commitment to the new team). A regression model was created that predicted Game 3 assists as a function of Game 2 blocks. Additional predictors were career assists, which was included to control for each player's typical number of assists per game, and Game 2 assists, points, rebounds, and steals, which were included to determine whether it was aggressive gameplay (blocks) in particular against one's former team that predicted later commitment or else whether other types of nonaggressive competition had similar effects. We included a measure of time spent with the new team as a predictor. This comprised the number of total games (including Game 3) for which the player had been with the new team. Finally, we also included a measure of group performance as a predictor: whether the player's new team won the game. Results revealed a highly significant model, $F(8, 230) = 28.7$, $p < .001$. Game 3 assists were predicted both by Game 2 assists, $\beta = .30$, $t(222) = 4.56$, $p < .001$, and by career assists, $\beta = .46$, $t(222) = 7.49$, $p < .001$. More importantly, Game 3 assists were also predicted significantly by Game 2 blocks, $\beta = .13$, $t(222) = 2.58$, $p = .011$. In contrast, Game 3 assists were not predicted by Game 2 points, rebounds, or steals, all ts < 1.1, ps > .28, nor by whether the new team won Game 2, $\beta = -.07$, $t(222) = -1.56$, $p = .12$. Time spent with the new team was negatively related to Game 3 assists, $\beta = -.10$, $t(222) = -2.00$, $p = .046$ (see Table 3). Thus, the only form of on-court productivity in Game 2 that positively predicted Game 3 assists (other than Game 2 assists) was blocks.[2] Aggressive shot blocking against one's former team promoted better teamwork in the following game as measured by assist frequency.

One possibility was that a high number of blocks in any given game will lead to assists in the subsequent game regardless of which team is being played. Thus, it may not have been

Table 3. Assists in Game 3 as Predicted by Behaviors in Game 2 (vs. Former Team).

Variables	β	t(222)
Game 2 blocks	0.13	2.58*
Career assists	0.46	7.49**
Game 2 assists	0.30	4.56**
Game 2 points	0.07	1.06
Game 2 rebounds	0.02	0.35
Game 2 steals	−0.01	0.10
Game 2 win	−0.07	1.56
Time with team	−0.10	2.00*

Note. *p < .05. **p < .001.

particularly important that Game 2 was against the players' former teams. It may be a simple fact of team dynamics in basketball that blocks in one game will predict assists in the next game. To test for this, we reran the initial regression model that tested our main hypothesis albeit for Games 1 and 2 rather than Games 2 and 3. Thus, the model predicted Game 2 assists as a function of career assists, Game 1 productivity (blocks, assists, points, rebounds, and steals), time spent with the new team including Game 2, and whether the player's new team won Game 1. Game 2 assists were predicted significantly by Game 1 assists, $\beta = .21$, $t(217) = 2.98$, $p = .003$, and career assists, $\beta = .48$, $t(217) = 7.07$, $p < .001$. More importantly, Game 2 assists were not predicted by Game 1 blocks, $t(217) = 0.01$, $p = .89$. Thus, blocks in one game do not always predict assists in a subsequent game.

We also tested whether it was aggression toward the former team that increased commitment to the new team or whether it might have been the reverse—that commitment to the new team predicted aggression with the former one. To test this alternative explanation, we examined whether Game 1 assists predicted Game 2 blocks. A regression analysis predicted Game 2 blocks as a function of career blocks, and Game 1 productivity (assists, blocks, points, rebounds, and steals), time spent with the new team including Game 2, and whether the player's new team won Game 1. Contrary to the alternative hypothesis, Game 1 assists did not predict Game 2 blocks, $\beta = .04$, $t(217) = .63$, $p = .53$. Game 2 blocks were predicted by career blocks, $\beta = .38$, $t(217) = 5.84$, $p < .001$, and Game 1 rebounds, $\beta = .19$, $t(217) = 2.65$, $p = .009$. No other variable predicted Game 2 blocks, ts < 1.2, ps > .24.

Discussion

The results from Study 2 provide converging evidence that aggressive acts toward one's previous group can strengthen the bond to one's new group. NBA players must frequently leave their teams and forge strong relationships with new ones. Our data suggest that one important step in that process may be to compete aggressively against one's former team. Indeed, players who were successful at blocking the shots of their former team members, an act that is both productive for one's new team and aggressive toward one's former team, went on in a subsequent game to make greater numbers of assists. In contrast, we did not find a significant positive relationship between commitment to new teammates and either other forms of on-court productivity or time spent with one's new team. Aggressing against one's former group therefore seems to be an especially potent method for merging with new groups.

General Discussion

Across two studies, we found that when individuals move between antagonistic groups, the strongest predictor of commitment to the new group is aggression toward former group members. In a moderated tag game of HVZ, people who engaged in simulated killing of former in-group members showed the strongest preferences for the new group. For basketball players, aggressive acts against former team members in the form of blocked shots predicted commitment to new team members in the following game, in the form of assists. In both studies, time with the new team and other game-related actions against the former team did not seem to increase commitment independent of the effects of aggression. Therefore, aggressing toward former in-group members serves as a particularly powerful catalyst for strengthening bonds with a new team.

The power of aggressive actions may be due to the effects of dissonance and justification (Geen et al., 1975). To aggress against someone, especially a former in-group member, may lead to strong feelings of dissonance. These may be relieved through a process of justification that underscores group boundaries, thus increasing preference for the new in-group and severing empathic ties to the previous one (e.g., Martens et al., 2007).

Aggressive actions toward former group members may also signal to new group members that one is committed to the new team. In Study 2, for example, players who blocked former teammates' shots may have been viewed by their new teammates as highly committed to the new team. This could have resulted in greater collaboration in the subsequent game and thus more assists for the new team member. Future work may tease apart the unique effects that aggressive acts have on the new team members who commit them from the effects that such acts have on the new teammates who observe them.

It is important to note that the examples of antagonistic group dynamics examined in these two field studies featured groups in direct competition. In these cases, aggression against the out-group improved chances of success for the in-group and possibly secured one's own individual survival, success, and status within the group. This form of instrumental, defensive aggression may have led to heightened effects on identification with the new group. Future research should examine the impact of aggression where it is not instrumental to group success. Furthermore, in contexts where cooperation is the group norm (e.g. Steinel et al., 2010), acts of intergroup kindness rather than aggression may actually signal and strengthen one's commitment to the new group.

Future work should also more closely examine the effects of time, competition, and aggression. The lack of consistent evidence in the present work for a role of time and nonaggressive competition may be due to several factors. For example, in cases where there is a strong sense of common fate, the passage of time may make little difference to attitudes toward the group, and in-group preference may remain stable (Arrow & McGrath, 1993). In order to further track the factors influencing development of in-group preference and out-group bias, more controlled laboratory experiments are warranted in addition to field studies.

In addition to the examples studied here, there are many cases where people switch between rival groups. Some of these are relatively benign: Students transfer between rival schools, workers are promoted to management during labor disputes, and politicians switch parties in a partisan system. In these cases, our research suggests that any action that weakens former in-group connections may increase cohesion with the new group, whether it include playing a prank on a former classmate or voting against legislation proposed by one's former political party.

However, other cases are more extreme and underscore the severity of our findings. For example, civilians may take up arms and become fighters in insurgency situations, and believers may convert from one religious sect to another in areas with religious conflict. In such cases, aggressive acts may take the form of assault, rape, and murder. The effect of aggressive acts against former in-group members may, in fact, already be well known to some warlords. Reports from conflict zones indicate that child soldiers are sometimes forced to kill a family member at the beginning of their training (Eichstaedt, 2009; Gourevitch, 1998). This violent act is intended to break bonds between the children and their families and communities and to solidify their identities as soldiers and killers. It also makes it difficult for them to return to their lives, reducing the likelihood that they will try to escape their conscription during the conflict and also presenting tremendous challenges for rehabilitation once the fighting ends.

In two field studies featuring individuals transitioning between groups in conflict, we found that aggression is a particularly potent facilitator of endorsing new groups—more so than other factors. These data suggest that even after a group transition, connections to former groups may linger, despite time spent away from the former group and positive experiences with new groups, unless actions are taken to restructure, redefine, or even sever old connections. Aggressing against former group members—people whom one presumably once cared for and valued—may do just that. Identification with a new group may lamentably be cemented through aggressive actions against the former one.

Acknowledgment

Declaration of Conflicting Interests

Funding

Notes

1. Time was also included as a factor in our model, due to its role in forging relationships (Bouas & Arrow, 1995; Kerr & Kaufman-Gilliland, 1994; Maples, 1988; Moreland & Levine, 1988; Tuckman & Jensen, 1977; Zajonc, 2001); however, due to space limitations, we focus here on the role of competitive aggression.

2. An alternative was that Game 2 blocks predicted not just Game 3 assists but overall Game 3 productivity. To test for this, we ran three regressions to examine whether Game 2 blocks predicted Game 3 points, Game 3 rebounds, and Game 3 steals, respectively. In none of the three models did Game 2 blocks predict Game 3 productivity, all ts < 1.4, ps > .17. The link between Game 2 blocks and Game 3 productivity was therefore specific to assists, the main measure of cohesiveness with the new team. Blocking the shots of one's former team members did not lead to an increase in other forms of productivity in the following game.

References

Arrow, H., & McGrath, J. E. (1993). Membership matters: How member change and continuity affect small group structure, process, and performance. *Small Group Research*, *24*, 334–361. doi:10. 1177/1046496493243004

Bouas, K. S., & Arrow, H. (1995). The development of group identity in computer and face-to-face groups with membership change. *Computer Supported Cooperative Work*, *4*, 153–178. doi: 10. 1007/BF00749745

Campbell, D. T. (1965). *Ethnocentric and other altruistic motives*. Lincoln: University of Nebraska Press.

Davis, K. E., & Jones, E. E. (1960). Changes in interpersonal perception as a means of reducing cognitive dissonance. *Journal of Abnormal and Social Psychology*, *61*, 402–410.

Eichstaedt, P. H. (2009). *First kill your family: Child soldiers of Uganda and the Lord's Resistance Army*. Chicago, IL: Chicago Review Press.

Geen, R. G., Stonner, D., & Shope, G. L. (1975). The facilitation of aggression by aggression: Evidence against the catharsis hypothesis. *Journal of Personality and Social Psychology*, *31*, 721–726.

Glass, D. (1964). Changes in liking as a means of reducing cognitive discrepancies between self-esteem and aggression. *Journal of Personality*, *32*, 531–549.

Gourevitch, P. (1998). *We wish to inform you that tomorrow we will be killed with our families: Stories from Rwanda*. New York, NY: Picador.

Hartstone, M., & Augoustinos, M. (1995). The minimal group paradigm: Categorization into two versus three groups. *European*

Journal of Social Psychology, *25*, 179–193. doi:10.1002/ejsp.
2420250205

Hornsey, M. J., Grice, T., Jetten, J., Paulsen, N., & Callan, V. (2007).
Group-directed criticisms and recommendations for change: Why
newcomers arouse more resistance than old-timers. *Personality
and Social Psychology Bulletin*, *33*, 1036–1048.

Hornsey, M. J., & Imani, A. (2004). Criticizing groups from the inside
and the outside: An identity perspective on the intergroup sensitiv-
ity effect. *Personality and Social Psychology Bulletin*, *30*,
365–383.

Kane, A. A., & Rink, F. (2011). Newcomers as active agents: Team
receptivity to integrating vs. differentiating identity strategies.
Academy of Management Proceedings, *2011*, 1–6.

Kerr, N. L., & Kaufman-Gilliland, C. M. (1994). Communication,
commitment, and cooperation in social dilemmas. *Journal of Per-
sonality and Social Psychology*, *66*, 513–529. doi: 10.1037/0022-
3514.66.3.513

Maples, M. F. (1998). Group development: Extending Tuckman's the-
ory. *Journal for Specialists in Group Work*, *13*, 17–23.

Martens, A., Kosloff, S., Greenberg, J., Landau, M., & Schmader, T.
(2007). Killing begets killing: Evidence from a bug-killing para-
digm that initial killing of similar others escalates subsequent
killing. *Personality and Social Psychology Bulletin*, *33*, 1251–1264.

Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to
aggressive and externalizing/antisocial behavior. *Psychological
Bulletin*, *103*, 324–344.

Moreland, R. L., & Levine, J. M. (1988). Group dynamics over time:
Development and socialization in small groups. In J. McGrath
(Ed.), *The social psychology of time: New perspectives* (pp.
151–181). Newbury Park, CA: Sage.

Moreland, R. L., & Levine, J. M. (2002). Socialization and trust in work
groups. *Group Processes & Intergroup Relations*, *5*, 185–201.

Noel, J. G., Wann, D. L., & Branscombe, N. R. (1995). Peripheral
ingroup membership status and public negativity toward out-
groups. *Journal of Personality and Social Psychology*, *68*,
127–137.

Rabbie, J. M. (1991). Determinants of instrumental intra-group coop-
eration. In R. A. Hinde & J. Groebel (Eds.), *Cooperation and pro-
social behaviour* (pp. 238–262). Cambridge, England: Cambridge
University Press.

Rink, F., Kane, A. A., Ellemers, N., & van der Vegt, G. (2013). Team
receptivity to newcomers: Five decades of evidence and future
research themes. *The Academy of Management Annals*, *7*,
245–291.

Sherif, M., Harvey, O. J., White, B. J., Hood, W. R., & Sherif, C. W.
(1961). *Intergroup conflict and cooperation: The Robbers Cave
experiment*. Norman: University of Oklahoma.

Steinel, W., van Kleef, G. A., van Knippenberg, D., Hogg, M. A.,
Homan, A. C., & Moffit, G. (2010). How intragroup dynamics
affect behavior in intergroup conflict: The role of group norms,
prototypicality, and need to belong. *Group Processes and Inter-
group Relations*, *13*, 779–794.

Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social
categorization and intergroup behaviour. *European Journal of
Social Psychology*, *1*, 149–177.

Tajfel, H., & Turner, J. (2001). An integrative theory of intergroup
conflict. In M. A. Hogg & D. Abrams (Eds.), *Intergroup relations:
Essential readings* (pp. 94–109). New York, NY: Psychology
Press.

Tuckman, B. W., & Jensen, M. A. C. (1977). Stages of small-group
development revisited *Group Organization Management*, *2*,
419–427.

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

van Kleef, G. A., Steinel, W., & Homan, A. C. (2013). On being per-
ipheral and paying attention: Prototypicality and information pro-
cessing in intergroup conflict. *Journal of Applied Psychology*, *98*,
63–79.

van Kleef, G. A., Steinel, W., van Knippenberg, D., Hogg, M. A., &
Svensson, A. (2007). Group member prototypicality and inter-
group negotiation: How one's standing in the group affects nego-
tiation behaviour. *British Journal of Social Psychology*, *44*,
362–369.

Verona, E., & Sullivan, E. (2008). Catharsis and aggression revisited:
Heart rate reduction following aggressive responding. *Emotion*, *8*,
331–340.

Vinacke, W. E. (1969). Variables in experimental games: Toward a
field theory. *Psychological Bulletin*, *71*, 293–318. doi:10.1037/
h0026972

Zajonc, R. B. (2001). Mere exposure: A gateway to the subliminal.
Current Directions in Psychological Science, *10*, 224–228.

Author Biographies

Negin R. Toosi is a postdoctoral researcher at Columbia University
who received her PhD from Tufts University in 2011.

E. J. Masicampo is an assistant professor of psychology at Wake For-
est University. He received his PhD from Florida State University in
2010.

Nalini Ambady is a professor at the Department of Psychology at
Stanford University who received her PhD from Harvard University
in 1991.