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## Do They See a Half-Full Water Cooler? Relationships Among Group Optimism Composition, Group Performance, and Cohesion

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## Do They See a Half-Full Water Cooler?


### Relationships Among Group Optimism Composition, Group Performance, and Cohesion

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## Abstract

In the present study, relationships among group composition of trait optimism (the mean, standard deviation, and minimum and maximum scores of optimism), group cohesion, and three group performance variables (task performance, contextual performance, and creative performance) were examined. Multi-source data were collected from 56 workgroups including 202 group members and 56 group leaders. We found that the mean, maximum, and minimum operationalizations of group optimism composition were positively related to the three group performance variables and that group cohesion mediated the optimism–performance relationships for the mean and minimum operationalizations of group optimism. We recommend that practitioners generally consider selecting optimistic individuals and consider that the trait optimism level of a group’s least and most optimistic members may impact group outcomes.

*Keywords:* optimism, group composition, group cohesion, group performance

### **Do They See a Half-Full Water Cooler?**

#### **Relationships Among Group Optimism Composition, Group Performance, and Cohesion**

The workplace is filled with setbacks and challenges to overcome. In an environment filled with uncertainty and dynamism, personal resources (i.e., personal qualities that facilitate goal achievement and growth; e.g., hope, resilience; Alessandri, 2017) can aid workers in coping with stressors. Trait optimism is a dispositional personal resource that is characterized by the tendency to feel hopeful and confident about the future (Scheier et al., 1994). Trait optimism predisposes individuals to expect positive future outcomes; attribute positive events to stable, internal capacities for success; and attribute negative events to temporary, external factors out of their control (Seligman, 1998). In the workplace, optimistic people persevere through difficult situations that would deter others, and optimism is positively associated with employee engagement and performance at the individual level (Alessandri et al., 2017).

When optimistic individuals band together, they form a group with high morale (Peterson et al., 2008), which enables them to effectively tackle work-related challenges and perform well as a unit. Additionally, it is conceivable that the positivity/negativity generated by especially optimistic/pessimistic individuals is “contagious”—with implications for motivation and group functioning (see Barsade, 2002) in interdependent teams. Moreover, prominent management consultancies (e.g., Gallup and McKinsey & Company) have acknowledged the importance of optimism and resilience for teams during turbulent times (e.g., the Great Recession and COVID-19 pandemic; Brassey & Kruyt, 2020; Harter, 2020) during which team dynamics and functioning are severely impacted (e.g., Mortensen & Hadley, 2020). Despite the apparent relevance of optimism for the group context, group composition researchers, largely, have neglected to study optimism.

This dearth of scholarship is surprising given the pervasiveness of the positive psychology movement. Indeed, Luthans (2002) called optimism the heart of positive organizational behavior (POB) and acknowledged the importance of researching POB characteristics at the team level. One exception is West et al.'s (2009) work on team POB characteristics, including team optimism, and team outcomes in the context of student class-project teams. In the present study, we sought to extend this research by examining team optimism in the work context and group performance as a group-level outcome. Specifically, we investigated how group composition of trait optimism influences group performance—namely, task, contextual, and creative performance—through group cohesion, which is an affective and motivational emergent group state influenced by group composition (Bell et al., 2018). To our knowledge, the present study is the first in which the effects of group-level trait optimism on group performance are examined in an organizational setting.

In this study, we operationalized group composition of trait optimism as the group mean, standard deviation (SD), and the maximum and minimum levels. We investigated these group composition variables because they reflect different characteristics of group composition that may impact distinct aspects of teamwork. For example, according to Barrick et al. (1998), the group maximum may be an especially relevant group composition operationalization of a given trait for disjunctive tasks (i.e., group tasks for which success is often attributable to the most competent group member; e.g., problem solving). In contrast, the minimum may be the most relevant group composition operationalization of a given trait for conjunctive tasks (i.e., group tasks for which success depends on each group member meeting a minimum threshold of performance; e.g., tasks requiring sequential completion by different group members). By examining all four group composition variables, we sought to provide a more complete picture of

the relationships between group optimism, group cohesion, and group performance, and we integrate relevant theories into group optimism research. For instance, we relate the supplementary model of person–environment fit (Neuman et al., 1999) to the anticipated effects of group optimism SD on group performance, and we draw on emotional contagion theory (Barsade & Gibson, 2012) when considering the potential effects of the maximum and minimum operationalizations of group optimism. The present study is, to our knowledge, the first in which statistical operationalizations of group optimism composition in addition to the group mean are considered—allowing for a more nuanced understanding of optimism at the group level.

### **Hypothesis Development**

#### ***Mean and SD of Group Optimism in Relation to Group Cohesion and Group Performance***

The mean score is the “basic method of operationalizing trait characteristics” (Barrick et al., 1998, p. 379) at the group level. In traditional human resource systems, it is assumed that valuable knowledge, skills, abilities, and other characteristics are linearly and positively related to group performance (Mathieu et al., 2014). The specific group performance variables of interest in the present study were group task performance (i.e., aggregate behaviors directly implicated in the production of an organization’s goods and services; Motowidlo & Van Scotter, 1994), group contextual performance (i.e., aggregate supportive behaviors that benefit the “broader organizational, social, and psychological environment”; Motowidlo & Van Scotter, 1994, p. 476), and group creative performance (i.e., aggregate generation of novel and useful ideas; George & Zhou, 2001).

We expect group-mean optimism to be related to group performance. Members of groups high in optimism exhibit hopefulness and confidence about the future and may generally attribute positive events to their ability to succeed and negative events to temporary, external

situations out of their control (Seligman, 1998). These groups may be well-equipped to persevere when striving to complete tasks while facing difficult situations. In addition, when individuals with an energized, positive outlook band together, they may be more inclined to “go above and beyond” and help each other—thus exhibiting more contextual performance. Given the future-oriented nature of optimism (Carver et al., 2010), individuals in optimistic workgroups may tend to be more helpful toward each other with future success in mind. Moreover, given that positive affect facilitates approach behaviors (Fredrickson, 1998), mean group optimism may be linked to group creative performance. Also, because trait optimism entails future orientation and is more strongly related to problem-focused coping than it is to avoidance strategies (Smith et al., 1989), optimistic individuals may encourage group members to collectively approach, rather than avoid, problems they encounter in a creative way.

These proposed relationships between mean optimism and group performance may be partially mediated by group cohesion. Group cohesion is “the resultant of all the forces acting on the members to remain in the group” (Festinger, 1950, p. 274), and it emerges, in part, as a result of positive emotions associated with repeated interpersonal exchanges (Lawler et al., 2000). Because optimism is an affective trait characterized by positivity about the future, optimistic workgroups may exhibit characteristics that typify group cohesion (e.g., motivating expectations held by group members about their collective agency to realize a positive shared destiny). Moreover, findings from previous studies indicate that cohesion is positively related to group task, contextual, and creative performance. Specifically, cohesive groups comprise members who are committed to attaining their work goals, who like each other, and who feel comfortable sharing ideas with each other; consequently, such groups successfully complete tasks, exhibit prosocial behaviors, and demonstrate creativity and innovation (Beal et al., 2003; Castaño et al.,

2013; Hülshager et al., 2009; Joo et al., 2012; Kidwell et al., 1997). Taken together, we examined group cohesion as a potential focal mediator of the aforementioned group optimism–composition–performance relationships.

*Hypothesis 1.* Group-mean optimism is positively related to group (a) task, (b) contextual, and (c) creative performance.

*Hypothesis 2.* Group cohesion partially mediates the relationships between group-mean optimism and group (a) task, (b) contextual, and (c) creative performance.

In addition to the mean operationalization, we examined SD in order to capture optimism variability within groups. Having group members that exhibit similar levels of a given personality trait often can amount to a well performing group (Prewett et al., 2009). According to the supplementary model of person–environment fit, trait similarity among group members is indicative of compatibility and may be beneficial for group communication, motivation, and performance (Neuman et al., 1999). Group members with similar levels of optimism (i.e., low optimism SD) share similarly positive or negative expectations for group outcomes. We expect such groups to be relatively cohesive and high performing—compared to groups with the same mean level of optimism but a large SD (i.e., group members with highly different optimism levels). Because heterogeneously optimistic group members (i.e., high optimism SD) comprise members who are not “on the same page” concerning group expectations, they may clash when communicating, experience diminished motivation and interpersonal cohesion, and, ultimately, perform poorly as a unit. For example, holding constant the mean level of optimism across the two groups, a group with members whose optimism levels are uniformly moderate may find it easier to communicate, collaborate, and avoid conflicts in comparison to a group consisting of some highly optimistic members and some members with very low optimism levels. The former



group may be better at working together to complete group tasks, supporting each other, and accepting and implementing group members' novel ideas.

*Hypothesis 3.* Group-level SD of optimism is negatively related to group (a) task, (b) contextual, and (c) creative performance.

*Hypothesis 4.* Group cohesion partially mediates the relationships between group-level SD of optimism and group (a) task, (b) contextual, and (c) creative performance.

### ***Emotional Contagion and the Impact of the Most and Least Optimistic Members***

In addition to the impact of the mean and SD operationalizations of group composition, particular group members may also exert influence on the rest of the group. The literature on emotional contagion suggests that emotions are transferred among group members (Barsade & Gibson, 2012). Because optimism comprises emotional characteristics (Seligman & Csikszentmihalyi, 2000), the individuals with the highest and lowest optimism levels in a group may uniquely impact the group as a whole. The most optimistic group member's future-focused emotional exchanges with others will largely be positive and pleasant—leading others to feel the same way and facilitating collaboration and task performance. Additionally, the most optimistic group member may instill optimism in other group members—leading others to feel more hopeful about the future—and encourage them to maintain good relationships and help each other complete goals. Moreover, the positive group emotions effected by such a member may facilitate approach behaviors and creative thoughts. With regard to cohesion, the most optimistic individual may boost group morale through emotional contagion as the positive emotions they instill in others may help mobilize intragroup bonds.

In contrast, the group member with the lowest optimism level has less favorable expectations about the future, and the negative emotional exchanges such a member may have

with other group members might be unpleasant and demotivating. Such exchanges may result in a shared feeling of discouragement and may ultimately hinder group task performance.

Additionally, this member's pessimism may instill hopelessness in others who may begin to feel that exerting extra effort to help each other is futile. Also, such pessimism may cause others to experience negative emotions (e.g., sadness, frustration) and become despondent and may ultimately hinder their novel thought-generation and risk taking—both of which are important for creativity and innovation climate (Ekvall, 1996). Moreover, the least optimistic individual may provoke cynicism, which may harm intragroup bonds and cohesion.

*Hypothesis 5.* Group-maximum level of optimism is positively related to group (a) task, (b) contextual, and (c) creative performance.

*Hypothesis 6.* Group-minimum level of optimism is positively related to group (a) task, (b) contextual, and (c) creative performance.

*Hypothesis 7.* Group cohesion partially mediates the relationships between group-maximum level of optimism and group (a) task, (b) contextual, and (c) creative performance.

*Hypothesis 8.* Group cohesion partially mediates the relationships between group-minimum level of optimism and group (a) task, (b) contextual, and (c) creative performance.

## **Method**

### **Participants and Procedure**

Data were collected from workgroups in 25 high-tech organizations in China at two time points, two weeks apart. During the first wave of data collection, group members provided demographic information and completed a dispositional optimism measure. In the second wave,

group leaders rated group cohesion and the three aforementioned group performance variables. Seventy teams (including 70 leaders and 230 team members) were initially surveyed. Given the study's focus on group composition, we removed groups with two or fewer members—resulting in a final sample of 56 groups (i.e., 14 groups were excluded). The mean age of the group members was 32.75 years ( $SD = 7.47$ ), and 41.58% of them were male. The teams were working together to develop and provide high-tech products and professional solutions. The employees and their team leaders in this sample interacted daily and thus were very familiar with each other. On average, employees had worked with their team leaders for about five years (60.13 months). All measures are presented in Table 1.

### Results

Table 2 contains descriptive statistics and correlations, Table 3 includes path coefficients (including direct effects), and Table 4 contains indirect effects. Group-mean optimism was positively related to group performance ( $r_{\text{mean-task}} = .42, p < .01$ ;  $r_{\text{mean-contextual}} = .45, p < .01$ ;  $r_{\text{mean-creative}} = .39, p < .01$ )—consistent with Hypotheses 1. Additionally, we expected cohesion to mediate these relationships (Hypothesis 2). This hypothesis was tested via path analysis using the PROCESS macro for SPSS (Hayes, 2017) with bootstrapping (5,000 samples) to calculate the 95% confidence intervals around the indirect effect. No control variables were included in this analysis. Consistent with Hypothesis 2, the indirect effects of group-mean optimism on group performance through cohesion were significant (indirect effect $_{\text{mean} \rightarrow \text{cohesion} \rightarrow \text{task}} = 0.37, 95\% \text{ CI } [0.05, 0.89]$ ; indirect effect $_{\text{mean} \rightarrow \text{cohesion} \rightarrow \text{contextual}} = 0.51, 95\% \text{ CI } [0.11, 1.00]$ ; indirect effect $_{\text{mean} \rightarrow \text{cohesion} \rightarrow \text{creative}} = 0.54, 95\% \text{ CI } [0.12, 1.03]$ ). With regard to direct effects of group composition, group mean optimism predicted group task and contextual performance ( $b_{\text{mean-task}} =$

0.61,  $p < .05$ ;  $b_{\text{mean-contextual}} = .50, p < .05$ ) but did not predict group creative performance ( $b_{\text{mean-creative}} = 0.44, ns$ ).

Group SD of optimism was unrelated to group performance ( $r_{\text{SD-task}} = .02, ns$ ;  $r_{\text{SD-contextual}} = -.04, ns$ ;  $r_{\text{SD-creative}} = -.11, ns$ ), and cohesion did not function as a mediator variable (indirect effect $_{\text{SD} \rightarrow \text{cohesion} \rightarrow \text{task}} = -0.26, 95\% \text{ CI } [-0.99, 0.67]$ ; indirect effect $_{\text{SD} \rightarrow \text{cohesion} \rightarrow \text{contextual}} = -0.33, 95\% \text{ CI } [-1.22, 0.84]$ ; indirect effect $_{\text{SD} \rightarrow \text{cohesion} \rightarrow \text{creative}} = -0.34, 95\% \text{ CI } [-1.29, 0.82]$ )—failing to support Hypotheses 3 and 4. With regard to direct effects of group composition, group SD of optimism did not predict group performance ( $b_{\text{SD-task}} = 0.33, ns$ ;  $b_{\text{SD-contextual}} = .16, ns$ ;  $b_{\text{SD-creative}} = -0.13, ns$ ; respectively).

Consistent with Hypotheses 5 and 6, both group-maximum and minimum level of optimism were positively associated with group performance ( $r_{\text{maximum-task}} = .40, p < .01$ ;  $r_{\text{maximum-contextual}} = .40, p < .01$ ;  $r_{\text{maximum-creative}} = .30, p < .05$ ;  $r_{\text{minimum-task}} = .36, p < .01$ ;  $r_{\text{minimum-contextual}} = .38, p < .01$ ;  $r_{\text{minimum-creative}} = .37, p < .01$ ). No significant indirect effects of group-maximum level of optimism on performance via cohesion were found (indirect effect $_{\text{maximum} \rightarrow \text{cohesion} \rightarrow \text{task}} = 0.23, 95\% \text{ CI } [-0.05, 0.82]$ ; indirect effect $_{\text{maximum} \rightarrow \text{cohesion} \rightarrow \text{contextual}} = 0.39, 95\% \text{ CI } [-0.09, 0.92]$ ; indirect effect $_{\text{maximum} \rightarrow \text{cohesion} \rightarrow \text{creative}} = 0.41, 95\% \text{ CI } [-0.11, 0.95]$ )—failing to support Hypothesis 7. Consistent with Hypothesis 8, the indirect effects of group-minimum level of optimism on group performance via cohesion were significant (indirect effect $_{\text{minimum} \rightarrow \text{cohesion} \rightarrow \text{task}} = 0.31, 95\% \text{ CI } [0.08, 0.70]$ ; indirect effect $_{\text{minimum} \rightarrow \text{cohesion} \rightarrow \text{contextual}} = 0.42, 95\% \text{ CI } [0.11, 0.80]$ ; indirect effect $_{\text{minimum} \rightarrow \text{cohesion} \rightarrow \text{creative}} = 0.43, 95\% \text{ CI } [0.09, 0.84]$ ). With regard to direct effects of group composition, group-maximum level of optimism predicted group task and contextual performance ( $b_{\text{maximum-task}} = 0.55, p < .05$ ;  $b_{\text{maximum-contextual}} = 0.37, p < .05$ ) but did not predict group creative performance ( $b_{\text{maximum-creative}} = 0.24, ns$ ), whereas group-

minimum level optimism did not predict group performance ( $b_{\text{minimum-task}} = 0.38, ns$ ;  $b_{\text{minimum-contextual}} = 0.27, ns$ ;  $b_{\text{minimum-creative}} = 0.32, ns$ ).

### Discussion

Whereas previous researchers largely focused on individual-level optimism–outcome relationships or state-like optimism, our study is the first to examine relationships between group composition of trait optimism and group-level outcomes. In the present study, we found that both the group-mean and group-minimum level of optimism were positively related to group task performance, group contextual performance, and group creative performance, and group cohesion partially mediated these relationships. In other words, higher levels of optimism for both the least optimistic group member and the group at large benefit group cohesion and ultimately group performance. Additionally, group-maximum level of optimism was positively related to the three group performance variables; however, group cohesion did not mediate these relationships. We also did not find any significant effects for the SD operationalization of group optimism. In other words, cohesion did not explain the positive relationships we found between the group-maximum operationalization of optimism and group performance, and group SD was unrelated to both group outcomes.

The relationships we uncovered highlight the socioemotional, interpersonal nature of trait optimism and the importance of optimism for teamwork. Highly optimistic groups have members who generally have positive expectations for success; experience heightened positive emotions when they are interacting with each other; and, ultimately, operate as cohesive, high-performing work units. Additionally, although we did not directly test emotional contagion theory, our findings are consistent with the theory in that they suggest individual members of a group (viz., the most and least optimistic individuals) impact outcomes for the group at large.

The most optimistic group member's positivity may be contagious such that it may lead others to also feel optimistic about the future and consequently successfully accomplish team tasks, go out of the way to help fellow group members, and take risks on creative ideas. Additionally, the least optimistic group member's relative negativity may engender despair in other group members and demotivate others—consequently harming group cohesion, and ultimately, task-related, helping, and risk-taking behaviors. Taken together, group performance benefits from individual members, including the individual who is the least optimistic relative to their teammates, possessing more optimism.

Our study also contributes to the literature on group composition of traits. In general, group-composition researchers examining trait–performance relationships largely have focused more on additive and/or heterogeneity composition operationalizations relative to the other operationalizations (see Bell, 2007). Our study joins the scant collection of studies in which a comprehensive collection of statistical operationalizations of trait variables are considered vis-à-vis group performance. The importance of considering multiple statistical operationalizations in this area of research is emphasized by the patterns of dissimilar relationships we found: 1) Both the group-mean and group-minimum level of optimism were positively related to the three types of group performance, and group cohesion partially mediated these relationships; 2) group-maximum level of optimism was positively related to group performance, but group cohesion did not mediate these relationships; and 3) the SD operationalization of group optimism did not significantly explain variance in any of the group outcomes. These results, as well as those uncovered by other group-composition researchers (e.g., Barrick et al., 1998; Halfhill et al., 2005), highlight the importance of examining all of the aforementioned statistical

operationalizations of group composition in this line of research and the complexity associated with group-level variables.

Interestingly, no significant effects were found for the SD of group optimism. One potential reason optimism SD did not predict group outcomes in the present study is that both high and low optimism SD may be beneficial for a group. For example, it is possible that group members with varying levels of optimism may have to communicate more to reconcile their different perspectives, and this increased communication and various perspectives could be beneficial for performance. But according to the supplementary model of person–environment fit, it also may be that homogeneously optimistic groups tend to be “on the same page” and find it easier to collaborate and avoid conflicts—positively impacting teamwork. These two countervailing forces may effectively cancel each other out and render group optimism operationalized as the SD unrelated to group performance. Future research testing this idea and extending our findings would be of great value. It would also be important to examine whether a group can possess too much optimism to the extent that it is detrimental. Unrealistic optimism about a group’s success is characteristic of groupthink (Esser, 1998). Future research could also address the potential curvilinear relationships between group optimism and group performance.

The current findings have implications for team design. Our results suggest that staffing groups with generally optimistic individuals would benefit group cohesion and performance. Additionally, our results underscore the notion that particular group members have the capacity to impact the rest of the group. The individuals who represent the extremes of the intragroup distribution of optimism scores have the capacity to impact the rest of the group. Taken together, we recommend staffing workgroups with dispositionally optimistic individuals such that

workgroups have high mean levels of optimism and the optimism levels of such groups' most and least optimistic individuals are also reasonably high.

As reported above, employees, on average, worked about five years with their team leaders. It would be potentially valuable to examine the present study's research questions with newly created teams.<sup>1</sup> The influence of team members' personality might be more salient in the initial "break-in" period. Over time, group members might get more used to each other's personality and thus become less influenced by it. Consistent with this notion, West et al. (2009), in their study on student class-project teams, found differences between team collaboration at the beginning of the semester and team collaboration at the end of the semester. Specifically, the group optimism-cohesion relationship was  $r = .54$  at the beginning of the semester and  $r = .39$  later in the semester. Based on these ideas and findings, our results might be relatively conservative estimates of the impact of trait optimism.

Although cohesion was the only mediator variable we investigated in the present study, we encourage researchers to study other potential focal mediators; doing so will further empirically elucidate the group optimism-performance relationship. For example, Stajkovic et al. (2009) meta-analytically demonstrated that group potency (i.e., general perceptions of a group's capacity to succeed across a range of activities) and collective efficacy (i.e., perceptions of a group's capacity to succeed in a specific domain of interest) were positively and differently related to group performance and that collective efficacy fully mediated the group potency-performance relationship. Perhaps group optimism composition impacts these group perceptions. Although we found no significant effects associated with the SD operationalization, uniformity of trait optimism at the group level may relate to the aforementioned group perceptions, which in turn should be positively related to group performance.

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<sup>1</sup> We thank an anonymous reviewer for suggesting this idea.



In addition to being examined as other focal mediator variables, group potency and collective efficacy alternatively could be specified as focal predictor variables in their own right. As one anonymous reviewer pointed out, optimism contextualized specifically to group matters (e.g., “My team is optimistic about being able to complete its goals this quarter”) may be, in some scenarios, more relevant than the aggregation of individual group members’ dispositional optimism. Perhaps for interdependent yet ineffective teams, dispositional optimism may not translate into cohesion and group performance. Instead, the harsh reality of previous failures and a fear of impending failures may substantially diminish group potency and collective efficacy and ultimately detract from cohesion and performance. We encourage researchers to consider adopting a referent-shift approach to researching group optimism and investigate scenarios in which group potency and/or collective efficacy are more relevant than group composition of trait optimism when predicting group outcomes.

A couple of limitations involve the present study’s sample characteristics. The 56 workgroups involved in this study amount to a relatively small sample. We encourage future group-optimism researchers to collect data from larger samples of workgroups so that they can provide factor-analytic information at the group level and employ structural equation modeling. Another limitation concerns the generalizability of our findings given the sample. The workgroups that participated in our study were from high-tech organizations, which often afford opportunities for employee creativity and growth—both of which are reasons for employees to be optimistic.<sup>2</sup> But are there environments and situations in which optimism may, at best, be less/not relevant or, at worst, detrimental to workgroup functioning? Perhaps tempered optimism or even pessimism may be beneficial in some scenarios. For example, a mixture of some “external overconfidence and optimism” with some “internal underconfidence and pessimism”

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<sup>2</sup> We thank an anonymous reviewer for pointing out this characteristic of high-tech organizations.

may enable those in politics to instill hope in others *and* detect deficiencies and threats (Chamorro-Premuzic, 2020, para. 9). Additionally, as optimism and risk-taking often co-occur (Kahneman & Lovallo, 1993), pessimism may be especially beneficial for high-risk situations in which human lives are at stake (e.g., human spaceflight; see Moriarty, 2016). We recommend that researchers continue to examine group optimism-composition-performance relationships in numerous settings.

### References

- Alessandri, G., Consiglio, C. Luthans, F., & Borgogni, L. (2017). Testing a dynamic model of the impact of psychological capital on work engagement and job performance. *Career Development International, 23*(1), 33–47. <https://doi.org/10.1108/CDI-11-2016-0210>
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology, 83*(3), 377–391. <https://doi.org/10.1037/0021-9010.83.3.377>
- Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly, 47*(4), 644–675. <https://doi.org/10.2307/3094912>
- Barsade, S. G., & Gibson, D. E. (2012). Group affect: Its influence on individual and group outcomes. *Current Directions in Psychological Science, 21*(2), 119–123. <https://doi.org/10.1177/0963721412438352>
- Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L. (2003). Cohesion and performance in groups: A meta-analytic clarification of construct relations. *Journal of Applied Psychology, 88*(6), 989–1004. <https://doi.org/10.1037/0021-9010.88.6.989>
- Bell, S. T., Brown, S. G., Colaneri, A., & Outland, N. (2018). Team composition and the ABCs of teamwork. *American Psychologist, 73*(4), 359–362. <https://doi.org/10.1037/amp0000305>
- Bell, S. T. (2007). Deep-level composition variables as predictors of team performance: A meta-analysis. *Journal of Applied Psychology, 92*(3), 595–615. <https://doi.org/10.1037/0021-9010.92.3.595>

Brassey, J., & Kruyt, M. (2020, April 30). *How to demonstrate calm and optimism in a crisis*.

<https://www.mckinsey.com/business-functions/organization/our-insights/how-to-demonstrate-calm-and-optimism-in-a-crisis>

Brislin, R. (1981). *Cross-cultural encounters: Face-to-face interactions*. Pergamon.

Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30*(7), 879–889. <https://doi.org/10.1016/j.cpr.2010.01.006>

Castaño, N., Watts, T. & Tekleab, A. G. (2013). A reexamination of the cohesion-performance relationship meta-analysis: A comprehensive approach. *Group Dynamics: Theory, Research, and Practice, 17*(4), 207–231. <https://doi.org/10.1037/a0034142>

Chamorro-Premuzic, T. (2020, April 5). Why optimism may not be enough to carry us through times of crisis. *Fast Company*. <https://www.fastcompany.com/90486208/why-optimism-may-not-be-enough-to-carry-us-through-times-of-crisis>

Ekvall, G. (1996). Organizational climate for creativity and innovation. *European Journal of Work and Organizational Psychology, 5*(1), 105–123.

<https://doi.org/10.1080/13594329608414845>

Esser, J. K. (1998). Alive and well after 24 years: A review of groupthink research.

*Organizational Behavior and Human Decision Processes, 73*(2–3), 116–141.

<https://doi.org/10.1006/obhd.1998.2758>

Festinger, L. (1950). Informal social communication. *Psychological Review, 57*(5), 271–282.

<https://doi.org/10.1037/h0056932>

Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology, 2*(3), 300–319. <https://doi.org/10.1037/1089-2680.2.3.300>

- George, J. M., & Zhou, J. (2001). When Openness to Experience and Conscientiousness Are Related to Creative Behavior: An Interactional Approach. *Journal of Applied Psychology*, 86(3), 513–524. <https://doi.org/10.1037/0021-9010.86.3.513>
- Halfhill, T., Nielsen, T. M., Sundstrom, E., & Weilbaeher, A. (2005). Group personality composition and performance in military service teams. *Military Psychology*, 17(1), 41–54. [https://doi.org/10.1207/s15327876mp1701\\_4](https://doi.org/10.1207/s15327876mp1701_4)
- Harter, J. (2020, May 20). *Is your culture resilient enough to survive coronavirus?* <https://www.gallup.com/workplace/311270/culture-resilient-enough-survive-coronavirus.aspx>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd. ed.). Guilford Press.
- Hülsheger, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology*, 94(5), 1128–1145. <https://doi.org/10.1037/a0015978>
- Joo, B.-K., Song, J. H., Lim, D. H., & Yoon, S. W. (2012). Team creativity: The effects of perceived learning culture, developmental feedback, and team cohesion. *International Journal of Training and Development*, 16(2), 77–91. <https://doi.org/10.1111/j.1468-2419.2011.00395.x>
- Kahneman, D., & Lovallo, D. (1993). Timid choices and bold forecast: A cognitive perspective on risk taking. *Management Science*, 39(1), 17–31. <https://doi.org/10.1287/mnsc.39.1.17>
- Kidwell, R. E., Jr., Mossholder, K. W., & Bennett, N. (1997). Cohesiveness and organizational citizenship behavior: A multilevel analysis using work groups and individuals. *Journal of Management*, 23(6), 775–793. <https://doi.org/10.1177/014920639702300605>

- Lawler, E. J., Thye, S. R., & Yoon, J. (2000). Emotion and group cohesion in productive exchange. *American Journal of Sociology*, *106*(3), 616–657.  
<https://doi.org/10.1086/318965>
- Luthans, F. (2002). Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, *16*(1), 57–72.  
<https://doi.org/10.5465/ame.2002.6640181>
- Mathieu, J. E., Tannenbaum, S. I., Donsbach, J. S., & Alliger, G. M. (2014). A review and integration of team composition models: Moving toward a dynamic and temporal framework. *Journal of Management*, *40*(1), 130–160.  
<https://doi.org/10.1177/0149206313503014>
- Moriarty, J. (2016, February 1) Viewpoint: Challenger and the misunderstanding of risk. *BBC News Magazine*. <https://www.bbc.com/news/magazine-35432071>
- Mortensen, M., & Hadley, C. N. (2020, May 22). How to prepare your virtual teams for the long haul. *Harvard Business Review*. <https://hbr.org/2020/05/how-to-prepare-your-virtual-teams-for-the-long-haul>
- Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, *79*(4), 475–480. <https://doi.org/10.1037/0021-9010.79.4.475>
- Neuman, G. A., Wagner, S. H., & Christiansen, N. D. (1999). The relationship between work-team personality composition and the job performance of teams. *Group & Organization Management*, *24*(1), 28–45. <https://doi.org/10.1177/1059601199241003>

- Peterson, C., Park, N., & Sweeney, P. J. (2008). Group well-being: Morale from a positive psychology perspective. *Applied Psychology: An International Review*, *57*(s1), 19–36. <https://doi.org/10.1111/j.1464-0597.2008.00352.x>
- Prewett, M. S., Walvoord, A. A. G., Stilson, F. R. B., Rossi, M. E., & Brannick, M. T. (2009). The team personality–team performance relationship revisited: The impact of criterion choice, pattern of workflow, and method of aggregation. *Human Performance*, *22*(4), 273–296. <https://doi.org/10.1080/08959280903120253>
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *67*(6), 1063–1078. <https://doi.org/10.1037/0022-3514.67.6.1063>
- Seligman, M.E. P. (1998). *Learned optimism*. Free Press.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14. <https://doi.org/10.1037/0003-066X.55.1.5>
- Smith, T. W., Pope, M. K., Rhodewalt, F., & Poulton, J. L. (1989). Optimism, neuroticism, coping, and symptom reports: An alternative interpretation of the Life Orientation Test. *Journal of Personality and Social Psychology*, *56*(4), 640–748. <https://doi.org/10.1037/0022-3514.56.4.640>
- Stajkovic, A. D., Lee, D., & Nyberg, A. J. (2009). Collective efficacy, group potency, and group performance: Meta-analyses of their relationships, and test of a mediation model. *Journal of Applied Psychology*, *94*(3), 814–828. <https://doi.org/10.1037/a0015659>

- Van Scotter, J. R., & Motowidlo, S. J. (1996). Interpersonal facilitation and job dedication as separate facets of contextual performance. *Journal of Applied Psychology, 81*(5), 525–531. <https://doi.org/10.1037/0021-9010.81.5.525>
- West, B. J., Patera, J. L., & Carsten, M. K. (2009). Team level positivity: Investigating positive psychological capacities and team level outcomes. *Journal of Organizational Behavior, 30*(2), 249–267. <https://doi.org/10.1002/job.593>
- Wongpakaran, T., Wongpakaran, N., Intachote-Sakamote, R., & Boripuntakul, T. (2012). The Group Cohesiveness Scale (GCS) for Psychiatric Inpatients. *Perspectives in Psychiatric Care, 49*(1), 58–64. <https://doi.org/10.1111/j.1744-6163.2012.00342.x>
- Zellmer-Bruhn, M., & Gibson, C. (2006). Multinational Organization Context: Implications for Team Learning and Performance. *Academy of Management Journal, 49*(3), 501–518. <https://doi.org/10.5465/amj.2006.21794668>



**Table 1***Measures, Sample Items, and Internal Consistencies*

Measures	Source	Sample item	Cronbach's $\alpha$
Group optimism	Scheier et al.'s (1994) six-item revised Life Orientation Test	"I'm always optimistic about my future."	.74
Group cohesion	Wongpakaran et al.'s (2012) seven-item Group Cohesiveness Scale	"The members like and care about each other."	.98
Group task performance	Zellmer-Bruhn and Gibson's (2006) five-item team task performance scale	"This team meets the requirements set for it."	.99
Group contextual performance	Van Scotter and Motowidlo's (1996) 15-item scale	"Encourage others to overcome their differences and get along."	.98
Group creative performance	Five items from George and Zhou's (2001)	"Comes up with new and practical ideas to improve performance."	.93

*Note.* Each measure was translated and back-translated from Chinese and English (Brislin, 1981), and each measure had a 5-point response scale of 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's  $\alpha$  was assessed before aggregating to the team level.

**Table 2***Descriptive Statistics and Bivariate Correlations of Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Group-mean optimism	3.31	0.23							
2. Optimism SD	0.28	0.13	.00						
3. Maximum optimism	3.59	0.27	.87**	.43**					
4. Minimum optimism	3.01	0.28	.81**	-.53**	.50**				
5. Group cohesion	4.31	0.58	.33*	-.11	.28*	.32*			
6. Group task performance	4.35	0.55	.42**	.02	.40**	.36**	.57**		
7. Group contextual performance	4.26	0.51	.45**	-.04	.40**	.38**	.78**	.79**	
8. Group creative performance	4.02	0.58	.39**	-.11	.30*	.37**	.72**	.53**	.76**

*Note.*  $N = 56$  groups with 56 group leaders and 202 group members (number of group members excluding group leaders ranged from three to five members).  $M$  = mean;  $SD$  = standard deviation; Optimism SD = optimism standard-deviation operationalization.

\* $p < .05$ . \*\* $p < .01$  (two-tailed).

**Table 3***Summary of Path-Analytic Results*

Predictor variable	Group cohesion		Group task performance		Group contextual performance		Group creative performance	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Group-mean optimism	0.82*	0.32	0.61*	0.27	0.50*	0.19	0.44	0.24
Group cohesion			0.45**	0.11	0.62**	0.08	0.66**	0.10
Optimism SD	-0.48	0.62	0.33	0.48	0.16	0.35	-0.13	0.43
Group cohesion			0.54**	0.11	0.69**	0.08	0.71**	0.09
Maximum optimism	0.60*	0.29	0.55*	0.23	0.37*	0.16	0.24	0.21
Group cohesion			0.46**	0.11	0.64**	0.08	0.68**	0.10
Minimum optimism	0.65*	0.26	0.38	0.22	0.27	0.16	0.32	0.20
Group cohesion			0.47**	0.11	0.64**	0.08	0.67**	0.10

*Note.* *b* = unstandardized path coefficient; *SE* = standard error; Optimism SD = Optimism standard-deviation operationalization.

Separate path analyses were conducted for each group composition variable (i.e., mean, SD, maximum, and minimum) due to multicollinearity concerns.

\*  $p < .05$ . \*\*  $p < .01$ .

**Table 4***Results for Hypothesized Indirect Effects*

Hypothesized indirect effect	Indirect effect	95% Confidence interval
Group-mean optimism → Group cohesion → Group task performance	0.37	0.05, 0.89
Group-mean optimism → Group cohesion → Group contextual performance	0.51	0.11, 1.00
Group-mean optimism → Group cohesion → Group creative performance	0.54	0.12, 1.03
Optimism SD → Group cohesion → Group task performance	-0.26	-0.99, 0.67
Optimism SD → Group cohesion → Group contextual performance	-0.33	-1.22, 0.84
Optimism SD → Group cohesion → Group creative performance	-0.34	-1.29, 0.82
Maximum optimism → Group cohesion → Group task performance	0.23	-0.05, 0.82
Maximum optimism → Group cohesion → Group contextual performance	0.39	-0.09, 0.92
Maximum optimism → Group cohesion → Group creative performance	0.41	-0.11, 0.95
Minimum optimism → Group cohesion → Group task performance	0.31	0.08, 0.70
Minimum optimism → Group cohesion → Group contextual performance	0.42	0.11, 0.80
Minimum optimism → Group cohesion → Group creative performance	0.43	0.09, 0.84

*Note.* Optimism SD = Optimism standard-deviation operationalization. Indirect effects with confidence intervals that do not include zero are significant. Bootstrapping (5,000 samples) was implemented for the calculation of the 95% confidence intervals around the indirect effects.