sustainability

MDPI

Article

The Effects of Leader Self-Sacrifice in Virtual Teams on Prosocial Behavior: The Mediational Role of Team Identification and Self-Efficacy

Stefano Ruggieri [1,*], Melissa Gagliano [1], Rocco Servidio [2], Ugo Pace [1] and Alessia Passanisi [1]

[1] Faculty of Human and Social Sciences, Kore University of Enna, 94100 Enna, Italy; melissa.gagliano@unikorestudent.it (M.G.); ugo.pace@unikore.it (U.P.); alessia.passanisi@unikore.it (A.P.)
[2] Department of Cultures, Education and Society, University of Calabria, 87036 Cosenza, Italy; rocco.servidio@unical.it
* Correspondence: stefano.ruggieri@unikore.it

Abstract: Leadership is one of the most studied features of virtual teams. Among the various characteristics analyzed by recent literature, leadership self-sacrifice is one of the most important, as it represents a predictor of many positive characteristics of teams' functioning. In this study, we (a) analyze the relationship between leader self-sacrifice and the prosocial behavior of followers in a work team and (b) observe the effects of leader self-sacrifice in virtual teams. A sample of 197 university students enrolled in a psychology course took part in a group electronic task of writing a detailed research plan for a scientific investigation. Participants collaborated in groups of five, led by a senior student for 30 days. Results showed the presence of an effect of e-leadership self-sacrifice on followers' prosocial behavior. Another effect of e-leadership self-sacrifice was found via team identification and perceived self-efficacy. Findings are discussed on the basis of Social Identity Theory, showing the importance of self-sacrifice e-leaders to promote reciprocal prosocial behavior of the followers.

Keywords: e-leadership; self-sacrifice; virtual teams; prosocial behavior; team identification; self-efficacy

Citation: Ruggieri, S.; Gagliano, M.; Servidio, R.; Pace, U.; Passanisi, A. The Effects of Leader Self-Sacrifice in Virtual Teams on Prosocial Behavior: The Mediational Role of Team Identification and Self-Efficacy. *Sustainability* **2023**, *15*, 6098. https://doi.org/10.3390/su15076098

Academic Editor: Fernando Almeida

Received: 9 February 2023
Revised: 28 March 2023
Accepted: 30 March 2023
Published: 31 March 2023

1. Introduction

In the last 30 years, research has increasingly focused on virtual teams [1,2]. Virtual teams offer advantages to work groups and organizations, such as connecting employees without space limits, offering flexible work hours for rising productivity [2–4], easily creating subgroups to affect team success [5,6] and improving individual well-being [7,8]. The application of innovative strategies and technologies is of fundamental importance to benefit organizations [9], which are increasingly looking for people with suitable skills to support the technological transition [10]. The recent and growing interest in leadership issues has thus been fostered by the spread of advanced information and communication technologies that are fueling the transition to distributed work practices [11,12].

Over the last few years, one aspect that has attracted particular attention in leadership research is self-sacrifice. Leaders are perceived as more credible when they show real concern for their followers' needs, rather than for their own interests [13]. Following the model of self-sacrificial leadership, Choi and Mai-Dalton have argued that leaders who engage in self-sacrificing behavior are bound by a strong sense of duty and ethics to serve the collective interest [14]. Consequently, such leaders go to great lengths to ensure that collective goals are achieved, often at a personal cost, indeed often carrying an extra load to help their subordinates meet work demands or giving up their own benefits in the interest of others [13]. Van Knippenberg and Van Knippenberg have observed that self-sacrificial

leadership refers to a form of leadership that includes an abandonment or postponement of personal interests, rights, and privileges for the common welfare of the group [15]. Because of these behaviors, self-sacrificial leaders serve as a landmark to their followers; therefore, they can be expected to motivate the latter to exhibit similar group-serving behaviors. Studies suggest that leaders' self-sacrificial behaviors influence followers by fostering norms of reciprocity [14] and project leaders as role models [16].

One of the best-studied outcomes to have received some attention from self-sacrifice leadership scholars is prosocial behavior [15–23]. Ames et al. [24] have observed that a recipient's evaluation of the intentions behind a prosocial behavior and his/her attitudes about future interactions with the helper depend on the recipient's perception of why the helper decided to assist, based on effect, on the role, or cost-benefit calculation. Through the norm of reciprocity, if the recipient of a prosocial behavior perceives the other person's sacrifice, he/she will tend to produce prosocial behavior in turn.

In recent times, another area that has become a focus of leadership research is virtual teams. A growing body of literature has focused on the specific figure of e-leaders, individuals who face special challenges in the dynamic context of virtual teams. A virtual context makes it necessary to revise leadership styles and methods because the interaction occurs through an electronic device.

Researchers in the field of virtual team leadership have analyzed many aspects of the life of e-leaders, including performance [25], personality styles [26], communication and skills [27]. To date, self-sacrificial leadership has only been investigated in relation to face-to-face interactions: nothing is known about what happens in virtual teams. Finding out whether what has been observed in relation to face-to-face interactions is completely reproducible within virtual contexts is therefore an aspect of crucial importance, insofar as many social and work relationships are increasingly taking place in virtual environments.

Based on what we have described, the main aims of the present study are twofold: (a) to analyze the relationship between leader self-sacrifice and the prosocial behavior of followers in a work team—we will also observe the role of two other key variables, team identification and self-efficacy, as mediators of this relationship; (b) to observe the effects of leader self-sacrifice in virtual teams since, to the best of our knowledge, no studies have measured them so far.

2. Literature Review

Researchers define self-sacrifice as the willingness to accept certain suffering, if necessary, to support a cause or an important goal [28,29]. Much of what we know about self-sacrifice comes from the extensive literature on leadership. Leaders who display self-sacrificial behavior are regarded by their followers as being more effective, charismatic, and legitimate than self-benefiting leaders [30]. According to Conger and Kanungo [31], such leaders can inspire others because of their extraordinary ability and capacity to transform the individual needs of their followers into the common need of the organization.

Self-sacrificing leaders are concerned with their followers' needs and try to make all group members understand their mission and what aim they intend to achieve [32]. Moreover, thanks to leaders' respect for the team, members generally trust them, meaning that they do not fear any misbehavior on their leaders' part [21].

Self-sacrificing leaders motivate followers to display similar positive behavior because they activate goals and values that include forgoing self-interest for the group's good, ensuring the team's welfare and acting ethically as they fulfill their obligations and moral duties [18,33]. These values should motivate followers to reciprocate the leader's self-sacrifice, for example, by displaying prosocial behaviors [14,34–37]. Indeed, in certain circumstances, the efforts and sacrifices made by leaders can be taken as an example (and even reproduced) by followers. Prosocial behavior has received some attention from self-sacrificial leadership scholars because of the close relationship between the two phenomena [38]. Although many people confuse pro-social behavior and self-sacrifice, they are not the same [39]. Self-sacrifice does not specify who the beneficiary of the sacrifice might

be, while prosocial behavior is essentially focused on "giving something up" for the benefit of another person [23,33,40].

According to Choi and Mai-Dalton's [33] analytical leadership model, leaders can sacrifice themselves within three main organizational areas: the division of labor, the distribution of rewards and the distribution of power. In terms of the division of labor, leaders can voluntarily engage in more complex or risky tasks. In this case, leaders assume all responsibility for any negative outcomes. As for the distribution of rewards, leaders can waive or postpone their share of the rewards. Finally, as regards the distribution of power, leaders may forego exercising their privileges, for instance by choosing not to exercise their power despite having the right to do so [35].

Some studies have examined leaders' engagement in self-sacrificial behaviors [30,41–43]. In one of these, a study based on social identity theory, it was found that leaders who identified with their role were more likely to engage in self-sacrificial behaviors, especially when they had high levels of work addiction [41]. On the contrary, leaders who intended to leave their organization were less likely to engage in self-sacrificial behaviors [42].

Many studies have examined the impact of leader self-sacrifice on followers' behaviors, including in relation to organizational citizenship behavior, unethical behavior, work engagement, voice, and creativity [23,44–46].

Regarding the impact on followers, Choi and Mai-Dalton [14] have observed that leaders who sacrifice themselves for their team produce three major types of impact. First, they tend to be seen as more charismatic and receive more trust, loyalty and admiration than leaders who do not sacrifice themselves [37,38,47,48]. Second, they are perceived as having the "right stuff" and as being more entitled to lead and influence the group members. Third, self-sacrificing leaders are expected to fulfill the delicate task of making all followers abide by the group's rules, by convincing them to sacrifice themselves for the team. Finally, all leaders play an important role in shaping their organization's culture. Because they are considered reference points, consistent with Bem's [49] theory of self-perception, self-sacrificial leaders establish the norm of reciprocity, which is usually built on adherence to the group's rules and the willingness to help others [14,50,51].

In this regard, self-sacrificial leadership promotes interpersonal help [21] and reciprocal behavior [14]. Followers are more likely to exhibit prosocial behavior and imitate their leader's actions when they perceive that their values and goals are the same as those pursued by the leader [18]. Other researchers have noted that self-sacrificial leadership could be considered a precursor for prosocial behavior in people belonging to a given organization [17,32,33].

Followers feel obliged to reciprocate the leniency received, suggesting that a socially shared goal and the group's interests should be protected and maintained [14,33].

Based on the premise that congruence in values increases the likelihood of behavioral engagement [34,52], the motivation to reciprocate prosocial behavior is stronger when values and goals are activated by self-sacrificial leadership [18]. The motivational foundation of self-sacrificial leadership is therefore directly related to how consistent followers' goals are with those activated by the self-sacrificing leader's behavior [26,36].

Following De Cramer et al. [18], self-sacrificing leaders operate as role models motivating prosocial behavior because the behavior of self-sacrifice activates the values of being dutiful, fulfilling obligations and protecting collective interests. The influence of leader self-sacrifice is based on how the behavior of self-sacrifice is perceived and interpreted as a function of followers' goal regulation.

The considerable importance acquired by virtual relationships in people's daily life and work in recent years has not been accompanied by increased interest in virtual contexts in the literature on self-sacrificing leaders. So far, all studies on the topic have been conducted by focusing on face-to-face interactions, and nothing is known about what happens in virtual teams.

Therefore, the primary aim of our study was to fill this gap by testing previous findings in the context of virtual teams.

In this regard, we hypothesized that (Figure 1):

H1. *In virtual teams, leader self-sacrifice is positively related to prosocial behavior.*

As already stated, self-sacrificing leaders serve as role models for their followers and can thus be expected to motivate them to exhibit prosocial behaviors toward other group members. In line with this idea, research has indeed shown that self-sacrificial leadership promotes cooperation [19,53], willingness to engage in organizational change [15], and work involvement [53]. A variable closely connected with many of these aspects is team identification [54]. Team identification is one of the most important factors in defining one's identity. It can be considered the extent to which an individual team member identifies with a specific organizational team rather than any social group [55]. Team identification motivates members to behave in accordance with the group's interests and strengthens ties between members. It represents individual members' perceived sense of belonging to a particular team. According to the self-concept-based theory of leadership [56], effective leaders are very adept at fostering employee group identification; hence, we hypothesized that:

H2. *In virtual teams, leader self-sacrifice is positively related to team identification.*

Researchers have shown that team identification is a fundamental predictor of efforts on behalf of one's organization or group [57]. Sharing a group membership facilitates a shared experience regarding work tasks, stressors, and challenges; thus, team members perceive high levels of social support from other team members [58–61]. This supportive approach at work should strengthen the perception of being part of a successful, accomplished, and self-efficacious team [62]. In turn, being part of a self-efficacious team should increase personal self-efficacy levels. Self-efficacy consists of individuals' "beliefs in their capability to exercise some measure of control over their own functioning and over environmental events" [63] (p. 10). Recognized as one of the most central mechanisms of human agency, self-efficacy influences motivation, personal achievement, and fulfillment [63–65]. On this basis, we proposed that:

H3. *In virtual teams, team identification is positively related to personal self-efficacy.*

Self-efficacy can be responsible for unity and directness in an individual's actions [66]. As shown by Bandura [63], only if individuals have confidence in their own ability or that of their group to do something, can they engage in effective behavior. Bandura et al. [67] have noted the relationship between prosocialness and self-efficacy, and many other studies have confirmed this association [68–71]. Self-efficacy may promote prosocial behaviors by fostering feelings of psychological empowerment that motivate individuals to engage prosocially with others [72].

Recent research has shown that self-efficacy and prosocial behavior are associated with online settings [73]. It has been observed that confidence in one's ability to manage online social relationships (social self-efficacy) positively predicts prosocial online behavior. So, at the beginning of our study, we assumed that:

H4. *Personal self-efficacy is positively related to prosocial behavior in virtual teams.*

In a recent review [17], antecedents (i.e., sense of power, sense of belongingness, perspective taking) [30,41], outcomes (i.e., trust in the leader) [74], mediators (i.e., organizational identification, leader identification), [75,76] and moderators (i.e., leaders' and followers' characteristics such as competence, risk aversion) [14,76] in leadership self-sacrifice were analyzed. This review revealed that many variables had been studied over the course of 20 years of research on this topic. However, it seems worthwhile to examine the

relationships between these variables in order to better clarify the dynamics and processes at work in self-sacrificing behavior among leaders. Starting from these theoretical premises and the previous hypotheses formulated in the current research, we tested the serial mediation role of team identification and self-efficacy on prosocial behavior in virtual teams. Leader self-sacrifice was suggested as a potential antecedent of prosocial behavior, but this association could be triggered through a serial mediation model not yet been explored. So, we hypothesized that:

H5. *In virtual teams, team identification and self-efficacy mediate the relationship between leader self-sacrifice and prosocial behavior.*

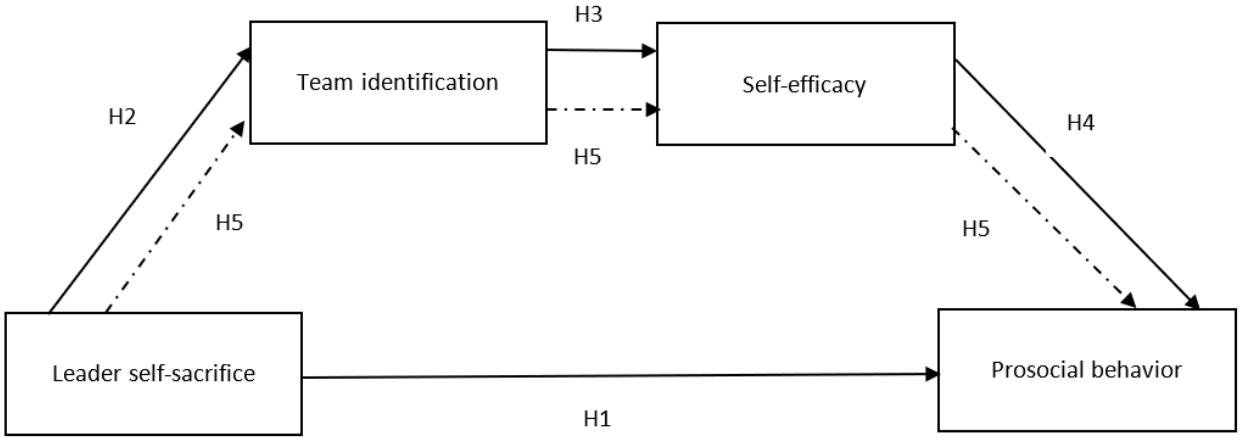

Figure 1. The research model.

3. Materials and Methods

3.1. Participants and Procedure

One hundred ninety-seven university students (77 males and 120 females) took part in this study. Participants ages ranged between 22 and 28 years (M = 24.4, SD = 1.42).

The experiment was presented as a course activity to earn credits as part of a psychology course. Specifically, participants were given the task of writing a detailed research plan for a scientific investigation. There were 40 groups, each consisting of five students plus a senior student (the confederate, in all cases a female), who acted as group leader. Two hundred students were initially enrolled in the study. Three of them decided to quit the experiment due to unexpected personal commitments. The maximum duration of the group activity was 30 days.

The groups interacted online via computer-supported collaborative work (CSCW) using text chatting, an online forum, and a video conferencing suite (Moodle). The CSCW ensured that no one outside the group could take part or observe the interactions within the team.

The groups were told to choose a name and decide what research field they wished to carry out their task in. To foster cooperation within each group, the final assessment of the task was the same for all team participants. At the end of the month, each group was expected to select one of its members to present the task to the other groups and the teacher at an online conference. After completing the task, every participant was assessed via online self-report questionnaires.

Participants were later informed about the real aims of the research, and we answered general and specific questions on the research during the debriefing. The data collected were anonymous, and all participants provided written informed consent. All procedures performed in this study were in accordance with the ethical standards of the institutional research committee and with the Helsinki Declaration.

3.2. Measures

Sociodemographic data. The study collected the following sociodemographic information: age and gender.

Leader self-sacrifice. Measured with five items inspired by the work of Conger and Kanungo [77]. Participants answered on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree; $\alpha = 0.90$). An example item is "My group leader is willing to make personal sacrifices in the team's interest".

Team identification. Through an assessment based on six items, derived from Meal and Ashforth [78] and van Knippenberg and van Schie [79], we recorded what participants thought about their work team (e.g., "I am very interested to know what others think of my work group"; $\alpha = 0.92$). Each item was presented on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Self-efficacy. Based on Bandura's theory and indications [56,80], participants responded to five items concerning their perceived self-efficacy indentin conducting research. Using a 5-point Likert scale ($\alpha = 0.86$) ranging from 1 (strongly disagree) to 5 (strongly agree), they expressed their degree of confidence in addressing methodological and research problems. Examples of some items are "Solve methodological problems in research" and "Feel satisfied when solving seemingly insurmountable research problems".

Prosocial behavior. Measured by six items adapted from the Online Prosocial Scale [81]. Each item was presented on a 5-point Likert scale ($\alpha = 0.89$) ranging from 1 (strongly disagree) to 5 (strongly agree). Example items include "I sincerely help people on my team on social media, such as on Internet discussion forums".

4. Results

4.1. Descriptive Statistics

Means, standard deviations, and correlations between all the study variables are reported in Table 1.

There are no significant correlations between sociodemographic variables (age and gender) and the other main variables of the study. Leader self-sacrifice (M = 3.58, SD = 1.09) positively correlates with team identification (r = 0.26, $p < 0.01$) and prosocial behavior (r = 0.27, $p < 0.01$). Team identification (M = 3.26, SD = 1.15) positively correlates with self-efficacy (r = 0.21, $p < 0.01$) and prosocial behavior (r = 0.18, $p < 0.05$). Self-efficacy (M = 3.38, SD = 1.13) correlates with prosocial behavior (r = 0.41, $p < 0.01$).

Table 1. Means, standard deviations, and correlations for study variables.

	Mean	SD	1	2	3	4	5	6
1. Age	24.37	1.42	-					
2. Gender	-	-	−0.08	-				
3. Leader self-sacrifice	3.58	1.09	0.01	−0.07	-			
4. Team identification	3.26	1.15	0.04	−0.11	0.26 **	-		
5. Self-efficacy	3.38	1.13	−0.14	−0.04	−0.04	0.21 **	-	
6. Prosocial behavior	3.28	1.15	−0.09	0.01	0.27 **	0.18 *	0.41 **	-

Note: $N = 197$. SD = standard deviation. * $p < 0.05$ (two-tails). ** $p < 0.01$ (two-tails).

4.2. Hypothesis Testing

The results of the serial mediation model test are reported in Table 2. Analysis was conducted using SPSS software version 25 and PROCESS macro model 6. Age and gender variables were included as covariates. In the first step, leadership self-sacrifice is positively associated with team identification (B = 0.26, $p < 0.001$), confirming H2 and explaining 8% of the variance. In the second step, team identification (B = 0.24, $p < 0.001$) is positively associated with self-efficacy but not leader self-sacrifice (B = −0.11, p = n.s.), explaining 8% of the variance (H3 confirmed). In the third step, prosocial behavior is positively

associated with leader self-sacrifice (B = 0.29, $p < 0.001$) (H1 confirmed) and self-efficacy (B = 0.42, $p < 0.001$) (H4 confirmed) but not with team identification (B = 0.02, p = n.s.), explaining 25% of the variance.

Table 2. Coefficient estimates for the regression model.

	Step 1			**Step 2**			**Step 3**		
	Team Identification			**Self-Efficacy**			**Prosocial Behavior**		
	B	**SE**	**95% CI**	**B**	**SE**	**95% CI**	**B**	**SE**	**95% CI**
Leader self-sacrifice	0.26 **	0.07	[0.12, 0.41]	−0.11	0.07	[−0.25, 0.04]	0.29 **	0.07	[0.16, 0.43]
Team identification				0.24 **	0.07	[0.10, 0.38]	0.02	0.06	[−0.11, 0.15]
Self-efficacy							0.42 **	0.07	[0.29, 0.55]
Covariates									
Age	−0.07	0.06	[−0.18, 0.04]	−0.02	0.05	[−0.13, 0.08]	0.04	0.05	[−0.06, 0.13]
Gender	0.08	0.16	[−0.24, 0.40]	−0.34 *	0.16	[−0.65, −0.02]	−0.05	0.13	[−0.34, 0.24]
R^2		0.08			0.08			0.25	
F		5.30 **			4.08 **			12.89 **	

Note: N = 197; CI = Confidence Interval. * $p < 0.05$. ** $p < 0.001$.

To test H5, the direct and total effects of leader self-sacrifice on prosocial behavior and the indirect effects on team identification and self-sacrifice were observed (Table 3). The current results show the presence of significant total (B = 0.28, CI = [0.14, 0.43]) and direct effects (B = 0.30, CI = [0.16, 0.43]), respectively. We also observed a significant effect of serial mediation through team identification and self-efficacy (B = 0.03, CI = [0.01, 0.06]), confirming the hypothesis.

Table 3. The total and direct effects of leader self-sacrifice on prosocial behavior and the indirect effects on team identification and self-efficacy.

	B	**SE**	**CI 95%**
Total effect	0.28	0.07	[0.14, 0.43] *
Direct effect	0.30	0.07	[0.16, 0.43] *
Indirect effects through			
Team identification	0.01	0.02	[−0.35, 0.50]
Self-efficacy	−0.03	0.03	[−0.11, 0.01]
Team identification and self-efficacy	0.03	0.01	[0.01, 0.06] *

Note: CI = Confidence Interval. * $p < 0.05$.

5. Discussion

The study's results confirm the fundamental role of leader self-sacrifice in generating prosocial behavior in followers, even in virtual contexts, as stated in the first hypothesis (H1). This aspect was not obvious, insofar as previous research showed that what happens in face-to-face groups is not always confirmed in virtual groups [82–84]. As already noted, the more followers perceive sacrifice by their leader in terms of time, resources, etc., the more likely they are to make themselves available to others. Furthermore, perceptions of effectiveness are positively influenced when followers view their leader as self-sacrificing and become more willing to reciprocate their behavior [14,85]. This relationship, observed in contexts of face-to-face interaction, was also found in virtual teams. In face-to-face interactions, leaders' indicators involve vocal inflection, eye contact, clothing, etc., which can be difficult to perceive in virtual communication [86]. Nonetheless in virtual contexts, the recognizability of the leader's status remains. Moreover, what also remain recognizable are the leader's acts of self-sacrifice, such as sacrificing his free time, engaging in often exhausting discussions, and spending time correcting proofs for the production of the final work. All these aspects are perceived in the same way as they are in face-to-face relationships.

The present study also found a relationship between self-sacrifice leadership and team identification in virtual teams, confirming H2. In face-to-face contexts, the literature had already shown how the self-sacrificing leader relates to team identification [55,56]. The perception of sacrifice tends to bring the participants closer to the group through the logic of the leader's shared sacrifice, reinforcing identity ties [87,88]. The pervasiveness of every aspect of virtual groups within social life made it possible to replicate in virtual teams what had previously been observed in face-to-face contexts. Many researchers speak of a sort of telepresence [89,90] of leaders in virtual work environments, to define the experience of presence in an environment by means of communication media [86]. Given their ubiquity and pervasiveness, virtual environments promote the formation of very strong bonds. The availability of interaction at every moment and in all places makes these virtual environments a place where the group identity is strengthened. In this sense, leaders' self-sacrifice in virtual environments becomes clearly visible to all participants and influences their identification with the virtual group and the strengthening of these bonds.

A relationship between team identification and self-efficacy was found (H3). As we previously stated, group members share experiences, and this constant support can be expected to strengthen the perception of being part of a thriving, accomplished, and self-efficacious team [59,60,91]. As hypothesized, the relationship between team identification and self-efficacy is also present in virtual teams. As stated above, virtual work environments are becoming more and more ubiquitous [92] and the relationships that develop within them are becoming increasingly intense. In virtual teams, as much as in face-to-face teams, a cohesive and strongly identified group tends not to abandon any individual member, ensuring that each can contribute to the achievement of the common goals. Being constantly encouraged to search for information and receiving support when facing difficulties increase one's self-efficacy levels [64].

The relationship between self-efficacy and prosocial behavior in virtual teams was tested through the fourth hypothesis (H4). The results confirmed the presence of this relationship, consistent with previous studies on virtual contexts [73]. In particular, what emerges is a scenario similar to that of the seminal contribution of prosocial behavior outlined by Latanè and Darley [93]. They have described a model in which people first evaluate their own competence and only then behave altruistically. People commonly estimate their own skills in a specific field on the basis of their perceived self-efficacy. Only after testing their own competence are people willing to help others. In other words, before helping someone, people need to know they can do so. As Hyoungkoo and Irkwon [73] have stated, perceived self-efficacy could be e one's motivation, cognition, and behavior in any given circumstance [94]. Likewise, perceived self-efficacy in an online context, such as belief in one's own capabilities to solve a problem with other Internet users, was found to affect individuals' involvement in helping people in trouble.

Finally, our fifth hypothesis (H5) suggested a mediating effect of team identification and self-efficacy on the relationship between leadership self-sacrifice and prosocial behavior. We confirmed a serial mediation effect leading to prosocial behavior through two paths: a direct path, which from the leader's perception of self-sacrifice leads to the followers' prosocial behavior through a process of reciprocity, and an indirect path, which passes through team identification and self-efficacy, based on the effects that group identification in cohesive groups can exert on individual behavior [87,88]. The direct effect, namely the association between leaders' self-sacrifice and prosocial behavior, can be explained on the basis of theories about interpersonal help [21] and reciprocal behavior [14]. When followers perceive that the leader shares their values and expectations and that he/she is committed to achieving the results that they themselves want to achieve, they are more likely to exhibit prosocial behavior [14,18,33]. The likelihood of reciprocating these behaviors is greater if it is recognized that the leader works hard at the task, even making great sacrifices. Considering that behaviors in online contexts feature multiple

venues for social relationships, facilitating interaction between users [95], it is unsurprising that we found a direct association between self-sacrifice and prosocial behavior, as in previous face-to-face interactions [17,18,32,33].

Next to the direct path, we also found an indirect one, through team identification and self-efficacy. This effect can be explained within the framework of Social Identity Theory [96]. Hogg and Terry [97] have shown the importance of integrating the mechanisms of social identification with organizational behavior theories. Group identification is indeed a key variable for explaining group processes and group construction through social influences [98]. One researcher has proposed that effective leaders build cohesion by developing team members' identities [99]. From what we have observed in our own research, the same positive processes of identification with the group—promoted by the leader—are applied by individual group members after having been developed and strengthened within the group itself. This process is therefore both social and individual and produces beneficial effects for the group and for each of its members.

Limitations and Future Research

The study has certain limitations. The first is related to the nature of the sample. Our study used a convenience sample of university students, and the non-random sampling procedure may not accurately represent the overall population, limiting the generalizability of our findings. Future research should use a more representative sample of users to increase the study's validity. The second limitation is the collection of data using only self-reported measures, which could lead to problems in terms of social desirability. This common problem may in turn lead to a methodological bias that should be resolved by referring to behavioral measures as much as possible. Future research should employ behavioral measures to overcome such potential biases. The third limitation is related to the lack of any testing of each participant's specific technical skills. We are aware of the role of technological competence, which may have directly affected the participants' perceived self-efficacy. It is also possible that the subgroups acted differently under different competence conditions. The fourth limitation of this study is that our results are based on correlational data, and great caution should be exercised in interpreting them causally. Future research, conducted mainly through experimental and longitudinal approaches, should clarify the direction of the relationships found in this study.

Finally, future research should also extend the results to face-to-face contexts. The results of this research, especially in H5, are not present in the literature on self-sacrifice leadership, and it is expected that they will find confirmation even within these contexts.

6. Conclusions

E-leadership has emerged as a topic of great relevance in recent years. We have witnessed the development of virtual forms of communication, which have become increasingly integrated into our daily lives, from the point of view of work as well as of simple social interactions. It is therefore fundamental to understand the dynamics underlying these processes.

One of the conclusions of this research is related to how it is possible to generalize the results of the literature on leadership in face-to-face contexts to virtual groups. The results from our research are consistent with those of previous studies on face-to-face contexts. The reason for this is probably related to the evolution and development of increasingly advanced technologies. Until a few years ago, the presence of technology connected to mobile phones was something visible, mediated by the human senses and complex perceptual processes. Over the past few years, this technology has become transparent, as it appears to act outside the person's conscious awareness. Thus, the pervasiveness and diffusion of Social Network Sites have enabled us to speak of telepresence even in leadership contexts, in which technologies are likely to evoke a similar set of presence responses across a large number of individuals and across time.

Another significant outcome of this research is that it highlights the importance of an aspect on which leadership research has been focusing for several years now, namely self-sacrifice, an element of great interest in studies on this topic. Our findings provide empirical evidence of the need to select and create leaders who practice self-sacrificing behaviors. It is crucial for organizations, work teams, and learning groups to highlight the importance of self-sacrificial leaders' behavior. On the basis of this study and more than twenty years of research, it would be correct to state that we need to organize programs focusing on leader self-sacrifice and hire leaders with a more collective focus.

As we have observed, even in virtual communications, a self-sacrificing leader represents a key model for motivating prosocial behavior among his followers and collaborators, not only by acting directly on these aspects but also by connecting and favoring individual and group processes. All this promotes both the success of individual group members and the success and well-being of the organization within which the group acts.

Author Contributions: Conceptualization, S.R.; methodology, S.R. and A.P.; investigation, S.R. and A.P.; data curation, M.G. and S.R.; writing—original draft preparation, S.R. and R.S.; writing—review and editing, S.R. and R.S.; supervision, U.P. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and the ethical standards of the Italian Association of Psychology.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data will be made available on request.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Han, S.J.; Hazard, N. Shared Leadership in Virtual Teams at Work: Practical Strategies and Research Suggestions for Human Resource Development. *Hum. Resour. Dev. Rev.* **2022**, *21*, 300–323. https://doi.org/10.1177/15344843221093376.
2. Gilson, L.L.; Maynard, M.T.; Jones Young, N.C.; Vartiainen, M.; Hakonen, M. Virtual Teams Research: 10 Years, 10 Themes, and 10 Opportunities. *J. Manag.* **2015**, *41*, 1313–1337. https://doi.org/10.1177/0149206314559946.
3. Harvard Business Review. Available online: https://hbr.org/2015/03/why-remote-work-thrives-in-some-companies-and-fails-in-others (accessed on 28 January 2023).
4. Malhotra, A.; Majchrzak, A. Managing Crowds in Innovation Challenges. *Calif. Manag. Rev.* **2014**, *56*, 103–123. https://doi.org/10.1525/cmr.2014.56.4.103.
5. Carton, A.M.; Cummings, J.N. A theory of subgroups in work teams. *AMR* **2012**, *37*, 441–470. https://doi.org/10.5465/amr.2010.0322.
6. Qi, M.; Shu, Z.; Song, M. Leader-member subgroup similarity and team identification: Effects of faultlines, social identity leadership and leader-member exchange. *Eur. J. Work Organ. Psychol.* **2022**, 1–3. https://doi.org/10.1080/1359432X.2022.2149395.
7. Bélanger, J.J.; Lafrenière, M.A.K.; Vallerand, R.J.; Kruglanski, A.W. Driven by Fear: The Effect of Success and Failure Information on Passionate Individuals' Performance. *J. Pers. Soc. Psychol.* **2012**, *104*, 180–195. https://doi.org/10.1037/a0029585.
8. Gamero, N.; González-Anta, B.; Orengo, V.; Zornoza, A.; Peñarroja, V. Is Team Emotional Composition Essential for Virtual Team Members' Well-Being? The Role of a Team Emotional Management Intervention. *Int. J. Environ. Res. Public Health* **2021**, *18*, 4544. https://doi.org/10.3390/ijerph18094544.
9. Zhao, Y.; Wen, S.; Zhou, T.; Liu, W.; Yu, H.; Xu, H. Development and innovation of enterprise knowledge management strategies using big data neural networks technology. *J. Innov. Knowl.* **2022**, *7*, 100273. https://doi.org/10.1016/j.jik.2022.100273.
10. Škare, M.; Blanco-Gonzalez-Tejero, C.; Crecente, F.; del Val, M.T. Scientometric analysis on entrepreneurial skills-creativity, communication, leadership: How strong is the association? *Technol. Forecast. Soc.* **2022**, *182*, 121851. https://doi.org/10.1016/j.techfore.2022.121851.
11. Khorshid, S.; Mehdiabadi, A.; Spulbar, C.; Birau, R.; Mitroi, A.T. Modelling the effect of transformational leadership on entrepreneurial orientation in academic department: The mediating role of faculty members' speaking up. *Econ. Res.-Ekon. Istraz.* **2023**, 1–32. https://doi.org/10.1080/1331677X.2023.2167731.
12. Botella-Carrubi, D.; Ribeiro-Navarrete, S.; Ulrich, K.; Blanco González-Tejero, C. The role of entrepreneurial skills as a vehicle for business growth: A study in Spanish start-ups. *Manag. Decis.* **2022**. https://doi.org/10.1108/MD-02-2022-0161.
13. Choi, Y.; Yoon, J. Effects of leaders' self-sacrificial behavior and competency on followers' attribution of charismatic leadership among Americans and Koreans. *Crisp* **2005**, *11*, 51–69.

14. Choi, Y.; Mai-Dalton, R.R. The model of followers' responses to self-sacrificial leadership: An empirical test. *Leadersh. Q.* **1999**, *10*, 397–421. https://doi.org/10.1016/S1048-984300025-9.
15. Van Knippenberg, B.; Van Knippenberg, D. Leader Self-Sacrifice and Leadership Effectiveness: The Moderating Role of Leader Prototypicality. *J. Appl. Psychol.* **2005**, *90*, 25–37. https://doi.org/10.1037/0021-9010.90.1.25.
16. Shamir, B.; House, R.J.; Arthur, M.B. The motivational effects of charismatic leadership: A self-concept based theory. *Organ. Sci.* **1993**, *4*, 577–594.
17. Yang, F.; Senewiratne, S.; Newman, A.; Sendjaya, S.; Chen, Z. Leader self-sacrifice: A systematic review of two decades of research and an agenda for future research. *Appl. Psychol.* **2022**, *72*, 797–831. https://doi.org/10.1111/apps.12407.
18. De Cremer, D.; Mayer, D.M.; van Dijke, M.; Schouten, B.C.; Bardes, M. When does self-sacrificial leadership motivate prosocial behavior? It depends on followers' prevention focus. *J. Appl. Psychol.* **2009**, *94*, 887–899. https://doi.org/10.1037/a0014782.
19. De Cremer, D. Respect and cooperation in social dilemmas: The importance of feeling included. *Pers. Soc. Psychol. Bull.* **2002**, *28*, 1335–1341. https://doi.org/10.1177/014616702236830.
20. De Cremer, D.; Van Knippenberg, D. How do leaders promote cooperation? The effects of charisma and procedural fairness. *J. Appl. Phycol.* **2002**, *87*, 858–866. https://doi.org/10.1037/0021-9010.87.5.858.
21. De Cremer, D.; Van Knippenberg, D. Cooperation as a function of leader self-sacrifice, trust, and identification. *LODJ* **2005**, *26*, 355–369. https://doi.org/10.1108/01437730510607853.
22. Yorges, S.L.; Weiss, H.M.; Strickland, O.J. The effect of leader outcomes on influence, attributions, and perceptions of charisma. *J. Appl. Psychol.* **1999**, *84*, 428–436.
23. Singh, N.; Krishnan, V.R. Self-sacrifice and transformational leadership: Mediating role of altruism. *Leadersh. Organ. Dev. J.* **2008**, *29*, 261–274. https://doi.org/10.1108/01437730810861317.
24. Ames, D.R.; Flynn, F.J.; Weber, E.U. It's the thought that counts: On perceiving how helpers decide to lend a hand. *Personal. Soc. Psychol. Bull.* **2004**, *30*, 461–474. https://doi.org/10.1371/journal.pone.0243808.
25. Brown, S.G.; Hill, N.S.; Lorinkova, N.M. Leadership and virtual team performance: A meta-analytic investigation. *Eur. J. Work Organ. Psychol.* **2021**, *30*, 672–685. https://doi.org/10.1080/1359432X.2021.1914719.
26. Wilson, J.M.; Fletcher, T.D.; Pescosolido, T.; Major, D.A. Extraversion and Leadership Emergence: Differences in Virtual and Face-to-Face Teams. *Small Group Res.* **2021**, *52*, 535–564. https://doi.org/10.1177/1046496420986620.
27. Kahai, S.S.; Huang, R.; Jestice, R.J. Interaction Effect of Leadership and Communication Media on Feedback Positivity in Virtual Teams. *Group Organ. Manag.* **2012**, *37*, 716–751. https://doi.org/10.1177/1059601112462061.
28. Bélanger, J.J.; Caouette, J.; Sharvit, K.; Dugas, M. The psychology of martyrdom: Making the ultimate sacrifice in the name of a cause. *J. Pers. Soc. Psychol.* **2014**, *107*, 494–515. https://doi.org/10.1037/a0036855.
29. Bélanger, J.J.; Schumpe, B.; Lafrenière, M.A.K.; Giacomantonio, M.; Brizi, A.; Kruglanski, A.W. Beyond goal-commitment: How expectancy shapes means evaluation. *Motiv. Sci.* **2016**, *2*, 67–84. https://doi.org/10.1037/mot0000031.
30. Hoogervorst, N.; De Cremer, D.; van Dijke, M.; Mayer, D.M. When Do Leaders Sacrifice? *Leadersh. Q.* **2012**, *23*, 883–896. https://doi.org/10.1016/j.leaqua.2012.05.006.
31. Conger, J.A.; Kanungo, R.N. Charismatic Leadership in Organizations: Perceived Behavioral Attributes and Their Measurement. *J. Organ. Behav.* **1994**, *15*, 439–452.
32. De Cremer, D.; Van Knippenberg, D.; Van Dijke, M.; Bos, A.E.R. How Self-Relevant Is Fair Treatment? Social Self-Esteem Moderates Interactional Justice Effects. *Soc. Justice Res.* **2004**, *17*, 407–419. https://doi.org/10.1007/s11211-004-2059-x.
33. Choi, Y.; Mai-Dalton, R.R. On the leadership function of self-sacrifice. *Leadersh. Q.* **1998**, *9*, 475–501. https://doi.org/10.1016/S1048-984390012-1.
34. Lord, R.G.; Brown, D.J. *Leadership Processes and Follower Self-Identity*; LEA: Hillsdale, NJ, USA, 2004.
35. Bélanger, J.J.; Schumpe, B.M.; Menon, B.; Ng, J.C.; Nociti, N. Self-sacrifice for a cause: A review and an integrative model. In *The SAGE Handbook of Personality and Individual Differences: Origins of Personality and Individual Differences*; Zeigler-Hill, V., Shackelford, T.K., Eds.; Sage Reference: Thousand Oaks, CA, USA, 2018; pp. 465–485. https://doi.org/10.4135/9781526451200.n25.
36. Conger, J.A. *The Charismatic Leader: Behind the Mystique of Exceptional Leadership*; Jossey-Bass: San Francisco, CA, USA, 1989.
37. Conger, J.A.; Kanungo, R.N. Toward a behavioral theory of charismatic leadership in organizational settings. *AMR* **1987**, 12, 637–647. https://doi.org/10.5465/amr.1987.4306715.
38. Kanungo, R.N.; Mendonca, M. *Ethical Dimensions of Leadership*; Sage Publications: Thousand Oaks, CA, USA, 1996.
39. Avolio, B.J.; Locke, E.E. Contrasting different philosophies of leader motivation:altruism versus egoism. *Leadersh. Q.* **2003**, *13*, 169–191.
40. O'Shea, P.G. Altruism. In *Encyclopedia of Leadership*; Goethals, G.R., Sorenson, G.J., Burns, J.M., Eds.; Sage Publications: Thousand Oaks, CA, USA, 2004; pp. 29–33.
41. Lanaj, K.; Gabriel, A.S.; Chawla, N. The self-sacrificial nature of leader identity: Understanding the costs and benefits at work and home. *J. Appl. Psychol.* **2021**, *106*, 345–363. https://doi.org/10.1037/apl0000505.
42. Jiang, W.; Wang, L.; Chu, Z.; Zheng, C. Does leader turnover intention hinder team innovation performance? The roles of leader self-sacrificial behavior and empathic concern. *J. Bus. Res.* **2019**, *104*, 261–270. https://doi.org/10.1016/j.jbusres.2019.07.013.
43. Liu, X.; Wen, J.; Zhang, L.; Chen, Y. Does organizational collectivist culture breed self-sacrificial leadership? Testing a moderated mediation model. *Int. J. Hosp. Manag.* **2021**, *94*, 102862. https://doi.org/10.1016/j.ijhm.2021.102862.

44. Chen, X.; Yuan, Y.; Liu, J.; Zhu, L.; Zhu, Z. Social bonding or depleting? A team-level investigation of leader self-sacrifice on team and leader work engagement. *J. Occup. Organ. Psychol.* **2020**, *93*, 912–941. https://doi.org/10.1111/joop.12315.
45. Liang, X.; Fan, J. Self-sacrificial leadership and employee creativity: The mediating role of psychological safety. *Soc. Behav. Personal.* **2020**, *48*, 1–9. https://doi.org/10.2224/sbp.9496.
46. Zhang, J.; Li, J.; Huang, J. How self-sacrificial leadership influences employee voice: Psychological safety as a mediator. *Soc. Behav. Personal.* **2020**, *48*, 1–8. https://doi.org/10.2224/sbp.9555.
47. House, R.J.; Shamir, B. Toward the integration of transformational, charismatic and visionary theories of leadership. In *Leadership Theory and Research: Perspectives and Directions*; Chemers, M.M., Ayman, R., Eds.; Academic Press: New York, NY, USA, 1993; pp. 81–107.
48. Yukl, G. *Leadership in Organizations*, 3rd ed.; Prentice Hall: Hoboken, NJ, USA, 1994.
49. Bem, D.J. Self-perception theory. In *Advances in Experimental Social Psychology*; Berkowitz, L., Ed.; AP: New York, NY, USA, 1972; Volume 6, pp. 1–62.
50. Scaffidi Abbate, C.; Ruggieri, S. A Beggar, self-awareness and willingness to help. *Curr. Psychol. Lett.* **2008**, *24*, 99–107. https://doi.org/10.4000/cpl.4233.
51. Scaffidi Abbate, C.; Ruggieri, S. The fairness principle, reward, and altruistic behavior. *J. Appl. Soc. Psychol.* **2011**, *41*, 1110–1120. https://doi.org/10.1111/j.1559-1816.2011.00749.x.
52. Dewett, T.; Denisi, A.S. What motivates organizational citizenship behaviours? Exploring the role of regulatory focus theory. *Eur. J. Work Organ.* **2007**, *16*, 241–260. https://doi.org/10.1080/13594320701273606.
53. Kark, R.; Van Dijk, D. Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. *AMR* **2007**, *32*, 500–528. https://doi.org/10.2307/20159313.
54. Lock, D.; Heere, B. Identity crisis: A theoretical analysis of 'team identification' research. *ESMQ* **2017**, *17*, 413–435. https://doi.org/10.1080/16184742.2017.1306872.
55. Gundlach, M.; Zivnuska, S.; Stoner, J. Understanding the relationship between individualism-collectivism and team performance through an integration of social identity theory and the social relations model. *Hum. Relat.* **2006**, *59*, 1603–1632. https://doi.org/10.1177/0018726706073193.
56. Shamir, B. The charismatic relationship: Alternative explanations and predictions. In L*eadership Now: Reflections on the Legacy of Boas Shamir*; Monographs in Leadership and Management; Katz, I., Eilam-Shamir, G., Kark, R., Berson, Y., Ed.; Emerald Publishing Limited: Bingley, UK, 2018; Volume 9, pp. 127–151. https://doi.org/10.1108/S1479-357120180000009018.
57. Riketta, M. Organizational identification: A meta-analysis. *J. Vocat. Behav.* **2005**, *66*, 358–384. https://doi.org/10.1016/j.jvb.2004.05.005.
58. Avanzi, L.; Schun, S.C.; Fraccaroli, F.; Van Dick, R. Why Does Organizational Identification Relate to Reduced Employee Burnout? The Mediating Influence of Social Support and Collective Efficacy. *Work Stress* **2015**, *29*, 1–10. https://doi.org/10.1080/02678373.2015.1004225.
59. Haslam, S.A.; Reicher, S. Stressing the group: Social identity and the unfolding dynamics of responses to stress. *J. Appl. Psychol.* **2006**, *91*, 1037–1052. https://doi.org/10.1037/0021-9010.91.5.1037.
60. Häusser, S.; Hadi, S.A.; Reichelt, C.; Mojzisch, A. The reciprocal relationship between social identification and social support over time: A four-wave longitudinal study. *Br. J. Soc. Psychol.* **2022**, *62*, 456–466. https://doi.org/10.1111/bjso.12553.
61. Junker, N.M.; Van Dick, R.; Avanzi, L.; Häusser, J.A.; Mojzisch, A. Exploring the mechanisms underlying the social identity–ill-health link: Longitudinal and experimental evidence. *Br. J. Soc. Psychol.* **2019**, *58*, 991–1007. https://doi.org/10.1111/bjso.12308.
62. Frenzel, S.B.; Junker, N.M.; Häusser, J.A.; Erkens, V.A.; van Dick, R. Team identification relates to lower burnout—Emotional and instrumental support as two different social cure mechanisms. *Br. J. Soc. Psychol.* **2022**, *58*, 991–1007. https://doi.org/10.1111/bjso.12588.
63. Bandura, A. Social cognitive theory: An agentic perspective. *Annu. Rev. Psychol.* **2001**, *52*, 21–41. https://doi.org/10.1146/annurev.psych.52.1.1.
64. Bandura, A. Self-efficacy mechanism in human agency. *Am. Psychol.* **1982**, *37*, 122–147. https://doi.org/10.1037/0003-066X.37.2.122.
65. Bandura, A. *Self-Efficacy: The Exercise of Control*; W.H. Freeman and Company: New York, NY, USA, 1997.
66. Caprara, G.V.; Steca, P. Self-efficacy beliefs as determinants of prosocial behavior conductive to life satisfaction across ages. *J. Soc. Clin. Psychol.* **2005**, *24*, 191–217. https://doi.org/10.1521/jscp.24.2.191.62271.
67. Bandura, A.; Pastorelli, C.; Barbarelli, C.; Caprara, G.V. Self-efficacy pathways to childhood depression. *J. Personal. Soc. Psychol.* **1999**, *76*, 258–269. https://doi.org/10.1037/0022-3514.76.2.258.
68. Deng, H.; Guan, Y.; Wu, C.H.; Erdogan, B.; Bauer, T.; Yao, X. A relational model of perceived overqualification: The moderating role of interpersonal influence on social acceptance. *J. Manag.* **2018**, *44*, 3288–3310.
69. Gong, Y.; Mao, F.Q.; Xia, Y.W.; Zhang, T.; Wang, G.; Wang, X. Mediating role of psychological security between college students' self-efficacy and prosocial tendency. *Chin. J. Health Psychol.* **2021**, *29*, 146–151. https://doi.org/10.13342/j. cnki.cjhp.2021.01.027.
70. Patrick, R.; Bodine, A.; Gibbs, J.; Basinger, K. What accounts for prosocial behavior? Roles of moral identity, moral judgment, and self-efficacy beliefs. *J. Genet. Psychol.* **2018**, *179*, 231–245. https://doi.org/10.1080/00221325.2018.1491472.
71. Fu, X.; Padilla-Walker, L.M.; Brown, M.N. Longitudinal relations between adolescents' self-esteem and prosocial behavior toward strangers, friends and family. *J. Adolesc.* **2017**, *57*, 90–98. https://doi.org/10.1016/j.adolescence.2017.04.002.

72. Knapp, T.; Fisher, B.; Levesque-Bristol, C. Service-learning's impact on college students' commitment to future civic engagement, self-efficacy, and social empowerment. *J. Community Pract.* **2010**, *18*, 233–251. https://doi.org/10.1080/10705422.2010.490152.
73. Hyoungkoo, K.; Irkwon, J. Perceived self and behavioral traits as antecedents of an online empathic experience and prosocial behavior: Evidence from South Korea. *Comput. Hum. Behav.* **2016**, *64*, 888–897. https://doi.org/10.1016/j.chb.2016.08.010.
74. De Cremer, D. Charismatic leadership and cooperation in social dilemmas: A matter of transforming motives? *J. Appl. Soc. Psychol.* **2002**, *32*, 997–1016. https://doi.org/10.1111/j.1559-1816.2002. tb00252.x.
75. De Cremer, D. Affective and motivational consequences of leader self-sacrifice: The moderating effect of autocratic leadership. *Leadersh. Q.* **2006**, *17*, 79–93. https://doi.org/10.1016/j.leaqua.2005.10.005.
76. Li, R.; Zhang, Z.Y.; Tian, X.M. Can self-sacrificial leadership promote subordinate taking charge? The mediating role of organizational identification and the moderating role of risk aversion. *J. Organ. Behav.* **2016**, *37*, 758–781. https://doi.org/10.1002/job.2068.
77. Conger, J.A.; Kanungo, R.N. *Charismatic Leadership in Organizations*; Sage: Thousand Oaks, CA, USA, 1998.
78. Mael, F.A.; Ashforth, B.E. Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *J. Organ. Behav.* **1992**, *13*, 103–123. https://doi.org/10.1002/job.4030130202.
79. van Knippenberg, D.; van Schie, E.C.M. Foci and correlates of organizational identification. *J. Occup. Organ. Psychol.* **2000**, *73*, 137–147. https://doi.org/10.1348/096317900166949.
80. Bandura, A. Toward a psychology of human agency. *Perspect. Psychol. Sci.* **2006**, *1*, 164–180. https://doi.org/10.1111/j.1745-6916.2006.00011.x.
81. Kinnunen, S.P.; Lindeman, M.; Verkasalo, M. Help-giving and moral courage on the Internet. *Cyberpsychology J. Psychosoc. Res. Cyberspace* **2016**, *10*, 6. https://doi.org/10.5817/CP2016-4-6.
82. Ruggieri, S.; Boca, S.; Garro, M. Leadership Styles in Synchronous and Asynchronous Virtual Learning Environments. *Turk. Online J. Educ. T* **2013**, *12*, 96–102.
83. Lynn Shollen, S.; Cryss Brunner, C. Virtually anonymous: Does the absence of social cues alter perceptions of emergent leader behaviors? *Leadership* **2016**, *12*, 198–229. https://doi.org/10.1177/1742715014554320.
84. Humala, I.A. Typology on Leadership toward Creativity in Virtual Work. *Interdiscip. J. Inf. Knowl.* **2017**, *12*, 209–243 https://doi.org/10.28945/3786.
85. Ruggieri, S.; Scaffidi Abbate, C. Leadership Style, Self-Sacrifice, and Team Identification. *Soc. Behav. Personal.* **2013**, *41*, 1171–1178. https://doi.org/10.2224/sbp.2013.41.7.1171.
86. Weisband, S. Research challenges for studying leadership at a distance. In *Leadership at a Distance: Research in Technologically-Supported Work*; Weisband, S.P., Ed.; LEA: Mahwah, NJ, USA, 2008; pp. 3–11.
87. Hogg, M.A.; Sherman, D.K.; Dierselhuis, J.; Maitner, A.T.; Moffitt, G. Uncertainty, entitativity, and group identification. *J. Exp. Soc. Psychol.* **2007**, *43*, 135–142. https://doi.org/10.1016/j.jesp.2005.12.008 135-142,.
88. Reid, S.A.; Hogg, M.A. Uncertainty Reduction, Self-Enhancement, and Ingroup Identification. *Personal. Soc. Psychol. Bull.* **2005**, *31*, 804–817. https://doi.org/10.1177/0146167204271708.
89. Held, R.M.; Durlach, N.I. Presence: Teleoperators and Virtual Environments. *Telepresence* **1992**, *1*, 109–112.
90. Steuer, J. Defining Virtual Reality: Dimensions Determining Telepresence. *J. Commun.* **1992**, *42*, 73–93. https://doi.org/10.1111/j.1460-2466.1992.tb00812.x.
91. Frenzel, S.B.; Haslam, S.A.; Junker, N.M.; Bolatov, A.; Erkens, V.A.; Häusser, J.A.; Kark, R.; Meyer, I.; Mojzisch, A.; Monzani, L.; et al. How national leaders keep 'us' safe: A longitudinal, four-nation study exploring the role of identity leadership as a predictor of adherence to COVID-19 non-pharmaceutical interventions. *BMJ Open* **2022**, *12*, e054980. https://doi.org/10.1136/bmjopen-2021-054980.
92. Sorce, S.; Ruggieri, S.; Gentile, V.; Gentile, A.; Malizia, A. Human-to-Human Interaction: The Killer Application of Ubiquitous Computing? In *Human-Computer Interaction: User Interface Design, Development and Multimodality*; Lecture Notes in Computer Science; Kurosu, M., Ed.; Springer: Cham, Switzerland, 2017; Volume 10271. https://doi.org/10.1007/978-3-319-58071-5_7.
93. Latanè, B.; Darley, J.M. *The Unresponsive Bystander: Why Doesn't He Help?* Appleton-Century-Croft: New York, NY, USA, 1970.
94. Wood, R.E.; Bandura, A. Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *J. Personal. Soc. Psychol.* **1989**, *56*, 407–415.
95. Bargh, J.A.; McKenna, K.Y.A.; Fitzsimons, G.M. Can You See the Real Me? Activation and Expression of the "True Self" on the Internet. *J. Soc. Issues* **2002**, *58*, 33–48. https://doi.org/10.1111/1540-4560.00247.
96. Tajfel, H.; Turner, J.C. An integrative theory of intergroup confl ict. In *The Social Psychology of Intergroup Relations*; Austin, W.G., Worchel, S., Eds.; Brooks/Cole: Monterrey, CA, USA, 1979; pp. 33–47.
97. Hogg, M.A.; Terry, D.J. Social identity and self-categorization processes in organizational contexts. *Acad. Manag. Rev.* **2000**, *25*, 121–140. https://doi.org/10.2307/259266.

98. Haslam, S.A.; Reicher, S.D.; Platow, M.J. *The New Psychology of Leadership: Identity, Influence and Power*; Psychology Press: New York, NY, USA; Hove, UK, 2011.
99. Knouse, S.B. Building task cohesion to bring teams together. *Qual. Prog.* **2007**, *40*, 49–53.